

**Tremolite (020) 129 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U | V | W    | ( h | k | 0 ) | ( h  | k  | l )  | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-----|---|------|-----|---|-----|------|----|------|----------|----------|-----------|----------------|------------------------|
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | 0  | 1 )  | 9.030    | 5.105    | 1.77      | 90.0           | 75.3                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | 1  | -1 ) | 9.030    | 4.879    | 1.85      | 74.3           | 73.7                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | 2  | -1 ) | 9.030    | 4.444    | 2.03      | 60.5           | 75.3                   |
| [ 1 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( 2  | 0  | -1 ) | 9.030    | 4.030    | 2.24      | 90.0           | 49.8                   |
| [ 1 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( 1  | 1  | 1 )  | 9.030    | 3.986    | 2.27      | 77.2           | 50.7                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( -1 | -3 | 1 )  | 9.030    | 3.877    | 2.33      | 49.9           | 73.7                   |
| [ 1 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( 2  | 2  | -1 ) | 9.030    | 3.680    | 2.45      | 66.0           | 49.8                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | -4 | -1 ) | 9.030    | 3.382    | 2.67      | 41.5           | 75.3                   |
| [ 1 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( 1  | 3  | 1 )  | 9.030    | 3.381    | 2.67      | 55.8           | 50.7                   |
| [ 1 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( -2 | -4 | 1 )  | 9.030    | 3.006    | 3.00      | 48.3           | 49.8                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | 5  | -1 ) | 9.030    | 2.941    | 3.07      | 35.5           | 73.7                   |
| [ 1 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( -1 | -5 | -1 ) | 9.030    | 2.706    | 3.34      | 41.5           | 50.7                   |
| [ 2 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | 1  | -2 ) | 9.030    | 2.611    | 3.46      | 81.7           | 89.2                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | -6 | -1 ) | 9.030    | 2.593    | 3.48      | 30.5           | 75.3                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | 2  | 2 )  | 9.030    | 2.456    | 3.68      | 74.2           | 75.3                   |
| [ 1 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( -2 | -6 | 1 )  | 9.030    | 2.411    | 3.74      | 36.8           | 49.8                   |
| [ 2 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( 1  | 1  | 2 )  | 9.030    | 2.303    | 3.92      | 82.7           | 61.6                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( -1 | -7 | 1 )  | 9.030    | 2.299    | 3.93      | 27.0           | 73.7                   |
| [ 2 | 0 | 3 ]  | ( 0 | 2 | 0 ) | ( 3  | 1  | -2 ) | 9.030    | 2.276    | 3.97      | 82.8           | 60.4                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( -2 | -4 | 2 )  | 9.030    | 2.210    | 4.09      | 60.7           | 73.7                   |
| [ 1 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( 1  | 7  | 1 )  | 9.030    | 2.182    | 4.14      | 32.3           | 50.7                   |
| [ 2 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( -1 | -3 | -2 ) | 9.030    | 2.167    | 4.17      | 68.9           | 61.6                   |
| [ 2 | 0 | 3 ]  | ( 0 | 2 | 0 ) | ( 3  | 3  | -2 ) | 9.030    | 2.144    | 4.21      | 69.1           | 60.4                   |
| [ 2 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( -1 | -5 | 2 )  | 9.030    | 2.131    | 4.24      | 53.8           | 89.2                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | 8  | 1 )  | 9.030    | 2.065    | 4.37      | 23.9           | 75.3                   |
| [ 1 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( 4  | 2  | -2 ) | 9.030    | 1.966    | 4.59      | 77.4           | 49.8                   |
| [ 2 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( -1 | -5 | -2 ) | 9.030    | 1.953    | 4.62      | 57.3           | 61.6                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | 6  | 2 )  | 9.030    | 1.947    | 4.64      | 49.7           | 75.3                   |
| [ 2 | 0 | 3 ]  | ( 0 | 2 | 0 ) | ( -3 | -5 | 2 )  | 9.030    | 1.936    | 4.66      | 57.6           | 60.4                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | 9  | -1 ) | 9.030    | 1.866    | 4.84      | 21.6           | 73.7                   |
| [ 1 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( -2 | -4 | -2 ) | 9.030    | 1.862    | 4.85      | 65.6           | 50.7                   |
| [ 2 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | 7  | -2 ) | 9.030    | 1.845    | 4.89      | 44.4           | 89.2                   |
| [ 1 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( 1  | 9  | 1 )  | 9.030    | 1.801    | 5.01      | 26.2           | 50.7                   |
| [ 3 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( 2  | 0  | -3 ) | 9.030    | 1.750    | 5.16      | 90.0           | 83.9                   |
| [ 3 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | -1 | -3 ) | 9.030    | 1.746    | 5.17      | 84.5           | 85.5                   |
| [ 2 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( -1 | 7  | -2 ) | 9.030    | 1.726    | 5.23      | 48.0           | 61.6                   |
| [ 3 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( 2  | 2  | -3 ) | 9.030    | 1.718    | 5.26      | 79.0           | 83.9                   |
| [ 2 | 0 | 3 ]  | ( 0 | 2 | 0 ) | ( -3 | -7 | 2 )  | 9.030    | 1.714    | 5.27      | 48.4           | 60.4                   |
| [ 3 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( -1 | -3 | 3 )  | 9.030    | 1.684    | 5.36      | 73.8           | 85.5                   |
| [ 1 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 3  | 1  | -3 ) | 9.030    | 1.682    | 5.37      | 84.7           | 73.7                   |
| [ 1 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( -4 | -6 | 2 )  | 9.030    | 1.674    | 5.39      | 56.2           | 49.8                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | 2  | 3 )  | 9.030    | 1.672    | 5.40      | 79.3           | 75.3                   |
| [ 3 | 0 | 2 ]  | ( 0 | 2 | 0 ) | ( -2 | -4 | 3 )  | 9.030    | 1.631    | 5.53      | 68.8           | 83.9                   |
| [ 3 | 0 | -1 ] | ( 0 | 2 | 0 ) | ( -1 | -1 | -3 ) | 9.030    | 1.600    | 5.64      | 84.9           | 65.9                   |
| [ 2 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | 9  | -2 ) | 9.030    | 1.597    | 5.65      | 37.2           | 89.2                   |
| [ 1 | 0 | 0 ]  | ( 0 | 2 | 0 ) | ( 0  | -4 | -3 ) | 9.030    | 1.592    | 5.67      | 69.3           | 75.3                   |
| [ 3 | 0 | 4 ]  | ( 0 | 2 | 0 ) | ( 4  | 0  | -3 ) | 9.030    | 1.588    | 5.68      | 90.0           | 64.5                   |
| [ 3 | 0 | 1 ]  | ( 0 | 2 | 0 ) | ( 1  | -5 | -3 ) | 9.030    | 1.578    | 5.72      | 64.1           | 85.5                   |

**Tremolite (020) 129 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]  | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 3 0 4 ]  | ( 0 2 0 ) | ( -4 2 3 )   | 9.030    | 1.564    | 5.77      | 80.0           | 64.5                   |
| [ 3 0 -1 ] | ( 0 2 0 ) | ( 1 3 3 )    | 9.030    | 1.552    | 5.82      | 75.1           | 65.9                   |
| [ 1 0 1 ]  | ( 0 2 0 ) | ( -3 -5 3 )  | 9.030    | 1.530    | 5.90      | 64.9           | 73.7                   |
| [ 2 0 -1 ] | ( 0 2 0 ) | ( 1 9 2 )    | 9.030    | 1.518    | 5.95      | 40.8           | 61.6                   |
| [ 1 0 -1 ] | ( 0 2 0 ) | ( -2 -8 -2 ) | 9.030    | 1.515    | 5.96      | 47.8           | 50.7                   |
| [ 3 0 2 ]  | ( 0 2 0 ) | ( 2 6 -3 )   | 9.030    | 1.513    | 5.97      | 59.8           | 83.9                   |
| [ 2 0 3 ]  | ( 0 2 0 ) | ( -3 -9 2 )  | 9.030    | 1.510    | 5.98      | 41.2           | 60.4                   |
| [ 3 0 4 ]  | ( 0 2 0 ) | ( -4 -4 3 )  | 9.030    | 1.498    | 6.03      | 70.6           | 64.5                   |
| [ 3 0 -2 ] | ( 0 2 0 ) | ( 2 0 3 )    | 9.030    | 1.487    | 6.07      | 90.0           | 57.7                   |
| [ 3 0 -1 ] | ( 0 2 0 ) | ( -1 5 -3 )  | 9.030    | 1.467    | 6.15      | 66.0           | 65.9                   |
| [ 3 0 -2 ] | ( 0 2 0 ) | ( 2 2 3 )    | 9.030    | 1.467    | 6.15      | 80.6           | 57.7                   |
| [ 3 0 5 ]  | ( 0 2 0 ) | ( -5 -1 3 )  | 9.030    | 1.463    | 6.17      | 85.4           | 56.5                   |
| [ 3 0 1 ]  | ( 0 2 0 ) | ( 1 7 -3 )   | 9.030    | 1.451    | 6.22      | 55.8           | 85.5                   |
| [ 3 0 5 ]  | ( 0 2 0 ) | ( 5 3 -3 )   | 9.030    | 1.426    | 6.33      | 76.3           | 56.5                   |
| [ 1 0 1 ]  | ( 0 2 0 ) | ( 3 7 -3 )   | 9.030    | 1.413    | 6.39      | 56.8           | 73.7                   |
| [ 3 0 -2 ] | ( 0 2 0 ) | ( -2 -4 -3 ) | 9.030    | 1.412    | 6.39      | 71.8           | 57.7                   |
| [ 3 0 4 ]  | ( 0 2 0 ) | ( 4 6 -3 )   | 9.030    | 1.405    | 6.43      | 62.2           | 64.5                   |
| [ 3 0 2 ]  | ( 0 2 0 ) | ( -2 -8 3 )  | 9.030    | 1.383    | 6.53      | 52.2           | 83.9                   |
| [ 3 0 -1 ] | ( 0 2 0 ) | ( 1 7 3 )    | 9.030    | 1.363    | 6.62      | 58.1           | 65.9                   |
| [ 3 0 5 ]  | ( 0 2 0 ) | ( -5 -5 3 )  | 9.030    | 1.360    | 6.64      | 67.9           | 56.5                   |
| [ 1 0 0 ]  | ( 0 2 0 ) | ( 0 8 3 )    | 9.030    | 1.359    | 6.64      | 53.0           | 75.3                   |
| [ 1 0 -1 ] | ( 0 2 0 ) | ( -3 -1 -3 ) | 9.030    | 1.358    | 6.65      | 85.7           | 50.7                   |
| [ 1 0 2 ]  | ( 0 2 0 ) | ( 6 2 -3 )   | 9.030    | 1.329    | 6.80      | 81.5           | 49.8                   |
| [ 3 0 1 ]  | ( 0 2 0 ) | ( -1 -9 3 )  | 9.030    | 1.321    | 6.84      | 48.8           | 85.5                   |
| [ 2 0 1 ]  | ( 0 2 0 ) | ( 2 0 -4 )   | 9.030    | 1.320    | 6.84      | 90.0           | 89.2                   |
| [ 4 0 1 ]  | ( 0 2 0 ) | ( 1 -1 -4 )  | 9.030    | 1.306    | 6.91      | 85.9           | 82.9                   |
| [ 4 0 3 ]  | ( 0 2 0 ) | ( 3 1 -4 )   | 9.030    | 1.301    | 6.94      | 85.9           | 81.3                   |
| [ 3 0 4 ]  | ( 0 2 0 ) | ( 4 8 -3 )   | 9.030    | 1.299    | 6.95      | 54.9           | 64.5                   |
| [ 1 0 2 ]  | ( 0 2 0 ) | ( 6 4 -3 )   | 9.030    | 1.287    | 7.01      | 73.4           | 49.8                   |
| [ 4 0 1 ]  | ( 0 2 0 ) | ( -1 -3 4 )  | 9.030    | 1.280    | 7.06      | 77.7           | 82.9                   |
| [ 3 0 5 ]  | ( 0 2 0 ) | ( 5 -7 -3 )  | 9.030    | 1.276    | 7.08      | 60.4           | 56.5                   |
| [ 4 0 3 ]  | ( 0 2 0 ) | ( -3 3 4 )   | 9.030    | 1.275    | 7.08      | 77.8           | 81.3                   |
| [ 1 0 -1 ] | ( 0 2 0 ) | ( 3 5 3 )    | 9.030    | 1.275    | 7.08      | 69.3           | 50.7                   |
| [ 2 0 1 ]  | ( 0 2 0 ) | ( 2 -4 -4 )  | 9.030    | 1.267    | 7.13      | 73.7           | 89.2                   |
| [ 1 0 0 ]  | ( 0 2 0 ) | ( 0 2 -4 )   | 9.030    | 1.264    | 7.15      | 82.0           | 75.3                   |
| [ 1 0 1 ]  | ( 0 2 0 ) | ( 4 2 -4 )   | 9.030    | 1.255    | 7.20      | 82.0           | 73.7                   |
| [ 3 0 -1 ] | ( 0 2 0 ) | ( -1 -9 -3 ) | 9.030    | 1.254    | 7.20      | 51.3           | 65.9                   |
| [ 3 0 -2 ] | ( 0 2 0 ) | ( 2 8 3 )    | 9.030    | 1.242    | 7.27      | 56.6           | 57.7                   |
| [ 4 0 1 ]  | ( 0 2 0 ) | ( -1 -5 4 )  | 9.030    | 1.231    | 7.33      | 70.1           | 82.9                   |
| [ 4 0 5 ]  | ( 0 2 0 ) | ( -5 -1 4 )  | 9.030    | 1.210    | 7.47      | 86.2           | 66.7                   |
| [ 4 0 -1 ] | ( 0 2 0 ) | ( 1 3 4 )    | 9.030    | 1.200    | 7.52      | 78.5           | 68.1                   |
| [ 4 0 5 ]  | ( 0 2 0 ) | ( -5 -3 4 )  | 9.030    | 1.188    | 7.60      | 78.6           | 66.7                   |
| [ 3 0 5 ]  | ( 0 2 0 ) | ( 5 9 -3 )   | 9.030    | 1.185    | 7.62      | 53.8           | 56.5                   |
| [ 1 0 0 ]  | ( 0 2 0 ) | ( 0 -6 -4 )  | 9.030    | 1.175    | 7.68      | 67.0           | 75.3                   |
| [ 4 0 1 ]  | ( 0 2 0 ) | ( 1 7 -4 )   | 9.030    | 1.168    | 7.73      | 63.1           | 82.9                   |
| [ 1 0 1 ]  | ( 0 2 0 ) | ( -4 -6 4 )  | 9.030    | 1.168    | 7.73      | 67.2           | 73.7                   |
| [ 4 0 3 ]  | ( 0 2 0 ) | ( 3 7 -4 )   | 9.030    | 1.164    | 7.76      | 63.2           | 81.3                   |
| [ 4 0 -1 ] | ( 0 2 0 ) | ( 1 -5 4 )   | 9.030    | 1.160    | 7.79      | 71.3           | 68.1                   |

**Tremolite (020) 129 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]  | ( h k 0 ) | ( h k l )    | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|------------|-----------|--------------|-----------|-----------|-----------|----------------|-------------|
| [ 1 0 2 ]  | ( 0 2 0 ) | ( -6 8 3 )   | 9.030     | 1.154     | 7.82      | 59.2           | 49.8        |
| [ 4 0 5 ]  | ( 0 2 0 ) | ( -5 -5 4 )  | 9.030     | 1.149     | 7.86      | 71.4           | 66.7        |
| [ 2 0 3 ]  | ( 0 2 0 ) | ( 6 0 -4 )   | 9.030     | 1.147     | 7.87      | 90.0           | 60.4        |
| [ 2 0 1 ]  | ( 0 2 0 ) | ( 2 -8 -4 )  | 9.030     | 1.139     | 7.93      | 59.7           | 89.2        |
| [ 2 0 -1 ] | ( 0 2 0 ) | ( -2 -4 -4 ) | 9.030     | 1.124     | 8.03      | 75.6           | 61.6        |
| [ 2 0 3 ]  | ( 0 2 0 ) | ( 6 4 -4 )   | 9.030     | 1.112     | 8.12      | 75.7           | 60.4        |
| [ 4 0 5 ]  | ( 0 2 0 ) | ( 5 7 -4 )   | 9.030     | 1.097     | 8.23      | 64.8           | 66.7        |
| [ 4 0 1 ]  | ( 0 2 0 ) | ( 1 9 -4 )   | 9.030     | 1.097     | 8.23      | 56.9           | 82.9        |
| [ 4 0 3 ]  | ( 0 2 0 ) | ( -3 -9 4 )  | 9.030     | 1.094     | 8.26      | 57.0           | 81.3        |
| [ 4 0 -3 ] | ( 0 2 0 ) | ( 3 1 4 )    | 9.030     | 1.090     | 8.29      | 86.5           | 55.8        |
| [ 4 0 -3 ] | ( 0 2 0 ) | ( -3 -3 -4 ) | 9.030     | 1.074     | 8.40      | 79.7           | 55.8        |
| [ 4 0 7 ]  | ( 0 2 0 ) | ( -7 -3 4 )  | 9.030     | 1.060     | 8.52      | 79.9           | 54.7        |
| [ 5 0 2 ]  | ( 0 2 0 ) | ( 2 0 -5 )   | 9.030     | 1.055     | 8.56      | 90.0           | 87.6        |
| [ 5 0 3 ]  | ( 0 2 0 ) | ( 3 -1 -5 )  | 9.030     | 1.051     | 8.59      | 86.7           | 86.0        |
| [ 5 0 2 ]  | ( 0 2 0 ) | ( -2 2 5 )   | 9.030     | 1.048     | 8.62      | 83.3           | 87.6        |
| [ 4 0 -1 ] | ( 0 2 0 ) | ( 1 9 4 )    | 9.030     | 1.045     | 8.64      | 58.6           | 68.1        |
| [ 4 0 -3 ] | ( 0 2 0 ) | ( -3 -5 -4 ) | 9.030     | 1.045     | 8.64      | 73.2           | 55.8        |
| [ 5 0 1 ]  | ( 0 2 0 ) | ( 1 1 -5 )   | 9.030     | 1.042     | 8.67      | 86.7           | 81.4        |
| [ 4 0 5 ]  | ( 0 2 0 ) | ( 5 -9 -4 )  | 9.030     | 1.038     | 8.70      | 58.9           | 66.7        |
| [ 5 0 3 ]  | ( 0 2 0 ) | ( -3 3 5 )   | 9.030     | 1.037     | 8.70      | 80.1           | 86.0        |
| [ 2 0 -1 ] | ( 0 2 0 ) | ( 2 8 4 )    | 9.030     | 1.033     | 8.75      | 62.8           | 61.6        |
| [ 4 0 7 ]  | ( 0 2 0 ) | ( -7 -5 4 )  | 9.030     | 1.032     | 8.75      | 73.4           | 54.7        |
| [ 5 0 4 ]  | ( 0 2 0 ) | ( 4 2 -5 )   | 9.030     | 1.032     | 8.75      | 83.4           | 79.8        |
| [ 5 0 1 ]  | ( 0 2 0 ) | ( -1 -3 5 )  | 9.030     | 1.028     | 8.78      | 80.2           | 81.4        |
| [ 5 0 2 ]  | ( 0 2 0 ) | ( 2 4 -5 )   | 9.030     | 1.027     | 8.79      | 76.8           | 87.6        |
| [ 2 0 3 ]  | ( 0 2 0 ) | ( -6 -8 4 )  | 9.030     | 1.023     | 8.83      | 63.1           | 60.4        |
| [ 1 0 0 ]  | ( 0 2 0 ) | ( 0 2 -5 )   | 9.030     | 1.015     | 8.90      | 83.5           | 75.3        |
| [ 5 0 4 ]  | ( 0 2 0 ) | ( 4 4 -5 )   | 9.030     | 1.012     | 8.92      | 77.0           | 79.8        |
| [ 1 0 1 ]  | ( 0 2 0 ) | ( -5 -1 5 )  | 9.030     | 1.012     | 8.92      | 86.8           | 73.7        |
| [ 5 0 3 ]  | ( 0 2 0 ) | ( 3 5 -5 )   | 9.030     | 1.011     | 8.93      | 73.7           | 86.0        |
| [ 4 0 -3 ] | ( 0 2 0 ) | ( 3 -7 4 )   | 9.030     | 1.006     | 8.98      | 67.1           | 55.8        |
| [ 5 0 1 ]  | ( 0 2 0 ) | ( -1 5 5 )   | 9.030     | 1.003     | 9.01      | 73.9           | 81.4        |
| [ 1 0 2 ]  | ( 0 2 0 ) | ( 8 2 -4 )   | 9.030     | 1.001     | 9.02      | 83.6           | 49.8        |

**Tremolite (110) 344 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U | V  | W    | ( h | k | 0 ) | ( h  | k  | l )  | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-----|----|------|-----|---|-----|------|----|------|-----------|-----------|-----------|----------------|------------------------|
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 0  | 0  | 1 )  | 8.420     | 5.105     | 1.65      | 77.0           | 83.0                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( -1 | 1  | 1 )  | 8.420     | 4.879     | 1.73      | 83.5           | 68.5                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 1  | 1  | -1 ) | 8.420     | 4.879     | 1.73      | 68.6           | 83.0                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( 0  | 2  | -1 ) | 8.420     | 4.444     | 1.89      | 88.1           | 57.4                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( 0  | -2 | -1 ) | 8.420     | 4.444     | 1.89      | 64.8           | 68.5                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( 2  | 0  | -1 ) | 8.420     | 4.030     | 2.09      | 55.1           | 68.5                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( 1  | -1 | 1 )  | 8.420     | 3.986     | 2.11      | 63.7           | 57.4                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 1  | 1  | 1 )  | 8.420     | 3.986     | 2.11      | 49.5           | 83.0                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( -1 | 3  | 1 )  | 8.420     | 3.877     | 2.17      | 83.6           | 47.6                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( -1 | -3 | 1 )  | 8.420     | 3.877     | 2.17      | 60.7           | 57.4                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( 2  | -2 | -1 ) | 8.420     | 3.680     | 2.29      | 70.6           | 47.6                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 2  | 2  | -1 ) | 8.420     | 3.680     | 2.29      | 44.6           | 83.0                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( 0  | 4  | 1 )  | 8.420     | 3.382     | 2.49      | 60.1           | 47.6                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( -1 | -3 | -1 ) | 8.420     | 3.381     | 2.49      | 43.5           | 68.5                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( 2  | 0  | 1 )  | 8.420     | 3.109     | 2.71      | 44.4           | 57.4                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( -3 | 1  | 1 )  | 8.420     | 3.024     | 2.78      | 50.8           | 47.6                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( 3  | 1  | -1 ) | 8.420     | 3.024     | 2.78      | 38.0           | 68.5                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( 2  | 4  | -1 ) | 8.420     | 3.006     | 2.80      | 42.5           | 57.4                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( -2 | -2 | -1 ) | 8.420     | 2.940     | 2.86      | 34.1           | 83.0                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 3  | 3  | -1 ) | 8.420     | 2.733     | 3.08      | 31.4           | 83.0                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( 1  | 5  | 1 )  | 8.420     | 2.706     | 3.11      | 43.9           | 47.6                   |
| [ 1 | -1 | 1 ]  | ( 1 | 1 | 0 ) | ( 1  | -1 | -2 ) | 8.420     | 2.611     | 3.22      | 86.9           | 82.3                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 1  | 1  | -2 ) | 8.420     | 2.611     | 3.22      | 85.4           | 83.0                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( -2 | -4 | -1 ) | 8.420     | 2.561     | 3.29      | 31.4           | 68.5                   |
| [ 1 | -1 | 1 ]  | ( 1 | 1 | 0 ) | ( -2 | 0  | 2 )  | 8.420     | 2.534     | 3.32      | 75.7           | 82.3                   |
| [ 1 | -1 | -1 ] | ( 1 | 1 | 0 ) | ( 0  | -2 | 2 )  | 8.420     | 2.456     | 3.43      | 84.9           | 69.1                   |
| [ 1 | -1 | 1 ]  | ( 1 | 1 | 0 ) | ( 0  | -2 | -2 ) | 8.420     | 2.456     | 3.43      | 69.9           | 82.3                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( 3  | 1  | 1 )  | 8.420     | 2.410     | 3.49      | 32.8           | 57.4                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( 4  | 0  | -1 ) | 8.420     | 2.403     | 3.50      | 38.0           | 47.6                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( -3 | -5 | 1 )  | 8.420     | 2.338     | 3.60      | 31.7           | 57.4                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( 4  | 2  | -1 ) | 8.420     | 2.323     | 3.63      | 28.2           | 68.5                   |
| [ 1 | -1 | -1 ] | ( 1 | 1 | 0 ) | ( -1 | 1  | -2 ) | 8.420     | 2.303     | 3.66      | 69.0           | 69.1                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 1  | 1  | 2 )  | 8.420     | 2.303     | 3.66      | 61.5           | 83.0                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( -3 | 1  | 2 )  | 8.420     | 2.276     | 3.70      | 68.0           | 68.5                   |
| [ 1 | -1 | 1 ]  | ( 1 | 1 | 0 ) | ( 3  | 1  | -2 ) | 8.420     | 2.276     | 3.70      | 60.5           | 82.3                   |
| [ 1 | -1 | 3 ]  | ( 1 | 1 | 0 ) | ( -2 | 4  | 2 )  | 8.420     | 2.210     | 3.81      | 89.3           | 56.8                   |
| [ 1 | -1 | -1 ] | ( 1 | 1 | 0 ) | ( 2  | 4  | -2 ) | 8.420     | 2.210     | 3.81      | 63.6           | 69.1                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( -1 | 3  | -2 ) | 8.420     | 2.167     | 3.89      | 77.0           | 57.4                   |
| [ 1 | -1 | 1 ]  | ( 1 | 1 | 0 ) | ( 1  | 3  | 2 )  | 8.420     | 2.167     | 3.89      | 55.9           | 82.3                   |
| [ 1 | -1 | 4 ]  | ( 1 | 1 | 0 ) | ( -2 | -6 | -1 ) | 8.420     | 2.163     | 3.89      | 33.7           | 47.6                   |
| [ 1 | -1 | 3 ]  | ( 1 | 1 | 0 ) | ( 3  | -3 | -2 ) | 8.420     | 2.144     | 3.93      | 76.0           | 56.8                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( -3 | -3 | 2 )  | 8.420     | 2.144     | 3.93      | 54.9           | 83.0                   |
| [ 1 | -1 | 3 ]  | ( 1 | 1 | 0 ) | ( -1 | 5  | 2 )  | 8.420     | 2.131     | 3.95      | 74.6           | 56.8                   |
| [ 1 | -1 | -2 ] | ( 1 | 1 | 0 ) | ( 1  | 5  | -2 ) | 8.420     | 2.131     | 3.95      | 73.4           | 57.4                   |
| [ 1 | -1 | 0 ]  | ( 1 | 1 | 0 ) | ( 4  | 4  | -1 ) | 8.420     | 2.122     | 3.97      | 23.9           | 83.0                   |
| [ 1 | -1 | -1 ] | ( 1 | 1 | 0 ) | ( 2  | 0  | 2 )  | 8.420     | 2.043     | 4.12      | 55.9           | 69.1                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( -3 | -5 | -1 ) | 8.420     | 2.017     | 4.17      | 24.3           | 68.5                   |
| [ 1 | -1 | 2 ]  | ( 1 | 1 | 0 ) | ( 1  | 5  | 2 )  | 8.420     | 1.953     | 4.31      | 52.7           | 68.5                   |

**Tremolite (110) 344 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 1 -1 -3 ] | ( 1 1 0 ) | ( 0 6 -2 )   | 8.420    | 1.947    | 4.33      | 82.5           | 48.1        |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( 0 -6 -2 )  | 8.420    | 1.947    | 4.33      | 61.8           | 56.8        |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( 5 1 -1 )   | 8.420    | 1.942    | 4.34      | 29.9           | 47.6        |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -3 5 2 )   | 8.420    | 1.936    | 4.35      | 83.1           | 47.6        |
| [ 1 -1 -1 ] | ( 1 1 0 ) | ( 3 5 -2 )   | 8.420    | 1.936    | 4.35      | 51.7           | 69.1        |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( -4 -2 -1 ) | 8.420    | 1.928    | 4.37      | 25.7           | 57.4        |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 4 6 -1 )   | 8.420    | 1.878    | 4.48      | 25.0           | 57.4        |
| [ 1 -1 -3 ] | ( 1 1 0 ) | ( -2 4 -2 )  | 8.420    | 1.862    | 4.52      | 71.5           | 48.1        |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( 2 4 2 )    | 8.420    | 1.862    | 4.52      | 45.4           | 82.3        |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -5 -3 1 )  | 8.420    | 1.858    | 4.53      | 22.2           | 68.5        |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -1 7 2 )   | 8.420    | 1.845    | 4.56      | 71.1           | 47.6        |
| [ 1 -1 -3 ] | ( 1 1 0 ) | ( -1 -7 2 )  | 8.420    | 1.845    | 4.56      | 70.0           | 48.1        |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 3 -1 2 )   | 8.420    | 1.771    | 4.75      | 52.8           | 57.4        |
| [ 1 -1 -1 ] | ( 1 1 0 ) | ( -3 -1 -2 ) | 8.420    | 1.771    | 4.75      | 45.9           | 69.1        |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( 3 7 1 )    | 8.420    | 1.770    | 4.76      | 27.0           | 47.6        |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( -2 0 3 )   | 8.420    | 1.750    | 4.81      | 84.6           | 87.1        |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( 5 -1 -2 )  | 8.420    | 1.747    | 4.82      | 52.2           | 56.8        |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -5 -1 2 )  | 8.420    | 1.747    | 4.82      | 45.3           | 68.5        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -1 -1 3 )  | 8.420    | 1.746    | 4.82      | 88.7           | 83.0        |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( 1 -1 -3 )  | 8.420    | 1.746    | 4.82      | 83.5           | 87.1        |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( 1 7 2 )    | 8.420    | 1.726    | 4.88      | 51.4           | 56.8        |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( 2 -2 -3 )  | 8.420    | 1.718    | 4.90      | 89.8           | 77.5        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -2 -2 3 )  | 8.420    | 1.718    | 4.90      | 79.6           | 83.0        |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 3 7 -2 )   | 8.420    | 1.714    | 4.91      | 50.5           | 57.4        |
| [ 1 -1 -3 ] | ( 1 1 0 ) | ( -3 3 -2 )  | 8.420    | 1.707    | 4.93      | 60.4           | 48.1        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 3 3 2 )    | 8.420    | 1.707    | 4.93      | 40.7           | 83.0        |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -5 3 2 )   | 8.420    | 1.685    | 5.00      | 59.7           | 47.6        |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( 5 3 -2 )   | 8.420    | 1.685    | 5.00      | 40.1           | 82.3        |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( -1 -3 3 )  | 8.420    | 1.684    | 5.00      | 86.3           | 73.6        |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( -1 3 3 )   | 8.420    | 1.684    | 5.00      | 78.7           | 77.5        |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( -3 1 3 )   | 8.420    | 1.682    | 5.01      | 78.3           | 77.5        |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( 3 1 -3 )   | 8.420    | 1.682    | 5.01      | 73.1           | 87.1        |
| [ 1 -1 -1 ] | ( 1 1 0 ) | ( -4 -6 2 )  | 8.420    | 1.674    | 5.03      | 42.8           | 69.1        |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( 0 -2 3 )   | 8.420    | 1.672    | 5.04      | 82.3           | 73.6        |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( 0 2 3 )    | 8.420    | 1.672    | 5.04      | 72.1           | 87.1        |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -4 -6 -1 ) | 8.420    | 1.650    | 5.10      | 19.6           | 68.5        |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -2 4 3 )   | 8.420    | 1.631    | 5.16      | 85.4           | 68.5        |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( -2 -4 3 )  | 8.420    | 1.631    | 5.16      | 75.2           | 73.6        |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( 6 2 -1 )   | 8.420    | 1.611    | 5.23      | 24.4           | 47.6        |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( -1 1 -3 )  | 8.420    | 1.600    | 5.26      | 71.4           | 73.6        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 1 1 3 )    | 8.420    | 1.600    | 5.26      | 66.3           | 83.0        |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( -3 -5 -2 ) | 8.420    | 1.597    | 5.27      | 37.6           | 82.3        |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 5 3 1 )    | 8.420    | 1.593    | 5.29      | 21.0           | 57.4        |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( 0 4 -3 )   | 8.420    | 1.592    | 5.29      | 87.4           | 64.9        |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( 0 4 3 )    | 8.420    | 1.592    | 5.29      | 68.0           | 77.5        |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( -4 0 3 )   | 8.420    | 1.588    | 5.30      | 67.6           | 77.5        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 5 5 -2 )   | 8.420    | 1.578    | 5.33      | 37.0           | 83.0        |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( -1 -5 3 )  | 8.420    | 1.578    | 5.34      | 81.9           | 64.9        |

**Tremolite (110) 344 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -1 5 3 )   | 8.420    | 1.578    | 5.34      | 74.6           | 68.5                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -4 2 3 )   | 8.420    | 1.564    | 5.38      | 72.9           | 68.5                   |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( 4 2 -3 )   | 8.420    | 1.564    | 5.38      | 62.9           | 87.1                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( -5 -7 1 )  | 8.420    | 1.558    | 5.41      | 20.5           | 57.4                   |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( 1 3 3 )    | 8.420    | 1.552    | 5.43      | 62.0           | 87.1                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -6 -4 1 )  | 8.420    | 1.539    | 5.47      | 18.3           | 68.5                   |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( 6 0 -2 )   | 8.420    | 1.533    | 5.49      | 43.9           | 56.8                   |
| [ 1 -1 -3 ] | ( 1 1 0 ) | ( -4 2 -2 )  | 8.420    | 1.532    | 5.50      | 51.3           | 48.1                   |
| [ 1 -1 -1 ] | ( 1 1 0 ) | ( 4 2 2 )    | 8.420    | 1.532    | 5.50      | 38.4           | 69.1                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( -3 5 3 )   | 8.420    | 1.530    | 5.50      | 88.5           | 60.4                   |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( 3 5 -3 )   | 8.420    | 1.530    | 5.50      | 65.0           | 73.6                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -1 -9 -2 ) | 8.420    | 1.518    | 5.55      | 51.1           | 47.6                   |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( 2 8 2 )    | 8.420    | 1.515    | 5.56      | 43.3           | 56.8                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( -2 6 3 )   | 8.420    | 1.513    | 5.57      | 81.2           | 60.4                   |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( -2 -6 3 )  | 8.420    | 1.513    | 5.57      | 71.6           | 64.9                   |
| [ 1 -1 -3 ] | ( 1 1 0 ) | ( 3 9 -2 )   | 8.420    | 1.510    | 5.58      | 50.3           | 48.1                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -5 -5 -1 ) | 8.420    | 1.502    | 5.61      | 16.7           | 83.0                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( 4 -4 -3 )  | 8.420    | 1.498    | 5.62      | 78.2           | 60.4                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -4 -4 3 )  | 8.420    | 1.498    | 5.62      | 59.1           | 83.0                   |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( 2 0 3 )    | 8.420    | 1.487    | 5.66      | 61.8           | 73.6                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -4 -8 -1 ) | 8.420    | 1.486    | 5.67      | 22.4           | 47.6                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( -1 5 -3 )  | 8.420    | 1.467    | 5.74      | 81.9           | 57.4                   |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( 1 5 3 )    | 8.420    | 1.467    | 5.74      | 58.7           | 77.5                   |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( -2 2 -3 )  | 8.420    | 1.467    | 5.74      | 67.0           | 64.9                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 2 2 3 )    | 8.420    | 1.467    | 5.74      | 57.1           | 83.0                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -3 -7 -2 ) | 8.420    | 1.465    | 5.75      | 36.6           | 68.5                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( 5 -1 -3 )  | 8.420    | 1.463    | 5.76      | 63.3           | 68.5                   |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( -5 -1 3 )  | 8.420    | 1.463    | 5.76      | 58.4           | 77.5                   |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( 6 4 -2 )   | 8.420    | 1.452    | 5.80      | 33.7           | 82.3                   |
| [ 1 -1 -1 ] | ( 1 1 0 ) | ( 5 7 -2 )   | 8.420    | 1.451    | 5.80      | 36.0           | 69.1                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( -1 -7 3 )  | 8.420    | 1.451    | 5.80      | 78.2           | 57.4                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( -1 7 3 )   | 8.420    | 1.451    | 5.80      | 71.4           | 60.4                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 6 6 -1 )   | 8.420    | 1.438    | 5.85      | 15.9           | 83.0                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( 5 -3 -3 )  | 8.420    | 1.426    | 5.91      | 68.7           | 60.4                   |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( -5 -3 3 )  | 8.420    | 1.426    | 5.91      | 54.2           | 87.1                   |
| [ 3 -3 10 ] | ( 1 1 0 ) | ( -3 7 3 )   | 8.420    | 1.413    | 5.96      | 87.2           | 53.5                   |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( -3 -7 3 )  | 8.420    | 1.413    | 5.96      | 62.4           | 64.9                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 2 -4 3 )   | 8.420    | 1.412    | 5.96      | 72.3           | 57.4                   |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( -2 -4 -3 ) | 8.420    | 1.412    | 5.96      | 53.5           | 87.1                   |
| [ 3 -3 10 ] | ( 1 1 0 ) | ( 4 -6 -3 )  | 8.420    | 1.405    | 5.99      | 83.2           | 53.5                   |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( -4 -6 3 )  | 8.420    | 1.405    | 5.99      | 56.3           | 73.6                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( 5 7 1 )    | 8.420    | 1.391    | 6.05      | 16.5           | 68.5                   |
| [ 3 -3 10 ] | ( 1 1 0 ) | ( 2 -8 -3 )  | 8.420    | 1.383    | 6.09      | 77.8           | 53.5                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 2 8 -3 )   | 8.420    | 1.383    | 6.09      | 68.9           | 57.4                   |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( -4 -6 -2 ) | 8.420    | 1.381    | 6.10      | 31.9           | 82.3                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( 7 3 -1 )   | 8.420    | 1.369    | 6.15      | 20.5           | 47.6                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 5 1 2 )    | 8.420    | 1.364    | 6.17      | 37.9           | 57.4                   |
| [ 3 -3 -8 ] | ( 1 1 0 ) | ( -1 7 -3 )  | 8.420    | 1.363    | 6.18      | 86.5           | 50.9                   |



**Tremolite (110) 344 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( 1 7 3 )    | 8.420    | 1.363    | 6.18      | 56.4           | 68.5                   |
| [ 3 -3 10 ] | ( 1 1 0 ) | ( -5 5 3 )   | 8.420    | 1.360    | 6.19      | 73.9           | 53.5                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 5 5 -3 )   | 8.420    | 1.360    | 6.19      | 51.1           | 83.0                   |
| [ 3 -3 -8 ] | ( 1 1 0 ) | ( 0 -8 3 )   | 8.420    | 1.359    | 6.20      | 84.2           | 50.9                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( 0 8 3 )    | 8.420    | 1.359    | 6.20      | 62.6           | 60.4                   |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( -3 1 -3 )  | 8.420    | 1.358    | 6.20      | 58.4           | 64.9                   |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( 3 1 3 )    | 8.420    | 1.358    | 6.20      | 53.6           | 73.6                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( -6 -4 -1 ) | 8.420    | 1.351    | 6.23      | 17.7           | 57.4                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( 7 -1 -2 )  | 8.420    | 1.347    | 6.25      | 43.7           | 47.6                   |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( -7 -1 2 )  | 8.420    | 1.347    | 6.25      | 37.6           | 56.8                   |
| [ 3 -3 -8 ] | ( 1 1 0 ) | ( 2 -6 3 )   | 8.420    | 1.333    | 6.32      | 77.4           | 50.9                   |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( 2 6 3 )    | 8.420    | 1.333    | 6.32      | 50.9           | 77.5                   |
| [ 1 -1 3 ]  | ( 1 1 0 ) | ( -3 -9 -2 ) | 8.420    | 1.332    | 6.32      | 37.1           | 56.8                   |
| [ 3 -3 8 ]  | ( 1 1 0 ) | ( 6 -2 -3 )  | 8.420    | 1.329    | 6.34      | 60.2           | 60.4                   |
| [ 3 -3 4 ]  | ( 1 1 0 ) | ( -6 -2 3 )  | 8.420    | 1.329    | 6.34      | 50.7           | 77.5                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( 6 8 -1 )   | 8.420    | 1.325    | 6.35      | 17.3           | 57.4                   |
| [ 1 -1 -2 ] | ( 1 1 0 ) | ( -5 -9 2 )  | 8.420    | 1.321    | 6.37      | 36.5           | 57.4                   |
| [ 3 -3 -8 ] | ( 1 1 0 ) | ( 1 9 -3 )   | 8.420    | 1.321    | 6.38      | 75.2           | 50.9                   |
| [ 3 -3 10 ] | ( 1 1 0 ) | ( 1 -9 -3 )  | 8.420    | 1.321    | 6.38      | 69.0           | 53.5                   |
| [ 2 -2 1 ]  | ( 1 1 0 ) | ( 2 0 -4 )   | 8.420    | 1.320    | 6.38      | 89.3           | 89.6                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( -7 -3 2 )  | 8.420    | 1.318    | 6.39      | 32.5           | 68.5                   |
| [ 1 -1 2 ]  | ( 1 1 0 ) | ( 7 5 -1 )   | 8.420    | 1.310    | 6.43      | 15.5           | 68.5                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 1 1 -4 )   | 8.420    | 1.306    | 6.45      | 85.7           | 83.0                   |
| [ 2 -2 1 ]  | ( 1 1 0 ) | ( -1 1 4 )   | 8.420    | 1.306    | 6.45      | 81.8           | 89.6                   |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( -3 1 4 )   | 8.420    | 1.301    | 6.47      | 84.3           | 82.3                   |
| [ 2 -2 1 ]  | ( 1 1 0 ) | ( 3 1 -4 )   | 8.420    | 1.301    | 6.47      | 80.4           | 89.6                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -4 8 3 )   | 8.420    | 1.299    | 6.48      | 87.5           | 47.6                   |
| [ 3 -3 -4 ] | ( 1 1 0 ) | ( 4 8 -3 )   | 8.420    | 1.299    | 6.48      | 54.6           | 64.9                   |
| [ 3 -3 10 ] | ( 1 1 0 ) | ( 6 -4 -3 )  | 8.420    | 1.287    | 6.54      | 65.5           | 53.5                   |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( -6 -4 3 )  | 8.420    | 1.287    | 6.54      | 47.1           | 87.1                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -6 -6 -1 ) | 8.420    | 1.282    | 6.57      | 14.2           | 83.0                   |
| [ 2 -2 -1 ] | ( 1 1 0 ) | ( 1 3 -4 )   | 8.420    | 1.280    | 6.58      | 89.6           | 75.9                   |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( -1 3 4 )   | 8.420    | 1.280    | 6.58      | 78.1           | 82.3                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -5 -5 -2 ) | 8.420    | 1.280    | 6.58      | 29.2           | 83.0                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -5 7 3 )   | 8.420    | 1.276    | 6.60      | 78.8           | 47.6                   |
| [ 3 -3 -2 ] | ( 1 1 0 ) | ( 5 7 -3 )   | 8.420    | 1.276    | 6.60      | 49.1           | 73.6                   |
| [ 1 -1 4 ]  | ( 1 1 0 ) | ( -5 -9 -1 ) | 8.420    | 1.275    | 6.60      | 19.1           | 47.6                   |
| [ 2 -2 3 ]  | ( 1 1 0 ) | ( 3 -3 -4 )  | 8.420    | 1.275    | 6.60      | 88.2           | 75.1                   |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( -3 -3 4 )  | 8.420    | 1.275    | 6.60      | 76.7           | 83.0                   |
| [ 3 -3 -8 ] | ( 1 1 0 ) | ( 3 -5 3 )   | 8.420    | 1.275    | 6.61      | 68.9           | 50.9                   |
| [ 3 -3 2 ]  | ( 1 1 0 ) | ( -3 -5 -3 ) | 8.420    | 1.275    | 6.61      | 46.5           | 87.1                   |
| [ 1 -1 -1 ] | ( 1 1 0 ) | ( 6 8 -2 )   | 8.420    | 1.268    | 6.64      | 31.0           | 69.1                   |
| [ 2 -2 -1 ] | ( 1 1 0 ) | ( -2 -4 4 )  | 8.420    | 1.267    | 6.65      | 81.8           | 75.9                   |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( 7 5 -2 )   | 8.420    | 1.265    | 6.65      | 28.9           | 82.3                   |
| [ 2 -2 -1 ] | ( 1 1 0 ) | ( 0 2 -4 )   | 8.420    | 1.264    | 6.66      | 80.9           | 75.9                   |
| [ 2 -2 1 ]  | ( 1 1 0 ) | ( 0 2 4 )    | 8.420    | 1.264    | 6.66      | 73.3           | 89.6                   |
| [ 2 -2 3 ]  | ( 1 1 0 ) | ( -4 2 4 )   | 8.420    | 1.255    | 6.71      | 79.6           | 75.1                   |
| [ 2 -2 1 ]  | ( 1 1 0 ) | ( 4 2 -4 )   | 8.420    | 1.255    | 6.71      | 71.9           | 89.6                   |

**Tremolite (110) 344 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 3 -3 -10 ] | ( 1 1 0 ) | ( 1 -9 3 )   | 8.420    | 1.254    | 6.72      | 89.5           | 45.4        |
| [ 3 -3 8 ]   | ( 1 1 0 ) | ( 1 9 3 )    | 8.420    | 1.254    | 6.72      | 55.0           | 60.4        |
| [ 3 -3 -4 ]  | ( 1 1 0 ) | ( -4 0 -3 )  | 8.420    | 1.243    | 6.78      | 51.2           | 64.9        |
| [ 3 -3 -10 ] | ( 1 1 0 ) | ( 2 -8 3 )   | 8.420    | 1.242    | 6.78      | 82.0           | 45.4        |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( 2 8 3 )    | 8.420    | 1.242    | 6.78      | 49.3           | 68.5        |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( 1 5 -4 )   | 8.420    | 1.231    | 6.84      | 86.8           | 69.1        |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( -1 5 4 )   | 8.420    | 1.231    | 6.84      | 74.8           | 75.1        |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( -4 2 -3 )  | 8.420    | 1.231    | 6.84      | 56.2           | 57.4        |
| [ 3 -3 -2 ]  | ( 1 1 0 ) | ( 4 2 3 )    | 8.420    | 1.231    | 6.84      | 46.8           | 73.6        |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( -1 1 -4 )  | 8.420    | 1.222    | 6.89      | 72.7           | 75.9        |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 1 1 4 )    | 8.420    | 1.222    | 6.89      | 68.9           | 83.0        |
| [ 1 -1 -3 ]  | ( 1 1 0 ) | ( -6 0 -2 )  | 8.420    | 1.216    | 6.93      | 38.3           | 48.1        |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( 5 -1 -4 )  | 8.420    | 1.210    | 6.96      | 71.5           | 75.1        |
| [ 1 -1 1 ]   | ( 1 1 0 ) | ( -5 -1 4 )  | 8.420    | 1.210    | 6.96      | 67.7           | 82.3        |
| [ 1 -1 1 ]   | ( 1 1 0 ) | ( 5 7 2 )    | 8.420    | 1.209    | 6.97      | 27.5           | 82.3        |
| [ 3 -3 10 ]  | ( 1 1 0 ) | ( -7 3 3 )   | 8.420    | 1.200    | 7.01      | 58.0           | 53.5        |
| [ 3 -3 4 ]   | ( 1 1 0 ) | ( 7 3 -3 )   | 8.420    | 1.200    | 7.01      | 44.3           | 77.5        |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( -1 3 -4 )  | 8.420    | 1.200    | 7.02      | 76.7           | 69.1        |
| [ 2 -2 1 ]   | ( 1 1 0 ) | ( 1 3 4 )    | 8.420    | 1.200    | 7.02      | 65.4           | 89.6        |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -6 -8 -1 ) | 8.420    | 1.200    | 7.02      | 14.1           | 68.5        |
| [ 3 -3 -8 ]  | ( 1 1 0 ) | ( 4 -4 3 )   | 8.420    | 1.198    | 7.03      | 61.3           | 50.9        |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( -4 -4 -3 ) | 8.420    | 1.198    | 7.03      | 43.3           | 83.0        |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 7 7 -2 )   | 8.420    | 1.197    | 7.04      | 27.2           | 83.0        |
| [ 1 -1 3 ]   | ( 1 1 0 ) | ( 8 2 -2 )   | 8.420    | 1.191    | 7.07      | 32.6           | 56.8        |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( 5 -3 -4 )  | 8.420    | 1.188    | 7.09      | 75.5           | 68.5        |
| [ 2 -2 1 ]   | ( 1 1 0 ) | ( 5 3 -4 )   | 8.420    | 1.188    | 7.09      | 64.2           | 89.6        |
| [ 1 -1 4 ]   | ( 1 1 0 ) | ( -8 -4 1 )  | 8.420    | 1.187    | 7.10      | 17.7           | 47.6        |
| [ 3 -3 -4 ]  | ( 1 1 0 ) | ( 5 9 -3 )   | 8.420    | 1.185    | 7.11      | 48.0           | 64.9        |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( 0 6 -4 )   | 8.420    | 1.175    | 7.17      | 88.6           | 63.0        |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( 0 6 4 )    | 8.420    | 1.175    | 7.17      | 67.1           | 75.1        |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( -6 -4 -2 ) | 8.420    | 1.174    | 7.17      | 28.4           | 69.1        |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( 7 5 1 )    | 8.420    | 1.171    | 7.19      | 15.3           | 57.4        |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( -1 -7 4 )  | 8.420    | 1.168    | 7.21      | 83.5           | 63.0        |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -1 7 4 )   | 8.420    | 1.168    | 7.21      | 72.0           | 68.5        |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( 4 -6 -4 )  | 8.420    | 1.168    | 7.21      | 87.3           | 62.4        |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( -4 -6 4 )  | 8.420    | 1.168    | 7.21      | 65.8           | 75.9        |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( -3 7 4 )   | 8.420    | 1.164    | 7.23      | 84.8           | 62.4        |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( 3 7 -4 )   | 8.420    | 1.164    | 7.23      | 70.7           | 69.1        |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -8 -4 2 )  | 8.420    | 1.161    | 7.25      | 28.2           | 68.5        |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( 2 0 4 )    | 8.420    | 1.161    | 7.25      | 65.1           | 75.9        |
| [ 1 -1 4 ]   | ( 1 1 0 ) | ( -7 5 3 )   | 8.420    | 1.160    | 7.26      | 63.2           | 47.6        |
| [ 3 -3 2 ]   | ( 1 1 0 ) | ( 7 5 -3 )   | 8.420    | 1.160    | 7.26      | 41.3           | 87.1        |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( -1 5 -4 )  | 8.420    | 1.160    | 7.26      | 80.6           | 63.0        |
| [ 1 -1 1 ]   | ( 1 1 0 ) | ( 1 5 4 )    | 8.420    | 1.160    | 7.26      | 62.5           | 82.3        |
| [ 3 -3 -2 ]  | ( 1 1 0 ) | ( -6 -8 3 )  | 8.420    | 1.154    | 7.29      | 43.2           | 73.6        |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( 7 9 -1 )   | 8.420    | 1.151    | 7.31      | 15.0           | 57.4        |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( -5 5 4 )   | 8.420    | 1.149    | 7.33      | 79.4           | 62.4        |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 5 5 -4 )   | 8.420    | 1.149    | 7.33      | 61.3           | 83.0        |



**Tremolite (110) 344 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 3 -3 -10 ] | ( 1 1 0 ) | ( -4 6 -3 )  | 8.420    | 1.149    | 7.33      | 66.4           | 45.4                   |
| [ 3 -3 2 ]   | ( 1 1 0 ) | ( 4 6 3 )    | 8.420    | 1.149    | 7.33      | 40.8           | 87.1                   |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( 6 0 -4 )   | 8.420    | 1.147    | 7.34      | 64.1           | 75.1                   |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( 2 -8 -4 )  | 8.420    | 1.139    | 7.39      | 77.0           | 62.4                   |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( 2 8 -4 )   | 8.420    | 1.139    | 7.39      | 75.7           | 63.0                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -8 -6 1 )  | 8.420    | 1.139    | 7.40      | 13.4           | 68.5                   |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( -5 1 -3 )  | 8.420    | 1.131    | 7.44      | 49.8           | 57.4                   |
| [ 3 -3 -4 ]  | ( 1 1 0 ) | ( 5 1 3 )    | 8.420    | 1.131    | 7.44      | 45.2           | 64.9                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( 5 9 2 )    | 8.420    | 1.131    | 7.45      | 27.4           | 68.5                   |
| [ 2 -2 1 ]   | ( 1 1 0 ) | ( 2 4 4 )    | 8.420    | 1.124    | 7.49      | 58.4           | 89.6                   |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( -7 -9 2 )  | 8.420    | 1.121    | 7.51      | 27.0           | 69.1                   |
| [ 3 -3 8 ]   | ( 1 1 0 ) | ( 8 0 -3 )   | 8.420    | 1.118    | 7.53      | 46.9           | 60.4                   |
| [ 1 -1 1 ]   | ( 1 1 0 ) | ( 8 6 -2 )   | 8.420    | 1.116    | 7.54      | 25.3           | 82.3                   |
| [ 3 -3 -8 ]  | ( 1 1 0 ) | ( -5 3 -3 )  | 8.420    | 1.114    | 7.56      | 54.6           | 50.9                   |
| [ 3 -3 -2 ]  | ( 1 1 0 ) | ( 5 3 3 )    | 8.420    | 1.114    | 7.56      | 41.3           | 73.6                   |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( -6 4 4 )   | 8.420    | 1.112    | 7.57      | 72.0           | 62.4                   |
| [ 2 -2 1 ]   | ( 1 1 0 ) | ( 6 4 -4 )   | 8.420    | 1.112    | 7.57      | 57.4           | 89.6                   |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( -7 -7 3 )  | 8.420    | 1.107    | 7.61      | 39.3           | 83.0                   |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( 1 -7 4 )   | 8.420    | 1.106    | 7.61      | 84.4           | 57.4                   |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( 1 7 4 )    | 8.420    | 1.106    | 7.61      | 60.1           | 75.1                   |
| [ 1 -1 3 ]   | ( 1 1 0 ) | ( -5 7 4 )   | 8.420    | 1.097    | 7.67      | 83.2           | 56.8                   |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( 5 7 -4 )   | 8.420    | 1.097    | 7.67      | 59.0           | 75.9                   |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( -1 -9 4 )  | 8.420    | 1.097    | 7.68      | 80.6           | 57.4                   |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( -1 9 4 )   | 8.420    | 1.097    | 7.68      | 69.7           | 62.4                   |
| [ 1 -1 3 ]   | ( 1 1 0 ) | ( 3 -9 -4 )  | 8.420    | 1.094    | 7.70      | 81.8           | 56.8                   |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( 3 9 -4 )   | 8.420    | 1.094    | 7.70      | 68.5           | 63.0                   |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( -3 1 -4 )  | 8.420    | 1.090    | 7.73      | 62.1           | 69.1                   |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( 3 1 4 )    | 8.420    | 1.090    | 7.73      | 58.4           | 75.9                   |
| [ 3 -3 4 ]   | ( 1 1 0 ) | ( -4 -8 -3 ) | 8.420    | 1.089    | 7.73      | 39.3           | 77.5                   |
| [ 1 -1 -3 ]  | ( 1 1 0 ) | ( 7 1 2 )    | 8.420    | 1.089    | 7.74      | 33.7           | 48.1                   |
| [ 1 -1 4 ]   | ( 1 1 0 ) | ( -8 4 3 )   | 8.420    | 1.085    | 7.76      | 56.5           | 47.6                   |
| [ 3 -3 4 ]   | ( 1 1 0 ) | ( 8 4 -3 )   | 8.420    | 1.085    | 7.76      | 39.2           | 77.5                   |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 8 8 -1 )   | 8.420    | 1.080    | 7.80      | 11.9           | 83.0                   |
| [ 1 -1 4 ]   | ( 1 1 0 ) | ( 9 1 -2 )   | 8.420    | 1.077    | 7.82      | 33.5           | 47.6                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -7 1 4 )   | 8.420    | 1.075    | 7.83      | 61.2           | 68.5                   |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( 7 1 -4 )   | 8.420    | 1.075    | 7.83      | 57.5           | 75.1                   |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( -3 3 -4 )  | 8.420    | 1.074    | 7.84      | 66.1           | 63.0                   |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 3 3 4 )    | 8.420    | 1.074    | 7.84      | 55.1           | 83.0                   |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( 7 3 2 )    | 8.420    | 1.073    | 7.85      | 28.9           | 57.4                   |
| [ 1 -1 1 ]   | ( 1 1 0 ) | ( -6 -8 -2 ) | 8.420    | 1.070    | 7.87      | 24.2           | 82.3                   |
| [ 1 -1 3 ]   | ( 1 1 0 ) | ( 9 3 -2 )   | 8.420    | 1.062    | 7.93      | 28.7           | 56.8                   |
| [ 2 -2 5 ]   | ( 1 1 0 ) | ( 7 -3 -4 )  | 8.420    | 1.060    | 7.94      | 65.1           | 62.4                   |
| [ 1 -1 1 ]   | ( 1 1 0 ) | ( -7 -3 4 )  | 8.420    | 1.060    | 7.94      | 54.2           | 82.3                   |
| [ 5 -5 2 ]   | ( 1 1 0 ) | ( -2 0 5 )   | 8.420    | 1.055    | 7.98      | 87.9           | 88.9                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -7 -9 -1 ) | 8.420    | 1.054    | 7.99      | 12.4           | 68.5                   |
| [ 5 -5 4 ]   | ( 1 1 0 ) | ( 3 -1 -5 )  | 8.420    | 1.051    | 8.01      | 88.0           | 85.2                   |
| [ 5 -5 2 ]   | ( 1 1 0 ) | ( -3 -1 5 )  | 8.420    | 1.051    | 8.01      | 84.9           | 88.9                   |
| [ 3 -3 2 ]   | ( 1 1 0 ) | ( 8 6 -3 )   | 8.420    | 1.048    | 8.04      | 36.6           | 87.1                   |

**Tremolite (110) 344 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 2 2 -5 )   | 8.420    | 1.048    | 8.04      | 89.0           | 83.0                   |
| [ 5 -5 4 ]   | ( 1 1 0 ) | ( 2 -2 -5 )  | 8.420    | 1.048    | 8.04      | 84.8           | 85.2                   |
| [ 3 -3 -2 ]  | ( 1 1 0 ) | ( 7 9 -3 )   | 8.420    | 1.046    | 8.05      | 38.3           | 73.6                   |
| [ 1 -1 4 ]   | ( 1 1 0 ) | ( 9 5 -1 )   | 8.420    | 1.045    | 8.05      | 15.5           | 47.6                   |
| [ 2 -2 -5 ]  | ( 1 1 0 ) | ( -1 9 -4 )  | 8.420    | 1.045    | 8.06      | 87.8           | 52.4                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( 1 9 4 )    | 8.420    | 1.045    | 8.06      | 58.4           | 68.5                   |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( -3 5 -4 )  | 8.420    | 1.045    | 8.06      | 70.1           | 57.4                   |
| [ 2 -2 1 ]   | ( 1 1 0 ) | ( 3 5 4 )    | 8.420    | 1.045    | 8.06      | 52.4           | 89.6                   |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( -7 -5 -2 ) | 8.420    | 1.044    | 8.07      | 25.0           | 69.1                   |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( -1 -1 5 )  | 8.420    | 1.042    | 8.08      | 83.9           | 83.0                   |
| [ 5 -5 2 ]   | ( 1 1 0 ) | ( 1 -1 -5 )  | 8.420    | 1.042    | 8.08      | 80.8           | 88.9                   |
| [ 5 -5 4 ]   | ( 1 1 0 ) | ( 4 0 -5 )   | 8.420    | 1.039    | 8.10      | 80.9           | 85.2                   |
| [ 3 -3 2 ]   | ( 1 1 0 ) | ( 5 7 3 )    | 8.420    | 1.038    | 8.11      | 36.2           | 87.1                   |
| [ 2 -2 7 ]   | ( 1 1 0 ) | ( -5 9 4 )   | 8.420    | 1.038    | 8.12      | 86.7           | 52.0                   |
| [ 1 -1 -1 ]  | ( 1 1 0 ) | ( 5 9 -4 )   | 8.420    | 1.038    | 8.12      | 57.3           | 69.1                   |
| [ 5 -5 6 ]   | ( 1 1 0 ) | ( 3 -3 -5 )  | 8.420    | 1.037    | 8.12      | 88.9           | 79.4                   |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 3 3 -5 )   | 8.420    | 1.037    | 8.12      | 81.9           | 83.0                   |
| [ 2 -2 -5 ]  | ( 1 1 0 ) | ( -2 8 -4 )  | 8.420    | 1.033    | 8.16      | 80.8           | 52.4                   |
| [ 2 -2 3 ]   | ( 1 1 0 ) | ( 2 8 4 )    | 8.420    | 1.033    | 8.16      | 54.0           | 75.1                   |
| [ 1 -1 3 ]   | ( 1 1 0 ) | ( 7 -5 -4 )  | 8.420    | 1.032    | 8.16      | 69.1           | 56.8                   |
| [ 2 -2 1 ]   | ( 1 1 0 ) | ( -7 -5 4 )  | 8.420    | 1.032    | 8.16      | 51.5           | 89.6                   |
| [ 5 -5 6 ]   | ( 1 1 0 ) | ( 4 -2 -5 )  | 8.420    | 1.032    | 8.16      | 84.1           | 79.4                   |
| [ 5 -5 2 ]   | ( 1 1 0 ) | ( -4 -2 5 )  | 8.420    | 1.032    | 8.16      | 77.9           | 88.9                   |
| [ 1 -1 -2 ]  | ( 1 1 0 ) | ( 8 6 1 )    | 8.420    | 1.032    | 8.16      | 13.4           | 57.4                   |
| [ 3 -3 -8 ]  | ( 1 1 0 ) | ( -6 2 -3 )  | 8.420    | 1.030    | 8.18      | 48.9           | 50.9                   |
| [ 3 -3 -4 ]  | ( 1 1 0 ) | ( 6 2 3 )    | 8.420    | 1.030    | 8.18      | 40.2           | 64.9                   |
| [ 5 -5 -2 ]  | ( 1 1 0 ) | ( 1 3 -5 )   | 8.420    | 1.028    | 8.19      | 87.1           | 77.3                   |
| [ 5 -5 4 ]   | ( 1 1 0 ) | ( -1 3 5 )   | 8.420    | 1.028    | 8.19      | 77.8           | 85.2                   |
| [ 5 -5 -2 ]  | ( 1 1 0 ) | ( -2 -4 5 )  | 8.420    | 1.027    | 8.20      | 85.9           | 77.3                   |
| [ 5 -5 6 ]   | ( 1 1 0 ) | ( -2 4 5 )   | 8.420    | 1.027    | 8.20      | 81.9           | 79.4                   |
| [ 2 -2 7 ]   | ( 1 1 0 ) | ( -6 8 4 )   | 8.420    | 1.023    | 8.23      | 79.7           | 52.0                   |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( 6 8 -4 )   | 8.420    | 1.023    | 8.23      | 53.0           | 75.9                   |
| [ 3 -3 8 ]   | ( 1 1 0 ) | ( -9 -1 3 )  | 8.420    | 1.021    | 8.25      | 41.8           | 60.4                   |
| [ 2 -2 -3 ]  | ( 1 1 0 ) | ( 4 -2 4 )   | 8.420    | 1.015    | 8.29      | 59.7           | 63.0                   |
| [ 2 -2 -1 ]  | ( 1 1 0 ) | ( -4 -2 -4 ) | 8.420    | 1.015    | 8.29      | 52.5           | 75.9                   |
| [ 5 -5 -2 ]  | ( 1 1 0 ) | ( 0 -2 5 )   | 8.420    | 1.015    | 8.30      | 80.1           | 77.3                   |
| [ 5 -5 2 ]   | ( 1 1 0 ) | ( 0 -2 -5 )  | 8.420    | 1.015    | 8.30      | 74.0           | 88.9                   |
| [ 5 -5 8 ]   | ( 1 1 0 ) | ( 4 -4 -5 )  | 8.420    | 1.012    | 8.32      | 87.2           | 73.8                   |
| [ 1 -1 0 ]   | ( 1 1 0 ) | ( 4 4 -5 )   | 8.420    | 1.012    | 8.32      | 75.1           | 83.0                   |
| [ 5 -5 6 ]   | ( 1 1 0 ) | ( -5 1 5 )   | 8.420    | 1.012    | 8.32      | 77.2           | 79.4                   |
| [ 5 -5 4 ]   | ( 1 1 0 ) | ( 5 1 -5 )   | 8.420    | 1.012    | 8.32      | 74.1           | 85.2                   |
| [ 5 -5 8 ]   | ( 1 1 0 ) | ( -3 5 5 )   | 8.420    | 1.011    | 8.33      | 85.9           | 73.8                   |
| [ 5 -5 -2 ]  | ( 1 1 0 ) | ( -3 -5 5 )  | 8.420    | 1.011    | 8.33      | 79.1           | 77.3                   |
| [ 3 -3 -10 ] | ( 1 1 0 ) | ( 6 -4 3 )   | 8.420    | 1.010    | 8.34      | 53.7           | 45.4                   |
| [ 3 -3 -2 ]  | ( 1 1 0 ) | ( -6 -4 -3 ) | 8.420    | 1.010    | 8.34      | 36.8           | 73.6                   |
| [ 1 -1 4 ]   | ( 1 1 0 ) | ( 9 -3 -3 )  | 8.420    | 1.008    | 8.35      | 50.8           | 47.6                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -9 -3 3 )  | 8.420    | 1.008    | 8.35      | 38.0           | 68.5                   |
| [ 1 -1 2 ]   | ( 1 1 0 ) | ( -9 -7 1 )  | 8.420    | 1.006    | 8.37      | 11.8           | 68.5                   |

**Tremolite (110) 344 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 2 -2 -5 ] | ( 1 1 0 ) | ( 3 -7 4 )   | 8.420    | 1.006    | 8.37      | 74.0           | 52.4        |
| [ 1 -1 1 ]  | ( 1 1 0 ) | ( -3 -7 -4 ) | 8.420    | 1.006    | 8.37      | 50.3           | 82.3        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 7 7 2 )    | 8.420    | 1.004    | 8.38      | 22.5           | 83.0        |
| [ 5 -5 -4 ] | ( 1 1 0 ) | ( -1 -5 5 )  | 8.420    | 1.003    | 8.40      | 89.9           | 71.8        |
| [ 5 -5 6 ]  | ( 1 1 0 ) | ( -1 5 5 )   | 8.420    | 1.003    | 8.40      | 75.1           | 79.4        |
| [ 1 -1 0 ]  | ( 1 1 0 ) | ( 8 8 -3 )   | 8.420    | 1.002    | 8.41      | 35.0           | 83.0        |
| [ 2 -2 5 ]  | ( 1 1 0 ) | ( -8 2 4 )   | 8.420    | 1.001    | 8.41      | 58.9           | 62.4        |
| [ 2 -2 3 ]  | ( 1 1 0 ) | ( 8 2 -4 )   | 8.420    | 1.001    | 8.41      | 51.7           | 75.1        |

**Tremolite (130) 278 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C |
|-------------|-----------|--------------|----------|----------|-----------|----------------|---------------|
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( 0 0 1 )    | 5.088    | 5.105    | 1.00      | 82.2           | 77.5          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 1 -1 -1 )  | 5.088    | 4.879    | 1.04      | 85.2           | 68.1          |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( 1 1 -1 )   | 5.088    | 4.879    | 1.04      | 68.1           | 84.8          |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( 0 2 1 )    | 5.088    | 4.444    | 1.14      | 57.7           | 84.8          |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( -2 0 1 )   | 5.088    | 4.030    | 1.26      | 69.8           | 54.4          |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( 1 -1 1 )   | 5.088    | 3.986    | 1.28      | 81.8           | 49.7          |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( 1 1 1 )    | 5.088    | 3.986    | 1.28      | 58.9           | 61.9          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 2 2 -1 )   | 5.088    | 3.680    | 1.38      | 48.7           | 68.1          |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( 0 -4 1 )   | 5.088    | 3.382    | 1.50      | 57.1           | 49.7          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 0 4 1 )    | 5.088    | 3.382    | 1.50      | 43.7           | 68.1          |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( 2 4 -1 )   | 5.088    | 3.006    | 1.69      | 34.9           | 84.8          |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( 1 5 -1 )   | 5.088    | 2.941    | 1.73      | 39.2           | 61.9          |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( -2 -2 -1 ) | 5.088    | 2.940    | 1.73      | 46.9           | 49.7          |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( 3 3 -1 )   | 5.088    | 2.733    | 1.86      | 39.5           | 54.4          |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( -1 -5 -1 ) | 5.088    | 2.706    | 1.88      | 31.0           | 84.8          |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( -1 1 2 )   | 5.088    | 2.611    | 1.95      | 83.4           | 84.8          |
| [ 3 -1 1 ]  | ( 1 3 0 ) | ( 1 1 -2 )   | 5.088    | 2.611    | 1.95      | 82.5           | 86.2          |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( 0 -6 -1 )  | 5.088    | 2.593    | 1.96      | 37.1           | 54.4          |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( 2 4 1 )    | 5.088    | 2.561    | 1.99      | 33.4           | 61.9          |
| [ 3 -1 3 ]  | ( 1 3 0 ) | ( 2 0 -2 )   | 5.088    | 2.534    | 2.01      | 81.4           | 76.2          |
| [ 3 -1 -1 ] | ( 1 3 0 ) | ( 0 -2 2 )   | 5.088    | 2.456    | 2.07      | 84.3           | 69.3          |
| [ 3 -1 1 ]  | ( 1 3 0 ) | ( 0 2 2 )    | 5.088    | 2.456    | 2.07      | 68.9           | 86.2          |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( 2 6 -1 )   | 5.088    | 2.411    | 2.11      | 27.9           | 77.5          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 3 5 -1 )   | 5.088    | 2.338    | 2.18      | 28.5           | 68.1          |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( -1 1 -2 )  | 5.088    | 2.303    | 2.21      | 81.7           | 61.9          |
| [ 3 -1 -1 ] | ( 1 3 0 ) | ( 1 1 2 )    | 5.088    | 2.303    | 2.21      | 68.9           | 69.3          |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( 1 7 -1 )   | 5.088    | 2.299    | 2.21      | 34.8           | 49.7          |
| [ 3 -1 5 ]  | ( 1 3 0 ) | ( -3 1 2 )   | 5.088    | 2.276    | 2.24      | 81.0           | 60.8          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 3 1 -2 )   | 5.088    | 2.276    | 2.24      | 68.4           | 68.1          |
| [ 3 -1 5 ]  | ( 1 3 0 ) | ( 2 -4 -2 )  | 5.088    | 2.210    | 2.30      | 73.6           | 60.8          |
| [ 3 -1 1 ]  | ( 1 3 0 ) | ( 2 4 -2 )   | 5.088    | 2.210    | 2.30      | 57.0           | 86.2          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( -1 -7 -1 ) | 5.088    | 2.182    | 2.33      | 26.5           | 68.1          |
| [ 3 -1 -3 ] | ( 1 3 0 ) | ( -1 3 -2 )  | 5.088    | 2.167    | 2.35      | 86.2           | 55.4          |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( -1 -3 -2 ) | 5.088    | 2.167    | 2.35      | 57.2           | 77.5          |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( -2 -6 -1 ) | 5.088    | 2.163    | 2.35      | 24.8           | 77.5          |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( -3 3 2 )   | 5.088    | 2.144    | 2.37      | 86.9           | 54.4          |
| [ 3 -1 3 ]  | ( 1 3 0 ) | ( 3 3 -2 )   | 5.088    | 2.144    | 2.37      | 56.8           | 76.2          |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 1 -5 -2 )  | 5.088    | 2.131    | 2.39      | 60.5           | 68.1          |
| [ 3 -1 -1 ] | ( 1 3 0 ) | ( 1 5 -2 )   | 5.088    | 2.131    | 2.39      | 59.7           | 69.3          |
| [ 3 -1 -3 ] | ( 1 3 0 ) | ( -2 0 -2 )  | 5.088    | 2.043    | 2.49      | 70.2           | 55.4          |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( 3 5 1 )    | 5.088    | 2.017    | 2.52      | 30.1           | 49.7          |
| [ 3 -1 5 ]  | ( 1 3 0 ) | ( 4 2 -2 )   | 5.088    | 1.966    | 2.59      | 58.6           | 60.8          |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( 1 -5 2 )   | 5.088    | 1.953    | 2.60      | 75.9           | 49.7          |
| [ 3 -1 1 ]  | ( 1 3 0 ) | ( 1 5 2 )    | 5.088    | 1.953    | 2.60      | 47.9           | 86.2          |
| [ 3 -1 -3 ] | ( 1 3 0 ) | ( 0 -6 2 )   | 5.088    | 1.947    | 2.61      | 63.7           | 55.4          |
| [ 3 -1 3 ]  | ( 1 3 0 ) | ( 0 6 2 )    | 5.088    | 1.947    | 2.61      | 49.4           | 76.2          |
| [ 3 -1 7 ]  | ( 1 3 0 ) | ( 3 -5 -2 )  | 5.088    | 1.936    | 2.63      | 76.7           | 48.9          |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( 3 5 -2 )   | 5.088    | 1.936    | 2.63      | 47.4           | 84.8          |

**Tremolite (130) 278 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( 4 6 -1 )   | 5.088    | 1.878    | 2.71      | 25.9           | 54.4        |
| [ 3 -1 -1 ] | ( 1 3 0 ) | ( -2 -4 -2 ) | 5.088    | 1.862    | 2.73      | 49.0           | 69.3        |
| [ 3 -1 5 ]  | ( 1 3 0 ) | ( -1 7 2 )   | 5.088    | 1.845    | 2.76      | 53.2           | 60.8        |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( -1 -7 2 )  | 5.088    | 1.845    | 2.76      | 52.4           | 61.9        |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( -2 -8 -1 ) | 5.088    | 1.827    | 2.79      | 20.3           | 84.8        |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( 1 9 1 )    | 5.088    | 1.801    | 2.82      | 24.8           | 54.4        |
| [ 3 -1 -4 ] | ( 1 3 0 ) | ( -3 -1 -2 ) | 5.088    | 1.771    | 2.87      | 61.6           | 49.7        |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( 3 7 1 )    | 5.088    | 1.770    | 2.88      | 22.3           | 61.9        |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( -2 0 3 )   | 5.088    | 1.750    | 2.91      | 86.7           | 84.8        |
| [ 3 -1 7 ]  | ( 1 3 0 ) | ( 5 1 -2 )   | 5.088    | 1.747    | 2.91      | 61.4           | 48.9        |
| [ 9 -3 2 ]  | ( 1 3 0 ) | ( -1 -1 3 )  | 5.088    | 1.746    | 2.91      | 87.7           | 83.3        |
| [ 9 -3 4 ]  | ( 1 3 0 ) | ( -1 1 3 )   | 5.088    | 1.746    | 2.91      | 82.9           | 89.2        |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( 1 7 2 )    | 5.088    | 1.726    | 2.95      | 41.0           | 84.8        |
| [ 9 -3 8 ]  | ( 1 3 0 ) | ( 2 -2 -3 )  | 5.088    | 1.718    | 2.96      | 84.0           | 79.0        |
| [ 9 -3 4 ]  | ( 1 3 0 ) | ( 2 2 -3 )   | 5.088    | 1.718    | 2.96      | 77.5           | 89.2        |
| [ 3 -1 1 ]  | ( 1 3 0 ) | ( -3 -7 2 )  | 5.088    | 1.714    | 2.97      | 40.6           | 86.2        |
| [ 3 -1 -3 ] | ( 1 3 0 ) | ( 3 3 2 )    | 5.088    | 1.707    | 2.98      | 51.8           | 55.4        |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( 5 3 -2 )   | 5.088    | 1.685    | 3.02      | 51.7           | 54.4        |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( -1 -3 3 )  | 5.088    | 1.684    | 3.02      | 78.7           | 77.5        |
| [ 3 -1 2 ]  | ( 1 3 0 ) | ( -1 3 3 )   | 5.088    | 1.684    | 3.02      | 74.0           | 84.8        |
| [ 9 -3 10 ] | ( 1 3 0 ) | ( 3 -1 -3 )  | 5.088    | 1.682    | 3.03      | 86.0           | 73.4        |
| [ 9 -3 8 ]  | ( 1 3 0 ) | ( -3 -1 3 )  | 5.088    | 1.682    | 3.03      | 76.8           | 79.0        |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( 3 9 -1 )   | 5.088    | 1.679    | 3.03      | 19.0           | 77.5        |
| [ 3 -1 3 ]  | ( 1 3 0 ) | ( 4 6 -2 )   | 5.088    | 1.674    | 3.04      | 40.8           | 76.2        |
| [ 9 -3 -2 ] | ( 1 3 0 ) | ( 0 2 -3 )   | 5.088    | 1.672    | 3.04      | 88.7           | 71.9        |
| [ 9 -3 2 ]  | ( 1 3 0 ) | ( 0 -2 -3 )  | 5.088    | 1.672    | 3.04      | 73.1           | 83.3        |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 4 8 -1 )   | 5.088    | 1.645    | 3.09      | 19.6           | 68.1        |
| [ 9 -3 10 ] | ( 1 3 0 ) | ( 2 -4 -3 )  | 5.088    | 1.631    | 3.12      | 75.4           | 73.4        |
| [ 9 -3 2 ]  | ( 1 3 0 ) | ( 2 4 -3 )   | 5.088    | 1.631    | 3.12      | 69.0           | 83.3        |
| [ 9 -3 -4 ] | ( 1 3 0 ) | ( -1 1 -3 )  | 5.088    | 1.600    | 3.18      | 81.8           | 66.7        |
| [ 9 -3 -2 ] | ( 1 3 0 ) | ( 1 1 3 )    | 5.088    | 1.600    | 3.18      | 73.0           | 71.9        |
| [ 3 -1 6 ]  | ( 1 3 0 ) | ( 1 -9 -2 )  | 5.088    | 1.597    | 3.19      | 48.1           | 54.4        |
| [ 3 -1 -3 ] | ( 1 3 0 ) | ( 1 9 -2 )   | 5.088    | 1.597    | 3.19      | 47.4           | 55.4        |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( -3 -5 -2 ) | 5.088    | 1.597    | 3.19      | 43.3           | 61.9        |
| [ 9 -3 -4 ] | ( 1 3 0 ) | ( 0 4 -3 )   | 5.088    | 1.592    | 3.19      | 80.2           | 66.7        |
| [ 9 -3 4 ]  | ( 1 3 0 ) | ( 0 -4 -3 )  | 5.088    | 1.592    | 3.19      | 64.8           | 89.2        |
| [ 3 -1 4 ]  | ( 1 3 0 ) | ( 4 0 -3 )   | 5.088    | 1.588    | 3.20      | 76.7           | 68.1        |
| [ 3 -1 5 ]  | ( 1 3 0 ) | ( -5 -5 2 )  | 5.088    | 1.578    | 3.22      | 43.2           | 60.8        |
| [ 9 -3 -2 ] | ( 1 3 0 ) | ( 1 5 -3 )   | 5.088    | 1.578    | 3.22      | 70.6           | 71.9        |
| [ 9 -3 8 ]  | ( 1 3 0 ) | ( 1 -5 -3 )  | 5.088    | 1.578    | 3.22      | 66.0           | 79.0        |
| [ 9 -3 14 ] | ( 1 3 0 ) | ( 4 -2 -3 )  | 5.088    | 1.564    | 3.25      | 85.4           | 63.1        |
| [ 9 -3 10 ] | ( 1 3 0 ) | ( -4 -2 3 )  | 5.088    | 1.564    | 3.25      | 68.1           | 73.4        |
| [ 3 -1 -2 ] | ( 1 3 0 ) | ( -1 3 -3 )  | 5.088    | 1.552    | 3.28      | 89.6           | 61.9        |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( -1 -3 -3 ) | 5.088    | 1.552    | 3.28      | 64.6           | 77.5        |
| [ 3 -1 0 ]  | ( 1 3 0 ) | ( -3 -9 -1 ) | 5.088    | 1.548    | 3.29      | 17.5           | 77.5        |
| [ 9 -3 14 ] | ( 1 3 0 ) | ( -3 5 3 )   | 5.088    | 1.530    | 3.32      | 77.1           | 63.1        |
| [ 9 -3 4 ]  | ( 1 3 0 ) | ( -3 -5 3 )  | 5.088    | 1.530    | 3.32      | 60.4           | 89.2        |
| [ 3 -1 3 ]  | ( 1 3 0 ) | ( 1 9 2 )    | 5.088    | 1.518    | 3.35      | 36.3           | 76.2        |

**Tremolite (130) 278 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 3 -1 1 ]   | ( 1 3 0 ) | ( -2 -8 -2 ) | 5.088    | 1.515    | 3.36      | 35.1           | 86.2                   |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( -2 6 3 )   | 5.088    | 1.513    | 3.36      | 67.9           | 68.1                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( -2 -6 3 )  | 5.088    | 1.513    | 3.36      | 61.7           | 77.5                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( 3 9 -2 )   | 5.088    | 1.510    | 3.37      | 35.9           | 77.5                   |
| [ 9 -3 16 ]  | ( 1 3 0 ) | ( -4 4 3 )   | 5.088    | 1.498    | 3.40      | 86.4           | 58.6                   |
| [ 9 -3 8 ]   | ( 1 3 0 ) | ( -4 -4 3 )  | 5.088    | 1.498    | 3.40      | 60.2           | 79.0                   |
| [ 3 -1 -2 ]  | ( 1 3 0 ) | ( 2 0 3 )    | 5.088    | 1.487    | 3.42      | 73.4           | 61.9                   |
| [ 3 -1 -4 ]  | ( 1 3 0 ) | ( -4 -8 -1 ) | 5.088    | 1.486    | 3.42      | 21.6           | 49.7                   |
| [ 9 -3 -8 ]  | ( 1 3 0 ) | ( -1 5 -3 )  | 5.088    | 1.467    | 3.47      | 81.7           | 57.4                   |
| [ 9 -3 2 ]   | ( 1 3 0 ) | ( -1 -5 -3 ) | 5.088    | 1.467    | 3.47      | 57.1           | 83.3                   |
| [ 9 -3 -8 ]  | ( 1 3 0 ) | ( 2 -2 3 )   | 5.088    | 1.467    | 3.47      | 81.7           | 57.4                   |
| [ 9 -3 -4 ]  | ( 1 3 0 ) | ( -2 -2 -3 ) | 5.088    | 1.467    | 3.47      | 65.2           | 66.7                   |
| [ 3 -1 -1 ]  | ( 1 3 0 ) | ( 3 7 2 )    | 5.088    | 1.465    | 3.47      | 36.4           | 69.3                   |
| [ 9 -3 16 ]  | ( 1 3 0 ) | ( -5 1 3 )   | 5.088    | 1.463    | 3.48      | 77.0           | 58.6                   |
| [ 9 -3 14 ]  | ( 1 3 0 ) | ( 5 1 -3 )   | 5.088    | 1.463    | 3.48      | 68.8           | 63.1                   |
| [ 3 -1 7 ]   | ( 1 3 0 ) | ( -6 -4 2 )  | 5.088    | 1.452    | 3.50      | 46.9           | 48.9                   |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( 5 7 -2 )   | 5.088    | 1.451    | 3.51      | 36.3           | 68.1                   |
| [ 9 -3 -4 ]  | ( 1 3 0 ) | ( 1 7 -3 )   | 5.088    | 1.451    | 3.51      | 63.8           | 66.7                   |
| [ 9 -3 10 ]  | ( 1 3 0 ) | ( 1 -7 -3 )  | 5.088    | 1.451    | 3.51      | 59.4           | 73.4                   |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( 5 -3 -3 )  | 5.088    | 1.426    | 3.57      | 85.1           | 54.4                   |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( -5 -3 3 )  | 5.088    | 1.426    | 3.57      | 60.9           | 68.1                   |
| [ 9 -3 16 ]  | ( 1 3 0 ) | ( -3 7 3 )   | 5.088    | 1.413    | 3.60      | 70.3           | 58.6                   |
| [ 9 -3 2 ]   | ( 1 3 0 ) | ( -3 -7 3 )  | 5.088    | 1.413    | 3.60      | 54.0           | 83.3                   |
| [ 9 -3 -10 ] | ( 1 3 0 ) | ( 2 -4 3 )   | 5.088    | 1.412    | 3.60      | 89.6           | 53.4                   |
| [ 9 -3 -2 ]  | ( 1 3 0 ) | ( -2 -4 -3 ) | 5.088    | 1.412    | 3.60      | 57.6           | 71.9                   |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( -4 6 3 )   | 5.088    | 1.405    | 3.62      | 79.0           | 54.4                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( -4 -6 3 )  | 5.088    | 1.405    | 3.62      | 53.3           | 84.8                   |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( 5 9 -1 )   | 5.088    | 1.400    | 3.63      | 19.0           | 54.4                   |
| [ 9 -3 14 ]  | ( 1 3 0 ) | ( 2 -8 -3 )  | 5.088    | 1.383    | 3.68      | 61.8           | 63.1                   |
| [ 9 -3 -2 ]  | ( 1 3 0 ) | ( 2 8 -3 )   | 5.088    | 1.383    | 3.68      | 55.8           | 71.9                   |
| [ 3 -1 -3 ]  | ( 1 3 0 ) | ( -4 -6 -2 ) | 5.088    | 1.381    | 3.68      | 39.5           | 55.4                   |
| [ 9 -3 4 ]   | ( 1 3 0 ) | ( 1 7 3 )    | 5.088    | 1.363    | 3.73      | 50.8           | 89.2                   |
| [ 9 -3 20 ]  | ( 1 3 0 ) | ( -5 5 3 )   | 5.088    | 1.360    | 3.74      | 87.4           | 50.7                   |
| [ 9 -3 10 ]  | ( 1 3 0 ) | ( -5 -5 3 )  | 5.088    | 1.360    | 3.74      | 53.7           | 73.4                   |
| [ 9 -3 -8 ]  | ( 1 3 0 ) | ( 0 8 -3 )   | 5.088    | 1.359    | 3.74      | 66.4           | 57.4                   |
| [ 9 -3 8 ]   | ( 1 3 0 ) | ( 0 8 3 )    | 5.088    | 1.359    | 3.74      | 51.9           | 79.0                   |
| [ 9 -3 -10 ] | ( 1 3 0 ) | ( -3 1 -3 )  | 5.088    | 1.358    | 3.75      | 74.1           | 53.4                   |
| [ 9 -3 -8 ]  | ( 1 3 0 ) | ( 3 1 3 )    | 5.088    | 1.358    | 3.75      | 66.4           | 57.4                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( -2 -6 -3 ) | 5.088    | 1.333    | 3.82      | 50.9           | 77.5                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( 3 9 2 )    | 5.088    | 1.332    | 3.82      | 31.1           | 77.5                   |
| [ 9 -3 20 ]  | ( 1 3 0 ) | ( -6 2 3 )   | 5.088    | 1.329    | 3.83      | 77.5           | 50.7                   |
| [ 9 -3 16 ]  | ( 1 3 0 ) | ( 6 2 -3 )   | 5.088    | 1.329    | 3.83      | 62.2           | 58.6                   |
| [ 3 -1 3 ]   | ( 1 3 0 ) | ( 5 9 -2 )   | 5.088    | 1.321    | 3.85      | 31.0           | 76.2                   |
| [ 3 -1 -2 ]  | ( 1 3 0 ) | ( -1 -9 3 )  | 5.088    | 1.321    | 3.85      | 58.3           | 61.9                   |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( -1 9 3 )   | 5.088    | 1.321    | 3.85      | 54.0           | 68.1                   |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( -2 0 4 )   | 5.088    | 1.320    | 3.86      | 89.6           | 89.3                   |
| [ 6 -2 1 ]   | ( 1 3 0 ) | ( -1 -1 4 )  | 5.088    | 1.306    | 3.90      | 89.7           | 81.8                   |
| [ 3 -1 1 ]   | ( 1 3 0 ) | ( 1 -1 -4 )  | 5.088    | 1.306    | 3.90      | 82.7           | 86.2                   |



**Tremolite (130) 278 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 6 -2 5 ]   | ( 1 3 0 ) | ( -3 1 4 )   | 5.088    | 1.301    | 3.91      | 88.9           | 80.4                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( 3 1 -4 )   | 5.088    | 1.301    | 3.91      | 81.9           | 84.8                   |
| [ 9 -3 20 ]  | ( 1 3 0 ) | ( 4 -8 -3 )  | 5.088    | 1.299    | 3.92      | 72.6           | 50.7                   |
| [ 9 -3 4 ]   | ( 1 3 0 ) | ( 4 8 -3 )   | 5.088    | 1.299    | 3.92      | 47.6           | 89.2                   |
| [ 9 -3 22 ]  | ( 1 3 0 ) | ( 6 -4 -3 )  | 5.088    | 1.287    | 3.95      | 84.8           | 47.3                   |
| [ 9 -3 14 ]  | ( 1 3 0 ) | ( -6 -4 3 )  | 5.088    | 1.287    | 3.95      | 55.1           | 63.1                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( -1 -3 4 )  | 5.088    | 1.280    | 3.98      | 83.4           | 77.5                   |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( -1 3 4 )   | 5.088    | 1.280    | 3.98      | 75.9           | 89.3                   |
| [ 9 -3 22 ]  | ( 1 3 0 ) | ( -5 7 3 )   | 5.088    | 1.276    | 3.99      | 80.7           | 47.3                   |
| [ 9 -3 8 ]   | ( 1 3 0 ) | ( -5 -7 3 )  | 5.088    | 1.276    | 3.99      | 47.6           | 79.0                   |
| [ 3 -1 3 ]   | ( 1 3 0 ) | ( -3 3 4 )   | 5.088    | 1.275    | 3.99      | 84.3           | 76.2                   |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( -3 -3 4 )  | 5.088    | 1.275    | 3.99      | 75.0           | 89.3                   |
| [ 9 -3 -14 ] | ( 1 3 0 ) | ( 3 -5 3 )   | 5.088    | 1.275    | 3.99      | 89.0           | 46.4                   |
| [ 9 -3 -4 ]  | ( 1 3 0 ) | ( -3 -5 -3 ) | 5.088    | 1.275    | 3.99      | 52.1           | 66.7                   |
| [ 3 -1 5 ]   | ( 1 3 0 ) | ( 6 8 -2 )   | 5.088    | 1.268    | 4.01      | 33.4           | 60.8                   |
| [ 6 -2 1 ]   | ( 1 3 0 ) | ( -2 -4 4 )  | 5.088    | 1.267    | 4.02      | 75.8           | 81.8                   |
| [ 6 -2 -1 ]  | ( 1 3 0 ) | ( 0 -2 4 )   | 5.088    | 1.264    | 4.03      | 89.1           | 73.3                   |
| [ 6 -2 1 ]   | ( 1 3 0 ) | ( 0 -2 -4 )  | 5.088    | 1.264    | 4.03      | 75.4           | 81.8                   |
| [ 6 -2 7 ]   | ( 1 3 0 ) | ( 4 -2 -4 )  | 5.088    | 1.255    | 4.06      | 88.2           | 72.0                   |
| [ 6 -2 5 ]   | ( 1 3 0 ) | ( -4 -2 4 )  | 5.088    | 1.255    | 4.06      | 74.6           | 80.4                   |
| [ 3 -1 -4 ]  | ( 1 3 0 ) | ( -1 9 -3 )  | 5.088    | 1.254    | 4.06      | 69.1           | 49.7                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( -1 -9 -3 ) | 5.088    | 1.254    | 4.06      | 45.7           | 84.8                   |
| [ 3 -1 -4 ]  | ( 1 3 0 ) | ( 4 0 3 )    | 5.088    | 1.243    | 4.09      | 67.8           | 49.7                   |
| [ 9 -3 -14 ] | ( 1 3 0 ) | ( -2 8 -3 )  | 5.088    | 1.242    | 4.10      | 76.9           | 46.4                   |
| [ 9 -3 2 ]   | ( 1 3 0 ) | ( -2 -8 -3 ) | 5.088    | 1.242    | 4.10      | 45.3           | 83.3                   |
| [ 6 -2 -1 ]  | ( 1 3 0 ) | ( 1 5 -4 )   | 5.088    | 1.231    | 4.13      | 76.9           | 73.3                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( 1 -5 -4 )  | 5.088    | 1.231    | 4.13      | 69.5           | 84.8                   |
| [ 9 -3 -14 ] | ( 1 3 0 ) | ( 4 -2 3 )   | 5.088    | 1.231    | 4.13      | 75.0           | 46.4                   |
| [ 9 -3 -10 ] | ( 1 3 0 ) | ( -4 -2 -3 ) | 5.088    | 1.231    | 4.13      | 60.7           | 53.4                   |
| [ 9 -3 20 ]  | ( 1 3 0 ) | ( -7 -1 3 )  | 5.088    | 1.222    | 4.16      | 63.9           | 50.7                   |
| [ 3 -1 -1 ]  | ( 1 3 0 ) | ( 1 -1 4 )   | 5.088    | 1.222    | 4.16      | 81.9           | 69.3                   |
| [ 6 -2 -1 ]  | ( 1 3 0 ) | ( -1 -1 -4 ) | 5.088    | 1.222    | 4.16      | 75.2           | 73.3                   |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( 5 -1 -4 )  | 5.088    | 1.210    | 4.21      | 81.1           | 68.1                   |
| [ 6 -2 7 ]   | ( 1 3 0 ) | ( -5 -1 4 )  | 5.088    | 1.210    | 4.21      | 74.5           | 72.0                   |
| [ 3 -1 -4 ]  | ( 1 3 0 ) | ( 5 7 2 )    | 5.088    | 1.209    | 4.21      | 36.9           | 49.7                   |
| [ 6 -2 -3 ]  | ( 1 3 0 ) | ( 1 -3 4 )   | 5.088    | 1.200    | 4.24      | 88.5           | 65.5                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( -1 -3 -4 ) | 5.088    | 1.200    | 4.24      | 68.7           | 77.5                   |
| [ 9 -3 -8 ]  | ( 1 3 0 ) | ( 4 4 3 )    | 5.088    | 1.198    | 4.25      | 53.9           | 57.4                   |
| [ 3 -1 7 ]   | ( 1 3 0 ) | ( -7 -7 2 )  | 5.088    | 1.197    | 4.25      | 37.0           | 48.9                   |
| [ 6 -2 9 ]   | ( 1 3 0 ) | ( 5 -3 -4 )  | 5.088    | 1.188    | 4.28      | 87.7           | 64.3                   |
| [ 3 -1 3 ]   | ( 1 3 0 ) | ( -5 -3 4 )  | 5.088    | 1.188    | 4.28      | 68.0           | 76.2                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( 5 9 -3 )   | 5.088    | 1.185    | 4.29      | 42.5           | 84.8                   |
| [ 6 -2 -3 ]  | ( 1 3 0 ) | ( 0 -6 4 )   | 5.088    | 1.175    | 4.33      | 78.2           | 65.5                   |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( 0 6 4 )    | 5.088    | 1.175    | 4.33      | 62.9           | 89.3                   |
| [ 3 -1 -1 ]  | ( 1 3 0 ) | ( -1 -7 4 )  | 5.088    | 1.168    | 4.36      | 71.1           | 69.3                   |
| [ 6 -2 5 ]   | ( 1 3 0 ) | ( -1 7 4 )   | 5.088    | 1.168    | 4.36      | 63.8           | 80.4                   |
| [ 6 -2 9 ]   | ( 1 3 0 ) | ( -4 6 4 )   | 5.088    | 1.168    | 4.36      | 79.1           | 64.3                   |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( -4 -6 4 )  | 5.088    | 1.168    | 4.36      | 62.2           | 89.3                   |

**Tremolite (130) 278 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( -3 7 4 )   | 5.088    | 1.164    | 4.37      | 72.0           | 68.1                   |
| [ 6 -2 1 ]   | ( 1 3 0 ) | ( -3 -7 4 )  | 5.088    | 1.164    | 4.37      | 63.0           | 81.8                   |
| [ 6 -2 -3 ]  | ( 1 3 0 ) | ( 2 0 4 )    | 5.088    | 1.161    | 4.38      | 75.3           | 65.5                   |
| [ 9 -3 16 ]  | ( 1 3 0 ) | ( -7 -5 3 )  | 5.088    | 1.160    | 4.39      | 50.6           | 58.6                   |
| [ 3 -1 -2 ]  | ( 1 3 0 ) | ( -1 5 -4 )  | 5.088    | 1.160    | 4.39      | 85.3           | 61.9                   |
| [ 6 -2 1 ]   | ( 1 3 0 ) | ( -1 -5 -4 ) | 5.088    | 1.160    | 4.39      | 62.6           | 81.8                   |
| [ 9 -3 10 ]  | ( 1 3 0 ) | ( 6 8 -3 )   | 5.088    | 1.154    | 4.41      | 43.2           | 73.4                   |
| [ 3 -1 5 ]   | ( 1 3 0 ) | ( -5 5 4 )   | 5.088    | 1.149    | 4.43      | 86.1           | 60.8                   |
| [ 6 -2 5 ]   | ( 1 3 0 ) | ( -5 -5 4 )  | 5.088    | 1.149    | 4.43      | 62.0           | 80.4                   |
| [ 3 -1 -2 ]  | ( 1 3 0 ) | ( 4 6 3 )    | 5.088    | 1.149    | 4.43      | 47.8           | 61.9                   |
| [ 6 -2 9 ]   | ( 1 3 0 ) | ( -6 0 4 )   | 5.088    | 1.147    | 4.44      | 74.7           | 64.3                   |
| [ 6 -2 7 ]   | ( 1 3 0 ) | ( -2 8 4 )   | 5.088    | 1.139    | 4.47      | 65.2           | 72.0                   |
| [ 6 -2 -1 ]  | ( 1 3 0 ) | ( -2 -8 4 )  | 5.088    | 1.139    | 4.47      | 64.3           | 73.3                   |
| [ 9 -3 -14 ] | ( 1 3 0 ) | ( 5 1 3 )    | 5.088    | 1.131    | 4.50      | 62.6           | 46.4                   |
| [ 3 -1 -3 ]  | ( 1 3 0 ) | ( 5 9 2 )    | 5.088    | 1.131    | 4.50      | 31.4           | 55.4                   |
| [ 6 -2 -5 ]  | ( 1 3 0 ) | ( 2 -4 4 )   | 5.088    | 1.124    | 4.52      | 88.0           | 58.5                   |
| [ 6 -2 -1 ]  | ( 1 3 0 ) | ( -2 -4 -4 ) | 5.088    | 1.124    | 4.52      | 62.8           | 73.3                   |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( 7 9 -2 )   | 5.088    | 1.121    | 4.54      | 31.5           | 54.4                   |
| [ 3 -1 -4 ]  | ( 1 3 0 ) | ( -5 -3 -3 ) | 5.088    | 1.114    | 4.57      | 56.1           | 49.7                   |
| [ 6 -2 11 ]  | ( 1 3 0 ) | ( 6 -4 -4 )  | 5.088    | 1.112    | 4.58      | 87.2           | 57.5                   |
| [ 6 -2 7 ]   | ( 1 3 0 ) | ( -6 -4 4 )  | 5.088    | 1.112    | 4.58      | 62.3           | 72.0                   |
| [ 6 -2 -5 ]  | ( 1 3 0 ) | ( 1 -7 4 )   | 5.088    | 1.106    | 4.60      | 79.5           | 58.5                   |
| [ 3 -1 1 ]   | ( 1 3 0 ) | ( 1 7 4 )    | 5.088    | 1.106    | 4.60      | 57.2           | 86.2                   |
| [ 6 -2 11 ]  | ( 1 3 0 ) | ( 5 -7 -4 )  | 5.088    | 1.097    | 4.64      | 80.3           | 57.5                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( 5 7 -4 )   | 5.088    | 1.097    | 4.64      | 56.6           | 84.8                   |
| [ 6 -2 -3 ]  | ( 1 3 0 ) | ( -1 -9 4 )  | 5.088    | 1.097    | 4.64      | 66.0           | 65.5                   |
| [ 3 -1 3 ]   | ( 1 3 0 ) | ( -1 9 4 )   | 5.088    | 1.097    | 4.64      | 58.9           | 76.2                   |
| [ 6 -2 9 ]   | ( 1 3 0 ) | ( 3 -9 -4 )  | 5.088    | 1.094    | 4.65      | 66.9           | 64.3                   |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( 3 9 -4 )   | 5.088    | 1.094    | 4.65      | 58.1           | 77.5                   |
| [ 6 -2 -5 ]  | ( 1 3 0 ) | ( -3 1 -4 )  | 5.088    | 1.090    | 4.67      | 75.6           | 58.5                   |
| [ 3 -1 -2 ]  | ( 1 3 0 ) | ( 3 1 4 )    | 5.088    | 1.090    | 4.67      | 69.5           | 61.9                   |
| [ 9 -3 -4 ]  | ( 1 3 0 ) | ( -4 -8 -3 ) | 5.088    | 1.089    | 4.67      | 42.3           | 66.7                   |
| [ 9 -3 20 ]  | ( 1 3 0 ) | ( 8 4 -3 )   | 5.088    | 1.085    | 4.69      | 52.9           | 50.7                   |
| [ 3 -1 5 ]   | ( 1 3 0 ) | ( 7 1 -4 )   | 5.088    | 1.075    | 4.73      | 69.0           | 60.8                   |
| [ 3 -1 -3 ]  | ( 1 3 0 ) | ( -3 3 -4 )  | 5.088    | 1.074    | 4.74      | 81.7           | 55.4                   |
| [ 6 -2 -3 ]  | ( 1 3 0 ) | ( 3 3 4 )    | 5.088    | 1.074    | 4.74      | 63.5           | 65.5                   |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( -7 3 4 )   | 5.088    | 1.060    | 4.80      | 81.1           | 54.4                   |
| [ 6 -2 9 ]   | ( 1 3 0 ) | ( 7 3 -4 )   | 5.088    | 1.060    | 4.80      | 63.1           | 64.3                   |
| [ 15 -5 6 ]  | ( 1 3 0 ) | ( -2 0 5 )   | 5.088    | 1.055    | 4.82      | 88.7           | 88.0                   |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( 3 -1 -5 )  | 5.088    | 1.051    | 4.84      | 89.3           | 84.8                   |
| [ 15 -5 8 ]  | ( 1 3 0 ) | ( 3 1 -5 )   | 5.088    | 1.051    | 4.84      | 85.0           | 88.4                   |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( -8 -6 3 )  | 5.088    | 1.048    | 4.86      | 47.1           | 54.4                   |
| [ 15 -5 4 ]  | ( 1 3 0 ) | ( 2 2 -5 )   | 5.088    | 1.048    | 4.86      | 85.6           | 84.4                   |
| [ 15 -5 8 ]  | ( 1 3 0 ) | ( 2 -2 -5 )  | 5.088    | 1.048    | 4.86      | 83.1           | 88.4                   |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( 7 9 -3 )   | 5.088    | 1.046    | 4.87      | 39.8           | 68.1                   |
| [ 3 -1 -3 ]  | ( 1 3 0 ) | ( 1 -9 4 )   | 5.088    | 1.045    | 4.87      | 74.3           | 55.4                   |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( 1 9 4 )    | 5.088    | 1.045    | 4.87      | 52.4           | 89.3                   |
| [ 6 -2 -7 ]  | ( 1 3 0 ) | ( -3 5 -4 )  | 5.088    | 1.045    | 4.87      | 87.5           | 52.4                   |

**Tremolite (130) 278 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 3 -1 -1 ]  | ( 1 3 0 ) | ( 3 5 4 )    | 5.088    | 1.045    | 4.87      | 57.9           | 69.3        |
| [ 15 -5 2 ]  | ( 1 3 0 ) | ( 1 1 -5 )   | 5.088    | 1.042    | 4.88      | 88.2           | 80.9        |
| [ 15 -5 4 ]  | ( 1 3 0 ) | ( -1 1 5 )   | 5.088    | 1.042    | 4.88      | 82.6           | 84.4        |
| [ 15 -5 12 ] | ( 1 3 0 ) | ( -4 0 5 )   | 5.088    | 1.039    | 4.90      | 84.5           | 81.3        |
| [ 9 -3 -8 ]  | ( 1 3 0 ) | ( 5 7 3 )    | 5.088    | 1.038    | 4.90      | 44.4           | 57.4        |
| [ 3 -1 6 ]   | ( 1 3 0 ) | ( 5 -9 -4 )  | 5.088    | 1.038    | 4.90      | 75.2           | 54.4        |
| [ 6 -2 3 ]   | ( 1 3 0 ) | ( 5 9 -4 )   | 5.088    | 1.038    | 4.90      | 51.8           | 89.3        |
| [ 15 -5 12 ] | ( 1 3 0 ) | ( 3 -3 -5 )  | 5.088    | 1.037    | 4.90      | 83.7           | 81.3        |
| [ 15 -5 6 ]  | ( 1 3 0 ) | ( 3 3 -5 )   | 5.088    | 1.037    | 4.90      | 79.5           | 88.0        |
| [ 6 -2 -7 ]  | ( 1 3 0 ) | ( 2 -8 4 )   | 5.088    | 1.033    | 4.93      | 80.8           | 52.4        |
| [ 6 -2 1 ]   | ( 1 3 0 ) | ( 2 8 4 )    | 5.088    | 1.033    | 4.93      | 52.2           | 81.8        |
| [ 6 -2 13 ]  | ( 1 3 0 ) | ( -7 5 4 )   | 5.088    | 1.032    | 4.93      | 86.9           | 51.6        |
| [ 3 -1 4 ]   | ( 1 3 0 ) | ( 7 5 -4 )   | 5.088    | 1.032    | 4.93      | 57.5           | 68.1        |
| [ 15 -5 14 ] | ( 1 3 0 ) | ( 4 -2 -5 )  | 5.088    | 1.032    | 4.93      | 89.9           | 77.9        |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( 4 2 -5 )   | 5.088    | 1.032    | 4.93      | 79.0           | 84.8        |
| [ 3 -1 0 ]   | ( 1 3 0 ) | ( -1 -3 5 )  | 5.088    | 1.028    | 4.95      | 86.3           | 77.5        |
| [ 15 -5 6 ]  | ( 1 3 0 ) | ( -1 3 5 )   | 5.088    | 1.028    | 4.95      | 77.1           | 88.0        |
| [ 15 -5 2 ]  | ( 1 3 0 ) | ( -2 -4 5 )  | 5.088    | 1.027    | 4.95      | 80.2           | 80.9        |
| [ 3 -1 2 ]   | ( 1 3 0 ) | ( -2 4 5 )   | 5.088    | 1.027    | 4.95      | 77.7           | 84.8        |
| [ 6 -2 13 ]  | ( 1 3 0 ) | ( 6 -8 -4 )  | 5.088    | 1.023    | 4.98      | 81.5           | 51.6        |
| [ 6 -2 5 ]   | ( 1 3 0 ) | ( 6 8 -4 )   | 5.088    | 1.023    | 4.98      | 51.8           | 80.4        |
| [ 6 -2 -5 ]  | ( 1 3 0 ) | ( -4 -2 -4 ) | 5.088    | 1.015    | 5.01      | 64.5           | 58.5        |
| [ 15 -5 -2 ] | ( 1 3 0 ) | ( 0 -2 5 )   | 5.088    | 1.015    | 5.01      | 87.7           | 74.1        |
| [ 15 -5 2 ]  | ( 1 3 0 ) | ( 0 -2 -5 )  | 5.088    | 1.015    | 5.01      | 76.7           | 80.9        |
| [ 15 -5 16 ] | ( 1 3 0 ) | ( -4 4 5 )   | 5.088    | 1.012    | 5.03      | 84.4           | 74.5        |
| [ 15 -5 8 ]  | ( 1 3 0 ) | ( -4 -4 5 )  | 5.088    | 1.012    | 5.03      | 73.6           | 88.4        |
| [ 15 -5 16 ] | ( 1 3 0 ) | ( 5 -1 -5 )  | 5.088    | 1.012    | 5.03      | 84.1           | 74.5        |
| [ 15 -5 14 ] | ( 1 3 0 ) | ( -5 -1 5 )  | 5.088    | 1.012    | 5.03      | 78.7           | 77.9        |
| [ 15 -5 14 ] | ( 1 3 0 ) | ( -3 5 5 )   | 5.088    | 1.011    | 5.03      | 78.4           | 77.9        |
| [ 15 -5 4 ]  | ( 1 3 0 ) | ( -3 -5 5 )  | 5.088    | 1.011    | 5.03      | 74.2           | 84.4        |
| [ 9 -3 -14 ] | ( 1 3 0 ) | ( 6 4 3 )    | 5.088    | 1.010    | 5.04      | 52.4           | 46.4        |
| [ 3 -1 -4 ]  | ( 1 3 0 ) | ( -3 7 -4 )  | 5.088    | 1.006    | 5.06      | 87.0           | 49.7        |
| [ 6 -2 -1 ]  | ( 1 3 0 ) | ( -3 -7 -4 ) | 5.088    | 1.006    | 5.06      | 52.7           | 73.3        |
| [ 15 -5 -2 ] | ( 1 3 0 ) | ( 1 5 -5 )   | 5.088    | 1.003    | 5.07      | 80.9           | 74.1        |
| [ 15 -5 8 ]  | ( 1 3 0 ) | ( 1 -5 -5 )  | 5.088    | 1.003    | 5.07      | 71.8           | 88.4        |
| [ 9 -3 16 ]  | ( 1 3 0 ) | ( 8 8 -3 )   | 5.088    | 1.002    | 5.08      | 41.8           | 58.6        |
| [ 6 -2 13 ]  | ( 1 3 0 ) | ( -8 2 4 )   | 5.088    | 1.001    | 5.08      | 75.6           | 51.6        |
| [ 6 -2 11 ]  | ( 1 3 0 ) | ( 8 2 -4 )   | 5.088    | 1.001    | 5.08      | 64.1           | 57.5        |

**Tremolite (200) 177 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 0 0 1 )    | 4.759    | 5.105    | 0.93      | 75.3           | 90.0        |
| [ 0 1 1 ]   | ( 2 0 0 ) | ( 1 1 -1 )   | 4.759    | 4.879    | 0.98      | 74.4           | 73.7        |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( 0 -2 1 )   | 4.759    | 4.444    | 1.07      | 77.2           | 59.7        |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 2 0 -1 )   | 4.759    | 4.030    | 1.18      | 49.8           | 90.0        |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( 1 1 1 )    | 4.759    | 3.986    | 1.19      | 51.9           | 73.7        |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( 1 3 -1 )   | 4.759    | 3.877    | 1.23      | 77.6           | 48.8        |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( -2 -2 1 )  | 4.759    | 3.680    | 1.29      | 53.8           | 59.7        |
| [ 0 -1 3 ]  | ( 2 0 0 ) | ( 1 3 1 )    | 4.759    | 3.381    | 1.41      | 58.4           | 48.8        |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( -3 1 1 )   | 4.759    | 3.024    | 1.57      | 36.6           | 73.7        |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( 2 -2 1 )   | 4.759    | 2.940    | 1.62      | 40.2           | 59.7        |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( 3 3 -1 )   | 4.759    | 2.733    | 1.74      | 43.5           | 48.8        |
| [ 0 -2 -1 ] | ( 2 0 0 ) | ( -1 -1 2 )  | 4.759    | 2.611    | 1.82      | 89.2           | 81.7        |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( 0 2 2 )    | 4.759    | 2.456    | 1.94      | 75.8           | 73.7        |
| [ 0 1 -1 ]  | ( 2 0 0 ) | ( -3 -1 -1 ) | 4.759    | 2.410    | 1.97      | 28.4           | 73.7        |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 4 0 -1 )   | 4.759    | 2.403    | 1.98      | 27.1           | 90.0        |
| [ 0 -1 2 ]  | ( 2 0 0 ) | ( -4 2 1 )   | 4.759    | 2.323    | 2.05      | 30.6           | 59.7        |
| [ 0 -2 1 ]  | ( 2 0 0 ) | ( 1 1 2 )    | 4.759    | 2.303    | 2.07      | 61.9           | 81.7        |
| [ 0 2 -1 ]  | ( 2 0 0 ) | ( 3 -1 -2 )  | 4.759    | 2.276    | 2.09      | 60.6           | 81.7        |
| [ 0 1 -3 ]  | ( 2 0 0 ) | ( -3 -3 -1 ) | 4.759    | 2.255    | 2.11      | 34.6           | 48.8        |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( -2 -4 2 )  | 4.759    | 2.210    | 2.15      | 75.9           | 59.7        |
| [ 0 -2 3 ]  | ( 2 0 0 ) | ( 1 3 2 )    | 4.759    | 2.167    | 2.20      | 63.7           | 66.3        |
| [ 0 -2 -3 ] | ( 2 0 0 ) | ( -3 -3 2 )  | 4.759    | 2.144    | 2.22      | 62.5           | 66.3        |
| [ 0 2 5 ]   | ( 2 0 0 ) | ( 1 5 -2 )   | 4.759    | 2.131    | 2.23      | 89.3           | 53.8        |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( -4 2 2 )   | 4.759    | 1.966    | 2.42      | 50.9           | 73.7        |
| [ 0 -2 -5 ] | ( 2 0 0 ) | ( 1 -5 2 )   | 4.759    | 1.953    | 2.44      | 66.4           | 53.8        |
| [ 0 -1 3 ]  | ( 2 0 0 ) | ( 0 6 2 )    | 4.759    | 1.947    | 2.44      | 78.8           | 48.8        |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( -5 -1 1 )  | 4.759    | 1.942    | 2.45      | 22.5           | 73.7        |
| [ 0 -2 -5 ] | ( 2 0 0 ) | ( -3 -5 2 )  | 4.759    | 1.936    | 2.46      | 65.3           | 53.8        |
| [ 0 -1 2 ]  | ( 2 0 0 ) | ( 4 2 1 )    | 4.759    | 1.928    | 2.47      | 25.0           | 59.7        |
| [ 0 1 -2 ]  | ( 2 0 0 ) | ( -2 -4 -2 ) | 4.759    | 1.862    | 2.56      | 54.8           | 59.7        |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( 5 3 -1 )   | 4.759    | 1.858    | 2.56      | 27.9           | 48.8        |
| [ 0 -2 1 ]  | ( 2 0 0 ) | ( 3 1 2 )    | 4.759    | 1.771    | 2.69      | 42.7           | 81.7        |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 2 0 -3 )   | 4.759    | 1.750    | 2.72      | 83.9           | 90.0        |
| [ 0 2 -1 ]  | ( 2 0 0 ) | ( 5 -1 -2 )  | 4.759    | 1.747    | 2.72      | 42.0           | 81.7        |
| [ 0 -3 1 ]  | ( 2 0 0 ) | ( -1 1 3 )   | 4.759    | 1.746    | 2.73      | 85.6           | 84.4        |
| [ 0 3 2 ]   | ( 2 0 0 ) | ( 2 2 -3 )   | 4.759    | 1.718    | 2.77      | 84.0           | 79.0        |
| [ 0 2 -3 ]  | ( 2 0 0 ) | ( -3 -3 -2 ) | 4.759    | 1.707    | 2.79      | 44.9           | 66.3        |
| [ 0 2 -3 ]  | ( 2 0 0 ) | ( 5 -3 -2 )  | 4.759    | 1.685    | 2.82      | 44.2           | 66.3        |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( -1 3 3 )   | 4.759    | 1.684    | 2.83      | 85.7           | 73.7        |
| [ 0 -3 -1 ] | ( 2 0 0 ) | ( -3 -1 3 )  | 4.759    | 1.682    | 2.83      | 73.8           | 84.4        |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( 4 6 -2 )   | 4.759    | 1.674    | 2.84      | 57.5           | 48.8        |
| [ 0 3 -2 ]  | ( 2 0 0 ) | ( 0 -2 -3 )  | 4.759    | 1.672    | 2.85      | 75.5           | 79.0        |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( 5 1 1 )    | 4.759    | 1.645    | 2.89      | 18.9           | 73.7        |
| [ 0 -3 4 ]  | ( 2 0 0 ) | ( -2 4 3 )   | 4.759    | 1.631    | 2.92      | 84.3           | 68.7        |
| [ 0 1 2 ]   | ( 2 0 0 ) | ( 6 2 -1 )   | 4.759    | 1.611    | 2.95      | 20.7           | 59.7        |
| [ 0 3 -1 ]  | ( 2 0 0 ) | ( -1 -1 -3 ) | 4.759    | 1.600    | 2.98      | 66.0           | 84.4        |
| [ 0 -2 5 ]  | ( 2 0 0 ) | ( 3 5 2 )    | 4.759    | 1.597    | 2.98      | 48.5           | 53.8        |
| [ 0 1 -3 ]  | ( 2 0 0 ) | ( -5 -3 -1 ) | 4.759    | 1.593    | 2.99      | 23.7           | 48.8        |

**Tremolite (200) 177 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 0 -3 4 ]  | ( 2 0 0 ) | ( 0 4 3 )    | 4.759    | 1.592    | 2.99      | 76.2           | 68.7                   |
| [ 0 -2 5 ]  | ( 2 0 0 ) | ( -5 5 2 )   | 4.759    | 1.578    | 3.02      | 47.8           | 53.8                   |
| [ 0 -3 -5 ] | ( 2 0 0 ) | ( -1 -5 3 )  | 4.759    | 1.578    | 3.02      | 86.0           | 64.0                   |
| [ 0 3 2 ]   | ( 2 0 0 ) | ( 4 2 -3 )   | 4.759    | 1.564    | 3.04      | 64.9           | 79.0                   |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( -6 0 2 )   | 4.759    | 1.533    | 3.10      | 35.5           | 90.0                   |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( 4 2 2 )    | 4.759    | 1.532    | 3.11      | 37.2           | 73.7                   |
| [ 0 -3 -5 ] | ( 2 0 0 ) | ( -3 -5 3 )  | 4.759    | 1.530    | 3.11      | 75.3           | 64.0                   |
| [ 0 1 2 ]   | ( 2 0 0 ) | ( 2 6 -3 )   | 4.759    | 1.513    | 3.15      | 84.7           | 59.7                   |
| [ 0 3 4 ]   | ( 2 0 0 ) | ( 4 4 -3 )   | 4.759    | 1.498    | 3.18      | 66.1           | 68.7                   |
| [ 0 3 -5 ]  | ( 2 0 0 ) | ( -1 -5 -3 ) | 4.759    | 1.467    | 3.24      | 68.1           | 64.0                   |
| [ 0 -3 -2 ] | ( 2 0 0 ) | ( 2 -2 3 )   | 4.759    | 1.467    | 3.24      | 58.2           | 79.0                   |
| [ 0 -3 -1 ] | ( 2 0 0 ) | ( -5 -1 3 )  | 4.759    | 1.463    | 3.25      | 56.6           | 84.4                   |
| [ 0 1 2 ]   | ( 2 0 0 ) | ( 6 4 -2 )   | 4.759    | 1.452    | 3.28      | 39.6           | 59.7                   |
| [ 0 3 7 ]   | ( 2 0 0 ) | ( 1 7 -3 )   | 4.759    | 1.451    | 3.28      | 86.3           | 55.7                   |
| [ 0 1 -1 ]  | ( 2 0 0 ) | ( 5 -3 -3 )  | 4.759    | 1.426    | 3.34      | 57.6           | 73.7                   |
| [ 0 -3 7 ]  | ( 2 0 0 ) | ( -3 7 3 )   | 4.759    | 1.413    | 3.37      | 76.5           | 55.7                   |
| [ 0 -3 -4 ] | ( 2 0 0 ) | ( 2 -4 3 )   | 4.759    | 1.412    | 3.37      | 59.5           | 68.7                   |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( -4 -6 3 )  | 4.759    | 1.405    | 3.39      | 67.6           | 59.7                   |
| [ 0 1 1 ]   | ( 2 0 0 ) | ( 7 1 -1 )   | 4.759    | 1.402    | 3.40      | 16.1           | 73.7                   |
| [ 0 1 -2 ]  | ( 2 0 0 ) | ( -6 -2 -1 ) | 4.759    | 1.399    | 3.40      | 17.9           | 59.7                   |
| [ 0 3 8 ]   | ( 2 0 0 ) | ( 2 8 -3 )   | 4.759    | 1.383    | 3.44      | 85.2           | 52.1                   |
| [ 0 1 -3 ]  | ( 2 0 0 ) | ( -4 -6 -2 ) | 4.759    | 1.381    | 3.45      | 44.1           | 48.8                   |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( 7 3 -1 )   | 4.759    | 1.369    | 3.48      | 20.2           | 48.8                   |
| [ 0 3 7 ]   | ( 2 0 0 ) | ( -1 7 -3 )  | 4.759    | 1.363    | 3.49      | 69.7           | 55.7                   |
| [ 0 3 -5 ]  | ( 2 0 0 ) | ( 5 -5 -3 )  | 4.759    | 1.360    | 3.50      | 59.3           | 64.0                   |
| [ 0 3 -8 ]  | ( 2 0 0 ) | ( 0 -8 -3 )  | 4.759    | 1.359    | 3.50      | 78.3           | 52.1                   |
| [ 0 -3 -1 ] | ( 2 0 0 ) | ( 3 -1 3 )   | 4.759    | 1.358    | 3.50      | 50.9           | 84.4                   |
| [ 0 -2 -1 ] | ( 2 0 0 ) | ( -7 -1 2 )  | 4.759    | 1.347    | 3.53      | 31.1           | 81.7                   |
| [ 0 -1 2 ]  | ( 2 0 0 ) | ( 2 6 3 )    | 4.759    | 1.333    | 3.57      | 61.4           | 59.7                   |
| [ 0 -3 -2 ] | ( 2 0 0 ) | ( -6 -2 3 )  | 4.759    | 1.329    | 3.58      | 50.3           | 79.0                   |
| [ 0 -1 3 ]  | ( 2 0 0 ) | ( -1 9 3 )   | 4.759    | 1.321    | 3.60      | 86.6           | 48.8                   |
| [ 0 2 -3 ]  | ( 2 0 0 ) | ( 7 -3 -2 )  | 4.759    | 1.318    | 3.61      | 33.1           | 66.3                   |
| [ 0 -4 1 ]  | ( 2 0 0 ) | ( -1 1 4 )   | 4.759    | 1.306    | 3.64      | 82.9           | 85.8                   |
| [ 0 -4 1 ]  | ( 2 0 0 ) | ( -3 1 4 )   | 4.759    | 1.301    | 3.66      | 81.3           | 85.8                   |
| [ 0 3 8 ]   | ( 2 0 0 ) | ( 4 8 -3 )   | 4.759    | 1.299    | 3.66      | 69.4           | 52.1                   |
| [ 0 3 -4 ]  | ( 2 0 0 ) | ( 6 -4 -3 )  | 4.759    | 1.287    | 3.70      | 51.7           | 68.7                   |
| [ 0 4 -3 ]  | ( 2 0 0 ) | ( 1 -3 -4 )  | 4.759    | 1.280    | 3.72      | 83.1           | 77.6                   |
| [ 0 -2 5 ]  | ( 2 0 0 ) | ( 5 5 2 )    | 4.759    | 1.280    | 3.72      | 36.9           | 53.8                   |
| [ 0 -3 7 ]  | ( 2 0 0 ) | ( -5 7 3 )   | 4.759    | 1.276    | 3.73      | 61.3           | 55.7                   |
| [ 0 4 3 ]   | ( 2 0 0 ) | ( 3 3 -4 )   | 4.759    | 1.275    | 3.73      | 81.5           | 77.6                   |
| [ 0 3 -5 ]  | ( 2 0 0 ) | ( -3 -5 -3 ) | 4.759    | 1.275    | 3.73      | 53.7           | 64.0                   |
| [ 0 2 5 ]   | ( 2 0 0 ) | ( 7 5 -2 )   | 4.759    | 1.265    | 3.76      | 36.4           | 53.8                   |
| [ 0 2 -1 ]  | ( 2 0 0 ) | ( 0 -2 -4 )  | 4.759    | 1.264    | 3.77      | 75.4           | 81.7                   |
| [ 0 2 1 ]   | ( 2 0 0 ) | ( 4 2 -4 )   | 4.759    | 1.255    | 3.79      | 73.9           | 81.7                   |
| [ 0 -1 3 ]  | ( 2 0 0 ) | ( 1 9 3 )    | 4.759    | 1.254    | 3.80      | 71.4           | 48.8                   |
| [ 0 3 8 ]   | ( 2 0 0 ) | ( -2 8 -3 )  | 4.759    | 1.242    | 3.83      | 63.5           | 52.1                   |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( 7 -1 1 )   | 4.759    | 1.235    | 3.85      | 14.1           | 73.7                   |
| [ 0 -4 5 ]  | ( 2 0 0 ) | ( -1 5 4 )   | 4.759    | 1.231    | 3.87      | 83.3           | 69.9                   |

**Tremolite (200) 177 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 0 3 -2 ]  | ( 2 0 0 ) | ( -4 -2 -3 ) | 4.759    | 1.231    | 3.87      | 45.5           | 79.0                   |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 8 0 -1 )   | 4.759    | 1.230    | 3.87      | 13.5           | 90.0                   |
| [ 0 -4 1 ]  | ( 2 0 0 ) | ( 1 1 4 )    | 4.759    | 1.222    | 3.90      | 68.2           | 85.8                   |
| [ 0 1 2 ]   | ( 2 0 0 ) | ( 8 2 -1 )   | 4.759    | 1.219    | 3.91      | 15.5           | 59.7                   |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( -7 3 -1 )  | 4.759    | 1.213    | 3.92      | 17.8           | 48.8                   |
| [ 0 4 1 ]   | ( 2 0 0 ) | ( 5 1 -4 )   | 4.759    | 1.210    | 3.93      | 66.8           | 85.8                   |
| [ 0 -1 1 ]  | ( 2 0 0 ) | ( -7 3 3 )   | 4.759    | 1.200    | 3.96      | 45.3           | 73.7                   |
| [ 0 -4 -3 ] | ( 2 0 0 ) | ( 1 -3 4 )   | 4.759    | 1.200    | 3.97      | 68.6           | 77.6                   |
| [ 0 -3 -4 ] | ( 2 0 0 ) | ( 4 -4 3 )   | 4.759    | 1.198    | 3.97      | 47.0           | 68.7                   |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( -8 -2 2 )  | 4.759    | 1.191    | 4.00      | 28.0           | 73.7                   |
| [ 0 4 -3 ]  | ( 2 0 0 ) | ( 5 -3 -4 )  | 4.759    | 1.188    | 4.00      | 67.2           | 77.6                   |
| [ 0 -1 -3 ] | ( 2 0 0 ) | ( -5 -9 3 )  | 4.759    | 1.185    | 4.02      | 63.6           | 48.8                   |
| [ 0 -2 3 ]  | ( 2 0 0 ) | ( 0 6 4 )    | 4.759    | 1.175    | 4.05      | 76.5           | 66.3                   |
| [ 0 1 -2 ]  | ( 2 0 0 ) | ( -6 -4 -2 ) | 4.759    | 1.174    | 4.05      | 31.0           | 59.7                   |
| [ 0 -4 7 ]  | ( 2 0 0 ) | ( -1 7 4 )   | 4.759    | 1.168    | 4.08      | 83.7           | 62.9                   |
| [ 0 2 3 ]   | ( 2 0 0 ) | ( 4 6 -4 )   | 4.759    | 1.168    | 4.08      | 75.0           | 66.3                   |
| [ 0 -4 -7 ] | ( 2 0 0 ) | ( -3 -7 4 )  | 4.759    | 1.164    | 4.09      | 82.2           | 62.9                   |
| [ 0 1 2 ]   | ( 2 0 0 ) | ( 8 4 -2 )   | 4.759    | 1.161    | 4.10      | 30.6           | 59.7                   |
| [ 0 -3 5 ]  | ( 2 0 0 ) | ( -7 5 3 )   | 4.759    | 1.160    | 4.10      | 47.2           | 64.0                   |
| [ 0 -4 -5 ] | ( 2 0 0 ) | ( 1 -5 4 )   | 4.759    | 1.160    | 4.10      | 69.3           | 69.9                   |
| [ 0 3 8 ]   | ( 2 0 0 ) | ( 6 8 -3 )   | 4.759    | 1.154    | 4.12      | 56.3           | 52.1                   |
| [ 0 4 5 ]   | ( 2 0 0 ) | ( 5 5 -4 )   | 4.759    | 1.149    | 4.14      | 68.0           | 69.9                   |
| [ 0 1 -2 ]  | ( 2 0 0 ) | ( -4 -6 -3 ) | 4.759    | 1.149    | 4.14      | 49.1           | 59.7                   |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 6 0 -4 )   | 4.759    | 1.147    | 4.15      | 60.4           | 90.0                   |
| [ 0 -1 2 ]  | ( 2 0 0 ) | ( -2 8 4 )   | 4.759    | 1.139    | 4.18      | 89.3           | 59.7                   |
| [ 0 -3 1 ]  | ( 2 0 0 ) | ( 5 1 3 )    | 4.759    | 1.131    | 4.21      | 40.2           | 84.4                   |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 8 0 -3 )   | 4.759    | 1.118    | 4.26      | 39.4           | 90.0                   |
| [ 0 -1 3 ]  | ( 2 0 0 ) | ( -8 6 2 )   | 4.759    | 1.116    | 4.26      | 34.2           | 48.8                   |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( 5 -3 3 )   | 4.759    | 1.114    | 4.27      | 41.3           | 73.7                   |
| [ 0 1 -1 ]  | ( 2 0 0 ) | ( 6 -4 -4 )  | 4.759    | 1.112    | 4.28      | 61.4           | 73.7                   |
| [ 0 -3 7 ]  | ( 2 0 0 ) | ( -7 7 3 )   | 4.759    | 1.107    | 4.30      | 49.6           | 55.7                   |
| [ 0 -4 7 ]  | ( 2 0 0 ) | ( 1 7 4 )    | 4.759    | 1.106    | 4.30      | 70.3           | 62.9                   |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 8 0 1 )    | 4.759    | 1.099    | 4.33      | 12.0           | 90.0                   |
| [ 0 -4 7 ]  | ( 2 0 0 ) | ( -5 7 4 )   | 4.759    | 1.097    | 4.34      | 69.0           | 62.9                   |
| [ 0 -4 -9 ] | ( 2 0 0 ) | ( -1 -9 4 )  | 4.759    | 1.097    | 4.34      | 84.1           | 56.7                   |
| [ 0 4 9 ]   | ( 2 0 0 ) | ( 3 9 -4 )   | 4.759    | 1.094    | 4.35      | 82.7           | 56.7                   |
| [ 0 1 -2 ]  | ( 2 0 0 ) | ( -8 -2 -1 ) | 4.759    | 1.091    | 4.36      | 13.8           | 59.7                   |
| [ 0 1 1 ]   | ( 2 0 0 ) | ( 9 1 -1 )   | 4.759    | 1.090    | 4.37      | 12.4           | 73.7                   |
| [ 0 4 1 ]   | ( 2 0 0 ) | ( -3 1 -4 )  | 4.759    | 1.090    | 4.37      | 55.9           | 85.8                   |
| [ 0 -3 -8 ] | ( 2 0 0 ) | ( 4 -8 3 )   | 4.759    | 1.089    | 4.37      | 51.7           | 52.1                   |
| [ 0 2 -1 ]  | ( 2 0 0 ) | ( -7 -1 -2 ) | 4.759    | 1.089    | 4.37      | 24.6           | 81.7                   |
| [ 0 3 4 ]   | ( 2 0 0 ) | ( 8 4 -3 )   | 4.759    | 1.085    | 4.39      | 41.4           | 68.7                   |
| [ 0 2 1 ]   | ( 2 0 0 ) | ( 9 1 -2 )   | 4.759    | 1.077    | 4.42      | 24.4           | 81.7                   |
| [ 0 -4 1 ]  | ( 2 0 0 ) | ( -7 1 4 )   | 4.759    | 1.075    | 4.43      | 54.8           | 85.8                   |
| [ 0 1 3 ]   | ( 2 0 0 ) | ( 9 3 -1 )   | 4.759    | 1.075    | 4.43      | 15.7           | 48.8                   |
| [ 0 4 -3 ]  | ( 2 0 0 ) | ( -3 -3 -4 ) | 4.759    | 1.074    | 4.43      | 56.4           | 77.6                   |
| [ 0 -2 3 ]  | ( 2 0 0 ) | ( 7 3 2 )    | 4.759    | 1.073    | 4.44      | 26.4           | 66.3                   |
| [ 0 2 3 ]   | ( 2 0 0 ) | ( 9 3 -2 )   | 4.759    | 1.062    | 4.48      | 26.1           | 66.3                   |



**Tremolite (200) 177 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C |
|-------------|-----------|--------------|----------|----------|-----------|----------------|---------------|
| [ 0 -4 -3 ] | ( 2 0 0 ) | ( -7 -3 4 )  | 4.759    | 1.060    | 4.49      | 55.3           | 77.6          |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( -2 0 5 )   | 4.759    | 1.055    | 4.51      | 87.6           | 90.0          |
| [ 0 -5 1 ]  | ( 2 0 0 ) | ( -3 1 5 )   | 4.759    | 1.051    | 4.53      | 86.0           | 86.7          |
| [ 0 1 -2 ]  | ( 2 0 0 ) | ( 8 -6 -3 )  | 4.759    | 1.048    | 4.54      | 43.6           | 59.7          |
| [ 0 -5 2 ]  | ( 2 0 0 ) | ( -2 2 5 )   | 4.759    | 1.048    | 4.54      | 87.7           | 83.3          |
| [ 0 -1 -3 ] | ( 2 0 0 ) | ( -7 -9 3 )  | 4.759    | 1.046    | 4.55      | 52.2           | 48.8          |
| [ 0 -4 9 ]  | ( 2 0 0 ) | ( 1 9 4 )    | 4.759    | 1.045    | 4.55      | 71.5           | 56.7          |
| [ 0 4 -5 ]  | ( 2 0 0 ) | ( -3 -5 -4 ) | 4.759    | 1.045    | 4.55      | 57.5           | 69.9          |
| [ 0 -2 5 ]  | ( 2 0 0 ) | ( 7 5 2 )    | 4.759    | 1.044    | 4.56      | 29.3           | 53.8          |
| [ 0 5 -1 ]  | ( 2 0 0 ) | ( 1 -1 -5 )  | 4.759    | 1.042    | 4.57      | 81.4           | 86.7          |
| [ 0 1 0 ]   | ( 2 0 0 ) | ( 4 0 -5 )   | 4.759    | 1.039    | 4.58      | 79.8           | 90.0          |
| [ 0 3 7 ]   | ( 2 0 0 ) | ( -5 7 -3 )  | 4.759    | 1.038    | 4.59      | 45.6           | 55.7          |
| [ 0 4 9 ]   | ( 2 0 0 ) | ( 5 9 -4 )   | 4.759    | 1.038    | 4.59      | 70.2           | 56.7          |
| [ 0 5 3 ]   | ( 2 0 0 ) | ( 3 3 -5 )   | 4.759    | 1.037    | 4.59      | 86.1           | 80.1          |
| [ 0 -2 5 ]  | ( 2 0 0 ) | ( -9 5 2 )   | 4.759    | 1.034    | 4.60      | 29.0           | 53.8          |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( 2 -8 4 )   | 4.759    | 1.033    | 4.61      | 65.0           | 59.7          |
| [ 0 4 5 ]   | ( 2 0 0 ) | ( 7 5 -4 )   | 4.759    | 1.032    | 4.61      | 56.4           | 69.9          |
| [ 0 -5 -2 ] | ( 2 0 0 ) | ( -4 -2 5 )  | 4.759    | 1.032    | 4.61      | 79.8           | 83.3          |
| [ 0 -3 2 ]  | ( 2 0 0 ) | ( 6 2 3 )    | 4.759    | 1.030    | 4.62      | 36.6           | 79.0          |
| [ 0 5 -3 ]  | ( 2 0 0 ) | ( 1 -3 -5 )  | 4.759    | 1.028    | 4.63      | 81.5           | 80.1          |
| [ 0 -5 4 ]  | ( 2 0 0 ) | ( -2 4 5 )   | 4.759    | 1.027    | 4.63      | 87.7           | 76.8          |
| [ 0 -1 -2 ] | ( 2 0 0 ) | ( -6 -8 4 )  | 4.759    | 1.023    | 4.65      | 63.8           | 59.7          |
| [ 0 -2 -1 ] | ( 2 0 0 ) | ( 4 -2 4 )   | 4.759    | 1.015    | 4.69      | 51.0           | 81.7          |
| [ 0 -5 2 ]  | ( 2 0 0 ) | ( 0 2 5 )    | 4.759    | 1.015    | 4.69      | 75.4           | 83.3          |
| [ 0 -5 -4 ] | ( 2 0 0 ) | ( -4 -4 5 )  | 4.759    | 1.012    | 4.70      | 80.0           | 76.8          |
| [ 0 5 1 ]   | ( 2 0 0 ) | ( 5 1 -5 )   | 4.759    | 1.012    | 4.70      | 73.8           | 86.7          |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( -3 -5 5 )  | 4.759    | 1.011    | 4.71      | 86.2           | 73.7          |
| [ 0 -3 4 ]  | ( 2 0 0 ) | ( 6 4 3 )    | 4.759    | 1.010    | 4.71      | 38.0           | 68.7          |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( -9 -3 3 )  | 4.759    | 1.008    | 4.72      | 36.6           | 73.7          |
| [ 0 4 7 ]   | ( 2 0 0 ) | ( -3 7 -4 )  | 4.759    | 1.006    | 4.73      | 58.9           | 62.9          |
| [ 0 -1 -1 ] | ( 2 0 0 ) | ( -1 -5 5 )  | 4.759    | 1.003    | 4.75      | 81.7           | 73.7          |
| [ 0 3 8 ]   | ( 2 0 0 ) | ( 8 8 -3 )   | 4.759    | 1.002    | 4.75      | 46.2           | 52.1          |
| [ 0 -2 -1 ] | ( 2 0 0 ) | ( -8 -2 4 )  | 4.759    | 1.001    | 4.75      | 50.1           | 81.7          |

**Tremolite (150) 275 Zone Axes*****a* 9.84Å *b* 18.06Å *c* 5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°**Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | <i>d</i> (hk0) | <i>d</i> (hkl) | <i>d</i> Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------------|----------------|----------------|----------------|------------------------|
| [ 5 -1 0 ]  | ( 1 5 0 ) | ( 0 0 1 )    | 3.377          | 5.105          | 0.66           | 84.8           | 76.2                   |
| [ 5 -1 6 ]  | ( 1 5 0 ) | ( 1 -1 -1 )  | 3.377          | 4.879          | 0.69           | 81.0           | 69.4                   |
| [ 5 -1 4 ]  | ( 1 5 0 ) | ( 1 1 -1 )   | 3.377          | 4.879          | 0.69           | 69.6           | 80.4                   |
| [ 5 -1 2 ]  | ( 1 5 0 ) | ( 0 -2 -1 )  | 3.377          | 4.444          | 0.76           | 57.4           | 87.8                   |
| [ 5 -1 10 ] | ( 1 5 0 ) | ( 2 0 -1 )   | 3.377          | 4.030          | 0.84           | 76.8           | 51.6                   |
| [ 5 -1 -6 ] | ( 1 5 0 ) | ( 1 -1 1 )   | 3.377          | 3.986          | 0.85           | 89.3           | 49.0                   |
| [ 5 -1 -4 ] | ( 1 5 0 ) | ( 1 1 1 )    | 3.377          | 3.986          | 0.85           | 64.8           | 56.5                   |
| [ 5 -1 2 ]  | ( 1 5 0 ) | ( -1 -3 1 )  | 3.377          | 3.877          | 0.87           | 47.3           | 87.8                   |
| [ 5 -1 12 ] | ( 1 5 0 ) | ( -2 2 1 )   | 3.377          | 3.680          | 0.92           | 80.1           | 45.0                   |
| [ 5 -1 8 ]  | ( 1 5 0 ) | ( -2 -2 1 )  | 3.377          | 3.680          | 0.92           | 53.8           | 59.7                   |
| [ 5 -1 -4 ] | ( 1 5 0 ) | ( 0 4 -1 )   | 3.377          | 3.382          | 1.00           | 50.2           | 56.5                   |
| [ 5 -1 4 ]  | ( 1 5 0 ) | ( 0 -4 -1 )  | 3.377          | 3.382          | 1.00           | 40.5           | 80.4                   |
| [ 5 -1 -2 ] | ( 1 5 0 ) | ( 1 3 1 )    | 3.377          | 3.381          | 1.00           | 44.7           | 65.6                   |
| [ 5 -1 6 ]  | ( 1 5 0 ) | ( -2 -4 1 )  | 3.377          | 3.006          | 1.12           | 37.5           | 69.4                   |
| [ 5 -1 10 ] | ( 1 5 0 ) | ( -1 5 1 )   | 3.377          | 2.941          | 1.15           | 45.3           | 51.6                   |
| [ 5 -1 0 ]  | ( 1 5 0 ) | ( -1 -5 1 )  | 3.377          | 2.941          | 1.15           | 35.0           | 76.2                   |
| [ 5 -1 12 ] | ( 1 5 0 ) | ( 3 3 -1 )   | 3.377          | 2.733          | 1.24           | 47.0           | 45.0                   |
| [ 5 -1 0 ]  | ( 1 5 0 ) | ( -1 -5 -1 ) | 3.377          | 2.706          | 1.25           | 31.9           | 76.2                   |
| [ 5 -1 3 ]  | ( 1 5 0 ) | ( -1 1 2 )   | 3.377          | 2.611          | 1.29           | 82.5           | 86.3                   |
| [ 5 -1 2 ]  | ( 1 5 0 ) | ( 1 1 -2 )   | 3.377          | 2.611          | 1.29           | 81.9           | 87.8                   |
| [ 5 -1 -6 ] | ( 1 5 0 ) | ( 0 -6 1 )   | 3.377          | 2.593          | 1.30           | 40.6           | 49.0                   |
| [ 5 -1 6 ]  | ( 1 5 0 ) | ( 0 6 1 )    | 3.377          | 2.593          | 1.30           | 31.7           | 69.4                   |
| [ 5 -1 -6 ] | ( 1 5 0 ) | ( -2 -4 -1 ) | 3.377          | 2.561          | 1.32           | 40.0           | 49.0                   |
| [ 5 -1 5 ]  | ( 1 5 0 ) | ( -2 0 2 )   | 3.377          | 2.534          | 1.33           | 84.3           | 74.7                   |
| [ 5 -1 -1 ] | ( 1 5 0 ) | ( 0 2 -2 )   | 3.377          | 2.456          | 1.37           | 80.4           | 70.7                   |
| [ 5 -1 1 ]  | ( 1 5 0 ) | ( 0 2 2 )    | 3.377          | 2.456          | 1.37           | 70.1           | 81.9                   |
| [ 5 -1 4 ]  | ( 1 5 0 ) | ( 2 6 -1 )   | 3.377          | 2.411          | 1.40           | 27.6           | 80.4                   |
| [ 5 -1 10 ] | ( 1 5 0 ) | ( -3 -5 1 )  | 3.377          | 2.338          | 1.44           | 34.4           | 51.6                   |
| [ 5 -1 -3 ] | ( 1 5 0 ) | ( 1 -1 2 )   | 3.377          | 2.303          | 1.47           | 87.2           | 60.9                   |
| [ 5 -1 -2 ] | ( 1 5 0 ) | ( -1 -1 -2 ) | 3.377          | 2.303          | 1.47           | 73.4           | 65.6                   |
| [ 5 -1 12 ] | ( 1 5 0 ) | ( -1 7 1 )   | 3.377          | 2.299          | 1.47           | 38.0           | 45.0                   |
| [ 5 -1 -2 ] | ( 1 5 0 ) | ( 1 7 -1 )   | 3.377          | 2.299          | 1.47           | 28.6           | 65.6                   |
| [ 5 -1 8 ]  | ( 1 5 0 ) | ( -3 1 2 )   | 3.377          | 2.276          | 1.48           | 86.8           | 59.7                   |
| [ 5 -1 7 ]  | ( 1 5 0 ) | ( 3 1 -2 )   | 3.377          | 2.276          | 1.48           | 73.0           | 64.4                   |
| [ 5 -1 7 ]  | ( 1 5 0 ) | ( 2 -4 -2 )  | 3.377          | 2.210          | 1.53           | 68.2           | 64.4                   |
| [ 5 -1 3 ]  | ( 1 5 0 ) | ( 2 4 -2 )   | 3.377          | 2.210          | 1.53           | 57.0           | 86.3                   |
| [ 5 -1 2 ]  | ( 1 5 0 ) | ( -1 -7 -1 ) | 3.377          | 2.182          | 1.55           | 24.4           | 87.8                   |
| [ 5 -1 -4 ] | ( 1 5 0 ) | ( -1 3 -2 )  | 3.377          | 2.167          | 1.56           | 79.7           | 56.5                   |
| [ 5 -1 -1 ] | ( 1 5 0 ) | ( -1 -3 -2 ) | 3.377          | 2.167          | 1.56           | 60.4           | 70.7                   |
| [ 5 -1 -4 ] | ( 1 5 0 ) | ( 2 6 1 )    | 3.377          | 2.163          | 1.56           | 29.4           | 56.5                   |
| [ 5 -1 9 ]  | ( 1 5 0 ) | ( 3 -3 -2 )  | 3.377          | 2.144          | 1.58           | 80.3           | 55.5                   |
| [ 5 -1 6 ]  | ( 1 5 0 ) | ( 3 3 -2 )   | 3.377          | 2.144          | 1.58           | 60.2           | 69.4                   |
| [ 5 -1 5 ]  | ( 1 5 0 ) | ( 1 -5 -2 )  | 3.377          | 2.131          | 1.58           | 56.8           | 74.7                   |
| [ 5 -1 0 ]  | ( 1 5 0 ) | ( 1 5 -2 )   | 3.377          | 2.131          | 1.58           | 56.2           | 76.2                   |
| [ 5 -1 8 ]  | ( 1 5 0 ) | ( 0 -8 -1 )  | 3.377          | 2.065          | 1.64           | 26.9           | 59.7                   |
| [ 5 -1 -5 ] | ( 1 5 0 ) | ( 2 0 2 )    | 3.377          | 2.043          | 1.65           | 77.0           | 52.6                   |
| [ 5 -1 9 ]  | ( 1 5 0 ) | ( 4 2 -2 )   | 3.377          | 1.966          | 1.72           | 64.7           | 55.5                   |
| [ 5 -1 -5 ] | ( 1 5 0 ) | ( 1 -5 2 )   | 3.377          | 1.953          | 1.73           | 68.7           | 52.6                   |

**Tremolite (150) 275 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C |
|--------------|-----------|--------------|----------|----------|-----------|----------------|---------------|
| [ 5 -1 0 ]   | ( 1 5 0 ) | ( 1 5 2 )    | 3.377    | 1.953    | 1.73      | 49.6           | 76.2          |
| [ 5 -1 -3 ]  | ( 1 5 0 ) | ( 0 -6 2 )   | 3.377    | 1.947    | 1.73      | 57.6           | 60.9          |
| [ 5 -1 3 ]   | ( 1 5 0 ) | ( 0 6 2 )    | 3.377    | 1.947    | 1.73      | 47.7           | 86.3          |
| [ 5 -1 10 ]  | ( 1 5 0 ) | ( 3 -5 -2 )  | 3.377    | 1.936    | 1.74      | 69.3           | 51.6          |
| [ 5 -1 5 ]   | ( 1 5 0 ) | ( 3 5 -2 )   | 3.377    | 1.936    | 1.74      | 49.5           | 74.7          |
| [ 5 -1 -4 ]  | ( 1 5 0 ) | ( -1 -9 1 )  | 3.377    | 1.866    | 1.81      | 25.1           | 56.5          |
| [ 5 -1 -7 ]  | ( 1 5 0 ) | ( -2 4 -2 )  | 3.377    | 1.862    | 1.81      | 79.6           | 45.8          |
| [ 5 -1 -3 ]  | ( 1 5 0 ) | ( -2 -4 -2 ) | 3.377    | 1.862    | 1.81      | 53.8           | 60.9          |
| [ 5 -1 6 ]   | ( 1 5 0 ) | ( -1 7 2 )   | 3.377    | 1.845    | 1.83      | 48.3           | 69.4          |
| [ 5 -1 -1 ]  | ( 1 5 0 ) | ( -1 -7 2 )  | 3.377    | 1.845    | 1.83      | 47.8           | 70.7          |
| [ 5 -1 -2 ]  | ( 1 5 0 ) | ( 2 8 1 )    | 3.377    | 1.827    | 1.85      | 22.3           | 65.6          |
| [ 5 -1 4 ]   | ( 1 5 0 ) | ( -1 -9 -1 ) | 3.377    | 1.801    | 1.87      | 20.2           | 80.4          |
| [ 5 -1 -7 ]  | ( 1 5 0 ) | ( 3 1 2 )    | 3.377    | 1.771    | 1.91      | 69.4           | 45.8          |
| [ 15 -3 10 ] | ( 1 5 0 ) | ( 2 0 -3 )   | 3.377    | 1.750    | 1.93      | 87.8           | 84.3          |
| [ 5 -1 12 ]  | ( 1 5 0 ) | ( -5 -1 2 )  | 3.377    | 1.747    | 1.93      | 69.3           | 45.0          |
| [ 15 -3 4 ]  | ( 1 5 0 ) | ( 1 1 -3 )   | 3.377    | 1.746    | 1.93      | 86.4           | 83.9          |
| [ 5 -1 2 ]   | ( 1 5 0 ) | ( 1 -1 -3 )  | 3.377    | 1.746    | 1.93      | 83.2           | 87.8          |
| [ 5 -1 -6 ]  | ( 1 5 0 ) | ( -1 7 -2 )  | 3.377    | 1.726    | 1.96      | 60.0           | 49.0          |
| [ 5 -1 1 ]   | ( 1 5 0 ) | ( -1 -7 -2 ) | 3.377    | 1.726    | 1.96      | 41.3           | 81.9          |
| [ 5 -1 4 ]   | ( 1 5 0 ) | ( -2 2 3 )   | 3.377    | 1.718    | 1.97      | 81.9           | 80.4          |
| [ 15 -3 8 ]  | ( 1 5 0 ) | ( -2 -2 3 )  | 3.377    | 1.718    | 1.97      | 77.6           | 88.2          |
| [ 5 -1 11 ]  | ( 1 5 0 ) | ( -3 7 2 )   | 3.377    | 1.714    | 1.97      | 60.6           | 48.2          |
| [ 5 -1 4 ]   | ( 1 5 0 ) | ( -3 -7 2 )  | 3.377    | 1.714    | 1.97      | 41.2           | 80.4          |
| [ 5 -1 -6 ]  | ( 1 5 0 ) | ( 3 3 2 )    | 3.377    | 1.707    | 1.98      | 58.9           | 49.0          |
| [ 5 -1 11 ]  | ( 1 5 0 ) | ( -5 -3 2 )  | 3.377    | 1.685    | 2.00      | 58.9           | 48.2          |
| [ 15 -3 2 ]  | ( 1 5 0 ) | ( 1 3 -3 )   | 3.377    | 1.684    | 2.01      | 76.4           | 80.0          |
| [ 15 -3 8 ]  | ( 1 5 0 ) | ( 1 -3 -3 )  | 3.377    | 1.684    | 2.01      | 73.3           | 88.2          |
| [ 15 -3 16 ] | ( 1 5 0 ) | ( 3 -1 -3 )  | 3.377    | 1.682    | 2.01      | 89.3           | 72.9          |
| [ 15 -3 14 ] | ( 1 5 0 ) | ( -3 -1 3 )  | 3.377    | 1.682    | 2.01      | 79.3           | 76.6          |
| [ 5 -1 6 ]   | ( 1 5 0 ) | ( 3 9 -1 )   | 3.377    | 1.679    | 2.01      | 19.9           | 69.4          |
| [ 5 -1 7 ]   | ( 1 5 0 ) | ( 4 6 -2 )   | 3.377    | 1.674    | 2.02      | 44.7           | 64.4          |
| [ 15 -3 -2 ] | ( 1 5 0 ) | ( 0 -2 3 )   | 3.377    | 1.672    | 2.02      | 85.2           | 72.5          |
| [ 15 -3 2 ]  | ( 1 5 0 ) | ( 0 2 3 )    | 3.377    | 1.672    | 2.02      | 74.8           | 80.0          |
| [ 5 -1 12 ]  | ( 1 5 0 ) | ( -4 -8 1 )  | 3.377    | 1.645    | 2.05      | 26.1           | 45.0          |
| [ 15 -3 14 ] | ( 1 5 0 ) | ( -2 4 3 )   | 3.377    | 1.631    | 2.07      | 72.4           | 76.6          |
| [ 5 -1 2 ]   | ( 1 5 0 ) | ( -2 -4 3 )  | 3.377    | 1.631    | 2.07      | 68.1           | 87.8          |
| [ 5 -1 -2 ]  | ( 1 5 0 ) | ( 1 -1 3 )   | 3.377    | 1.600    | 2.11      | 86.5           | 65.6          |
| [ 15 -3 -4 ] | ( 1 5 0 ) | ( -1 -1 -3 ) | 3.377    | 1.600    | 2.11      | 76.9           | 69.0          |
| [ 5 -1 7 ]   | ( 1 5 0 ) | ( -1 9 2 )   | 3.377    | 1.597    | 2.11      | 42.2           | 64.4          |
| [ 5 -1 -2 ]  | ( 1 5 0 ) | ( -1 -9 2 )  | 3.377    | 1.597    | 2.11      | 41.6           | 65.6          |
| [ 5 -1 -5 ]  | ( 1 5 0 ) | ( 3 5 2 )    | 3.377    | 1.597    | 2.12      | 49.6           | 52.6          |
| [ 15 -3 -4 ] | ( 1 5 0 ) | ( 0 -4 3 )   | 3.377    | 1.592    | 2.12      | 75.8           | 69.0          |
| [ 15 -3 4 ]  | ( 1 5 0 ) | ( 0 4 3 )    | 3.377    | 1.592    | 2.12      | 65.5           | 83.9          |
| [ 15 -3 20 ] | ( 1 5 0 ) | ( -4 0 3 )   | 3.377    | 1.588    | 2.13      | 81.2           | 66.0          |
| [ 5 -1 10 ]  | ( 1 5 0 ) | ( 5 5 -2 )   | 3.377    | 1.578    | 2.14      | 49.7           | 51.6          |
| [ 5 -1 0 ]   | ( 1 5 0 ) | ( -1 -5 3 )  | 3.377    | 1.578    | 2.14      | 67.4           | 76.2          |
| [ 15 -3 10 ] | ( 1 5 0 ) | ( -1 5 3 )   | 3.377    | 1.578    | 2.14      | 64.3           | 84.3          |
| [ 15 -3 22 ] | ( 1 5 0 ) | ( 4 -2 -3 )  | 3.377    | 1.564    | 2.16      | 89.3           | 62.8          |

**Tremolite (150) 275 Zone Axes** **$a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°**Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 5 -1 6 ]    | ( 1 5 0 ) | ( 4 2 -3 )   | 3.377    | 1.564    | 2.16      | 71.8           | 69.4                   |
| [ 15 -3 -8 ]  | ( 1 5 0 ) | ( 1 -3 3 )   | 3.377    | 1.552    | 2.18      | 84.2           | 62.4                   |
| [ 15 -3 -2 ]  | ( 1 5 0 ) | ( 1 3 3 )    | 3.377    | 1.552    | 2.18      | 67.6           | 72.5                   |
| [ 5 -1 -6 ]   | ( 1 5 0 ) | ( -3 -9 -1 ) | 3.377    | 1.548    | 2.18      | 22.8           | 49.0                   |
| [ 15 -3 20 ]  | ( 1 5 0 ) | ( -3 5 3 )   | 3.377    | 1.530    | 2.21      | 72.2           | 66.0                   |
| [ 15 -3 10 ]  | ( 1 5 0 ) | ( 3 5 -3 )   | 3.377    | 1.530    | 2.21      | 60.9           | 84.3                   |
| [ 5 -1 -7 ]   | ( 1 5 0 ) | ( 1 -9 2 )   | 3.377    | 1.518    | 2.22      | 53.3           | 45.8                   |
| [ 5 -1 2 ]    | ( 1 5 0 ) | ( 1 9 2 )    | 3.377    | 1.518    | 2.22      | 35.1           | 87.8                   |
| [ 5 -1 -1 ]   | ( 1 5 0 ) | ( -2 -8 -2 ) | 3.377    | 1.515    | 2.23      | 37.4           | 70.7                   |
| [ 15 -3 16 ]  | ( 1 5 0 ) | ( -2 6 3 )   | 3.377    | 1.513    | 2.23      | 64.1           | 72.9                   |
| [ 15 -3 4 ]   | ( 1 5 0 ) | ( 2 6 -3 )   | 3.377    | 1.513    | 2.23      | 59.8           | 83.9                   |
| [ 5 -1 12 ]   | ( 1 5 0 ) | ( 3 -9 -2 )  | 3.377    | 1.510    | 2.24      | 54.0           | 45.0                   |
| [ 5 -1 3 ]    | ( 1 5 0 ) | ( 3 9 -2 )   | 3.377    | 1.510    | 2.24      | 35.0           | 86.3                   |
| [ 5 -1 8 ]    | ( 1 5 0 ) | ( -4 4 3 )   | 3.377    | 1.498    | 2.25      | 80.4           | 59.7                   |
| [ 15 -3 16 ]  | ( 1 5 0 ) | ( 4 4 -3 )   | 3.377    | 1.498    | 2.25      | 63.0           | 72.9                   |
| [ 15 -3 -10 ] | ( 1 5 0 ) | ( -2 0 -3 )  | 3.377    | 1.487    | 2.27      | 79.1           | 59.4                   |
| [ 15 -3 -10 ] | ( 1 5 0 ) | ( -1 5 -3 )  | 3.377    | 1.467    | 2.30      | 75.7           | 59.4                   |
| [ 5 -1 0 ]    | ( 1 5 0 ) | ( -1 -5 -3 ) | 3.377    | 1.467    | 2.30      | 59.2           | 76.2                   |
| [ 5 -1 -4 ]   | ( 1 5 0 ) | ( 2 -2 3 )   | 3.377    | 1.467    | 2.30      | 88.0           | 56.5                   |
| [ 15 -3 -8 ]  | ( 1 5 0 ) | ( -2 -2 -3 ) | 3.377    | 1.467    | 2.30      | 70.2           | 62.4                   |
| [ 5 -1 -4 ]   | ( 1 5 0 ) | ( 3 7 2 )    | 3.377    | 1.465    | 2.30      | 41.7           | 56.5                   |
| [ 15 -3 26 ]  | ( 1 5 0 ) | ( 5 -1 -3 )  | 3.377    | 1.463    | 2.31      | 83.1           | 56.9                   |
| [ 5 -1 8 ]    | ( 1 5 0 ) | ( -5 -1 3 )  | 3.377    | 1.463    | 2.31      | 74.3           | 59.7                   |
| [ 5 -1 9 ]    | ( 1 5 0 ) | ( 5 7 -2 )   | 3.377    | 1.451    | 2.33      | 41.8           | 55.5                   |
| [ 15 -3 -2 ]  | ( 1 5 0 ) | ( -1 -7 3 )  | 3.377    | 1.451    | 2.33      | 59.8           | 72.5                   |
| [ 5 -1 4 ]    | ( 1 5 0 ) | ( -1 7 3 )   | 3.377    | 1.451    | 2.33      | 56.7           | 80.4                   |
| [ 15 -3 28 ]  | ( 1 5 0 ) | ( 5 -3 -3 )  | 3.377    | 1.426    | 2.37      | 88.2           | 54.2                   |
| [ 15 -3 22 ]  | ( 1 5 0 ) | ( 5 3 -3 )   | 3.377    | 1.426    | 2.37      | 65.7           | 62.8                   |
| [ 15 -3 22 ]  | ( 1 5 0 ) | ( -3 7 3 )   | 3.377    | 1.413    | 2.39      | 64.6           | 62.8                   |
| [ 15 -3 8 ]   | ( 1 5 0 ) | ( -3 -7 3 )  | 3.377    | 1.413    | 2.39      | 53.5           | 88.2                   |
| [ 15 -3 -14 ] | ( 1 5 0 ) | ( -2 4 -3 )  | 3.377    | 1.412    | 2.39      | 83.6           | 53.9                   |
| [ 5 -1 -2 ]   | ( 1 5 0 ) | ( -2 -4 -3 ) | 3.377    | 1.412    | 2.39      | 61.8           | 65.6                   |
| [ 15 -3 26 ]  | ( 1 5 0 ) | ( -4 6 3 )   | 3.377    | 1.405    | 2.40      | 72.5           | 56.9                   |
| [ 15 -3 14 ]  | ( 1 5 0 ) | ( -4 -6 3 )  | 3.377    | 1.405    | 2.40      | 55.2           | 76.6                   |
| [ 5 -1 6 ]    | ( 1 5 0 ) | ( -2 8 3 )   | 3.377    | 1.383    | 2.44      | 57.1           | 69.4                   |
| [ 15 -3 2 ]   | ( 1 5 0 ) | ( 2 8 -3 )   | 3.377    | 1.383    | 2.44      | 52.9           | 80.0                   |
| [ 5 -1 -7 ]   | ( 1 5 0 ) | ( -4 -6 -2 ) | 3.377    | 1.381    | 2.44      | 46.9           | 45.8                   |
| [ 15 -3 2 ]   | ( 1 5 0 ) | ( 1 7 3 )    | 3.377    | 1.363    | 2.48      | 51.9           | 80.0                   |
| [ 5 -1 10 ]   | ( 1 5 0 ) | ( 5 -5 -3 )  | 3.377    | 1.360    | 2.48      | 80.2           | 51.6                   |
| [ 15 -3 20 ]  | ( 1 5 0 ) | ( 5 5 -3 )   | 3.377    | 1.360    | 2.48      | 57.8           | 66.0                   |
| [ 15 -3 -8 ]  | ( 1 5 0 ) | ( 0 -8 3 )   | 3.377    | 1.359    | 2.49      | 60.6           | 62.4                   |
| [ 15 -3 8 ]   | ( 1 5 0 ) | ( 0 8 3 )    | 3.377    | 1.359    | 2.49      | 50.6           | 88.2                   |
| [ 15 -3 -16 ] | ( 1 5 0 ) | ( -3 1 -3 )  | 3.377    | 1.358    | 2.49      | 81.2           | 51.4                   |
| [ 15 -3 -14 ] | ( 1 5 0 ) | ( 3 1 3 )    | 3.377    | 1.358    | 2.49      | 72.9           | 53.9                   |
| [ 15 -3 -4 ]  | ( 1 5 0 ) | ( -2 -6 -3 ) | 3.377    | 1.333    | 2.53      | 54.3           | 69.0                   |
| [ 5 -1 -3 ]   | ( 1 5 0 ) | ( 3 9 2 )    | 3.377    | 1.332    | 2.54      | 35.3           | 60.9                   |
| [ 15 -3 32 ]  | ( 1 5 0 ) | ( -6 2 3 )   | 3.377    | 1.329    | 2.54      | 84.9           | 49.3                   |
| [ 15 -3 28 ]  | ( 1 5 0 ) | ( 6 2 -3 )   | 3.377    | 1.329    | 2.54      | 68.6           | 54.2                   |

**Tremolite (150) 275 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 5 -1 8 ]    | ( 1 5 0 ) | ( -5 -9 2 )  | 3.377    | 1.321    | 2.56      | 35.4           | 59.7                   |
| [ 15 -3 -4 ]  | ( 1 5 0 ) | ( 1 9 -3 )   | 3.377    | 1.321    | 2.56      | 53.5           | 69.0                   |
| [ 15 -3 14 ]  | ( 1 5 0 ) | ( 1 -9 -3 )  | 3.377    | 1.321    | 2.56      | 50.5           | 76.6                   |
| [ 10 -2 5 ]   | ( 1 5 0 ) | ( 2 0 -4 )   | 3.377    | 1.320    | 2.56      | 89.7           | 89.2                   |
| [ 5 -1 1 ]    | ( 1 5 0 ) | ( -1 -1 4 )  | 3.377    | 1.306    | 2.59      | 88.6           | 81.9                   |
| [ 10 -2 3 ]   | ( 1 5 0 ) | ( -1 1 4 )   | 3.377    | 1.306    | 2.59      | 83.6           | 84.8                   |
| [ 5 -1 4 ]    | ( 1 5 0 ) | ( 3 -1 -4 )  | 3.377    | 1.301    | 2.60      | 89.2           | 80.4                   |
| [ 10 -2 7 ]   | ( 1 5 0 ) | ( 3 1 -4 )   | 3.377    | 1.301    | 2.60      | 83.1           | 83.3                   |
| [ 15 -3 28 ]  | ( 1 5 0 ) | ( 4 -8 -3 )  | 3.377    | 1.299    | 2.60      | 65.6           | 54.2                   |
| [ 5 -1 4 ]    | ( 1 5 0 ) | ( 4 8 -3 )   | 3.377    | 1.299    | 2.60      | 48.5           | 80.4                   |
| [ 15 -3 34 ]  | ( 1 5 0 ) | ( 6 -4 -3 )  | 3.377    | 1.287    | 2.62      | 87.3           | 47.1                   |
| [ 15 -3 26 ]  | ( 1 5 0 ) | ( 6 4 -3 )   | 3.377    | 1.287    | 2.62      | 60.9           | 56.9                   |
| [ 10 -2 1 ]   | ( 1 5 0 ) | ( 1 3 -4 )   | 3.377    | 1.280    | 2.64      | 81.0           | 79.0                   |
| [ 5 -1 2 ]    | ( 1 5 0 ) | ( 1 -3 -4 )  | 3.377    | 1.280    | 2.64      | 76.0           | 87.8                   |
| [ 15 -3 32 ]  | ( 1 5 0 ) | ( 5 -7 -3 )  | 3.377    | 1.276    | 2.65      | 73.0           | 49.3                   |
| [ 5 -1 6 ]    | ( 1 5 0 ) | ( 5 7 -3 )   | 3.377    | 1.276    | 2.65      | 50.8           | 69.4                   |
| [ 10 -2 9 ]   | ( 1 5 0 ) | ( 3 -3 -4 )  | 3.377    | 1.275    | 2.65      | 81.6           | 77.5                   |
| [ 5 -1 3 ]    | ( 1 5 0 ) | ( 3 3 -4 )   | 3.377    | 1.275    | 2.65      | 75.5           | 86.3                   |
| [ 15 -3 -20 ] | ( 1 5 0 ) | ( 3 -5 3 )   | 3.377    | 1.275    | 2.65      | 83.1           | 46.9                   |
| [ 15 -3 -10 ] | ( 1 5 0 ) | ( 3 5 3 )    | 3.377    | 1.275    | 2.65      | 57.3           | 59.4                   |
| [ 5 -1 11 ]   | ( 1 5 0 ) | ( -6 -8 2 )  | 3.377    | 1.268    | 2.66      | 40.2           | 48.2                   |
| [ 10 -2 3 ]   | ( 1 5 0 ) | ( 2 4 -4 )   | 3.377    | 1.267    | 2.67      | 74.5           | 84.8                   |
| [ 10 -2 -1 ]  | ( 1 5 0 ) | ( 0 -2 4 )   | 3.377    | 1.264    | 2.67      | 87.6           | 73.4                   |
| [ 10 -2 1 ]   | ( 1 5 0 ) | ( 0 2 4 )    | 3.377    | 1.264    | 2.67      | 77.3           | 79.0                   |
| [ 10 -2 11 ]  | ( 1 5 0 ) | ( 4 -2 -4 )  | 3.377    | 1.255    | 2.69      | 88.2           | 72.0                   |
| [ 10 -2 9 ]   | ( 1 5 0 ) | ( 4 2 -4 )   | 3.377    | 1.255    | 2.69      | 76.8           | 77.5                   |
| [ 15 -3 -14 ] | ( 1 5 0 ) | ( 1 -9 3 )   | 3.377    | 1.254    | 2.69      | 61.9           | 53.9                   |
| [ 15 -3 4 ]   | ( 1 5 0 ) | ( 1 9 3 )    | 3.377    | 1.254    | 2.69      | 45.8           | 83.9                   |
| [ 15 -3 -20 ] | ( 1 5 0 ) | ( 4 0 3 )    | 3.377    | 1.243    | 2.72      | 75.5           | 46.9                   |
| [ 5 -1 -6 ]   | ( 1 5 0 ) | ( 2 -8 3 )   | 3.377    | 1.242    | 2.72      | 69.2           | 49.0                   |
| [ 15 -3 -2 ]  | ( 1 5 0 ) | ( 2 8 3 )    | 3.377    | 1.242    | 2.72      | 47.7           | 72.5                   |
| [ 5 -1 0 ]    | ( 1 5 0 ) | ( -1 -5 4 )  | 3.377    | 1.231    | 2.74      | 73.9           | 76.2                   |
| [ 10 -2 5 ]   | ( 1 5 0 ) | ( -1 5 4 )   | 3.377    | 1.231    | 2.74      | 68.9           | 89.2                   |
| [ 5 -1 -6 ]   | ( 1 5 0 ) | ( -4 -2 -3 ) | 3.377    | 1.231    | 2.74      | 67.9           | 49.0                   |
| [ 10 -2 -3 ]  | ( 1 5 0 ) | ( 1 -1 4 )   | 3.377    | 1.222    | 2.76      | 86.1           | 68.1                   |
| [ 5 -1 -1 ]   | ( 1 5 0 ) | ( -1 -1 -4 ) | 3.377    | 1.222    | 2.76      | 78.7           | 70.7                   |
| [ 10 -2 13 ]  | ( 1 5 0 ) | ( 5 -1 -4 )  | 3.377    | 1.210    | 2.79      | 85.6           | 66.8                   |
| [ 5 -1 6 ]    | ( 1 5 0 ) | ( 5 1 -4 )   | 3.377    | 1.210    | 2.79      | 78.3           | 69.4                   |
| [ 5 -1 -2 ]   | ( 1 5 0 ) | ( -1 3 -4 )  | 3.377    | 1.200    | 2.81      | 86.7           | 65.6                   |
| [ 10 -2 -1 ]  | ( 1 5 0 ) | ( -1 -3 -4 ) | 3.377    | 1.200    | 2.81      | 71.6           | 73.4                   |
| [ 15 -3 -16 ] | ( 1 5 0 ) | ( 4 4 3 )    | 3.377    | 1.198    | 2.82      | 60.6           | 51.4                   |
| [ 5 -1 7 ]    | ( 1 5 0 ) | ( 5 -3 -4 )  | 3.377    | 1.188    | 2.84      | 87.3           | 64.4                   |
| [ 10 -2 11 ]  | ( 1 5 0 ) | ( 5 3 -4 )   | 3.377    | 1.188    | 2.84      | 71.2           | 72.0                   |
| [ 15 -3 34 ]  | ( 1 5 0 ) | ( -5 9 3 )   | 3.377    | 1.185    | 2.85      | 66.8           | 47.1                   |
| [ 15 -3 16 ]  | ( 1 5 0 ) | ( -5 -9 3 )  | 3.377    | 1.185    | 2.85      | 44.8           | 72.9                   |
| [ 10 -2 -3 ]  | ( 1 5 0 ) | ( 0 6 -4 )   | 3.377    | 1.175    | 2.87      | 73.6           | 68.1                   |
| [ 10 -2 3 ]   | ( 1 5 0 ) | ( 0 -6 -4 )  | 3.377    | 1.175    | 2.87      | 63.4           | 84.8                   |
| [ 10 -2 -1 ]  | ( 1 5 0 ) | ( 1 7 -4 )   | 3.377    | 1.168    | 2.89      | 67.4           | 73.4                   |

**Tremolite (150) 275 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 5 -1 3 ]    | ( 1 5 0 ) | ( 1 -7 -4 )  | 3.377    | 1.168    | 2.89      | 62.5           | 86.3                   |
| [ 10 -2 13 ]  | ( 1 5 0 ) | ( -4 6 4 )   | 3.377    | 1.168    | 2.89      | 74.3           | 66.8                   |
| [ 10 -2 7 ]   | ( 1 5 0 ) | ( -4 -6 4 )  | 3.377    | 1.168    | 2.89      | 63.0           | 83.3                   |
| [ 10 -2 11 ]  | ( 1 5 0 ) | ( -3 7 4 )   | 3.377    | 1.164    | 2.90      | 68.0           | 72.0                   |
| [ 5 -1 2 ]    | ( 1 5 0 ) | ( -3 -7 4 )  | 3.377    | 1.164    | 2.90      | 62.0           | 87.8                   |
| [ 10 -2 -5 ]  | ( 1 5 0 ) | ( 2 0 4 )    | 3.377    | 1.161    | 2.91      | 80.3           | 63.2                   |
| [ 5 -1 10 ]   | ( 1 5 0 ) | ( -7 -5 3 )  | 3.377    | 1.160    | 2.91      | 57.2           | 51.6                   |
| [ 10 -2 -5 ]  | ( 1 5 0 ) | ( -1 5 -4 )  | 3.377    | 1.160    | 2.91      | 79.9           | 63.2                   |
| [ 5 -1 0 ]    | ( 1 5 0 ) | ( -1 -5 -4 ) | 3.377    | 1.160    | 2.91      | 64.8           | 76.2                   |
| [ 15 -3 22 ]  | ( 1 5 0 ) | ( 6 8 -3 )   | 3.377    | 1.154    | 2.93      | 47.5           | 62.8                   |
| [ 10 -2 15 ]  | ( 1 5 0 ) | ( 5 -5 -4 )  | 3.377    | 1.149    | 2.94      | 80.5           | 62.0                   |
| [ 5 -1 5 ]    | ( 1 5 0 ) | ( 5 5 -4 )   | 3.377    | 1.149    | 2.94      | 64.5           | 74.7                   |
| [ 15 -3 -14 ] | ( 1 5 0 ) | ( -4 -6 -3 ) | 3.377    | 1.149    | 2.94      | 53.9           | 53.9                   |
| [ 10 -2 15 ]  | ( 1 5 0 ) | ( 6 0 -4 )   | 3.377    | 1.147    | 2.94      | 79.9           | 62.0                   |
| [ 10 -2 9 ]   | ( 1 5 0 ) | ( 2 -8 -4 )  | 3.377    | 1.139    | 2.96      | 62.1           | 77.5                   |
| [ 10 -2 1 ]   | ( 1 5 0 ) | ( 2 8 -4 )   | 3.377    | 1.139    | 2.96      | 61.6           | 79.0                   |
| [ 10 -2 -7 ]  | ( 1 5 0 ) | ( -2 4 -4 )  | 3.377    | 1.124    | 3.00      | 86.0           | 58.7                   |
| [ 10 -2 -3 ]  | ( 1 5 0 ) | ( -2 -4 -4 ) | 3.377    | 1.124    | 3.00      | 66.7           | 68.1                   |
| [ 10 -2 17 ]  | ( 1 5 0 ) | ( -6 4 4 )   | 3.377    | 1.112    | 3.04      | 86.6           | 57.6                   |
| [ 10 -2 13 ]  | ( 1 5 0 ) | ( -6 -4 4 )  | 3.377    | 1.112    | 3.04      | 66.4           | 66.8                   |
| [ 10 -2 1 ]   | ( 1 5 0 ) | ( 1 7 4 )    | 3.377    | 1.106    | 3.05      | 58.6           | 79.0                   |
| [ 5 -1 8 ]    | ( 1 5 0 ) | ( 5 -7 -4 )  | 3.377    | 1.097    | 3.08      | 74.3           | 59.7                   |
| [ 10 -2 9 ]   | ( 1 5 0 ) | ( 5 7 -4 )   | 3.377    | 1.097    | 3.08      | 58.4           | 77.5                   |
| [ 5 -1 -1 ]   | ( 1 5 0 ) | ( -1 -9 4 )  | 3.377    | 1.097    | 3.08      | 61.7           | 70.7                   |
| [ 10 -2 7 ]   | ( 1 5 0 ) | ( -1 9 4 )   | 3.377    | 1.097    | 3.08      | 56.8           | 83.3                   |
| [ 5 -1 6 ]    | ( 1 5 0 ) | ( -3 9 4 )   | 3.377    | 1.094    | 3.09      | 62.3           | 69.4                   |
| [ 10 -2 3 ]   | ( 1 5 0 ) | ( -3 -9 4 )  | 3.377    | 1.094    | 3.09      | 56.3           | 84.8                   |
| [ 5 -1 -4 ]   | ( 1 5 0 ) | ( 3 -1 4 )   | 3.377    | 1.090    | 3.10      | 81.8           | 56.5                   |
| [ 10 -2 -7 ]  | ( 1 5 0 ) | ( -3 -1 -4 ) | 3.377    | 1.090    | 3.10      | 75.2           | 58.7                   |
| [ 5 -1 -4 ]   | ( 1 5 0 ) | ( 4 8 3 )    | 3.377    | 1.089    | 3.10      | 47.9           | 56.5                   |
| [ 5 -1 12 ]   | ( 1 5 0 ) | ( -8 -4 3 )  | 3.377    | 1.085    | 3.11      | 60.6           | 45.0                   |
| [ 10 -2 17 ]  | ( 1 5 0 ) | ( 7 1 -4 )   | 3.377    | 1.075    | 3.14      | 74.9           | 57.6                   |
| [ 10 -2 -9 ]  | ( 1 5 0 ) | ( -3 3 -4 )  | 3.377    | 1.074    | 3.14      | 88.3           | 54.5                   |
| [ 5 -1 -3 ]   | ( 1 5 0 ) | ( 3 3 4 )    | 3.377    | 1.074    | 3.14      | 68.7           | 60.9                   |
| [ 10 -2 19 ]  | ( 1 5 0 ) | ( -7 3 4 )   | 3.377    | 1.060    | 3.18      | 87.9           | 53.5                   |
| [ 5 -1 8 ]    | ( 1 5 0 ) | ( 7 3 -4 )   | 3.377    | 1.060    | 3.18      | 68.5           | 59.7                   |
| [ 5 -1 2 ]    | ( 1 5 0 ) | ( 2 0 -5 )   | 3.377    | 1.055    | 3.20      | 89.2           | 87.8                   |
| [ 25 -5 16 ]  | ( 1 5 0 ) | ( -3 1 5 )   | 3.377    | 1.051    | 3.21      | 88.3           | 85.1                   |
| [ 25 -5 14 ]  | ( 1 5 0 ) | ( -3 -1 5 )  | 3.377    | 1.051    | 3.21      | 85.5           | 87.5                   |
| [ 15 -3 34 ]  | ( 1 5 0 ) | ( 8 6 -3 )   | 3.377    | 1.048    | 3.22      | 54.4           | 47.1                   |
| [ 25 -5 8 ]   | ( 1 5 0 ) | ( 2 2 -5 )   | 3.377    | 1.048    | 3.22      | 84.6           | 85.4                   |
| [ 25 -5 12 ]  | ( 1 5 0 ) | ( -2 2 5 )   | 3.377    | 1.048    | 3.22      | 82.9           | 89.8                   |
| [ 15 -3 26 ]  | ( 1 5 0 ) | ( -7 -9 3 )  | 3.377    | 1.046    | 3.23      | 45.2           | 56.9                   |
| [ 10 -2 -7 ]  | ( 1 5 0 ) | ( -1 9 -4 )  | 3.377    | 1.045    | 3.23      | 68.0           | 58.7                   |
| [ 5 -1 1 ]    | ( 1 5 0 ) | ( -1 -9 -4 ) | 3.377    | 1.045    | 3.23      | 53.1           | 81.9                   |
| [ 5 -1 -5 ]   | ( 1 5 0 ) | ( -3 5 -4 )  | 3.377    | 1.045    | 3.23      | 85.4           | 52.6                   |
| [ 10 -2 -5 ]  | ( 1 5 0 ) | ( 3 5 4 )    | 3.377    | 1.045    | 3.23      | 62.5           | 63.2                   |
| [ 25 -5 4 ]   | ( 1 5 0 ) | ( -1 -1 5 )  | 3.377    | 1.042    | 3.24      | 90.0           | 80.7                   |



**Tremolite (150) 275 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )   | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|-------------|----------|----------|-----------|----------------|-------------|
| [ 25 -5 6 ]   | ( 1 5 0 ) | ( -1 1 5 )  | 3.377    | 1.042    | 3.24      | 83.8           | 83.1        |
| [ 5 -1 4 ]    | ( 1 5 0 ) | ( -4 0 5 )  | 3.377    | 1.039    | 3.25      | 86.4           | 80.4        |
| [ 5 -1 -6 ]   | ( 1 5 0 ) | ( 5 7 3 )   | 3.377    | 1.038    | 3.25      | 51.4           | 49.0        |
| [ 10 -2 17 ]  | ( 1 5 0 ) | ( 5 -9 -4 ) | 3.377    | 1.038    | 3.25      | 68.7           | 57.6        |
| [ 5 -1 4 ]    | ( 1 5 0 ) | ( 5 9 -4 )  | 3.377    | 1.038    | 3.25      | 52.9           | 80.4        |
| [ 25 -5 18 ]  | ( 1 5 0 ) | ( -3 3 5 )  | 3.377    | 1.037    | 3.26      | 82.1           | 82.7        |
| [ 25 -5 12 ]  | ( 1 5 0 ) | ( -3 -3 5 ) | 3.377    | 1.037    | 3.26      | 79.3           | 89.8        |
| [ 10 -2 -9 ]  | ( 1 5 0 ) | ( -2 8 -4 ) | 3.377    | 1.033    | 3.27      | 73.9           | 54.5        |
| [ 10 -2 -1 ]  | ( 1 5 0 ) | ( 2 8 4 )   | 3.377    | 1.033    | 3.27      | 54.7           | 73.4        |
| [ 5 -1 10 ]   | ( 1 5 0 ) | ( -7 5 4 )  | 3.377    | 1.032    | 3.27      | 85.9           | 51.6        |
| [ 10 -2 15 ]  | ( 1 5 0 ) | ( -7 -5 4 ) | 3.377    | 1.032    | 3.27      | 62.4           | 62.0        |
| [ 25 -5 22 ]  | ( 1 5 0 ) | ( -4 2 5 )  | 3.377    | 1.032    | 3.27      | 87.5           | 78.1        |
| [ 25 -5 18 ]  | ( 1 5 0 ) | ( -4 -2 5 ) | 3.377    | 1.032    | 3.27      | 80.2           | 82.7        |
| [ 25 -5 2 ]   | ( 1 5 0 ) | ( 1 3 -5 )  | 3.377    | 1.028    | 3.28      | 83.8           | 78.5        |
| [ 25 -5 8 ]   | ( 1 5 0 ) | ( 1 -3 -5 ) | 3.377    | 1.028    | 3.28      | 77.7           | 85.4        |
| [ 25 -5 6 ]   | ( 1 5 0 ) | ( 2 4 -5 )  | 3.377    | 1.027    | 3.29      | 78.5           | 83.1        |
| [ 25 -5 14 ]  | ( 1 5 0 ) | ( 2 -4 -5 ) | 3.377    | 1.027    | 3.29      | 76.9           | 87.5        |
| [ 10 -2 19 ]  | ( 1 5 0 ) | ( -6 8 4 )  | 3.377    | 1.023    | 3.30      | 74.5           | 53.5        |
| [ 10 -2 11 ]  | ( 1 5 0 ) | ( -6 -8 4 ) | 3.377    | 1.023    | 3.30      | 54.6           | 72.0        |
| [ 10 -2 -9 ]  | ( 1 5 0 ) | ( 4 2 4 )   | 3.377    | 1.015    | 3.33      | 70.8           | 54.5        |
| [ 25 -5 -2 ]  | ( 1 5 0 ) | ( 0 -2 5 )  | 3.377    | 1.015    | 3.33      | 89.1           | 74.0        |
| [ 25 -5 2 ]   | ( 1 5 0 ) | ( 0 2 5 )   | 3.377    | 1.015    | 3.33      | 78.8           | 78.5        |
| [ 25 -5 24 ]  | ( 1 5 0 ) | ( 4 -4 -5 ) | 3.377    | 1.012    | 3.34      | 81.5           | 75.9        |
| [ 25 -5 16 ]  | ( 1 5 0 ) | ( 4 4 -5 )  | 3.377    | 1.012    | 3.34      | 74.3           | 85.1        |
| [ 25 -5 26 ]  | ( 1 5 0 ) | ( -5 1 5 )  | 3.377    | 1.012    | 3.34      | 87.3           | 73.6        |
| [ 25 -5 24 ]  | ( 1 5 0 ) | ( 5 1 -5 )  | 3.377    | 1.012    | 3.34      | 81.3           | 75.9        |
| [ 5 -1 4 ]    | ( 1 5 0 ) | ( 3 -5 -5 ) | 3.377    | 1.011    | 3.34      | 76.2           | 80.4        |
| [ 5 -1 2 ]    | ( 1 5 0 ) | ( 3 5 -5 )  | 3.377    | 1.011    | 3.34      | 73.4           | 87.8        |
| [ 10 -2 -11 ] | ( 1 5 0 ) | ( 3 -7 4 )  | 3.377    | 1.006    | 3.36      | 79.6           | 50.8        |
| [ 5 -1 -2 ]   | ( 1 5 0 ) | ( 3 7 4 )   | 3.377    | 1.006    | 3.36      | 56.8           | 65.6        |
| [ 5 -1 0 ]    | ( 1 5 0 ) | ( -1 -5 5 ) | 3.377    | 1.003    | 3.37      | 78.0           | 76.2        |
| [ 5 -1 2 ]    | ( 1 5 0 ) | ( -1 5 5 )  | 3.377    | 1.003    | 3.37      | 71.9           | 87.8        |
| [ 15 -3 32 ]  | ( 1 5 0 ) | ( -8 -8 3 ) | 3.377    | 1.002    | 3.37      | 48.7           | 49.3        |
| [ 10 -2 21 ]  | ( 1 5 0 ) | ( 8 -2 -4 ) | 3.377    | 1.001    | 3.37      | 82.9           | 49.9        |
| [ 10 -2 19 ]  | ( 1 5 0 ) | ( -8 -2 4 ) | 3.377    | 1.001    | 3.37      | 70.6           | 53.5        |

**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 2 -1 0 ]  | ( 2 4 0 ) | ( 0 0 1 )    | 3.275    | 5.105    | 0.64      | 79.9           | 79.2        |
| [ 2 -1 3 ]  | ( 2 4 0 ) | ( 1 -1 -1 )  | 3.275    | 4.879    | 0.67      | 89.4           | 67.6        |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( 1 1 -1 )   | 3.275    | 4.879    | 0.67      | 67.6           | 89.4        |
| [ 2 -1 2 ]  | ( 2 4 0 ) | ( 0 -2 -1 )  | 3.275    | 4.444    | 0.74      | 59.4           | 78.1        |
| [ 2 -1 4 ]  | ( 2 4 0 ) | ( 2 0 -1 )   | 3.275    | 4.030    | 0.81      | 63.6           | 58.5        |
| [ 2 -1 -3 ] | ( 2 4 0 ) | ( 1 -1 1 )   | 3.275    | 3.986    | 0.82      | 74.6           | 51.5        |
| [ 2 -1 -1 ] | ( 2 4 0 ) | ( -1 -1 -1 ) | 3.275    | 3.986    | 0.82      | 54.2           | 68.6        |
| [ 2 -1 5 ]  | ( 2 4 0 ) | ( -1 3 1 )   | 3.275    | 3.877    | 0.84      | 71.3           | 50.8        |
| [ 2 -1 -1 ] | ( 2 4 0 ) | ( -1 -3 1 )  | 3.275    | 3.877    | 0.84      | 52.1           | 68.6        |
| [ 2 -1 2 ]  | ( 2 4 0 ) | ( 2 2 -1 )   | 3.275    | 3.680    | 0.89      | 45.4           | 78.1        |
| [ 2 -1 -4 ] | ( 2 4 0 ) | ( 0 4 -1 )   | 3.275    | 3.382    | 0.97      | 64.7           | 45.1        |
| [ 2 -1 4 ]  | ( 2 4 0 ) | ( 0 4 1 )    | 3.275    | 3.382    | 0.97      | 48.7           | 58.5        |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( -1 -3 -1 ) | 3.275    | 3.381    | 0.97      | 39.8           | 89.4        |
| [ 2 -1 -4 ] | ( 2 4 0 ) | ( 2 0 1 )    | 3.275    | 3.109    | 1.05      | 56.2           | 45.1        |
| [ 2 -1 5 ]  | ( 2 4 0 ) | ( -3 -1 1 )  | 3.275    | 3.024    | 1.08      | 47.6           | 50.8        |
| [ 2 -1 0 ]  | ( 2 4 0 ) | ( 2 4 -1 )   | 3.275    | 3.006    | 1.09      | 35.4           | 79.2        |
| [ 2 -1 -3 ] | ( 2 4 0 ) | ( 1 5 -1 )   | 3.275    | 2.941    | 1.11      | 45.4           | 51.5        |
| [ 2 -1 -2 ] | ( 2 4 0 ) | ( -2 -2 -1 ) | 3.275    | 2.940    | 1.11      | 40.4           | 59.3        |
| [ 2 -1 3 ]  | ( 2 4 0 ) | ( 3 3 -1 )   | 3.275    | 2.733    | 1.20      | 34.1           | 67.6        |
| [ 2 -1 3 ]  | ( 2 4 0 ) | ( 1 5 1 )    | 3.275    | 2.706    | 1.21      | 33.7           | 67.6        |
| [ 4 -2 3 ]  | ( 2 4 0 ) | ( 1 -1 -2 )  | 3.275    | 2.611    | 1.25      | 84.5           | 83.7        |
| [ 4 -2 1 ]  | ( 2 4 0 ) | ( 1 1 -2 )   | 3.275    | 2.611    | 1.25      | 83.4           | 84.8        |
| [ 2 -1 2 ]  | ( 2 4 0 ) | ( -2 0 2 )   | 3.275    | 2.534    | 1.29      | 78.9           | 78.1        |
| [ 2 -1 -1 ] | ( 2 4 0 ) | ( 0 2 -2 )   | 3.275    | 2.456    | 1.33      | 88.3           | 68.6        |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( 0 -2 -2 )  | 3.275    | 2.456    | 1.33      | 68.5           | 89.4        |
| [ 2 -1 -2 ] | ( 2 4 0 ) | ( 2 6 -1 )   | 3.275    | 2.411    | 1.36      | 32.1           | 59.3        |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( -3 -5 1 )  | 3.275    | 2.338    | 1.40      | 26.3           | 89.4        |
| [ 4 -2 -3 ] | ( 2 4 0 ) | ( 1 -1 2 )   | 3.275    | 2.303    | 1.42      | 76.6           | 63.8        |
| [ 4 -2 -1 ] | ( 2 4 0 ) | ( -1 -1 -2 ) | 3.275    | 2.303    | 1.42      | 65.4           | 73.8        |
| [ 4 -2 7 ]  | ( 2 4 0 ) | ( 3 -1 -2 )  | 3.275    | 2.276    | 1.44      | 75.7           | 62.8        |
| [ 4 -2 5 ]  | ( 2 4 0 ) | ( 3 1 -2 )   | 3.275    | 2.276    | 1.44      | 64.6           | 72.7        |
| [ 2 -1 -3 ] | ( 2 4 0 ) | ( -3 -3 -1 ) | 3.275    | 2.255    | 1.45      | 33.1           | 51.5        |
| [ 2 -1 4 ]  | ( 2 4 0 ) | ( -2 4 2 )   | 3.275    | 2.210    | 1.48      | 79.2           | 58.5        |
| [ 2 -1 0 ]  | ( 2 4 0 ) | ( -2 -4 2 )  | 3.275    | 2.210    | 1.48      | 58.5           | 79.2        |
| [ 2 -1 5 ]  | ( 2 4 0 ) | ( 1 7 1 )    | 3.275    | 2.182    | 1.50      | 32.2           | 50.8        |
| [ 4 -2 -5 ] | ( 2 4 0 ) | ( -1 3 -2 )  | 3.275    | 2.167    | 1.51      | 87.5           | 55.3        |
| [ 4 -2 1 ]  | ( 2 4 0 ) | ( 1 3 2 )    | 3.275    | 2.167    | 1.51      | 55.5           | 84.8        |
| [ 2 -1 2 ]  | ( 2 4 0 ) | ( -2 -6 -1 ) | 3.275    | 2.163    | 1.51      | 24.8           | 78.1        |
| [ 4 -2 9 ]  | ( 2 4 0 ) | ( 3 -3 -2 )  | 3.275    | 2.144    | 1.53      | 86.6           | 54.5        |
| [ 4 -2 3 ]  | ( 2 4 0 ) | ( -3 -3 2 )  | 3.275    | 2.144    | 1.53      | 54.8           | 83.7        |
| [ 4 -2 7 ]  | ( 2 4 0 ) | ( -1 5 2 )   | 3.275    | 2.131    | 1.54      | 65.2           | 62.8        |
| [ 4 -2 -3 ] | ( 2 4 0 ) | ( -1 -5 2 )  | 3.275    | 2.131    | 1.54      | 64.2           | 63.8        |
| [ 2 -1 4 ]  | ( 2 4 0 ) | ( 4 4 -1 )   | 3.275    | 2.122    | 1.54      | 28.1           | 58.5        |
| [ 2 -1 -2 ] | ( 2 4 0 ) | ( -2 0 -2 )  | 3.275    | 2.043    | 1.60      | 64.2           | 59.3        |
| [ 2 -1 -1 ] | ( 2 4 0 ) | ( 3 5 1 )    | 3.275    | 2.017    | 1.62      | 24.2           | 68.6        |
| [ 2 -1 3 ]  | ( 2 4 0 ) | ( -4 -2 2 )  | 3.275    | 1.966    | 1.67      | 53.7           | 67.6        |
| [ 4 -2 -7 ] | ( 2 4 0 ) | ( -1 5 -2 )  | 3.275    | 1.953    | 1.68      | 83.3           | 48.2        |
| [ 4 -2 3 ]  | ( 2 4 0 ) | ( -1 -5 -2 ) | 3.275    | 1.953    | 1.68      | 48.1           | 83.7        |

**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 2 -1 -3 ] | ( 2 4 0 ) | ( 0 6 -2 )   | 3.275    | 1.947    | 1.68      | 70.4           | 51.5                   |
| [ 2 -1 3 ]  | ( 2 4 0 ) | ( 0 -6 -2 )  | 3.275    | 1.947    | 1.68      | 52.9           | 67.6                   |
| [ 4 -2 11 ] | ( 2 4 0 ) | ( -3 5 2 )   | 3.275    | 1.936    | 1.69      | 84.2           | 47.5                   |
| [ 4 -2 1 ]  | ( 2 4 0 ) | ( -3 -5 2 )  | 3.275    | 1.936    | 1.69      | 47.4           | 84.8                   |
| [ 2 -1 2 ]  | ( 2 4 0 ) | ( 4 6 -1 )   | 3.275    | 1.878    | 1.74      | 21.3           | 78.1                   |
| [ 2 -1 -4 ] | ( 2 4 0 ) | ( -2 4 -2 )  | 3.275    | 1.862    | 1.76      | 84.4           | 45.1                   |
| [ 2 -1 0 ]  | ( 2 4 0 ) | ( 2 4 2 )    | 3.275    | 1.862    | 1.76      | 45.9           | 79.2                   |
| [ 4 -2 9 ]  | ( 2 4 0 ) | ( 1 -7 -2 )  | 3.275    | 1.845    | 1.78      | 59.2           | 54.5                   |
| [ 4 -2 -5 ] | ( 2 4 0 ) | ( 1 7 -2 )   | 3.275    | 1.845    | 1.78      | 58.3           | 55.3                   |
| [ 2 -1 4 ]  | ( 2 4 0 ) | ( 2 8 1 )    | 3.275    | 1.827    | 1.79      | 24.0           | 58.5                   |
| [ 2 -1 -4 ] | ( 2 4 0 ) | ( -4 -4 -1 ) | 3.275    | 1.808    | 1.81      | 28.9           | 45.1                   |
| [ 4 -2 -7 ] | ( 2 4 0 ) | ( 3 -1 2 )   | 3.275    | 1.771    | 1.85      | 64.2           | 48.2                   |
| [ 4 -2 -5 ] | ( 2 4 0 ) | ( -3 -1 -2 ) | 3.275    | 1.771    | 1.85      | 54.8           | 55.3                   |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( 3 7 1 )    | 3.275    | 1.770    | 1.85      | 19.6           | 89.4                   |
| [ 6 -3 4 ]  | ( 2 4 0 ) | ( -2 0 3 )   | 3.275    | 1.750    | 1.87      | 85.8           | 85.6                   |
| [ 4 -2 11 ] | ( 2 4 0 ) | ( 5 -1 -2 )  | 3.275    | 1.747    | 1.88      | 63.8           | 47.5                   |
| [ 4 -2 9 ]  | ( 2 4 0 ) | ( -5 -1 2 )  | 3.275    | 1.747    | 1.88      | 54.4           | 54.5                   |
| [ 6 -3 1 ]  | ( 2 4 0 ) | ( 1 1 -3 )   | 3.275    | 1.746    | 1.88      | 89.0           | 82.9                   |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( 1 -1 -3 )  | 3.275    | 1.746    | 1.88      | 82.9           | 89.4                   |
| [ 4 -2 5 ]  | ( 2 4 0 ) | ( 1 7 2 )    | 3.275    | 1.726    | 1.90      | 43.2           | 72.7                   |
| [ 2 -1 5 ]  | ( 2 4 0 ) | ( -5 -5 1 )  | 3.275    | 1.718    | 1.91      | 24.8           | 50.8                   |
| [ 2 -1 2 ]  | ( 2 4 0 ) | ( -2 2 3 )   | 3.275    | 1.718    | 1.91      | 86.2           | 78.1                   |
| [ 6 -3 2 ]  | ( 2 4 0 ) | ( -2 -2 3 )  | 3.275    | 1.718    | 1.91      | 77.9           | 86.8                   |
| [ 4 -2 -1 ] | ( 2 4 0 ) | ( 3 7 -2 )   | 3.275    | 1.714    | 1.91      | 42.6           | 73.8                   |
| [ 4 -2 -3 ] | ( 2 4 0 ) | ( -3 -3 -2 ) | 3.275    | 1.707    | 1.92      | 46.1           | 63.8                   |
| [ 6 -3 -1 ] | ( 2 4 0 ) | ( 1 3 -3 )   | 3.275    | 1.684    | 1.94      | 81.3           | 75.5                   |
| [ 6 -3 5 ]  | ( 2 4 0 ) | ( 1 -3 -3 )  | 3.275    | 1.684    | 1.94      | 75.3           | 81.8                   |
| [ 6 -3 7 ]  | ( 2 4 0 ) | ( 3 -1 -3 )  | 3.275    | 1.682    | 1.95      | 82.9           | 74.4                   |
| [ 6 -3 5 ]  | ( 2 4 0 ) | ( -3 -1 3 )  | 3.275    | 1.682    | 1.95      | 75.0           | 81.8                   |
| [ 2 -1 -3 ] | ( 2 4 0 ) | ( 3 9 -1 )   | 3.275    | 1.679    | 1.95      | 24.0           | 51.5                   |
| [ 2 -1 1 ]  | ( 2 4 0 ) | ( -4 -6 2 )  | 3.275    | 1.674    | 1.96      | 39.4           | 89.4                   |
| [ 6 -3 -2 ] | ( 2 4 0 ) | ( 0 -2 3 )   | 3.275    | 1.672    | 1.96      | 87.8           | 72.0                   |
| [ 6 -3 2 ]  | ( 2 4 0 ) | ( 0 -2 -3 )  | 3.275    | 1.672    | 1.96      | 72.2           | 86.8                   |
| [ 2 -1 -2 ] | ( 2 4 0 ) | ( 4 6 1 )    | 3.275    | 1.650    | 1.98      | 21.3           | 59.3                   |
| [ 6 -3 8 ]  | ( 2 4 0 ) | ( -2 4 3 )   | 3.275    | 1.631    | 2.01      | 78.8           | 70.9                   |
| [ 2 -1 0 ]  | ( 2 4 0 ) | ( -2 -4 3 )  | 3.275    | 1.631    | 2.01      | 70.7           | 79.2                   |
| [ 2 -1 -1 ] | ( 2 4 0 ) | ( 1 -1 3 )   | 3.275    | 1.600    | 2.05      | 77.5           | 68.6                   |
| [ 6 -3 -1 ] | ( 2 4 0 ) | ( 1 1 3 )    | 3.275    | 1.600    | 2.05      | 69.9           | 75.5                   |
| [ 4 -2 11 ] | ( 2 4 0 ) | ( -1 9 2 )   | 3.275    | 1.597    | 2.05      | 55.1           | 47.5                   |
| [ 4 -2 -7 ] | ( 2 4 0 ) | ( -1 -9 2 )  | 3.275    | 1.597    | 2.05      | 54.3           | 48.2                   |
| [ 4 -2 -1 ] | ( 2 4 0 ) | ( 3 5 2 )    | 3.275    | 1.597    | 2.05      | 39.1           | 73.8                   |
| [ 6 -3 -4 ] | ( 2 4 0 ) | ( 0 -4 3 )   | 3.275    | 1.592    | 2.06      | 84.7           | 65.3                   |
| [ 6 -3 4 ]  | ( 2 4 0 ) | ( 0 4 3 )    | 3.275    | 1.592    | 2.06      | 65.2           | 85.6                   |
| [ 6 -3 8 ]  | ( 2 4 0 ) | ( 4 0 -3 )   | 3.275    | 1.588    | 2.06      | 72.8           | 70.9                   |
| [ 4 -2 5 ]  | ( 2 4 0 ) | ( 5 5 -2 )   | 3.275    | 1.578    | 2.08      | 38.8           | 72.7                   |
| [ 2 -1 -1 ] | ( 2 4 0 ) | ( -1 -5 3 )  | 3.275    | 1.578    | 2.08      | 74.4           | 68.6                   |
| [ 6 -3 7 ]  | ( 2 4 0 ) | ( -1 5 3 )   | 3.275    | 1.578    | 2.08      | 68.6           | 74.4                   |
| [ 6 -3 10 ] | ( 2 4 0 ) | ( -4 2 3 )   | 3.275    | 1.564    | 2.09      | 80.5           | 64.4                   |

**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 2 -1 2 ]   | ( 2 4 0 ) | ( 4 2 -3 )   | 3.275    | 1.564    | 2.09      | 65.3           | 78.1        |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( -5 -7 1 )  | 3.275    | 1.558    | 2.10      | 18.6           | 67.6        |
| [ 6 -3 1 ]   | ( 2 4 0 ) | ( 1 3 3 )    | 3.275    | 1.552    | 2.11      | 62.7           | 82.9        |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( -3 -9 -1 ) | 3.275    | 1.548    | 2.12      | 18.5           | 67.6        |
| [ 2 -1 -3 ]  | ( 2 4 0 ) | ( 4 2 2 )    | 3.275    | 1.532    | 2.14      | 47.8           | 51.5        |
| [ 6 -3 11 ]  | ( 2 4 0 ) | ( 3 -5 -3 )  | 3.275    | 1.530    | 2.14      | 82.4           | 61.3        |
| [ 6 -3 1 ]   | ( 2 4 0 ) | ( 3 5 -3 )   | 3.275    | 1.530    | 2.14      | 61.2           | 82.9        |
| [ 4 -2 7 ]   | ( 2 4 0 ) | ( 1 9 2 )    | 3.275    | 1.518    | 2.16      | 40.3           | 62.8        |
| [ 2 -1 2 ]   | ( 2 4 0 ) | ( -2 -8 -2 ) | 3.275    | 1.515    | 2.16      | 35.9           | 78.1        |
| [ 6 -3 10 ]  | ( 2 4 0 ) | ( -2 6 3 )   | 3.275    | 1.513    | 2.17      | 72.5           | 64.4        |
| [ 6 -3 -2 ]  | ( 2 4 0 ) | ( 2 6 -3 )   | 3.275    | 1.513    | 2.17      | 64.7           | 72.0        |
| [ 4 -2 -3 ]  | ( 2 4 0 ) | ( -3 -9 2 )  | 3.275    | 1.510    | 2.17      | 39.6           | 63.8        |
| [ 2 -1 4 ]   | ( 2 4 0 ) | ( -4 4 3 )   | 3.275    | 1.498    | 2.19      | 87.8           | 58.5        |
| [ 6 -3 4 ]   | ( 2 4 0 ) | ( 4 4 -3 )   | 3.275    | 1.498    | 2.19      | 58.7           | 85.6        |
| [ 6 -3 -4 ]  | ( 2 4 0 ) | ( 2 0 3 )    | 3.275    | 1.487    | 2.20      | 68.4           | 65.3        |
| [ 6 -3 -7 ]  | ( 2 4 0 ) | ( 1 -5 3 )   | 3.275    | 1.467    | 2.23      | 87.8           | 56.6        |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( 1 5 3 )    | 3.275    | 1.467    | 2.23      | 56.5           | 89.4        |
| [ 2 -1 -2 ]  | ( 2 4 0 ) | ( 2 -2 3 )   | 3.275    | 1.467    | 2.23      | 75.8           | 59.3        |
| [ 6 -3 -2 ]  | ( 2 4 0 ) | ( -2 -2 -3 ) | 3.275    | 1.467    | 2.23      | 61.3           | 72.0        |
| [ 4 -2 1 ]   | ( 2 4 0 ) | ( 3 7 2 )    | 3.275    | 1.465    | 2.24      | 33.9           | 84.8        |
| [ 6 -3 11 ]  | ( 2 4 0 ) | ( -5 1 3 )   | 3.275    | 1.463    | 2.24      | 71.4           | 61.3        |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( 5 1 -3 )   | 3.275    | 1.463    | 2.24      | 64.1           | 67.6        |
| [ 2 -1 4 ]   | ( 2 4 0 ) | ( -6 -4 2 )  | 3.275    | 1.452    | 2.26      | 40.2           | 58.5        |
| [ 4 -2 3 ]   | ( 2 4 0 ) | ( 5 7 -2 )   | 3.275    | 1.451    | 2.26      | 33.6           | 83.7        |
| [ 6 -3 -5 ]  | ( 2 4 0 ) | ( 1 7 -3 )   | 3.275    | 1.451    | 2.26      | 68.7           | 62.3        |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( 1 -7 -3 )  | 3.275    | 1.451    | 2.26      | 63.1           | 67.6        |
| [ 6 -3 13 ]  | ( 2 4 0 ) | ( 5 -3 -3 )  | 3.275    | 1.426    | 2.30      | 78.6           | 55.7        |
| [ 6 -3 7 ]   | ( 2 4 0 ) | ( -5 -3 3 )  | 3.275    | 1.426    | 2.30      | 57.3           | 74.4        |
| [ 6 -3 13 ]  | ( 2 4 0 ) | ( -3 7 3 )   | 3.275    | 1.413    | 2.32      | 76.3           | 55.7        |
| [ 6 -3 -1 ]  | ( 2 4 0 ) | ( -3 -7 3 )  | 3.275    | 1.413    | 2.32      | 56.0           | 75.5        |
| [ 6 -3 -8 ]  | ( 2 4 0 ) | ( 2 -4 3 )   | 3.275    | 1.412    | 2.32      | 83.0           | 54.0        |
| [ 2 -1 0 ]   | ( 2 4 0 ) | ( -2 -4 -3 ) | 3.275    | 1.412    | 2.32      | 54.8           | 79.2        |
| [ 6 -3 14 ]  | ( 2 4 0 ) | ( -4 6 3 )   | 3.275    | 1.405    | 2.33      | 85.6           | 53.2        |
| [ 6 -3 2 ]   | ( 2 4 0 ) | ( -4 -6 3 )  | 3.275    | 1.405    | 2.33      | 53.1           | 86.8        |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( 5 9 -1 )   | 3.275    | 1.400    | 2.34      | 15.4           | 89.4        |
| [ 2 -1 -3 ]  | ( 2 4 0 ) | ( -5 -7 -1 ) | 3.275    | 1.391    | 2.35      | 19.7           | 51.5        |
| [ 2 -1 4 ]   | ( 2 4 0 ) | ( -2 8 3 )   | 3.275    | 1.383    | 2.37      | 67.3           | 58.5        |
| [ 6 -3 -4 ]  | ( 2 4 0 ) | ( -2 -8 3 )  | 3.275    | 1.383    | 2.37      | 59.9           | 65.3        |
| [ 2 -1 -1 ]  | ( 2 4 0 ) | ( 4 6 2 )    | 3.275    | 1.381    | 2.37      | 34.2           | 68.6        |
| [ 6 -3 5 ]   | ( 2 4 0 ) | ( -1 -7 -3 ) | 3.275    | 1.363    | 2.40      | 51.5           | 81.8        |
| [ 2 -1 5 ]   | ( 2 4 0 ) | ( 5 -5 -3 )  | 3.275    | 1.360    | 2.41      | 85.5           | 50.8        |
| [ 6 -3 5 ]   | ( 2 4 0 ) | ( -5 -5 3 )  | 3.275    | 1.360    | 2.41      | 51.3           | 81.8        |
| [ 6 -3 -8 ]  | ( 2 4 0 ) | ( 0 8 -3 )   | 3.275    | 1.359    | 2.41      | 72.7           | 54.0        |
| [ 6 -3 8 ]   | ( 2 4 0 ) | ( 0 -8 -3 )  | 3.275    | 1.359    | 2.41      | 54.8           | 70.9        |
| [ 6 -3 -7 ]  | ( 2 4 0 ) | ( 3 -1 3 )   | 3.275    | 1.358    | 2.41      | 67.7           | 56.6        |
| [ 6 -3 -5 ]  | ( 2 4 0 ) | ( -3 -1 -3 ) | 3.275    | 1.358    | 2.41      | 60.7           | 62.3        |
| [ 6 -3 -10 ] | ( 2 4 0 ) | ( 2 -6 3 )   | 3.275    | 1.333    | 2.46      | 89.5           | 49.3        |
| [ 6 -3 2 ]   | ( 2 4 0 ) | ( -2 -6 -3 ) | 3.275    | 1.333    | 2.46      | 49.4           | 86.8        |

**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 4 -2 3 ]   | ( 2 4 0 ) | ( 3 9 2 )    | 3.275    | 1.332    | 2.46      | 30.5           | 83.7                   |
| [ 6 -3 14 ]  | ( 2 4 0 ) | ( 6 -2 -3 )  | 3.275    | 1.329    | 2.47      | 70.5           | 53.2                   |
| [ 6 -3 10 ]  | ( 2 4 0 ) | ( -6 -2 3 )  | 3.275    | 1.329    | 2.47      | 56.9           | 64.4                   |
| [ 2 -1 4 ]   | ( 2 4 0 ) | ( 6 8 -1 )   | 3.275    | 1.325    | 2.47      | 17.1           | 58.5                   |
| [ 4 -2 1 ]   | ( 2 4 0 ) | ( -5 -9 2 )  | 3.275    | 1.321    | 2.48      | 30.2           | 84.8                   |
| [ 6 -3 -7 ]  | ( 2 4 0 ) | ( 1 9 -3 )   | 3.275    | 1.321    | 2.48      | 64.1           | 56.6                   |
| [ 6 -3 11 ]  | ( 2 4 0 ) | ( 1 -9 -3 )  | 3.275    | 1.321    | 2.48      | 58.8           | 61.3                   |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( 2 0 -4 )   | 3.275    | 1.320    | 2.48      | 89.4           | 89.4                   |
| [ 4 -2 11 ]  | ( 2 4 0 ) | ( -7 -3 2 )  | 3.275    | 1.318    | 2.48      | 42.6           | 47.5                   |
| [ 8 -4 1 ]   | ( 2 4 0 ) | ( -1 -1 4 )  | 3.275    | 1.306    | 2.51      | 88.2           | 82.0                   |
| [ 8 -4 3 ]   | ( 2 4 0 ) | ( 1 -1 -4 )  | 3.275    | 1.306    | 2.51      | 82.1           | 87.7                   |
| [ 8 -4 7 ]   | ( 2 4 0 ) | ( 3 -1 -4 )  | 3.275    | 1.301    | 2.52      | 87.0           | 80.8                   |
| [ 8 -4 5 ]   | ( 2 4 0 ) | ( -3 -1 4 )  | 3.275    | 1.301    | 2.52      | 81.0           | 86.5                   |
| [ 6 -3 16 ]  | ( 2 4 0 ) | ( -4 8 3 )   | 3.275    | 1.299    | 2.52      | 79.9           | 48.6                   |
| [ 2 -1 0 ]   | ( 2 4 0 ) | ( -4 -8 3 )  | 3.275    | 1.299    | 2.52      | 48.7           | 79.2                   |
| [ 6 -3 16 ]  | ( 2 4 0 ) | ( 6 -4 -3 )  | 3.275    | 1.287    | 2.54      | 77.3           | 48.6                   |
| [ 6 -3 8 ]   | ( 2 4 0 ) | ( -6 -4 3 )  | 3.275    | 1.287    | 2.54      | 50.7           | 70.9                   |
| [ 8 -4 -1 ]  | ( 2 4 0 ) | ( 1 3 -4 )   | 3.275    | 1.280    | 2.56      | 85.9           | 76.4                   |
| [ 8 -4 5 ]   | ( 2 4 0 ) | ( 1 -3 -4 )  | 3.275    | 1.280    | 2.56      | 76.3           | 86.5                   |
| [ 4 -2 -5 ]  | ( 2 4 0 ) | ( 5 5 2 )    | 3.275    | 1.280    | 2.56      | 36.2           | 55.3                   |
| [ 6 -3 17 ]  | ( 2 4 0 ) | ( 5 -7 -3 )  | 3.275    | 1.276    | 2.57      | 88.4           | 46.5                   |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( 5 7 -3 )   | 3.275    | 1.276    | 2.57      | 46.5           | 89.4                   |
| [ 2 -1 -1 ]  | ( 2 4 0 ) | ( -5 -9 -1 ) | 3.275    | 1.275    | 2.57      | 15.0           | 68.6                   |
| [ 8 -4 9 ]   | ( 2 4 0 ) | ( -3 3 4 )   | 3.275    | 1.275    | 2.57      | 87.0           | 75.3                   |
| [ 8 -4 3 ]   | ( 2 4 0 ) | ( -3 -3 4 )  | 3.275    | 1.275    | 2.57      | 75.2           | 87.7                   |
| [ 6 -3 -11 ] | ( 2 4 0 ) | ( 3 -5 3 )   | 3.275    | 1.275    | 2.57      | 81.3           | 47.1                   |
| [ 6 -3 -1 ]  | ( 2 4 0 ) | ( -3 -5 -3 ) | 3.275    | 1.275    | 2.57      | 48.4           | 75.5                   |
| [ 2 -1 2 ]   | ( 2 4 0 ) | ( 6 8 -2 )   | 3.275    | 1.268    | 2.58      | 29.4           | 78.1                   |
| [ 2 -1 0 ]   | ( 2 4 0 ) | ( -2 -4 4 )  | 3.275    | 1.267    | 2.59      | 77.7           | 79.2                   |
| [ 4 -2 9 ]   | ( 2 4 0 ) | ( 7 5 -2 )   | 3.275    | 1.265    | 2.59      | 36.1           | 54.5                   |
| [ 4 -2 -1 ]  | ( 2 4 0 ) | ( 0 2 -4 )   | 3.275    | 1.264    | 2.59      | 85.9           | 73.8                   |
| [ 4 -2 1 ]   | ( 2 4 0 ) | ( 0 2 4 )    | 3.275    | 1.264    | 2.59      | 74.0           | 84.8                   |
| [ 4 -2 5 ]   | ( 2 4 0 ) | ( -4 2 4 )   | 3.275    | 1.255    | 2.61      | 84.8           | 72.7                   |
| [ 4 -2 3 ]   | ( 2 4 0 ) | ( 4 2 -4 )   | 3.275    | 1.255    | 2.61      | 73.0           | 83.7                   |
| [ 6 -3 -11 ] | ( 2 4 0 ) | ( 1 -9 3 )   | 3.275    | 1.254    | 2.61      | 76.5           | 47.1                   |
| [ 6 -3 7 ]   | ( 2 4 0 ) | ( 1 9 3 )    | 3.275    | 1.254    | 2.61      | 47.7           | 74.4                   |
| [ 6 -3 -8 ]  | ( 2 4 0 ) | ( 4 0 3 )    | 3.275    | 1.243    | 2.64      | 60.8           | 54.0                   |
| [ 2 -1 -4 ]  | ( 2 4 0 ) | ( 2 -8 3 )   | 3.275    | 1.242    | 2.64      | 84.7           | 45.1                   |
| [ 6 -3 4 ]   | ( 2 4 0 ) | ( 2 8 3 )    | 3.275    | 1.242    | 2.64      | 45.1           | 85.6                   |
| [ 8 -4 -3 ]  | ( 2 4 0 ) | ( -1 -5 4 )  | 3.275    | 1.231    | 2.66      | 80.4           | 71.1                   |
| [ 8 -4 7 ]   | ( 2 4 0 ) | ( -1 5 4 )   | 3.275    | 1.231    | 2.66      | 70.9           | 80.8                   |
| [ 6 -3 -10 ] | ( 2 4 0 ) | ( -4 2 -3 )  | 3.275    | 1.231    | 2.66      | 67.4           | 49.3                   |
| [ 2 -1 -2 ]  | ( 2 4 0 ) | ( 4 2 3 )    | 3.275    | 1.231    | 2.66      | 54.4           | 59.3                   |
| [ 6 -3 13 ]  | ( 2 4 0 ) | ( -7 -1 3 )  | 3.275    | 1.222    | 2.68      | 57.2           | 55.7                   |
| [ 8 -4 -3 ]  | ( 2 4 0 ) | ( 1 -1 4 )   | 3.275    | 1.222    | 2.68      | 78.1           | 71.1                   |
| [ 8 -4 -1 ]  | ( 2 4 0 ) | ( -1 -1 -4 ) | 3.275    | 1.222    | 2.68      | 72.2           | 76.4                   |
| [ 8 -4 11 ]  | ( 2 4 0 ) | ( 5 -1 -4 )  | 3.275    | 1.210    | 2.71      | 77.1           | 70.1                   |
| [ 8 -4 9 ]   | ( 2 4 0 ) | ( -5 -1 4 )  | 3.275    | 1.210    | 2.71      | 71.3           | 75.3                   |

**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 4 -2 -3 ]  | ( 2 4 0 ) | ( 5 7 2 )    | 3.275    | 1.209    | 2.71      | 30.7           | 63.8                   |
| [ 6 -3 11 ]  | ( 2 4 0 ) | ( 7 3 -3 )   | 3.275    | 1.200    | 2.73      | 51.0           | 61.3                   |
| [ 8 -4 -5 ]  | ( 2 4 0 ) | ( -1 3 -4 )  | 3.275    | 1.200    | 2.73      | 83.9           | 66.1                   |
| [ 8 -4 1 ]   | ( 2 4 0 ) | ( 1 3 4 )    | 3.275    | 1.200    | 2.73      | 66.7           | 82.0                   |
| [ 2 -1 -4 ]  | ( 2 4 0 ) | ( -6 -8 -1 ) | 3.275    | 1.200    | 2.73      | 18.7           | 45.1                   |
| [ 2 -1 -4 ]  | ( 2 4 0 ) | ( 4 -4 3 )   | 3.275    | 1.198    | 2.73      | 73.9           | 45.1                   |
| [ 6 -3 -4 ]  | ( 2 4 0 ) | ( -4 -4 -3 ) | 3.275    | 1.198    | 2.73      | 48.5           | 65.3                   |
| [ 4 -2 7 ]   | ( 2 4 0 ) | ( 7 7 -2 )   | 3.275    | 1.197    | 2.74      | 30.6           | 62.8                   |
| [ 8 -4 13 ]  | ( 2 4 0 ) | ( 5 -3 -4 )  | 3.275    | 1.188    | 2.76      | 82.9           | 65.2                   |
| [ 8 -4 7 ]   | ( 2 4 0 ) | ( -5 -3 4 )  | 3.275    | 1.188    | 2.76      | 65.8           | 80.8                   |
| [ 6 -3 1 ]   | ( 2 4 0 ) | ( 5 9 -3 )   | 3.275    | 1.185    | 2.77      | 42.7           | 82.9                   |
| [ 4 -2 -3 ]  | ( 2 4 0 ) | ( 0 -6 4 )   | 3.275    | 1.175    | 2.79      | 83.0           | 63.8                   |
| [ 4 -2 3 ]   | ( 2 4 0 ) | ( 0 6 4 )    | 3.275    | 1.175    | 2.79      | 63.6           | 83.7                   |
| [ 2 -1 -4 ]  | ( 2 4 0 ) | ( -6 -4 -2 ) | 3.275    | 1.174    | 2.79      | 38.9           | 45.1                   |
| [ 8 -4 -5 ]  | ( 2 4 0 ) | ( 1 7 -4 )   | 3.275    | 1.168    | 2.80      | 75.4           | 66.1                   |
| [ 8 -4 9 ]   | ( 2 4 0 ) | ( -1 7 4 )   | 3.275    | 1.168    | 2.80      | 66.2           | 75.3                   |
| [ 4 -2 7 ]   | ( 2 4 0 ) | ( -4 6 4 )   | 3.275    | 1.168    | 2.81      | 84.0           | 62.8                   |
| [ 4 -2 1 ]   | ( 2 4 0 ) | ( -4 -6 4 )  | 3.275    | 1.168    | 2.81      | 62.7           | 84.8                   |
| [ 8 -4 13 ]  | ( 2 4 0 ) | ( -3 7 4 )   | 3.275    | 1.164    | 2.81      | 76.4           | 65.2                   |
| [ 8 -4 -1 ]  | ( 2 4 0 ) | ( -3 -7 4 )  | 3.275    | 1.164    | 2.81      | 65.1           | 76.4                   |
| [ 2 -1 -1 ]  | ( 2 4 0 ) | ( 2 0 4 )    | 3.275    | 1.161    | 2.82      | 70.9           | 68.6                   |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( -7 -5 3 )  | 3.275    | 1.160    | 2.82      | 45.5           | 67.6                   |
| [ 8 -4 -7 ]  | ( 2 4 0 ) | ( 1 -5 4 )   | 3.275    | 1.160    | 2.82      | 89.4           | 61.5                   |
| [ 8 -4 3 ]   | ( 2 4 0 ) | ( -1 -5 -4 ) | 3.275    | 1.160    | 2.82      | 61.6           | 87.7                   |
| [ 6 -3 4 ]   | ( 2 4 0 ) | ( 6 8 -3 )   | 3.275    | 1.154    | 2.84      | 41.1           | 85.6                   |
| [ 2 -1 5 ]   | ( 2 4 0 ) | ( 7 9 -1 )   | 3.275    | 1.151    | 2.84      | 16.3           | 50.8                   |
| [ 8 -4 15 ]  | ( 2 4 0 ) | ( 5 -5 -4 )  | 3.275    | 1.149    | 2.85      | 88.4           | 60.6                   |
| [ 8 -4 5 ]   | ( 2 4 0 ) | ( -5 -5 4 )  | 3.275    | 1.149    | 2.85      | 60.7           | 86.5                   |
| [ 6 -3 -2 ]  | ( 2 4 0 ) | ( 4 6 3 )    | 3.275    | 1.149    | 2.85      | 43.3           | 72.0                   |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( -6 0 4 )   | 3.275    | 1.147    | 2.86      | 70.1           | 67.6                   |
| [ 2 -1 3 ]   | ( 2 4 0 ) | ( -2 8 4 )   | 3.275    | 1.139    | 2.88      | 69.0           | 67.6                   |
| [ 2 -1 -1 ]  | ( 2 4 0 ) | ( -2 -8 4 )  | 3.275    | 1.139    | 2.88      | 68.0           | 68.6                   |
| [ 6 -3 -11 ] | ( 2 4 0 ) | ( -5 1 -3 )  | 3.275    | 1.131    | 2.90      | 61.3           | 47.1                   |
| [ 2 -1 -3 ]  | ( 2 4 0 ) | ( 5 1 3 )    | 3.275    | 1.131    | 2.90      | 55.2           | 51.5                   |
| [ 4 -2 -1 ]  | ( 2 4 0 ) | ( -5 -9 -2 ) | 3.275    | 1.131    | 2.90      | 26.5           | 73.8                   |
| [ 2 -1 0 ]   | ( 2 4 0 ) | ( -2 -4 -4 ) | 3.275    | 1.124    | 2.91      | 60.2           | 79.2                   |
| [ 4 -2 5 ]   | ( 2 4 0 ) | ( 7 9 -2 )   | 3.275    | 1.121    | 2.92      | 26.4           | 72.7                   |
| [ 6 -3 16 ]  | ( 2 4 0 ) | ( -8 0 3 )   | 3.275    | 1.118    | 2.93      | 57.9           | 48.6                   |
| [ 2 -1 5 ]   | ( 2 4 0 ) | ( 8 6 -2 )   | 3.275    | 1.116    | 2.93      | 33.1           | 50.8                   |
| [ 6 -3 -7 ]  | ( 2 4 0 ) | ( -5 -3 -3 ) | 3.275    | 1.114    | 2.94      | 49.3           | 56.6                   |
| [ 2 -1 4 ]   | ( 2 4 0 ) | ( 6 -4 -4 )  | 3.275    | 1.112    | 2.95      | 81.3           | 58.5                   |
| [ 2 -1 2 ]   | ( 2 4 0 ) | ( -6 -4 4 )  | 3.275    | 1.112    | 2.95      | 59.4           | 78.1                   |
| [ 8 -4 -9 ]  | ( 2 4 0 ) | ( -1 7 -4 )  | 3.275    | 1.106    | 2.96      | 85.4           | 57.2                   |
| [ 8 -4 5 ]   | ( 2 4 0 ) | ( -1 -7 -4 ) | 3.275    | 1.106    | 2.96      | 57.1           | 86.5                   |
| [ 8 -4 17 ]  | ( 2 4 0 ) | ( -5 7 4 )   | 3.275    | 1.097    | 2.99      | 86.4           | 56.4                   |
| [ 8 -4 3 ]   | ( 2 4 0 ) | ( 5 7 -4 )   | 3.275    | 1.097    | 2.99      | 56.3           | 87.7                   |
| [ 8 -4 -7 ]  | ( 2 4 0 ) | ( 1 9 -4 )   | 3.275    | 1.097    | 2.99      | 71.0           | 61.5                   |
| [ 8 -4 11 ]  | ( 2 4 0 ) | ( 1 -9 -4 )  | 3.275    | 1.097    | 2.99      | 62.1           | 70.1                   |



**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 8 -4 15 ]  | ( 2 4 0 ) | ( -3 9 4 )   | 3.275    | 1.094    | 2.99      | 72.1           | 60.6                   |
| [ 8 -4 -3 ]  | ( 2 4 0 ) | ( -3 -9 4 )  | 3.275    | 1.094    | 2.99      | 61.1           | 71.1                   |
| [ 8 -4 -7 ]  | ( 2 4 0 ) | ( 3 -1 4 )   | 3.275    | 1.090    | 3.01      | 70.0           | 61.5                   |
| [ 8 -4 -5 ]  | ( 2 4 0 ) | ( -3 -1 -4 ) | 3.275    | 1.090    | 3.01      | 64.6           | 66.1                   |
| [ 2 -1 0 ]   | ( 2 4 0 ) | ( 4 8 3 )    | 3.275    | 1.089    | 3.01      | 39.0           | 79.2                   |
| [ 2 -1 4 ]   | ( 2 4 0 ) | ( -8 -4 3 )  | 3.275    | 1.085    | 3.02      | 46.3           | 58.5                   |
| [ 8 -4 13 ]  | ( 2 4 0 ) | ( 7 1 -4 )   | 3.275    | 1.075    | 3.05      | 63.9           | 65.2                   |
| [ 8 -4 -9 ]  | ( 2 4 0 ) | ( -3 3 -4 )  | 3.275    | 1.074    | 3.05      | 75.5           | 57.2                   |
| [ 8 -4 -3 ]  | ( 2 4 0 ) | ( 3 3 4 )    | 3.275    | 1.074    | 3.05      | 59.3           | 71.1                   |
| [ 2 -1 -2 ]  | ( 2 4 0 ) | ( -6 -8 -2 ) | 3.275    | 1.070    | 3.06      | 28.1           | 59.3                   |
| [ 8 -4 17 ]  | ( 2 4 0 ) | ( -7 3 4 )   | 3.275    | 1.060    | 3.09      | 74.7           | 56.4                   |
| [ 8 -4 11 ]  | ( 2 4 0 ) | ( 7 3 -4 )   | 3.275    | 1.060    | 3.09      | 58.7           | 70.1                   |
| [ 10 -5 4 ]  | ( 2 4 0 ) | ( -2 0 5 )   | 3.275    | 1.055    | 3.11      | 88.4           | 88.3                   |
| [ 10 -5 7 ]  | ( 2 4 0 ) | ( -3 1 5 )   | 3.275    | 1.051    | 3.12      | 89.7           | 84.8                   |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( 3 1 -5 )   | 3.275    | 1.051    | 3.12      | 84.8           | 89.4                   |
| [ 6 -3 10 ]  | ( 2 4 0 ) | ( -8 -6 3 )  | 3.275    | 1.048    | 3.13      | 41.3           | 64.4                   |
| [ 10 -5 2 ]  | ( 2 4 0 ) | ( 2 2 -5 )   | 3.275    | 1.048    | 3.13      | 86.8           | 83.7                   |
| [ 10 -5 6 ]  | ( 2 4 0 ) | ( 2 -2 -5 )  | 3.275    | 1.048    | 3.13      | 83.6           | 87.1                   |
| [ 6 -3 5 ]   | ( 2 4 0 ) | ( 7 9 -3 )   | 3.275    | 1.046    | 3.13      | 36.9           | 81.8                   |
| [ 8 -4 -11 ] | ( 2 4 0 ) | ( -1 9 -4 )  | 3.275    | 1.045    | 3.13      | 80.9           | 53.4                   |
| [ 8 -4 7 ]   | ( 2 4 0 ) | ( -1 -9 -4 ) | 3.275    | 1.045    | 3.13      | 53.4           | 80.8                   |
| [ 8 -4 -11 ] | ( 2 4 0 ) | ( 3 -5 4 )   | 3.275    | 1.045    | 3.13      | 80.8           | 53.4                   |
| [ 8 -4 -1 ]  | ( 2 4 0 ) | ( -3 -5 -4 ) | 3.275    | 1.045    | 3.13      | 54.6           | 76.4                   |
| [ 10 -5 1 ]  | ( 2 4 0 ) | ( -1 -1 5 )  | 3.275    | 1.042    | 3.14      | 86.5           | 81.4                   |
| [ 10 -5 3 ]  | ( 2 4 0 ) | ( 1 -1 -5 )  | 3.275    | 1.042    | 3.14      | 81.7           | 86.0                   |
| [ 10 -5 8 ]  | ( 2 4 0 ) | ( 4 0 -5 )   | 3.275    | 1.039    | 3.15      | 83.0           | 82.5                   |
| [ 2 -1 -1 ]  | ( 2 4 0 ) | ( -5 -7 -3 ) | 3.275    | 1.038    | 3.16      | 39.3           | 68.6                   |
| [ 8 -4 19 ]  | ( 2 4 0 ) | ( -5 9 4 )   | 3.275    | 1.038    | 3.16      | 81.8           | 52.6                   |
| [ 8 -4 1 ]   | ( 2 4 0 ) | ( 5 9 -4 )   | 3.275    | 1.038    | 3.16      | 52.6           | 82.0                   |
| [ 10 -5 9 ]  | ( 2 4 0 ) | ( 3 -3 -5 )  | 3.275    | 1.037    | 3.16      | 85.5           | 80.3                   |
| [ 10 -5 3 ]  | ( 2 4 0 ) | ( 3 3 -5 )   | 3.275    | 1.037    | 3.16      | 80.1           | 86.0                   |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( -2 -8 -4 ) | 3.275    | 1.033    | 3.17      | 51.5           | 89.4                   |
| [ 8 -4 19 ]  | ( 2 4 0 ) | ( 7 -5 -4 )  | 3.275    | 1.032    | 3.17      | 80.0           | 52.6                   |
| [ 8 -4 9 ]   | ( 2 4 0 ) | ( 7 5 -4 )   | 3.275    | 1.032    | 3.17      | 54.0           | 75.3                   |
| [ 2 -1 2 ]   | ( 2 4 0 ) | ( 4 -2 -5 )  | 3.275    | 1.032    | 3.17      | 87.8           | 78.1                   |
| [ 10 -5 6 ]  | ( 2 4 0 ) | ( -4 -2 5 )  | 3.275    | 1.032    | 3.17      | 78.2           | 87.1                   |
| [ 6 -3 -10 ] | ( 2 4 0 ) | ( 6 2 3 )    | 3.275    | 1.030    | 3.18      | 50.6           | 49.3                   |
| [ 10 -5 -1 ] | ( 2 4 0 ) | ( -1 -3 5 )  | 3.275    | 1.028    | 3.18      | 88.7           | 77.0                   |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( -1 3 5 )   | 3.275    | 1.028    | 3.18      | 76.9           | 89.4                   |
| [ 2 -1 0 ]   | ( 2 4 0 ) | ( 2 4 -5 )   | 3.275    | 1.027    | 3.19      | 82.1           | 79.2                   |
| [ 10 -5 8 ]  | ( 2 4 0 ) | ( 2 -4 -5 )  | 3.275    | 1.027    | 3.19      | 78.9           | 82.5                   |
| [ 2 -1 5 ]   | ( 2 4 0 ) | ( -6 8 4 )   | 3.275    | 1.023    | 3.20      | 88.6           | 50.8                   |
| [ 2 -1 1 ]   | ( 2 4 0 ) | ( -6 -8 4 )  | 3.275    | 1.023    | 3.20      | 50.8           | 89.4                   |
| [ 4 -2 -5 ]  | ( 2 4 0 ) | ( -4 2 -4 )  | 3.275    | 1.015    | 3.23      | 69.4           | 55.3                   |
| [ 4 -2 -3 ]  | ( 2 4 0 ) | ( 4 2 4 )    | 3.275    | 1.015    | 3.23      | 59.0           | 63.8                   |
| [ 10 -5 -2 ] | ( 2 4 0 ) | ( 0 2 -5 )   | 3.275    | 1.015    | 3.23      | 84.7           | 74.8                   |
| [ 10 -5 2 ]  | ( 2 4 0 ) | ( 0 2 5 )    | 3.275    | 1.015    | 3.23      | 75.2           | 83.7                   |
| [ 10 -5 12 ] | ( 2 4 0 ) | ( 4 -4 -5 )  | 3.275    | 1.012    | 3.24      | 87.5           | 73.7                   |

**Tremolite (240) 303 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 10 -5 4 ]  | ( 2 4 0 ) | ( 4 4 -5 )   | 3.275    | 1.012    | 3.24      | 73.6           | 88.3        |
| [ 10 -5 11 ] | ( 2 4 0 ) | ( -5 1 5 )   | 3.275    | 1.012    | 3.24      | 81.3           | 75.9        |
| [ 10 -5 9 ]  | ( 2 4 0 ) | ( 5 1 -5 )   | 3.275    | 1.012    | 3.24      | 76.5           | 80.3        |
| [ 10 -5 11 ] | ( 2 4 0 ) | ( 3 -5 -5 )  | 3.275    | 1.011    | 3.24      | 81.0           | 75.9        |
| [ 10 -5 1 ]  | ( 2 4 0 ) | ( 3 5 -5 )   | 3.275    | 1.011    | 3.24      | 75.6           | 81.4        |
| [ 6 -3 -8 ]  | ( 2 4 0 ) | ( 6 4 3 )    | 3.275    | 1.010    | 3.24      | 45.2           | 54.0        |
| [ 2 -1 5 ]   | ( 2 4 0 ) | ( -9 -3 3 )  | 3.275    | 1.008    | 3.25      | 47.6           | 50.8        |
| [ 8 -4 -13 ] | ( 2 4 0 ) | ( 3 -7 4 )   | 3.275    | 1.006    | 3.26      | 85.8           | 49.8        |
| [ 8 -4 1 ]   | ( 2 4 0 ) | ( -3 -7 -4 ) | 3.275    | 1.006    | 3.26      | 50.3           | 82.0        |
| [ 4 -2 -7 ]  | ( 2 4 0 ) | ( 7 7 2 )    | 3.275    | 1.004    | 3.26      | 30.7           | 48.2        |
| [ 10 -5 -3 ] | ( 2 4 0 ) | ( -1 -5 5 )  | 3.275    | 1.003    | 3.27      | 84.1           | 72.7        |
| [ 10 -5 7 ]  | ( 2 4 0 ) | ( -1 5 5 )   | 3.275    | 1.003    | 3.27      | 72.5           | 84.8        |
| [ 6 -3 8 ]   | ( 2 4 0 ) | ( -8 -8 3 )  | 3.275    | 1.002    | 3.27      | 37.0           | 70.9        |
| [ 4 -2 9 ]   | ( 2 4 0 ) | ( 8 -2 -4 )  | 3.275    | 1.001    | 3.27      | 68.8           | 54.5        |
| [ 4 -2 7 ]   | ( 2 4 0 ) | ( -8 -2 4 )  | 3.275    | 1.001    | 3.27      | 58.5           | 62.8        |

**Tremolite (310) 355 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U | V  | W    | ( h | k | 0 ) | ( h  | k  | l )  | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|-----|----|------|-----|---|-----|------|----|------|-----------|-----------|-----------|----------------|-------------|
| [ 1 | -3 | 0 ]  | ( 3 | 1 | 0 ) | ( 0  | 0  | 1 )  | 3.125     | 5.105     | 0.61      | 75.5           | 87.4        |
| [ 1 | -3 | 4 ]  | ( 3 | 1 | 0 ) | ( -1 | 1  | 1 )  | 3.125     | 4.879     | 0.64      | 77.4           | 71.3        |
| [ 1 | -3 | -2 ] | ( 3 | 1 | 0 ) | ( 1  | 1  | -1 ) | 3.125     | 4.879     | 0.64      | 71.8           | 76.6        |
| [ 1 | -3 | -6 ] | ( 3 | 1 | 0 ) | ( 0  | -2 | 1 )  | 3.125     | 4.444     | 0.70      | 82.4           | 58.1        |
| [ 1 | -3 | 6 ]  | ( 3 | 1 | 0 ) | ( 0  | -2 | -1 ) | 3.125     | 4.444     | 0.70      | 72.4           | 62.1        |
| [ 1 | -3 | 2 ]  | ( 3 | 1 | 0 ) | ( 2  | 0  | -1 ) | 3.125     | 4.030     | 0.78      | 50.5           | 81.7        |
| [ 1 | -3 | -4 ] | ( 3 | 1 | 0 ) | ( 1  | -1 | 1 )  | 3.125     | 3.986     | 0.78      | 55.3           | 66.8        |
| [ 1 | -3 | 2 ]  | ( 3 | 1 | 0 ) | ( 1  | 1  | 1 )  | 3.125     | 3.986     | 0.78      | 49.7           | 81.7        |
| [ 1 | -3 | 10 ] | ( 3 | 1 | 0 ) | ( 1  | -3 | -1 ) | 3.125     | 3.877     | 0.81      | 84.3           | 47.6        |
| [ 1 | -3 | -8 ] | ( 3 | 1 | 0 ) | ( -1 | -3 | 1 )  | 3.125     | 3.877     | 0.81      | 71.2           | 50.9        |
| [ 1 | -3 | 8 ]  | ( 3 | 1 | 0 ) | ( 2  | -2 | -1 ) | 3.125     | 3.680     | 0.85      | 59.3           | 54.2        |
| [ 1 | -3 | -4 ] | ( 3 | 1 | 0 ) | ( -2 | -2 | 1 )  | 3.125     | 3.680     | 0.85      | 49.3           | 66.8        |
| [ 1 | -3 | 8 ]  | ( 3 | 1 | 0 ) | ( 1  | 3  | 1 )  | 3.125     | 3.381     | 0.92      | 52.2           | 54.2        |
| [ 1 | -3 | -2 ] | ( 3 | 1 | 0 ) | ( 2  | 0  | 1 )  | 3.125     | 3.109     | 1.01      | 37.3           | 76.6        |
| [ 1 | -3 | 6 ]  | ( 3 | 1 | 0 ) | ( -3 | 1  | 1 )  | 3.125     | 3.024     | 1.03      | 40.4           | 62.1        |
| [ 1 | -3 | 0 ]  | ( 3 | 1 | 0 ) | ( 3  | 1  | -1 ) | 3.125     | 3.024     | 1.03      | 35.0           | 87.4        |
| [ 1 | -3 | -8 ] | ( 3 | 1 | 0 ) | ( -2 | 2  | -1 ) | 3.125     | 2.940     | 1.06      | 45.9           | 50.9        |
| [ 1 | -3 | 4 ]  | ( 3 | 1 | 0 ) | ( 2  | 2  | 1 )  | 3.125     | 2.940     | 1.06      | 36.0           | 71.3        |
| [ 1 | -3 | -6 ] | ( 3 | 1 | 0 ) | ( -3 | -3 | 1 )  | 3.125     | 2.733     | 1.14      | 37.6           | 58.1        |
| [ 1 | -3 | 2 ]  | ( 3 | 1 | 0 ) | ( -1 | 1  | 2 )  | 3.125     | 2.611     | 1.20      | 89.4           | 81.7        |
| [ 1 | -3 | -1 ] | ( 3 | 1 | 0 ) | ( -1 | -1 | 2 )  | 3.125     | 2.611     | 1.20      | 87.8           | 81.9        |
| [ 1 | -3 | 10 ] | ( 3 | 1 | 0 ) | ( 2  | 4  | 1 )  | 3.125     | 2.561     | 1.22      | 41.1           | 47.6        |
| [ 1 | -3 | 1 ]  | ( 3 | 1 | 0 ) | ( 2  | 0  | -2 ) | 3.125     | 2.534     | 1.23      | 74.0           | 87.1        |
| [ 1 | -3 | -3 ] | ( 3 | 1 | 0 ) | ( 0  | 2  | -2 ) | 3.125     | 2.456     | 1.27      | 78.8           | 71.6        |
| [ 1 | -3 | 3 ]  | ( 3 | 1 | 0 ) | ( 0  | 2  | 2 )  | 3.125     | 2.456     | 1.27      | 73.3           | 76.4        |
| [ 1 | -3 | -6 ] | ( 3 | 1 | 0 ) | ( -3 | 1  | -1 ) | 3.125     | 2.410     | 1.30      | 32.5           | 58.1        |
| [ 1 | -3 | 0 ]  | ( 3 | 1 | 0 ) | ( 3  | 1  | 1 )  | 3.125     | 2.410     | 1.30      | 27.2           | 87.4        |
| [ 1 | -3 | 4 ]  | ( 3 | 1 | 0 ) | ( -4 | 0  | 1 )  | 3.125     | 2.403     | 1.30      | 28.7           | 71.3        |
| [ 1 | -3 | 10 ] | ( 3 | 1 | 0 ) | ( 4  | -2 | -1 ) | 3.125     | 2.323     | 1.35      | 36.6           | 47.6        |
| [ 1 | -3 | -2 ] | ( 3 | 1 | 0 ) | ( -4 | -2 | 1 )  | 3.125     | 2.323     | 1.35      | 26.9           | 76.6        |
| [ 1 | -3 | -2 ] | ( 3 | 1 | 0 ) | ( 1  | -1 | 2 )  | 3.125     | 2.303     | 1.36      | 63.8           | 76.6        |
| [ 1 | -3 | 1 ]  | ( 3 | 1 | 0 ) | ( -1 | -1 | -2 ) | 3.125     | 2.303     | 1.36      | 60.9           | 87.1        |
| [ 1 | -3 | 3 ]  | ( 3 | 1 | 0 ) | ( 3  | -1 | -2 ) | 3.125     | 2.276     | 1.37      | 62.5           | 76.4        |
| [ 1 | -3 | 0 ]  | ( 3 | 1 | 0 ) | ( 3  | 1  | -2 ) | 3.125     | 2.276     | 1.37      | 59.7           | 87.4        |
| [ 1 | -3 | 6 ]  | ( 3 | 1 | 0 ) | ( -3 | -3 | -1 ) | 3.125     | 2.255     | 1.39      | 28.9           | 62.1        |
| [ 1 | -3 | 7 ]  | ( 3 | 1 | 0 ) | ( 2  | -4 | -2 ) | 3.125     | 2.210     | 1.41      | 81.0           | 57.9        |
| [ 1 | -3 | -5 ] | ( 3 | 1 | 0 ) | ( -2 | -4 | 2 )  | 3.125     | 2.210     | 1.41      | 71.0           | 62.3        |
| [ 1 | -3 | -5 ] | ( 3 | 1 | 0 ) | ( 1  | -3 | 2 )  | 3.125     | 2.167     | 1.44      | 68.0           | 62.3        |
| [ 1 | -3 | 4 ]  | ( 3 | 1 | 0 ) | ( -1 | -3 | -2 ) | 3.125     | 2.167     | 1.44      | 60.1           | 71.3        |
| [ 1 | -3 | 6 ]  | ( 3 | 1 | 0 ) | ( 3  | -3 | -2 ) | 3.125     | 2.144     | 1.46      | 66.8           | 62.1        |
| [ 1 | -3 | -3 ] | ( 3 | 1 | 0 ) | ( -3 | -3 | 2 )  | 3.125     | 2.144     | 1.46      | 58.9           | 71.6        |
| [ 1 | -3 | 8 ]  | ( 3 | 1 | 0 ) | ( -1 | 5  | 2 )  | 3.125     | 2.131     | 1.47      | 84.8           | 54.2        |
| [ 1 | -3 | -7 ] | ( 3 | 1 | 0 ) | ( -1 | -5 | 2 )  | 3.125     | 2.131     | 1.47      | 83.5           | 54.4        |
| [ 1 | -3 | -8 ] | ( 3 | 1 | 0 ) | ( 4  | 4  | -1 ) | 3.125     | 2.122     | 1.47      | 31.2           | 50.9        |
| [ 1 | -3 | -1 ] | ( 3 | 1 | 0 ) | ( -2 | 0  | -2 ) | 3.125     | 2.043     | 1.53      | 51.4           | 81.9        |
| [ 1 | -3 | -8 ] | ( 3 | 1 | 0 ) | ( 1  | -5 | 2 )  | 3.125     | 1.953     | 1.60      | 72.5           | 50.9        |
| [ 1 | -3 | 7 ]  | ( 3 | 1 | 0 ) | ( -1 | -5 | -2 ) | 3.125     | 1.953     | 1.60      | 60.8           | 57.9        |
| [ 1 | -3 | -9 ] | ( 3 | 1 | 0 ) | ( 0  | -6 | 2 )  | 3.125     | 1.947     | 1.61      | 85.5           | 47.7        |

**Tremolite (310) 355 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U | V  | W     | ( h | k | 0 ) | ( h  | k  | l )  | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-----|----|-------|-----|---|-----|------|----|------|-----------|-----------|-----------|----------------|------------------------|
| [ 1 | -3 | 9 ]   | ( 3 | 1 | 0 ) | ( 0  | -6 | -2 ) | 3.125     | 1.947     | 1.61      | 72.4           | 50.7                   |
| [ 1 | -3 | 8 ]   | ( 3 | 1 | 0 ) | ( 5  | -1 | -1 ) | 3.125     | 1.942     | 1.61      | 27.0           | 54.2                   |
| [ 1 | -3 | 2 ]   | ( 3 | 1 | 0 ) | ( -5 | -1 | 1 )  | 3.125     | 1.942     | 1.61      | 21.8           | 81.7                   |
| [ 1 | -3 | 9 ]   | ( 3 | 1 | 0 ) | ( 3  | -5 | -2 ) | 3.125     | 1.936     | 1.61      | 71.4           | 50.7                   |
| [ 1 | -3 | -6 ]  | ( 3 | 1 | 0 ) | ( -3 | -5 | 2 )  | 3.125     | 1.936     | 1.61      | 59.7           | 58.1                   |
| [ 1 | -3 | 2 ]   | ( 3 | 1 | 0 ) | ( 4  | 2  | 1 )  | 3.125     | 1.928     | 1.62      | 21.7           | 81.7                   |
| [ 1 | -3 | -7 ]  | ( 3 | 1 | 0 ) | ( -2 | 4  | -2 ) | 3.125     | 1.862     | 1.68      | 60.2           | 54.4                   |
| [ 1 | -3 | 5 ]   | ( 3 | 1 | 0 ) | ( 2  | 4  | 2 )  | 3.125     | 1.862     | 1.68      | 50.3           | 66.5                   |
| [ 1 | -3 | -4 ]  | ( 3 | 1 | 0 ) | ( -5 | -3 | 1 )  | 3.125     | 1.858     | 1.68      | 22.5           | 66.8                   |
| [ 1 | -3 | 8 ]   | ( 3 | 1 | 0 ) | ( 4  | 4  | 1 )  | 3.125     | 1.808     | 1.73      | 25.0           | 54.2                   |
| [ 1 | -3 | -3 ]  | ( 3 | 1 | 0 ) | ( 3  | -1 | 2 )  | 3.125     | 1.771     | 1.76      | 45.0           | 71.6                   |
| [ 1 | -3 | 0 ]   | ( 3 | 1 | 0 ) | ( -3 | -1 | -2 ) | 3.125     | 1.771     | 1.76      | 42.2           | 87.4                   |
| [ 3 | -9 | 2 ]   | ( 3 | 1 | 0 ) | ( 2  | 0  | -3 ) | 3.125     | 1.750     | 1.79      | 84.0           | 88.9                   |
| [ 1 | -3 | 4 ]   | ( 3 | 1 | 0 ) | ( -5 | 1  | 2 )  | 3.125     | 1.747     | 1.79      | 44.3           | 71.3                   |
| [ 1 | -3 | 1 ]   | ( 3 | 1 | 0 ) | ( 5  | 1  | -2 ) | 3.125     | 1.747     | 1.79      | 41.5           | 87.1                   |
| [ 3 | -9 | -2 ]  | ( 3 | 1 | 0 ) | ( 1  | 1  | -3 ) | 3.125     | 1.746     | 1.79      | 86.6           | 83.8                   |
| [ 3 | -9 | 4 ]   | ( 3 | 1 | 0 ) | ( -1 | 1  | 3 )  | 3.125     | 1.746     | 1.79      | 84.7           | 85.3                   |
| [ 1 | -3 | 10 ]  | ( 3 | 1 | 0 ) | ( -1 | -7 | -2 ) | 3.125     | 1.726     | 1.81      | 62.4           | 47.6                   |
| [ 3 | -9 | 8 ]   | ( 3 | 1 | 0 ) | ( 2  | -2 | -3 ) | 3.125     | 1.718     | 1.82      | 86.0           | 78.1                   |
| [ 3 | -9 | -4 ]  | ( 3 | 1 | 0 ) | ( -2 | -2 | 3 )  | 3.125     | 1.718     | 1.82      | 82.2           | 80.2                   |
| [ 1 | -3 | -9 ]  | ( 3 | 1 | 0 ) | ( 3  | 7  | -2 ) | 3.125     | 1.714     | 1.82      | 61.4           | 47.7                   |
| [ 1 | -3 | -6 ]  | ( 3 | 1 | 0 ) | ( -3 | 3  | -2 ) | 3.125     | 1.707     | 1.83      | 49.6           | 58.1                   |
| [ 1 | -3 | 3 ]   | ( 3 | 1 | 0 ) | ( 3  | 3  | 2 )  | 3.125     | 1.707     | 1.83      | 41.7           | 76.4                   |
| [ 1 | -3 | 7 ]   | ( 3 | 1 | 0 ) | ( 5  | -3 | -2 ) | 3.125     | 1.685     | 1.85      | 48.9           | 57.9                   |
| [ 1 | -3 | -2 ]  | ( 3 | 1 | 0 ) | ( 5  | 3  | -2 ) | 3.125     | 1.685     | 1.85      | 41.0           | 76.6                   |
| [ 3 | -9 | -8 ]  | ( 3 | 1 | 0 ) | ( 1  | 3  | -3 ) | 3.125     | 1.684     | 1.86      | 88.6           | 73.2                   |
| [ 3 | -9 | 10 ]  | ( 3 | 1 | 0 ) | ( -1 | 3  | 3 )  | 3.125     | 1.684     | 1.86      | 83.0           | 74.7                   |
| [ 1 | -3 | 2 ]   | ( 3 | 1 | 0 ) | ( -3 | 1  | 3 )  | 3.125     | 1.682     | 1.86      | 75.0           | 81.7                   |
| [ 1 | -3 | 0 ]   | ( 3 | 1 | 0 ) | ( 3  | 1  | -3 ) | 3.125     | 1.682     | 1.86      | 73.1           | 87.4                   |
| [ 1 | -3 | -7 ]  | ( 3 | 1 | 0 ) | ( -4 | -6 | 2 )  | 3.125     | 1.674     | 1.87      | 51.3           | 54.4                   |
| [ 1 | -3 | -2 ]  | ( 3 | 1 | 0 ) | ( 0  | -2 | 3 )  | 3.125     | 1.672     | 1.87      | 77.6           | 76.6                   |
| [ 1 | -3 | 2 ]   | ( 3 | 1 | 0 ) | ( 0  | -2 | -3 ) | 3.125     | 1.672     | 1.87      | 73.8           | 81.7                   |
| [ 1 | -3 | -8 ]  | ( 3 | 1 | 0 ) | ( 5  | -1 | 1 )  | 3.125     | 1.645     | 1.90      | 23.7           | 50.9                   |
| [ 1 | -3 | -2 ]  | ( 3 | 1 | 0 ) | ( -5 | -1 | -1 ) | 3.125     | 1.645     | 1.90      | 18.7           | 76.6                   |
| [ 1 | -3 | 6 ]   | ( 3 | 1 | 0 ) | ( 6  | 0  | -1 ) | 3.125     | 1.638     | 1.91      | 20.6           | 62.1                   |
| [ 3 | -9 | 14 ]  | ( 3 | 1 | 0 ) | ( -2 | 4  | 3 )  | 3.125     | 1.631     | 1.92      | 88.0           | 68.1                   |
| [ 3 | -9 | -10 ] | ( 3 | 1 | 0 ) | ( 2  | 4  | -3 ) | 3.125     | 1.631     | 1.92      | 80.8           | 69.9                   |
| [ 1 | -3 | 0 ]   | ( 3 | 1 | 0 ) | ( 6  | 2  | -1 ) | 3.125     | 1.611     | 1.94      | 17.8           | 87.4                   |
| [ 3 | -9 | -4 ]  | ( 3 | 1 | 0 ) | ( -1 | 1  | -3 ) | 3.125     | 1.600     | 1.95      | 67.3           | 80.2                   |
| [ 3 | -9 | 2 ]   | ( 3 | 1 | 0 ) | ( 1  | 1  | 3 )  | 3.125     | 1.600     | 1.95      | 65.4           | 88.9                   |
| [ 1 | -3 | -9 ]  | ( 3 | 1 | 0 ) | ( -3 | 5  | -2 ) | 3.125     | 1.597     | 1.96      | 54.8           | 47.7                   |
| [ 1 | -3 | 6 ]   | ( 3 | 1 | 0 ) | ( 3  | 5  | 2 )  | 3.125     | 1.597     | 1.96      | 43.2           | 62.1                   |
| [ 1 | -3 | 4 ]   | ( 3 | 1 | 0 ) | ( -5 | -3 | -1 ) | 3.125     | 1.593     | 1.96      | 18.6           | 71.3                   |
| [ 1 | -3 | -4 ]  | ( 3 | 1 | 0 ) | ( 0  | -4 | 3 )  | 3.125     | 1.592     | 1.96      | 80.0           | 66.8                   |
| [ 1 | -3 | 4 ]   | ( 3 | 1 | 0 ) | ( 0  | -4 | -3 ) | 3.125     | 1.592     | 1.96      | 72.8           | 71.3                   |
| [ 3 | -9 | 4 ]   | ( 3 | 1 | 0 ) | ( 4  | 0  | -3 ) | 3.125     | 1.588     | 1.97      | 64.9           | 85.3                   |
| [ 1 | -3 | 10 ]  | ( 3 | 1 | 0 ) | ( -5 | 5  | 2 )  | 3.125     | 1.578     | 1.98      | 54.1           | 47.6                   |
| [ 1 | -3 | -5 ]  | ( 3 | 1 | 0 ) | ( 5  | 5  | -2 ) | 3.125     | 1.578     | 1.98      | 42.5           | 62.3                   |

**Tremolite (310) 355 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 3 -9 -14 ] | ( 3 1 0 ) | ( 1 5 -3 )   | 3.125    | 1.578    | 1.98      | 89.6           | 63.7                   |
| [ 3 -9 16 ]  | ( 3 1 0 ) | ( 1 -5 -3 )  | 3.125    | 1.578    | 1.98      | 81.7           | 65.0                   |
| [ 3 -9 10 ]  | ( 3 1 0 ) | ( 4 -2 -3 )  | 3.125    | 1.564    | 2.00      | 67.2           | 74.7                   |
| [ 3 -9 -2 ]  | ( 3 1 0 ) | ( -4 -2 3 )  | 3.125    | 1.564    | 2.00      | 63.4           | 83.8                   |
| [ 3 -9 8 ]   | ( 3 1 0 ) | ( 1 3 3 )    | 3.125    | 1.552    | 2.01      | 64.3           | 78.1                   |
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( -6 -4 1 )  | 3.125    | 1.539    | 2.03      | 20.1           | 58.1                   |
| [ 1 -3 3 ]   | ( 3 1 0 ) | ( 6 0 -2 )   | 3.125    | 1.533    | 2.04      | 36.7           | 76.4                   |
| [ 1 -3 -5 ]  | ( 3 1 0 ) | ( -4 2 -2 )  | 3.125    | 1.532    | 2.04      | 41.0           | 62.3                   |
| [ 1 -3 1 ]   | ( 3 1 0 ) | ( 4 2 2 )    | 3.125    | 1.532    | 2.04      | 35.5           | 87.1                   |
| [ 1 -3 6 ]   | ( 3 1 0 ) | ( -3 5 3 )   | 3.125    | 1.530    | 2.04      | 79.8           | 62.1                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( 3 5 -3 )   | 3.125    | 1.530    | 2.04      | 71.1           | 66.8                   |
| [ 3 -9 20 ]  | ( 3 1 0 ) | ( -2 6 3 )   | 3.125    | 1.513    | 2.07      | 89.8           | 59.3                   |
| [ 3 -9 -16 ] | ( 3 1 0 ) | ( 2 6 -3 )   | 3.125    | 1.513    | 2.07      | 79.8           | 60.9                   |
| [ 1 -3 10 ]  | ( 3 1 0 ) | ( -5 -5 -1 ) | 3.125    | 1.502    | 2.08      | 22.7           | 47.6                   |
| [ 3 -9 16 ]  | ( 3 1 0 ) | ( 4 -4 -3 )  | 3.125    | 1.498    | 2.09      | 70.0           | 65.0                   |
| [ 3 -9 -8 ]  | ( 3 1 0 ) | ( -4 -4 3 )  | 3.125    | 1.498    | 2.09      | 62.8           | 73.2                   |
| [ 3 -9 -2 ]  | ( 3 1 0 ) | ( 2 0 3 )    | 3.125    | 1.487    | 2.10      | 58.2           | 83.8                   |
| [ 3 -9 -16 ] | ( 3 1 0 ) | ( -1 5 -3 )  | 3.125    | 1.467    | 2.13      | 72.7           | 60.9                   |
| [ 3 -9 14 ]  | ( 3 1 0 ) | ( 1 5 3 )    | 3.125    | 1.467    | 2.13      | 64.0           | 68.1                   |
| [ 3 -9 -8 ]  | ( 3 1 0 ) | ( -2 2 -3 )  | 3.125    | 1.467    | 2.13      | 60.6           | 73.2                   |
| [ 3 -9 4 ]   | ( 3 1 0 ) | ( 2 2 3 )    | 3.125    | 1.467    | 2.13      | 56.8           | 85.3                   |
| [ 1 -3 9 ]   | ( 3 1 0 ) | ( -3 -7 -2 ) | 3.125    | 1.465    | 2.13      | 45.8           | 50.7                   |
| [ 3 -9 8 ]   | ( 3 1 0 ) | ( 5 -1 -3 )  | 3.125    | 1.463    | 2.14      | 58.2           | 78.1                   |
| [ 3 -9 2 ]   | ( 3 1 0 ) | ( -5 -1 3 )  | 3.125    | 1.463    | 2.14      | 56.3           | 88.9                   |
| [ 1 -3 9 ]   | ( 3 1 0 ) | ( 6 -4 -2 )  | 3.125    | 1.452    | 2.15      | 45.3           | 50.7                   |
| [ 1 -3 -3 ]  | ( 3 1 0 ) | ( -6 -4 2 )  | 3.125    | 1.452    | 2.15      | 35.4           | 71.6                   |
| [ 1 -3 -8 ]  | ( 3 1 0 ) | ( 5 7 -2 )   | 3.125    | 1.451    | 2.15      | 45.1           | 50.9                   |
| [ 3 -9 -20 ] | ( 3 1 0 ) | ( -1 -7 3 )  | 3.125    | 1.451    | 2.15      | 88.1           | 55.6                   |
| [ 3 -9 22 ]  | ( 3 1 0 ) | ( -1 7 3 )   | 3.125    | 1.451    | 2.15      | 80.8           | 56.6                   |
| [ 3 -9 14 ]  | ( 3 1 0 ) | ( -5 3 3 )   | 3.125    | 1.426    | 2.19      | 60.9           | 68.1                   |
| [ 3 -9 -4 ]  | ( 3 1 0 ) | ( 5 3 -3 )   | 3.125    | 1.426    | 2.19      | 55.3           | 80.2                   |
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( -6 0 -1 )  | 3.125    | 1.416    | 2.21      | 18.4           | 58.1                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( 3 -7 -3 )  | 3.125    | 1.413    | 2.21      | 82.2           | 54.2                   |
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( -3 -7 3 )  | 3.125    | 1.413    | 2.21      | 71.0           | 58.1                   |
| [ 3 -9 -14 ] | ( 3 1 0 ) | ( 2 -4 3 )   | 3.125    | 1.412    | 2.21      | 63.5           | 63.7                   |
| [ 3 -9 10 ]  | ( 3 1 0 ) | ( -2 -4 -3 ) | 3.125    | 1.412    | 2.21      | 56.3           | 74.7                   |
| [ 3 -9 22 ]  | ( 3 1 0 ) | ( 4 -6 -3 )  | 3.125    | 1.405    | 2.22      | 72.9           | 56.6                   |
| [ 3 -9 -14 ] | ( 3 1 0 ) | ( -4 -6 3 )  | 3.125    | 1.405    | 2.22      | 62.9           | 63.7                   |
| [ 1 -3 10 ]  | ( 3 1 0 ) | ( 7 -1 -1 )  | 3.125    | 1.402    | 2.23      | 21.1           | 47.6                   |
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( -7 -1 1 )  | 3.125    | 1.402    | 2.23      | 16.3           | 71.3                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( 6 2 1 )    | 3.125    | 1.399    | 2.23      | 15.4           | 87.4                   |
| [ 3 -9 26 ]  | ( 3 1 0 ) | ( 2 -8 -3 )  | 3.125    | 1.383    | 2.26      | 88.7           | 51.8                   |
| [ 3 -9 -22 ] | ( 3 1 0 ) | ( 2 8 -3 )   | 3.125    | 1.383    | 2.26      | 79.1           | 53.2                   |
| [ 1 -3 7 ]   | ( 3 1 0 ) | ( -4 -6 -2 ) | 3.125    | 1.381    | 2.26      | 38.1           | 57.9                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 7 3 -1 )   | 3.125    | 1.369    | 2.28      | 15.5           | 76.6                   |
| [ 1 -3 -1 ]  | ( 3 1 0 ) | ( -5 -1 -2 ) | 3.125    | 1.364    | 2.29      | 31.5           | 81.9                   |
| [ 3 -9 -22 ] | ( 3 1 0 ) | ( 1 -7 3 )   | 3.125    | 1.363    | 2.29      | 75.5           | 53.2                   |
| [ 3 -9 20 ]  | ( 3 1 0 ) | ( -1 -7 -3 ) | 3.125    | 1.363    | 2.29      | 64.3           | 59.3                   |

**Tremolite (310) 355 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 3 -9 20 ]  | ( 3 1 0 ) | ( 5 -5 -3 )  | 3.125    | 1.360    | 2.30      | 64.0           | 59.3                   |
| [ 3 -9 -10 ] | ( 3 1 0 ) | ( -5 -5 3 )  | 3.125    | 1.360    | 2.30      | 55.4           | 69.9                   |
| [ 1 -3 -8 ]  | ( 3 1 0 ) | ( 0 -8 3 )   | 3.125    | 1.359    | 2.30      | 84.5           | 50.9                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( 0 -8 -3 )  | 3.125    | 1.359    | 2.30      | 72.3           | 54.2                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 3 -1 3 )   | 3.125    | 1.358    | 2.30      | 52.5           | 76.6                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( -3 -1 -3 ) | 3.125    | 1.358    | 2.30      | 50.6           | 87.4                   |
| [ 1 -3 6 ]   | ( 3 1 0 ) | ( 6 4 1 )    | 3.125    | 1.351    | 2.31      | 16.8           | 62.1                   |
| [ 1 -3 5 ]   | ( 3 1 0 ) | ( -7 1 2 )   | 3.125    | 1.347    | 2.32      | 33.8           | 66.5                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( 7 1 -2 )   | 3.125    | 1.347    | 2.32      | 31.1           | 81.7                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( 5 3 2 )    | 3.125    | 1.334    | 2.34      | 30.7           | 81.7                   |
| [ 3 -9 -20 ] | ( 3 1 0 ) | ( 2 -6 3 )   | 3.125    | 1.333    | 2.34      | 66.7           | 55.6                   |
| [ 3 -9 16 ]  | ( 3 1 0 ) | ( -2 -6 -3 ) | 3.125    | 1.333    | 2.34      | 56.7           | 65.0                   |
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( 6 -2 -3 )  | 3.125    | 1.329    | 2.35      | 52.9           | 71.3                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( -6 -2 3 )  | 3.125    | 1.329    | 2.35      | 49.1           | 87.4                   |
| [ 3 -9 -26 ] | ( 3 1 0 ) | ( 1 9 -3 )   | 3.125    | 1.321    | 2.37      | 86.8           | 48.7                   |
| [ 3 -9 28 ]  | ( 3 1 0 ) | ( 1 -9 -3 )  | 3.125    | 1.321    | 2.37      | 80.1           | 49.6                   |
| [ 2 -6 1 ]   | ( 3 1 0 ) | ( 2 0 -4 )   | 3.125    | 1.320    | 2.37      | 89.2           | 89.9                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( -7 3 2 )   | 3.125    | 1.318    | 2.37      | 38.0           | 54.2                   |
| [ 1 -3 -1 ]  | ( 3 1 0 ) | ( 7 3 -2 )   | 3.125    | 1.318    | 2.37      | 30.3           | 81.9                   |
| [ 1 -3 -8 ]  | ( 3 1 0 ) | ( -7 -5 1 )  | 3.125    | 1.310    | 2.39      | 18.7           | 50.9                   |
| [ 2 -6 -1 ]  | ( 3 1 0 ) | ( -1 -1 4 )  | 3.125    | 1.306    | 2.39      | 83.8           | 84.7                   |
| [ 1 -3 1 ]   | ( 3 1 0 ) | ( -1 1 4 )   | 3.125    | 1.306    | 2.39      | 82.3           | 87.1                   |
| [ 2 -6 3 ]   | ( 3 1 0 ) | ( -3 1 4 )   | 3.125    | 1.301    | 2.40      | 82.2           | 84.4                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( 3 1 -4 )   | 3.125    | 1.301    | 2.40      | 80.7           | 87.4                   |
| [ 3 -9 28 ]  | ( 3 1 0 ) | ( 4 -8 -3 )  | 3.125    | 1.299    | 2.41      | 75.7           | 49.6                   |
| [ 3 -9 -20 ] | ( 3 1 0 ) | ( -4 -8 3 )  | 3.125    | 1.299    | 2.41      | 63.5           | 55.6                   |
| [ 1 -3 6 ]   | ( 3 1 0 ) | ( 6 -4 -3 )  | 3.125    | 1.287    | 2.43      | 55.9           | 62.1                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( -6 -4 3 )  | 3.125    | 1.287    | 2.43      | 48.8           | 76.6                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 1 3 -4 )   | 3.125    | 1.280    | 2.44      | 85.3           | 76.6                   |
| [ 2 -6 5 ]   | ( 3 1 0 ) | ( -1 3 4 )   | 3.125    | 1.280    | 2.44      | 81.1           | 79.0                   |
| [ 1 -3 5 ]   | ( 3 1 0 ) | ( -5 -5 -2 ) | 3.125    | 1.280    | 2.44      | 31.9           | 66.5                   |
| [ 3 -9 26 ]  | ( 3 1 0 ) | ( -5 7 3 )   | 3.125    | 1.276    | 2.45      | 67.3           | 51.8                   |
| [ 3 -9 -16 ] | ( 3 1 0 ) | ( 5 7 -3 )   | 3.125    | 1.276    | 2.45      | 56.1           | 60.9                   |
| [ 1 -3 3 ]   | ( 3 1 0 ) | ( -3 3 4 )   | 3.125    | 1.275    | 2.45      | 83.7           | 76.4                   |
| [ 2 -6 -3 ]  | ( 3 1 0 ) | ( 3 3 -4 )   | 3.125    | 1.275    | 2.45      | 79.5           | 79.3                   |
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( -3 5 -3 )  | 3.125    | 1.275    | 2.45      | 58.5           | 58.1                   |
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( 3 5 3 )    | 3.125    | 1.275    | 2.45      | 49.9           | 71.3                   |
| [ 1 -3 -9 ]  | ( 3 1 0 ) | ( -6 -8 2 )  | 3.125    | 1.268    | 2.46      | 40.5           | 47.7                   |
| [ 2 -6 -5 ]  | ( 3 1 0 ) | ( 2 4 -4 )   | 3.125    | 1.267    | 2.47      | 86.4           | 74.1                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( -7 -5 2 )  | 3.125    | 1.265    | 2.47      | 31.5           | 66.8                   |
| [ 2 -6 -3 ]  | ( 3 1 0 ) | ( 0 -2 4 )   | 3.125    | 1.264    | 2.47      | 77.1           | 79.3                   |
| [ 2 -6 3 ]   | ( 3 1 0 ) | ( 0 -2 -4 )  | 3.125    | 1.264    | 2.47      | 74.2           | 84.4                   |
| [ 2 -6 5 ]   | ( 3 1 0 ) | ( 4 -2 -4 )  | 3.125    | 1.255    | 2.49      | 75.6           | 79.0                   |
| [ 2 -6 -1 ]  | ( 3 1 0 ) | ( -4 -2 4 )  | 3.125    | 1.255    | 2.49      | 72.7           | 84.7                   |
| [ 3 -9 -28 ] | ( 3 1 0 ) | ( 1 -9 3 )   | 3.125    | 1.254    | 2.49      | 78.1           | 46.7                   |
| [ 3 -9 26 ]  | ( 3 1 0 ) | ( -1 -9 -3 ) | 3.125    | 1.254    | 2.49      | 65.0           | 51.8                   |
| [ 3 -9 -4 ]  | ( 3 1 0 ) | ( 4 0 3 )    | 3.125    | 1.243    | 2.51      | 45.8           | 80.2                   |
| [ 3 -9 -26 ] | ( 3 1 0 ) | ( -2 8 -3 )  | 3.125    | 1.242    | 2.52      | 69.8           | 48.7                   |



**Tremolite (310) 355 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|-----------|-----------|-----------|----------------|------------------------|
| [ 3 -9 22 ]  | ( 3 1 0 ) | ( 2 8 3 )    | 3.125     | 1.242     | 2.52      | 57.7           | 56.6                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( -7 -1 -1 ) | 3.125     | 1.235     | 2.53      | 14.8           | 66.8                   |
| [ 2 -6 -7 ]  | ( 3 1 0 ) | ( -1 -5 4 )  | 3.125     | 1.231     | 2.54      | 86.8           | 69.1                   |
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( 1 -5 -4 )  | 3.125     | 1.231     | 2.54      | 80.0           | 71.3                   |
| [ 3 -9 -10 ] | ( 3 1 0 ) | ( 4 -2 3 )   | 3.125     | 1.231     | 2.54      | 48.2           | 69.9                   |
| [ 3 -9 2 ]   | ( 3 1 0 ) | ( -4 -2 -3 ) | 3.125     | 1.231     | 2.54      | 44.4           | 88.9                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( 8 0 -1 )   | 3.125     | 1.230     | 2.54      | 16.7           | 54.2                   |
| [ 1 -3 -1 ]  | ( 3 1 0 ) | ( 1 -1 4 )   | 3.125     | 1.222     | 2.56      | 69.2           | 81.9                   |
| [ 2 -6 1 ]   | ( 3 1 0 ) | ( 1 1 4 )    | 3.125     | 1.222     | 2.56      | 67.8           | 89.9                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( 8 2 -1 )   | 3.125     | 1.219     | 2.56      | 13.5           | 81.7                   |
| [ 1 -3 -3 ]  | ( 3 1 0 ) | ( -6 0 -2 )  | 3.125     | 1.216     | 2.57      | 29.1           | 71.6                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( 7 3 1 )    | 3.125     | 1.213     | 2.58      | 13.4           | 81.7                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( -5 1 4 )   | 3.125     | 1.210     | 2.58      | 67.9           | 81.7                   |
| [ 2 -6 1 ]   | ( 3 1 0 ) | ( 5 1 -4 )   | 3.125     | 1.210     | 2.58      | 66.4           | 89.9                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( -5 -7 -2 ) | 3.125     | 1.209     | 2.59      | 34.4           | 54.2                   |
| [ 3 -9 16 ]  | ( 3 1 0 ) | ( 7 -3 -3 )  | 3.125     | 1.200     | 2.60      | 48.8           | 65.0                   |
| [ 3 -9 -2 ]  | ( 3 1 0 ) | ( -7 -3 3 )  | 3.125     | 1.200     | 2.60      | 43.3           | 83.8                   |
| [ 2 -6 -5 ]  | ( 3 1 0 ) | ( 1 -3 4 )   | 3.125     | 1.200     | 2.60      | 71.0           | 74.1                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( 1 3 4 )    | 3.125     | 1.200     | 2.60      | 66.8           | 81.7                   |
| [ 3 -9 -16 ] | ( 3 1 0 ) | ( -4 4 -3 )  | 3.125     | 1.198     | 2.61      | 51.2           | 60.9                   |
| [ 3 -9 8 ]   | ( 3 1 0 ) | ( 4 4 3 )    | 3.125     | 1.198     | 2.61      | 44.1           | 78.1                   |
| [ 1 -3 -7 ]  | ( 3 1 0 ) | ( -7 -7 2 )  | 3.125     | 1.197     | 2.61      | 33.9           | 54.4                   |
| [ 1 -3 7 ]   | ( 3 1 0 ) | ( 8 -2 -2 )  | 3.125     | 1.191     | 2.62      | 32.2           | 57.9                   |
| [ 1 -3 1 ]   | ( 3 1 0 ) | ( 8 2 -2 )   | 3.125     | 1.191     | 2.62      | 26.9           | 87.1                   |
| [ 2 -6 7 ]   | ( 3 1 0 ) | ( -5 3 4 )   | 3.125     | 1.188     | 2.63      | 69.7           | 73.8                   |
| [ 1 -3 -1 ]  | ( 3 1 0 ) | ( 5 3 -4 )   | 3.125     | 1.188     | 2.63      | 65.4           | 81.9                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( -8 -4 1 )  | 3.125     | 1.187     | 2.63      | 14.2           | 66.8                   |
| [ 3 -9 32 ]  | ( 3 1 0 ) | ( 5 -9 -3 )  | 3.125     | 1.185     | 2.64      | 70.3           | 45.6                   |
| [ 3 -9 -22 ] | ( 3 1 0 ) | ( -5 -9 3 )  | 3.125     | 1.185     | 2.64      | 57.3           | 53.2                   |
| [ 2 -6 -9 ]  | ( 3 1 0 ) | ( 0 -6 4 )   | 3.125     | 1.175     | 2.66      | 80.6           | 64.5                   |
| [ 2 -6 9 ]   | ( 3 1 0 ) | ( 0 -6 -4 )  | 3.125     | 1.175     | 2.66      | 72.7           | 68.9                   |
| [ 1 -3 -9 ]  | ( 3 1 0 ) | ( 6 -4 2 )   | 3.125     | 1.174     | 2.66      | 37.0           | 47.7                   |
| [ 1 -3 3 ]   | ( 3 1 0 ) | ( -6 -4 -2 ) | 3.125     | 1.174     | 2.66      | 27.2           | 76.4                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( 7 5 1 )    | 3.125     | 1.171     | 2.67      | 15.9           | 54.2                   |
| [ 1 -3 -5 ]  | ( 3 1 0 ) | ( 1 7 -4 )   | 3.125     | 1.168     | 2.68      | 88.3           | 62.3                   |
| [ 2 -6 11 ]  | ( 3 1 0 ) | ( -1 7 4 )   | 3.125     | 1.168     | 2.68      | 79.2           | 64.3                   |
| [ 2 -6 11 ]  | ( 3 1 0 ) | ( -4 6 4 )   | 3.125     | 1.168     | 2.68      | 79.2           | 64.3                   |
| [ 2 -6 -7 ]  | ( 3 1 0 ) | ( 4 6 -4 )   | 3.125     | 1.168     | 2.68      | 71.3           | 69.1                   |
| [ 1 -3 6 ]   | ( 3 1 0 ) | ( -3 7 4 )   | 3.125     | 1.164     | 2.68      | 86.9           | 62.1                   |
| [ 2 -6 -9 ]  | ( 3 1 0 ) | ( 3 7 -4 )   | 3.125     | 1.164     | 2.68      | 77.8           | 64.5                   |
| [ 1 -3 10 ]  | ( 3 1 0 ) | ( -8 4 2 )   | 3.125     | 1.161     | 2.69      | 36.6           | 47.6                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 8 4 -2 )   | 3.125     | 1.161     | 2.69      | 26.9           | 76.6                   |
| [ 2 -6 -1 ]  | ( 3 1 0 ) | ( -2 0 -4 )  | 3.125     | 1.161     | 2.69      | 62.1           | 84.7                   |
| [ 3 -9 22 ]  | ( 3 1 0 ) | ( 7 -5 -3 )  | 3.125     | 1.160     | 2.69      | 52.1           | 56.6                   |
| [ 3 -9 -8 ]  | ( 3 1 0 ) | ( -7 -5 3 )  | 3.125     | 1.160     | 2.69      | 43.5           | 73.2                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( 1 -5 4 )   | 3.125     | 1.160     | 2.69      | 73.0           | 66.8                   |
| [ 2 -6 7 ]   | ( 3 1 0 ) | ( -1 -5 -4 ) | 3.125     | 1.160     | 2.69      | 66.2           | 73.8                   |
| [ 1 -3 10 ]  | ( 3 1 0 ) | ( 6 -8 -3 )  | 3.125     | 1.154     | 2.71      | 62.7           | 47.6                   |

**Tremolite (310) 355 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( -6 -8 3 )  | 3.125    | 1.154    | 2.71      | 50.6           | 58.1                   |
| [ 1 -3 5 ]   | ( 3 1 0 ) | ( 5 -5 -4 )  | 3.125    | 1.149    | 2.72      | 71.7           | 66.5                   |
| [ 2 -6 -5 ]  | ( 3 1 0 ) | ( -5 -5 4 )  | 3.125    | 1.149    | 2.72      | 64.9           | 74.1                   |
| [ 3 -9 -22 ] | ( 3 1 0 ) | ( 4 -6 3 )   | 3.125    | 1.149    | 2.72      | 54.7           | 53.2                   |
| [ 3 -9 14 ]  | ( 3 1 0 ) | ( -4 -6 -3 ) | 3.125    | 1.149    | 2.72      | 44.7           | 68.1                   |
| [ 2 -6 3 ]   | ( 3 1 0 ) | ( 6 0 -4 )   | 3.125    | 1.147    | 2.72      | 60.9           | 84.4                   |
| [ 2 -6 13 ]  | ( 3 1 0 ) | ( 2 -8 -4 )  | 3.125    | 1.139    | 2.74      | 85.7           | 60.0                   |
| [ 2 -6 -11 ] | ( 3 1 0 ) | ( 2 8 -4 )   | 3.125    | 1.139    | 2.74      | 84.3           | 60.2                   |
| [ 3 -9 -8 ]  | ( 3 1 0 ) | ( -5 1 -3 )  | 3.125    | 1.131    | 2.76      | 42.2           | 73.2                   |
| [ 3 -9 -2 ]  | ( 3 1 0 ) | ( 5 1 3 )    | 3.125    | 1.131    | 2.76      | 40.3           | 83.8                   |
| [ 2 -6 5 ]   | ( 3 1 0 ) | ( -2 -4 -4 ) | 3.125    | 1.124    | 2.78      | 60.2           | 79.0                   |
| [ 3 -9 8 ]   | ( 3 1 0 ) | ( 8 0 -3 )   | 3.125    | 1.118    | 2.80      | 40.5           | 78.1                   |
| [ 1 -3 -5 ]  | ( 3 1 0 ) | ( -8 -6 2 )  | 3.125    | 1.116    | 2.80      | 28.5           | 62.3                   |
| [ 3 -9 -14 ] | ( 3 1 0 ) | ( 5 -3 3 )   | 3.125    | 1.114    | 2.81      | 44.9           | 63.7                   |
| [ 3 -9 4 ]   | ( 3 1 0 ) | ( -5 -3 -3 ) | 3.125    | 1.114    | 2.81      | 39.4           | 85.3                   |
| [ 2 -6 9 ]   | ( 3 1 0 ) | ( 6 -4 -4 )  | 3.125    | 1.112    | 2.81      | 64.6           | 68.9                   |
| [ 2 -6 -3 ]  | ( 3 1 0 ) | ( -6 -4 4 )  | 3.125    | 1.112    | 2.81      | 59.0           | 79.3                   |
| [ 3 -9 28 ]  | ( 3 1 0 ) | ( 7 -7 -3 )  | 3.125    | 1.107    | 2.82      | 55.6           | 49.6                   |
| [ 3 -9 -14 ] | ( 3 1 0 ) | ( -7 -7 3 )  | 3.125    | 1.107    | 2.82      | 44.5           | 63.7                   |
| [ 2 -6 -11 ] | ( 3 1 0 ) | ( 1 -7 4 )   | 3.125    | 1.106    | 2.82      | 75.1           | 60.2                   |
| [ 1 -3 5 ]   | ( 3 1 0 ) | ( -1 -7 -4 ) | 3.125    | 1.106    | 2.82      | 66.1           | 66.5                   |
| [ 1 -3 -8 ]  | ( 3 1 0 ) | ( 8 0 1 )    | 3.125    | 1.099    | 2.84      | 15.6           | 50.9                   |
| [ 2 -6 13 ]  | ( 3 1 0 ) | ( -5 7 4 )   | 3.125    | 1.097    | 2.85      | 73.8           | 60.0                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( 5 7 -4 )   | 3.125    | 1.097    | 2.85      | 64.8           | 66.8                   |
| [ 2 -6 -13 ] | ( 3 1 0 ) | ( -1 -9 4 )  | 3.125    | 1.097    | 2.85      | 89.6           | 56.2                   |
| [ 1 -3 7 ]   | ( 3 1 0 ) | ( 1 -9 -4 )  | 3.125    | 1.097    | 2.85      | 78.7           | 57.9                   |
| [ 2 -6 15 ]  | ( 3 1 0 ) | ( 3 -9 -4 )  | 3.125    | 1.094    | 2.86      | 88.2           | 56.0                   |
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( -3 -9 4 )  | 3.125    | 1.094    | 2.86      | 77.3           | 58.1                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 8 2 1 )    | 3.125    | 1.091    | 2.87      | 12.3           | 76.6                   |
| [ 1 -3 6 ]   | ( 3 1 0 ) | ( -9 -1 1 )  | 3.125    | 1.090    | 2.87      | 13.5           | 62.1                   |
| [ 2 -6 -3 ]  | ( 3 1 0 ) | ( 3 -1 4 )   | 3.125    | 1.090    | 2.87      | 57.2           | 79.3                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( 3 1 4 )    | 3.125    | 1.090    | 2.87      | 55.8           | 87.4                   |
| [ 3 -9 -28 ] | ( 3 1 0 ) | ( -4 8 -3 )  | 3.125    | 1.089    | 2.87      | 58.2           | 46.7                   |
| [ 3 -9 20 ]  | ( 3 1 0 ) | ( 4 8 3 )    | 3.125    | 1.089    | 2.87      | 46.0           | 59.3                   |
| [ 1 -3 -5 ]  | ( 3 1 0 ) | ( -7 1 -2 )  | 3.125    | 1.089    | 2.87      | 27.8           | 62.3                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 7 1 2 )    | 3.125    | 1.089    | 2.87      | 25.1           | 76.6                   |
| [ 3 -9 20 ]  | ( 3 1 0 ) | ( -8 4 3 )   | 3.125    | 1.085    | 2.88      | 45.8           | 59.3                   |
| [ 3 -9 -4 ]  | ( 3 1 0 ) | ( 8 4 -3 )   | 3.125    | 1.085    | 2.88      | 38.7           | 80.2                   |
| [ 1 -3 6 ]   | ( 3 1 0 ) | ( -9 1 2 )   | 3.125    | 1.077    | 2.90      | 27.5           | 62.1                   |
| [ 1 -3 3 ]   | ( 3 1 0 ) | ( 9 1 -2 )   | 3.125    | 1.077    | 2.90      | 24.8           | 76.4                   |
| [ 2 -6 5 ]   | ( 3 1 0 ) | ( -7 1 4 )   | 3.125    | 1.075    | 2.91      | 56.1           | 79.0                   |
| [ 1 -3 1 ]   | ( 3 1 0 ) | ( 7 1 -4 )   | 3.125    | 1.075    | 2.91      | 54.7           | 87.1                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( -9 -3 1 )  | 3.125    | 1.075    | 2.91      | 11.8           | 87.4                   |
| [ 1 -3 -3 ]  | ( 3 1 0 ) | ( 3 -3 4 )   | 3.125    | 1.074    | 2.91      | 59.1           | 71.6                   |
| [ 2 -6 3 ]   | ( 3 1 0 ) | ( -3 -3 -4 ) | 3.125    | 1.074    | 2.91      | 54.9           | 84.4                   |
| [ 1 -3 -8 ]  | ( 3 1 0 ) | ( 7 -3 2 )   | 3.125    | 1.073    | 2.91      | 31.6           | 50.9                   |
| [ 1 -3 1 ]   | ( 3 1 0 ) | ( -7 -3 -2 ) | 3.125    | 1.073    | 2.91      | 24.0           | 87.1                   |
| [ 1 -3 9 ]   | ( 3 1 0 ) | ( 6 8 2 )    | 3.125    | 1.070    | 2.92      | 31.6           | 50.7                   |

**Tremolite (310) 355 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( -8 -4 -1 ) | 3.125    | 1.067    | 2.93      | 12.3           | 71.3                   |
| [ 1 -3 9 ]   | ( 3 1 0 ) | ( 9 -3 -2 )  | 3.125    | 1.062    | 2.94      | 31.3           | 50.7                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( -9 -3 2 )  | 3.125    | 1.062    | 2.94      | 23.8           | 87.4                   |
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( -7 3 4 )   | 3.125    | 1.060    | 2.95      | 58.0           | 71.3                   |
| [ 2 -6 -1 ]  | ( 3 1 0 ) | ( 7 3 -4 )   | 3.125    | 1.060    | 2.95      | 53.8           | 84.7                   |
| [ 5 -15 2 ]  | ( 3 1 0 ) | ( 2 0 -5 )   | 3.125    | 1.055    | 2.96      | 87.7           | 89.6                   |
| [ 5 -15 6 ]  | ( 3 1 0 ) | ( 3 -1 -5 )  | 3.125    | 1.051    | 2.97      | 86.7           | 86.0                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( -3 -1 5 )  | 3.125    | 1.051    | 2.97      | 85.5           | 87.4                   |
| [ 3 -9 26 ]  | ( 3 1 0 ) | ( 8 -6 -3 )  | 3.125    | 1.048    | 2.98      | 49.2           | 51.8                   |
| [ 3 -9 -10 ] | ( 3 1 0 ) | ( -8 -6 3 )  | 3.125    | 1.048    | 2.98      | 39.3           | 69.9                   |
| [ 5 -15 -4 ] | ( 3 1 0 ) | ( -2 -2 5 )  | 3.125    | 1.048    | 2.98      | 88.8           | 83.0                   |
| [ 5 -15 8 ]  | ( 3 1 0 ) | ( 2 -2 -5 )  | 3.125    | 1.048    | 2.98      | 86.5           | 83.8                   |
| [ 3 -9 -20 ] | ( 3 1 0 ) | ( 7 9 -3 )   | 3.125    | 1.046    | 2.99      | 46.1           | 55.6                   |
| [ 1 -3 -6 ]  | ( 3 1 0 ) | ( 9 5 -1 )   | 3.125    | 1.045    | 2.99      | 13.5           | 58.1                   |
| [ 1 -3 -7 ]  | ( 3 1 0 ) | ( -1 9 -4 )  | 3.125    | 1.045    | 2.99      | 77.1           | 54.4                   |
| [ 2 -6 13 ]  | ( 3 1 0 ) | ( 1 9 4 )    | 3.125    | 1.045    | 2.99      | 66.2           | 60.0                   |
| [ 2 -6 -9 ]  | ( 3 1 0 ) | ( -3 5 -4 )  | 3.125    | 1.045    | 2.99      | 61.3           | 64.5                   |
| [ 1 -3 3 ]   | ( 3 1 0 ) | ( 3 5 4 )    | 3.125    | 1.045    | 2.99      | 54.6           | 76.4                   |
| [ 1 -3 4 ]   | ( 3 1 0 ) | ( -7 -5 -2 ) | 3.125    | 1.044    | 2.99      | 24.7           | 71.3                   |
| [ 5 -15 -2 ] | ( 3 1 0 ) | ( -1 -1 5 )  | 3.125    | 1.042    | 3.00      | 82.1           | 85.2                   |
| [ 5 -15 4 ]  | ( 3 1 0 ) | ( -1 1 5 )   | 3.125    | 1.042    | 3.00      | 80.9           | 88.2                   |
| [ 5 -15 4 ]  | ( 3 1 0 ) | ( -4 0 5 )   | 3.125    | 1.039    | 3.01      | 79.9           | 88.2                   |
| [ 3 -9 -26 ] | ( 3 1 0 ) | ( 5 -7 3 )   | 3.125    | 1.038    | 3.01      | 51.7           | 48.7                   |
| [ 3 -9 16 ]  | ( 3 1 0 ) | ( 5 7 3 )    | 3.125    | 1.038    | 3.01      | 40.6           | 65.0                   |
| [ 1 -3 8 ]   | ( 3 1 0 ) | ( -5 9 4 )   | 3.125    | 1.038    | 3.01      | 75.9           | 54.2                   |
| [ 2 -6 -11 ] | ( 3 1 0 ) | ( 5 9 -4 )   | 3.125    | 1.038    | 3.01      | 65.0           | 60.2                   |
| [ 5 -15 12 ] | ( 3 1 0 ) | ( 3 -3 -5 )  | 3.125    | 1.037    | 3.01      | 87.8           | 79.5                   |
| [ 5 -15 -6 ] | ( 3 1 0 ) | ( -3 -3 5 )  | 3.125    | 1.037    | 3.01      | 84.4           | 80.9                   |
| [ 2 -6 -13 ] | ( 3 1 0 ) | ( 2 -8 4 )   | 3.125    | 1.033    | 3.03      | 70.3           | 56.2                   |
| [ 2 -6 11 ]  | ( 3 1 0 ) | ( -2 -8 -4 ) | 3.125    | 1.033    | 3.03      | 60.3           | 64.3                   |
| [ 2 -6 11 ]  | ( 3 1 0 ) | ( 7 -5 -4 )  | 3.125    | 1.032    | 3.03      | 60.3           | 64.3                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( -7 -5 4 )  | 3.125    | 1.032    | 3.03      | 53.5           | 76.6                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( 4 -2 -5 )  | 3.125    | 1.032    | 3.03      | 81.1           | 81.7                   |
| [ 5 -15 -2 ] | ( 3 1 0 ) | ( -4 -2 5 )  | 3.125    | 1.032    | 3.03      | 78.8           | 85.2                   |
| [ 1 -3 10 ]  | ( 3 1 0 ) | ( 8 6 1 )    | 3.125    | 1.032    | 3.03      | 15.4           | 47.6                   |
| [ 1 -3 -4 ]  | ( 3 1 0 ) | ( -6 2 -3 )  | 3.125    | 1.030    | 3.04      | 39.6           | 66.8                   |
| [ 1 -3 0 ]   | ( 3 1 0 ) | ( 6 2 3 )    | 3.125    | 1.030    | 3.04      | 35.9           | 87.4                   |
| [ 5 -15 -8 ] | ( 3 1 0 ) | ( 1 3 -5 )   | 3.125    | 1.028    | 3.04      | 83.3           | 78.7                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( -1 3 5 )   | 3.125    | 1.028    | 3.04      | 79.9           | 81.7                   |
| [ 1 -3 -2 ]  | ( 3 1 0 ) | ( 2 4 -5 )   | 3.125    | 1.027    | 3.04      | 90.0           | 76.6                   |
| [ 5 -15 14 ] | ( 3 1 0 ) | ( -2 4 5 )   | 3.125    | 1.027    | 3.04      | 85.5           | 77.4                   |
| [ 2 -6 15 ]  | ( 3 1 0 ) | ( -6 8 4 )   | 3.125    | 1.023    | 3.06      | 69.2           | 56.0                   |
| [ 2 -6 -9 ]  | ( 3 1 0 ) | ( 6 8 -4 )   | 3.125    | 1.023    | 3.06      | 59.2           | 64.5                   |
| [ 1 -3 2 ]   | ( 3 1 0 ) | ( -9 -1 3 )  | 3.125    | 1.021    | 3.06      | 35.9           | 81.7                   |
| [ 2 -6 -5 ]  | ( 3 1 0 ) | ( 4 -2 4 )   | 3.125    | 1.015    | 3.08      | 53.1           | 74.1                   |
| [ 2 -6 1 ]   | ( 3 1 0 ) | ( -4 -2 -4 ) | 3.125    | 1.015    | 3.08      | 50.3           | 89.9                   |
| [ 5 -15 -6 ] | ( 3 1 0 ) | ( 0 -2 5 )   | 3.125    | 1.015    | 3.08      | 76.7           | 80.9                   |
| [ 5 -15 6 ]  | ( 3 1 0 ) | ( 0 -2 -5 )  | 3.125    | 1.015    | 3.08      | 74.4           | 86.0                   |

**Tremolite (310) 355 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 5 -15 16 ]  | ( 3 1 0 ) | ( 4 -4 -5 )  | 3.125    | 1.012    | 3.09      | 82.4           | 75.3        |
| [ 5 -15 -8 ]  | ( 3 1 0 ) | ( -4 -4 5 )  | 3.125    | 1.012    | 3.09      | 77.9           | 78.7        |
| [ 5 -15 8 ]   | ( 3 1 0 ) | ( 5 -1 -5 )  | 3.125    | 1.012    | 3.09      | 74.6           | 83.8        |
| [ 5 -15 2 ]   | ( 3 1 0 ) | ( -5 -1 5 )  | 3.125    | 1.012    | 3.09      | 73.4           | 89.6        |
| [ 5 -15 18 ]  | ( 3 1 0 ) | ( 3 -5 -5 )  | 3.125    | 1.011    | 3.09      | 89.0           | 73.3        |
| [ 5 -15 -12 ] | ( 3 1 0 ) | ( -3 -5 5 )  | 3.125    | 1.011    | 3.09      | 83.4           | 74.6        |
| [ 1 -3 -6 ]   | ( 3 1 0 ) | ( 6 -4 3 )   | 3.125    | 1.010    | 3.09      | 42.5           | 58.1        |
| [ 1 -3 2 ]    | ( 3 1 0 ) | ( -6 -4 -3 ) | 3.125    | 1.010    | 3.09      | 35.5           | 81.7        |
| [ 1 -3 6 ]    | ( 3 1 0 ) | ( 9 -3 -3 )  | 3.125    | 1.008    | 3.10      | 40.4           | 62.1        |
| [ 1 -3 0 ]    | ( 3 1 0 ) | ( -9 -3 3 )  | 3.125    | 1.008    | 3.10      | 35.0           | 87.4        |
| [ 1 -3 -6 ]   | ( 3 1 0 ) | ( -3 7 -4 )  | 3.125    | 1.006    | 3.11      | 63.8           | 58.1        |
| [ 2 -6 9 ]    | ( 3 1 0 ) | ( 3 7 4 )    | 3.125    | 1.006    | 3.11      | 54.8           | 68.9        |
| [ 1 -3 7 ]    | ( 3 1 0 ) | ( -7 -7 -2 ) | 3.125    | 1.004    | 3.11      | 26.7           | 57.9        |
| [ 5 -15 -14 ] | ( 3 1 0 ) | ( -1 -5 5 )  | 3.125    | 1.003    | 3.12      | 84.6           | 72.6        |
| [ 5 -15 16 ]  | ( 3 1 0 ) | ( 1 -5 -5 )  | 3.125    | 1.003    | 3.12      | 79.0           | 75.3        |
| [ 3 -9 32 ]   | ( 3 1 0 ) | ( 8 -8 -3 )  | 3.125    | 1.002    | 3.12      | 52.8           | 45.6        |
| [ 3 -9 -16 ]  | ( 3 1 0 ) | ( -8 -8 3 )  | 3.125    | 1.002    | 3.12      | 40.7           | 60.9        |
| [ 2 -6 7 ]    | ( 3 1 0 ) | ( 8 -2 -4 )  | 3.125    | 1.001    | 3.12      | 52.2           | 73.8        |
| [ 2 -6 1 ]    | ( 3 1 0 ) | ( -8 -2 4 )  | 3.125    | 1.001    | 3.12      | 49.3           | 89.9        |

**Tremolite (170) 269 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 7 -1 0 ]  | ( 1 7 0 ) | ( 0 0 1 )    | 2.490    | 5.105    | 0.49      | 86.2           | 75.8                   |
| [ 7 -1 8 ]  | ( 1 7 0 ) | ( -1 1 1 )   | 2.490    | 4.879    | 0.51      | 79.0           | 70.3                   |
| [ 7 -1 6 ]  | ( 1 7 0 ) | ( -1 -1 1 )  | 2.490    | 4.879    | 0.51      | 70.7           | 78.4                   |
| [ 7 -1 -2 ] | ( 1 7 0 ) | ( 0 2 -1 )   | 2.490    | 4.444    | 0.56      | 65.3           | 67.9                   |
| [ 7 -1 2 ]  | ( 1 7 0 ) | ( 0 -2 -1 )  | 2.490    | 4.444    | 0.56      | 57.8           | 84.2                   |
| [ 7 -1 14 ] | ( 1 7 0 ) | ( 2 0 -1 )   | 2.490    | 4.030    | 0.62      | 80.3           | 50.8                   |
| [ 7 -1 -8 ] | ( 1 7 0 ) | ( -1 1 -1 )  | 2.490    | 3.986    | 0.62      | 87.0           | 49.1                   |
| [ 7 -1 -6 ] | ( 1 7 0 ) | ( -1 -1 -1 ) | 2.490    | 3.986    | 0.62      | 68.0           | 54.5                   |
| [ 7 -1 10 ] | ( 1 7 0 ) | ( -1 3 1 )   | 2.490    | 3.877    | 0.64      | 55.6           | 62.9                   |
| [ 7 -1 4 ]  | ( 1 7 0 ) | ( -1 -3 1 )  | 2.490    | 3.877    | 0.64      | 47.3           | 87.0                   |
| [ 7 -1 16 ] | ( 1 7 0 ) | ( -2 2 1 )   | 2.490    | 3.680    | 0.68      | 76.2           | 45.9                   |
| [ 7 -1 12 ] | ( 1 7 0 ) | ( 2 2 -1 )   | 2.490    | 3.680    | 0.68      | 56.8           | 56.4                   |
| [ 7 -1 -4 ] | ( 1 7 0 ) | ( 0 -4 1 )   | 2.490    | 3.382    | 0.74      | 47.2           | 60.8                   |
| [ 7 -1 4 ]  | ( 1 7 0 ) | ( 0 4 1 )    | 2.490    | 3.382    | 0.74      | 39.9           | 87.0                   |
| [ 7 -1 -4 ] | ( 1 7 0 ) | ( -1 -3 -1 ) | 2.490    | 3.381    | 0.74      | 47.2           | 60.8                   |
| [ 7 -1 10 ] | ( 1 7 0 ) | ( 2 4 -1 )   | 2.490    | 3.006    | 0.83      | 39.8           | 62.9                   |
| [ 7 -1 12 ] | ( 1 7 0 ) | ( 1 -5 -1 )  | 2.490    | 2.941    | 0.85      | 42.0           | 56.4                   |
| [ 7 -1 2 ]  | ( 1 7 0 ) | ( 1 5 -1 )   | 2.490    | 2.941    | 0.85      | 34.1           | 84.2                   |
| [ 7 -1 -2 ] | ( 1 7 0 ) | ( -1 -5 -1 ) | 2.490    | 2.706    | 0.92      | 33.6           | 67.9                   |
| [ 7 -1 4 ]  | ( 1 7 0 ) | ( -1 1 2 )   | 2.490    | 2.611    | 0.95      | 82.2           | 87.0                   |
| [ 7 -1 3 ]  | ( 1 7 0 ) | ( -1 -1 2 )  | 2.490    | 2.611    | 0.95      | 81.8           | 88.6                   |
| [ 7 -1 -6 ] | ( 1 7 0 ) | ( 0 6 -1 )   | 2.490    | 2.593    | 0.96      | 37.1           | 54.5                   |
| [ 7 -1 6 ]  | ( 1 7 0 ) | ( 0 -6 -1 )  | 2.490    | 2.593    | 0.96      | 30.1           | 78.4                   |
| [ 7 -1 7 ]  | ( 1 7 0 ) | ( 2 0 -2 )   | 2.490    | 2.534    | 0.98      | 85.8           | 74.3                   |
| [ 7 -1 -1 ] | ( 1 7 0 ) | ( 0 2 -2 )   | 2.490    | 2.456    | 1.01      | 78.5           | 71.7                   |
| [ 7 -1 1 ]  | ( 1 7 0 ) | ( 0 2 2 )    | 2.490    | 2.456    | 1.01      | 70.9           | 79.9                   |
| [ 7 -1 8 ]  | ( 1 7 0 ) | ( -2 -6 1 )  | 2.490    | 2.411    | 1.03      | 29.0           | 70.3                   |
| [ 7 -1 16 ] | ( 1 7 0 ) | ( 3 5 -1 )   | 2.490    | 2.338    | 1.07      | 38.1           | 45.9                   |
| [ 7 -1 -4 ] | ( 1 7 0 ) | ( -1 1 -2 )  | 2.490    | 2.303    | 1.08      | 90.0           | 60.8                   |
| [ 7 -1 -3 ] | ( 1 7 0 ) | ( 1 1 2 )    | 2.490    | 2.303    | 1.08      | 75.7           | 64.2                   |
| [ 7 -1 14 ] | ( 1 7 0 ) | ( 1 -7 -1 )  | 2.490    | 2.299    | 1.08      | 34.2           | 50.8                   |
| [ 7 -1 0 ]  | ( 1 7 0 ) | ( 1 7 -1 )   | 2.490    | 2.299    | 1.08      | 26.7           | 75.8                   |
| [ 7 -1 11 ] | ( 1 7 0 ) | ( -3 1 2 )   | 2.490    | 2.276    | 1.09      | 89.6           | 59.6                   |
| [ 7 -1 10 ] | ( 1 7 0 ) | ( 3 1 -2 )   | 2.490    | 2.276    | 1.09      | 75.5           | 62.9                   |
| [ 7 -1 9 ]  | ( 1 7 0 ) | ( -2 4 2 )   | 2.490    | 2.210    | 1.13      | 65.9           | 66.5                   |
| [ 7 -1 5 ]  | ( 1 7 0 ) | ( -2 -4 2 )  | 2.490    | 2.210    | 1.13      | 57.6           | 82.7                   |
| [ 7 -1 0 ]  | ( 1 7 0 ) | ( 1 7 1 )    | 2.490    | 2.182    | 1.14      | 25.2           | 75.8                   |
| [ 7 -1 -5 ] | ( 1 7 0 ) | ( 1 -3 2 )   | 2.490    | 2.167    | 1.15      | 76.6           | 57.5                   |
| [ 7 -1 -2 ] | ( 1 7 0 ) | ( 1 3 2 )    | 2.490    | 2.167    | 1.15      | 62.4           | 67.9                   |
| [ 7 -1 -8 ] | ( 1 7 0 ) | ( -2 -6 -1 ) | 2.490    | 2.163    | 1.15      | 32.8           | 49.1                   |
| [ 7 -1 12 ] | ( 1 7 0 ) | ( -3 3 2 )   | 2.490    | 2.144    | 1.16      | 77.1           | 56.4                   |
| [ 7 -1 9 ]  | ( 1 7 0 ) | ( 3 3 -2 )   | 2.490    | 2.144    | 1.16      | 62.3           | 66.5                   |
| [ 7 -1 6 ]  | ( 1 7 0 ) | ( 1 -5 -2 )  | 2.490    | 2.131    | 1.17      | 55.5           | 78.4                   |
| [ 7 -1 1 ]  | ( 1 7 0 ) | ( 1 5 -2 )   | 2.490    | 2.131    | 1.17      | 55.1           | 79.9                   |
| [ 7 -1 -8 ] | ( 1 7 0 ) | ( 0 8 -1 )   | 2.490    | 2.065    | 1.21      | 31.1           | 49.1                   |
| [ 7 -1 8 ]  | ( 1 7 0 ) | ( 0 -8 -1 )  | 2.490    | 2.065    | 1.21      | 24.5           | 70.3                   |
| [ 7 -1 -7 ] | ( 1 7 0 ) | ( 2 0 2 )    | 2.490    | 2.043    | 1.22      | 80.5           | 51.7                   |
| [ 7 -1 13 ] | ( 1 7 0 ) | ( 4 2 -2 )   | 2.490    | 1.966    | 1.27      | 68.0           | 53.5                   |

**Tremolite (170) 269 Zone Axes*****a* 9.84Å *b* 18.06Å *c* 5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°**Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | <i>d</i> (hk0) | <i>d</i> (hkl) | <i>d</i> Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------------|----------------|----------------|----------------|-------------|
| [ 7 -1 -6 ]  | ( 1 7 0 ) | ( 1 -5 2 )   | 2.490          | 1.953          | 1.27           | 65.3           | 54.5        |
| [ 7 -1 -1 ]  | ( 1 7 0 ) | ( 1 5 2 )    | 2.490          | 1.953          | 1.27           | 51.2           | 71.7        |
| [ 7 -1 -3 ]  | ( 1 7 0 ) | ( 0 -6 2 )   | 2.490          | 1.947          | 1.28           | 55.0           | 64.2        |
| [ 7 -1 3 ]   | ( 1 7 0 ) | ( 0 6 2 )    | 2.490          | 1.947          | 1.28           | 47.5           | 88.6        |
| [ 7 -1 13 ]  | ( 1 7 0 ) | ( 3 -5 -2 )  | 2.490          | 1.936          | 1.29           | 65.9           | 53.5        |
| [ 7 -1 8 ]   | ( 1 7 0 ) | ( 3 5 -2 )   | 2.490          | 1.936          | 1.29           | 51.2           | 70.3        |
| [ 7 -1 16 ]  | ( 1 7 0 ) | ( -1 9 1 )   | 2.490          | 1.866          | 1.33           | 29.5           | 45.9        |
| [ 7 -1 -2 ]  | ( 1 7 0 ) | ( -1 -9 1 )  | 2.490          | 1.866          | 1.33           | 22.4           | 67.9        |
| [ 7 -1 -9 ]  | ( 1 7 0 ) | ( -2 4 -2 )  | 2.490          | 1.862          | 1.34           | 75.7           | 46.7        |
| [ 7 -1 -5 ]  | ( 1 7 0 ) | ( -2 -4 -2 ) | 2.490          | 1.862          | 1.34           | 56.7           | 57.5        |
| [ 7 -1 7 ]   | ( 1 7 0 ) | ( -1 7 2 )   | 2.490          | 1.845          | 1.35           | 46.6           | 74.3        |
| [ 7 -1 0 ]   | ( 1 7 0 ) | ( -1 -7 2 )  | 2.490          | 1.845          | 1.35           | 46.1           | 75.8        |
| [ 7 -1 -6 ]  | ( 1 7 0 ) | ( -2 -8 -1 ) | 2.490          | 1.827          | 1.36           | 25.1           | 54.5        |
| [ 7 -1 2 ]   | ( 1 7 0 ) | ( 1 9 1 )    | 2.490          | 1.801          | 1.38           | 20.1           | 84.2        |
| [ 21 -3 14 ] | ( 1 7 0 ) | ( -2 0 3 )   | 2.490          | 1.750          | 1.42           | 88.4           | 84.1        |
| [ 7 -1 2 ]   | ( 1 7 0 ) | ( 1 1 -3 )   | 2.490          | 1.746          | 1.43           | 85.8           | 84.2        |
| [ 21 -3 8 ]  | ( 1 7 0 ) | ( 1 -1 -3 )  | 2.490          | 1.746          | 1.43           | 83.5           | 87.1        |
| [ 7 -1 -7 ]  | ( 1 7 0 ) | ( -1 7 -2 )  | 2.490          | 1.726          | 1.44           | 56.4           | 51.7        |
| [ 7 -1 0 ]   | ( 1 7 0 ) | ( -1 -7 -2 ) | 2.490          | 1.726          | 1.44           | 42.4           | 75.8        |
| [ 21 -3 16 ] | ( 1 7 0 ) | ( -2 2 3 )   | 2.490          | 1.718          | 1.45           | 81.0           | 81.2        |
| [ 7 -1 4 ]   | ( 1 7 0 ) | ( -2 -2 3 )  | 2.490          | 1.718          | 1.45           | 77.8           | 87.0        |
| [ 7 -1 14 ]  | ( 1 7 0 ) | ( -3 7 2 )   | 2.490          | 1.714          | 1.45           | 57.0           | 50.8        |
| [ 7 -1 7 ]   | ( 1 7 0 ) | ( -3 -7 2 )  | 2.490          | 1.714          | 1.45           | 42.4           | 74.3        |
| [ 7 -1 -9 ]  | ( 1 7 0 ) | ( 3 3 2 )    | 2.490          | 1.707          | 1.46           | 62.7           | 46.7        |
| [ 7 -1 16 ]  | ( 1 7 0 ) | ( -5 -3 2 )  | 2.490          | 1.685          | 1.48           | 62.8           | 45.9        |
| [ 21 -3 4 ]  | ( 1 7 0 ) | ( 1 3 -3 )   | 2.490          | 1.684          | 1.48           | 75.5           | 81.4        |
| [ 21 -3 10 ] | ( 1 7 0 ) | ( 1 -3 -3 )  | 2.490          | 1.684          | 1.48           | 73.2           | 89.9        |
| [ 21 -3 22 ] | ( 1 7 0 ) | ( -3 1 3 )   | 2.490          | 1.682          | 1.48           | 89.0           | 72.9        |
| [ 21 -3 20 ] | ( 1 7 0 ) | ( -3 -1 3 )  | 2.490          | 1.682          | 1.48           | 80.6           | 75.6        |
| [ 7 -1 12 ]  | ( 1 7 0 ) | ( 3 9 -1 )   | 2.490          | 1.679          | 1.48           | 22.4           | 56.4        |
| [ 7 -1 11 ]  | ( 1 7 0 ) | ( -4 -6 2 )  | 2.490          | 1.674          | 1.49           | 47.4           | 59.6        |
| [ 21 -3 -2 ] | ( 1 7 0 ) | ( 0 2 -3 )   | 2.490          | 1.672          | 1.49           | 83.5           | 73.1        |
| [ 21 -3 2 ]  | ( 1 7 0 ) | ( 0 -2 -3 )  | 2.490          | 1.672          | 1.49           | 75.9           | 78.5        |
| [ 7 -1 6 ]   | ( 1 7 0 ) | ( -2 4 3 )   | 2.490          | 1.631          | 1.53           | 71.2           | 78.4        |
| [ 21 -3 10 ] | ( 1 7 0 ) | ( -2 -4 3 )  | 2.490          | 1.631          | 1.53           | 68.0           | 89.9        |
| [ 21 -3 -8 ] | ( 1 7 0 ) | ( 1 -1 3 )   | 2.490          | 1.600          | 1.56           | 88.8           | 65.4        |
| [ 7 -1 -2 ]  | ( 1 7 0 ) | ( -1 -1 -3 ) | 2.490          | 1.600          | 1.56           | 78.9           | 67.9        |
| [ 7 -1 8 ]   | ( 1 7 0 ) | ( -1 9 2 )   | 2.490          | 1.597          | 1.56           | 40.0           | 70.3        |
| [ 7 -1 -1 ]  | ( 1 7 0 ) | ( -1 -9 2 )  | 2.490          | 1.597          | 1.56           | 39.6           | 71.7        |
| [ 7 -1 -8 ]  | ( 1 7 0 ) | ( 3 5 2 )    | 2.490          | 1.597          | 1.56           | 53.1           | 49.1        |
| [ 21 -3 -4 ] | ( 1 7 0 ) | ( 0 -4 3 )   | 2.490          | 1.592          | 1.56           | 73.8           | 70.4        |
| [ 21 -3 4 ]  | ( 1 7 0 ) | ( 0 4 3 )    | 2.490          | 1.592          | 1.56           | 66.3           | 81.4        |
| [ 21 -3 28 ] | ( 1 7 0 ) | ( -4 0 3 )   | 2.490          | 1.588          | 1.57           | 83.5           | 65.3        |
| [ 7 -1 15 ]  | ( 1 7 0 ) | ( 5 5 -2 )   | 2.490          | 1.578          | 1.58           | 53.3           | 48.2        |
| [ 21 -3 2 ]  | ( 1 7 0 ) | ( -1 -5 3 )  | 2.490          | 1.578          | 1.58           | 66.2           | 78.5        |
| [ 7 -1 4 ]   | ( 1 7 0 ) | ( -1 5 3 )   | 2.490          | 1.578          | 1.58           | 63.9           | 87.0        |
| [ 7 -1 10 ]  | ( 1 7 0 ) | ( 4 -2 -3 )  | 2.490          | 1.564          | 1.59           | 86.8           | 62.9        |
| [ 21 -3 26 ] | ( 1 7 0 ) | ( 4 2 -3 )   | 2.490          | 1.564          | 1.59           | 73.9           | 67.8        |



**Tremolite (170) 269 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C |
|---------------|-----------|--------------|----------|----------|-----------|----------------|---------------|
| [ 21 -3 -10 ] | ( 1 7 0 ) | ( 1 -3 3 )   | 2.490    | 1.552    | 1.60      | 81.6           | 63.0          |
| [ 21 -3 -4 ]  | ( 1 7 0 ) | ( 1 3 3 )    | 2.490    | 1.552    | 1.60      | 69.4           | 70.4          |
| [ 21 -3 26 ]  | ( 1 7 0 ) | ( 3 -5 -3 )  | 2.490    | 1.530    | 1.63      | 70.0           | 67.8          |
| [ 21 -3 16 ]  | ( 1 7 0 ) | ( 3 5 -3 )   | 2.490    | 1.530    | 1.63      | 61.6           | 81.2          |
| [ 7 -1 -8 ]   | ( 1 7 0 ) | ( 1 -9 2 )   | 2.490    | 1.518    | 1.64      | 49.5           | 49.1          |
| [ 7 -1 1 ]    | ( 1 7 0 ) | ( 1 9 2 )    | 2.490    | 1.518    | 1.64      | 35.7           | 79.9          |
| [ 7 -1 -3 ]   | ( 1 7 0 ) | ( -2 -8 -2 ) | 2.490    | 1.515    | 1.64      | 39.6           | 64.2          |
| [ 21 -3 20 ]  | ( 1 7 0 ) | ( -2 6 3 )   | 2.490    | 1.513    | 1.65      | 62.5           | 75.6          |
| [ 21 -3 8 ]   | ( 1 7 0 ) | ( -2 -6 3 )  | 2.490    | 1.513    | 1.65      | 59.4           | 87.1          |
| [ 7 -1 15 ]   | ( 1 7 0 ) | ( -3 9 2 )   | 2.490    | 1.510    | 1.65      | 50.1           | 48.2          |
| [ 7 -1 6 ]    | ( 1 7 0 ) | ( -3 -9 2 )  | 2.490    | 1.510    | 1.65      | 35.7           | 78.4          |
| [ 21 -3 32 ]  | ( 1 7 0 ) | ( 4 -4 -3 )  | 2.490    | 1.498    | 1.66      | 77.6           | 60.7          |
| [ 7 -1 8 ]    | ( 1 7 0 ) | ( 4 4 -3 )   | 2.490    | 1.498    | 1.66      | 64.8           | 70.3          |
| [ 21 -3 -14 ] | ( 1 7 0 ) | ( -2 0 -3 )  | 2.490    | 1.487    | 1.67      | 82.0           | 58.6          |
| [ 7 -1 -4 ]   | ( 1 7 0 ) | ( -1 5 -3 )  | 2.490    | 1.467    | 1.70      | 72.9           | 60.8          |
| [ 21 -3 -2 ]  | ( 1 7 0 ) | ( -1 -5 -3 ) | 2.490    | 1.467    | 1.70      | 60.7           | 73.1          |
| [ 21 -3 -16 ] | ( 1 7 0 ) | ( -2 2 -3 )  | 2.490    | 1.467    | 1.70      | 88.9           | 56.5          |
| [ 7 -1 -4 ]   | ( 1 7 0 ) | ( -2 -2 -3 ) | 2.490    | 1.467    | 1.70      | 72.9           | 60.8          |
| [ 7 -1 -7 ]   | ( 1 7 0 ) | ( 3 7 2 )    | 2.490    | 1.465    | 1.70      | 45.0           | 51.7          |
| [ 7 -1 12 ]   | ( 1 7 0 ) | ( 5 -1 -3 )  | 2.490    | 1.463    | 1.70      | 86.2           | 56.4          |
| [ 21 -3 34 ]  | ( 1 7 0 ) | ( -5 -1 3 )  | 2.490    | 1.463    | 1.70      | 77.2           | 58.5          |
| [ 7 -1 14 ]   | ( 1 7 0 ) | ( 5 7 -2 )   | 2.490    | 1.451    | 1.72      | 45.2           | 50.8          |
| [ 7 -1 0 ]    | ( 1 7 0 ) | ( -1 -7 3 )  | 2.490    | 1.451    | 1.72      | 58.3           | 75.8          |
| [ 21 -3 14 ]  | ( 1 7 0 ) | ( -1 7 3 )   | 2.490    | 1.451    | 1.72      | 56.0           | 84.1          |
| [ 21 -3 38 ]  | ( 1 7 0 ) | ( 5 -3 -3 )  | 2.490    | 1.426    | 1.75      | 84.9           | 54.4          |
| [ 21 -3 32 ]  | ( 1 7 0 ) | ( 5 3 -3 )   | 2.490    | 1.426    | 1.75      | 68.4           | 60.7          |
| [ 21 -3 28 ]  | ( 1 7 0 ) | ( 3 -7 -3 )  | 2.490    | 1.413    | 1.76      | 62.1           | 65.3          |
| [ 21 -3 14 ]  | ( 1 7 0 ) | ( 3 7 -3 )   | 2.490    | 1.413    | 1.76      | 53.8           | 84.1          |
| [ 7 -1 -6 ]   | ( 1 7 0 ) | ( 2 -4 3 )   | 2.490    | 1.412    | 1.76      | 80.3           | 54.5          |
| [ 21 -3 -10 ] | ( 1 7 0 ) | ( 2 4 3 )    | 2.490    | 1.412    | 1.76      | 64.2           | 63.0          |
| [ 21 -3 34 ]  | ( 1 7 0 ) | ( 4 -6 -3 )  | 2.490    | 1.405    | 1.77      | 69.5           | 58.5          |
| [ 21 -3 22 ]  | ( 1 7 0 ) | ( 4 6 -3 )   | 2.490    | 1.405    | 1.77      | 56.6           | 72.9          |
| [ 21 -3 22 ]  | ( 1 7 0 ) | ( 2 -8 -3 )  | 2.490    | 1.383    | 1.80      | 55.3           | 72.9          |
| [ 7 -1 2 ]    | ( 1 7 0 ) | ( 2 8 -3 )   | 2.490    | 1.383    | 1.80      | 52.2           | 84.2          |
| [ 21 -3 -14 ] | ( 1 7 0 ) | ( 1 -7 3 )   | 2.490    | 1.363    | 1.83      | 65.2           | 58.6          |
| [ 7 -1 0 ]    | ( 1 7 0 ) | ( 1 7 3 )    | 2.490    | 1.363    | 1.83      | 53.1           | 75.8          |
| [ 21 -3 40 ]  | ( 1 7 0 ) | ( 5 -5 -3 )  | 2.490    | 1.360    | 1.83      | 76.7           | 52.6          |
| [ 7 -1 10 ]   | ( 1 7 0 ) | ( 5 5 -3 )   | 2.490    | 1.360    | 1.83      | 60.2           | 62.9          |
| [ 21 -3 -8 ]  | ( 1 7 0 ) | ( 0 -8 3 )   | 2.490    | 1.359    | 1.83      | 58.1           | 65.4          |
| [ 21 -3 8 ]   | ( 1 7 0 ) | ( 0 8 3 )    | 2.490    | 1.359    | 1.83      | 50.6           | 87.1          |
| [ 21 -3 -22 ] | ( 1 7 0 ) | ( -3 1 -3 )  | 2.490    | 1.358    | 1.83      | 84.7           | 50.8          |
| [ 21 -3 -20 ] | ( 1 7 0 ) | ( 3 1 3 )    | 2.490    | 1.358    | 1.83      | 76.2           | 52.6          |
| [ 21 -3 -8 ]  | ( 1 7 0 ) | ( -2 -6 -3 ) | 2.490    | 1.333    | 1.87      | 56.4           | 65.4          |
| [ 7 -1 -6 ]   | ( 1 7 0 ) | ( 3 9 2 )    | 2.490    | 1.332    | 1.87      | 38.3           | 54.5          |
| [ 21 -3 44 ]  | ( 1 7 0 ) | ( 6 -2 -3 )  | 2.490    | 1.329    | 1.87      | 88.6           | 49.0          |
| [ 21 -3 40 ]  | ( 1 7 0 ) | ( -6 -2 3 )  | 2.490    | 1.329    | 1.87      | 72.0           | 52.6          |
| [ 7 -1 13 ]   | ( 1 7 0 ) | ( 5 9 -2 )   | 2.490    | 1.321    | 1.89      | 38.5           | 53.5          |
| [ 21 -3 -2 ]  | ( 1 7 0 ) | ( -1 -9 3 )  | 2.490    | 1.321    | 1.89      | 51.7           | 73.1          |

**Tremolite (170) 269 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 21 -3 16 ]  | ( 1 7 0 ) | ( -1 9 3 )   | 2.490    | 1.321    | 1.89      | 49.4           | 81.2        |
| [ 14 -2 7 ]   | ( 1 7 0 ) | ( -2 0 4 )   | 2.490    | 1.320    | 1.89      | 89.8           | 89.2        |
| [ 14 -2 3 ]   | ( 1 7 0 ) | ( 1 1 -4 )   | 2.490    | 1.306    | 1.91      | 87.8           | 82.1        |
| [ 7 -1 2 ]    | ( 1 7 0 ) | ( 1 -1 -4 )  | 2.490    | 1.306    | 1.91      | 84.1           | 84.2        |
| [ 14 -2 11 ]  | ( 1 7 0 ) | ( -3 1 4 )   | 2.490    | 1.301    | 1.91      | 88.3           | 80.5        |
| [ 7 -1 5 ]    | ( 1 7 0 ) | ( -3 -1 4 )  | 2.490    | 1.301    | 1.91      | 83.7           | 82.7        |
| [ 7 -1 12 ]   | ( 1 7 0 ) | ( -4 8 3 )   | 2.490    | 1.299    | 1.92      | 62.4           | 56.4        |
| [ 21 -3 20 ]  | ( 1 7 0 ) | ( -4 -8 3 )  | 2.490    | 1.299    | 1.92      | 49.6           | 75.6        |
| [ 21 -3 46 ]  | ( 1 7 0 ) | ( -6 4 3 )   | 2.490    | 1.287    | 1.93      | 83.5           | 47.4        |
| [ 21 -3 38 ]  | ( 1 7 0 ) | ( -6 -4 3 )  | 2.490    | 1.287    | 1.93      | 64.1           | 54.4        |
| [ 7 -1 1 ]    | ( 1 7 0 ) | ( 1 3 -4 )   | 2.490    | 1.280    | 1.95      | 80.0           | 79.9        |
| [ 14 -2 5 ]   | ( 1 7 0 ) | ( 1 -3 -4 )  | 2.490    | 1.280    | 1.95      | 76.3           | 86.4        |
| [ 7 -1 14 ]   | ( 1 7 0 ) | ( -5 7 3 )   | 2.490    | 1.276    | 1.95      | 69.4           | 50.8        |
| [ 21 -3 28 ]  | ( 1 7 0 ) | ( -5 -7 3 )  | 2.490    | 1.276    | 1.95      | 52.9           | 65.3        |
| [ 7 -1 6 ]    | ( 1 7 0 ) | ( -3 3 4 )   | 2.490    | 1.275    | 1.95      | 80.5           | 78.4        |
| [ 14 -2 9 ]   | ( 1 7 0 ) | ( -3 -3 4 )  | 2.490    | 1.275    | 1.95      | 75.9           | 84.8        |
| [ 21 -3 -26 ] | ( 1 7 0 ) | ( -3 5 -3 )  | 2.490    | 1.275    | 1.95      | 79.3           | 47.5        |
| [ 21 -3 -16 ] | ( 1 7 0 ) | ( -3 -5 -3 ) | 2.490    | 1.275    | 1.95      | 60.3           | 56.5        |
| [ 14 -2 5 ]   | ( 1 7 0 ) | ( -2 -4 4 )  | 2.490    | 1.267    | 1.97      | 74.1           | 86.4        |
| [ 14 -2 -1 ]  | ( 1 7 0 ) | ( 0 2 -4 )   | 2.490    | 1.264    | 1.97      | 86.0           | 73.7        |
| [ 14 -2 1 ]   | ( 1 7 0 ) | ( 0 2 4 )    | 2.490    | 1.264    | 1.97      | 78.4           | 77.8        |
| [ 14 -2 15 ]  | ( 1 7 0 ) | ( 4 -2 -4 )  | 2.490    | 1.255    | 1.98      | 86.5           | 72.3        |
| [ 14 -2 13 ]  | ( 1 7 0 ) | ( 4 2 -4 )   | 2.490    | 1.255    | 1.98      | 78.1           | 76.3        |
| [ 21 -3 -16 ] | ( 1 7 0 ) | ( 1 -9 3 )   | 2.490    | 1.254    | 1.99      | 58.7           | 56.5        |
| [ 21 -3 2 ]   | ( 1 7 0 ) | ( 1 9 3 )    | 2.490    | 1.254    | 1.99      | 46.6           | 78.5        |
| [ 21 -3 -28 ] | ( 1 7 0 ) | ( -4 0 -3 )  | 2.490    | 1.243    | 2.00      | 79.3           | 45.9        |
| [ 21 -3 -22 ] | ( 1 7 0 ) | ( -2 8 -3 )  | 2.490    | 1.242    | 2.01      | 65.5           | 50.8        |
| [ 7 -1 -2 ]   | ( 1 7 0 ) | ( -2 -8 -3 ) | 2.490    | 1.242    | 2.01      | 49.6           | 67.9        |
| [ 14 -2 1 ]   | ( 1 7 0 ) | ( 1 5 -4 )   | 2.490    | 1.231    | 2.02      | 72.6           | 77.8        |
| [ 7 -1 3 ]    | ( 1 7 0 ) | ( 1 -5 -4 )  | 2.490    | 1.231    | 2.02      | 68.9           | 88.6        |
| [ 21 -3 -26 ] | ( 1 7 0 ) | ( 4 2 3 )    | 2.490    | 1.231    | 2.02      | 71.6           | 47.5        |
| [ 14 -2 -3 ]  | ( 1 7 0 ) | ( -1 -1 -4 ) | 2.490    | 1.222    | 2.04      | 80.6           | 69.8        |
| [ 7 -1 9 ]    | ( 1 7 0 ) | ( 5 -1 -4 )  | 2.490    | 1.210    | 2.06      | 87.8           | 66.5        |
| [ 14 -2 17 ]  | ( 1 7 0 ) | ( -5 -1 4 )  | 2.490    | 1.210    | 2.06      | 80.3           | 68.4        |
| [ 21 -3 46 ]  | ( 1 7 0 ) | ( -7 -3 3 )  | 2.490    | 1.200    | 2.07      | 67.9           | 47.4        |
| [ 14 -2 -5 ]  | ( 1 7 0 ) | ( -1 3 -4 )  | 2.490    | 1.200    | 2.07      | 84.4           | 66.0        |
| [ 7 -1 -1 ]   | ( 1 7 0 ) | ( -1 -3 -4 ) | 2.490    | 1.200    | 2.07      | 73.3           | 71.7        |
| [ 7 -1 -8 ]   | ( 1 7 0 ) | ( 4 4 3 )    | 2.490    | 1.198    | 2.08      | 64.2           | 49.1        |
| [ 14 -2 19 ]  | ( 1 7 0 ) | ( 5 -3 -4 )  | 2.490    | 1.188    | 2.10      | 84.9           | 64.7        |
| [ 7 -1 8 ]    | ( 1 7 0 ) | ( 5 3 -4 )   | 2.490    | 1.188    | 2.10      | 73.0           | 70.3        |
| [ 21 -3 44 ]  | ( 1 7 0 ) | ( 5 -9 -3 )  | 2.490    | 1.185    | 2.10      | 63.0           | 49.0        |
| [ 21 -3 26 ]  | ( 1 7 0 ) | ( 5 9 -3 )   | 2.490    | 1.185    | 2.10      | 46.7           | 67.8        |
| [ 14 -2 -3 ]  | ( 1 7 0 ) | ( 0 -6 4 )   | 2.490    | 1.175    | 2.12      | 71.6           | 69.8        |
| [ 14 -2 3 ]   | ( 1 7 0 ) | ( 0 6 4 )    | 2.490    | 1.175    | 2.12      | 64.0           | 82.1        |
| [ 7 -1 0 ]    | ( 1 7 0 ) | ( -1 -7 4 )  | 2.490    | 1.168    | 2.13      | 65.9           | 75.8        |
| [ 14 -2 7 ]   | ( 1 7 0 ) | ( -1 7 4 )   | 2.490    | 1.168    | 2.13      | 62.2           | 89.2        |
| [ 14 -2 17 ]  | ( 1 7 0 ) | ( 4 -6 -4 )  | 2.490    | 1.168    | 2.13      | 72.1           | 68.4        |
| [ 14 -2 11 ]  | ( 1 7 0 ) | ( 4 6 -4 )   | 2.490    | 1.168    | 2.13      | 63.8           | 80.5        |

**Tremolite (170) 269 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C |
|---------------|-----------|--------------|----------|----------|-----------|----------------|---------------|
| [ 7 -1 7 ]    | ( 1 7 0 ) | ( 3 -7 -4 )  | 2.490    | 1.164    | 2.14      | 66.4           | 74.3          |
| [ 14 -2 7 ]   | ( 1 7 0 ) | ( 3 7 -4 )   | 2.490    | 1.164    | 2.14      | 61.9           | 89.2          |
| [ 14 -2 -7 ]  | ( 1 7 0 ) | ( -2 0 -4 )  | 2.490    | 1.161    | 2.14      | 82.9           | 62.5          |
| [ 21 -3 44 ]  | ( 1 7 0 ) | ( 7 5 -3 )   | 2.490    | 1.160    | 2.15      | 60.8           | 49.0          |
| [ 7 -1 -3 ]   | ( 1 7 0 ) | ( 1 -5 4 )   | 2.490    | 1.160    | 2.15      | 77.4           | 64.2          |
| [ 14 -2 -1 ]  | ( 1 7 0 ) | ( 1 5 4 )    | 2.490    | 1.160    | 2.15      | 66.3           | 73.7          |
| [ 21 -3 34 ]  | ( 1 7 0 ) | ( -6 -8 3 )  | 2.490    | 1.154    | 2.16      | 50.3           | 58.5          |
| [ 7 -1 10 ]   | ( 1 7 0 ) | ( 5 -5 -4 )  | 2.490    | 1.149    | 2.17      | 77.9           | 62.9          |
| [ 14 -2 15 ]  | ( 1 7 0 ) | ( 5 5 -4 )   | 2.490    | 1.149    | 2.17      | 66.1           | 72.3          |
| [ 21 -3 -22 ] | ( 1 7 0 ) | ( -4 -6 -3 ) | 2.490    | 1.149    | 2.17      | 57.3           | 50.8          |
| [ 14 -2 21 ]  | ( 1 7 0 ) | ( 6 0 -4 )   | 2.490    | 1.147    | 2.17      | 82.6           | 61.2          |
| [ 14 -2 11 ]  | ( 1 7 0 ) | ( 2 -8 -4 )  | 2.490    | 1.139    | 2.19      | 61.1           | 80.5          |
| [ 14 -2 3 ]   | ( 1 7 0 ) | ( 2 8 -4 )   | 2.490    | 1.139    | 2.19      | 60.6           | 82.1          |
| [ 14 -2 -9 ]  | ( 1 7 0 ) | ( 2 -4 4 )   | 2.490    | 1.124    | 2.21      | 83.1           | 59.1          |
| [ 14 -2 -5 ]  | ( 1 7 0 ) | ( 2 4 4 )    | 2.490    | 1.124    | 2.21      | 68.8           | 66.0          |
| [ 14 -2 23 ]  | ( 1 7 0 ) | ( 6 -4 -4 )  | 2.490    | 1.112    | 2.24      | 83.6           | 58.0          |
| [ 14 -2 19 ]  | ( 1 7 0 ) | ( 6 4 -4 )   | 2.490    | 1.112    | 2.24      | 68.7           | 64.7          |
| [ 7 -1 0 ]    | ( 1 7 0 ) | ( 1 7 4 )    | 2.490    | 1.106    | 2.25      | 59.9           | 75.8          |
| [ 14 -2 21 ]  | ( 1 7 0 ) | ( 5 -7 -4 )  | 2.490    | 1.097    | 2.27      | 71.5           | 61.2          |
| [ 7 -1 7 ]    | ( 1 7 0 ) | ( 5 7 -4 )   | 2.490    | 1.097    | 2.27      | 59.7           | 74.3          |
| [ 14 -2 -1 ]  | ( 1 7 0 ) | ( -1 -9 4 )  | 2.490    | 1.097    | 2.27      | 60.0           | 73.7          |
| [ 7 -1 4 ]    | ( 1 7 0 ) | ( -1 9 4 )   | 2.490    | 1.097    | 2.27      | 56.3           | 87.0          |
| [ 14 -2 15 ]  | ( 1 7 0 ) | ( 3 -9 -4 )  | 2.490    | 1.094    | 2.28      | 60.5           | 72.3          |
| [ 7 -1 3 ]    | ( 1 7 0 ) | ( 3 9 -4 )   | 2.490    | 1.094    | 2.28      | 56.0           | 88.6          |
| [ 14 -2 -11 ] | ( 1 7 0 ) | ( -3 1 -4 )  | 2.490    | 1.090    | 2.28      | 84.9           | 56.0          |
| [ 7 -1 -5 ]   | ( 1 7 0 ) | ( 3 1 4 )    | 2.490    | 1.090    | 2.28      | 78.2           | 57.5          |
| [ 21 -3 -20 ] | ( 1 7 0 ) | ( -4 -8 -3 ) | 2.490    | 1.089    | 2.29      | 51.1           | 52.6          |
| [ 7 -1 -6 ]   | ( 1 7 0 ) | ( 3 -3 4 )   | 2.490    | 1.074    | 2.32      | 88.4           | 54.5          |
| [ 14 -2 -9 ]  | ( 1 7 0 ) | ( 3 3 4 )    | 2.490    | 1.074    | 2.32      | 71.5           | 59.1          |
| [ 7 -1 13 ]   | ( 1 7 0 ) | ( 7 -3 -4 )  | 2.490    | 1.060    | 2.35      | 88.8           | 53.5          |
| [ 14 -2 23 ]  | ( 1 7 0 ) | ( 7 3 -4 )   | 2.490    | 1.060    | 2.35      | 71.4           | 58.0          |
| [ 35 -5 14 ]  | ( 1 7 0 ) | ( -2 0 5 )   | 2.490    | 1.055    | 2.36      | 89.4           | 87.7          |
| [ 35 -5 22 ]  | ( 1 7 0 ) | ( 3 -1 -5 )  | 2.490    | 1.051    | 2.37      | 87.8           | 85.3          |
| [ 7 -1 4 ]    | ( 1 7 0 ) | ( 3 1 -5 )   | 2.490    | 1.051    | 2.37      | 85.7           | 87.0          |
| [ 35 -5 12 ]  | ( 1 7 0 ) | ( -2 -2 5 )  | 2.490    | 1.048    | 2.38      | 84.2           | 86.0          |
| [ 35 -5 16 ]  | ( 1 7 0 ) | ( -2 2 5 )   | 2.490    | 1.048    | 2.38      | 83.0           | 89.5          |
| [ 21 -3 40 ]  | ( 1 7 0 ) | ( -7 -9 3 )  | 2.490    | 1.046    | 2.38      | 48.5           | 52.6          |
| [ 7 -1 -4 ]   | ( 1 7 0 ) | ( -1 9 -4 )  | 2.490    | 1.045    | 2.38      | 65.2           | 60.8          |
| [ 14 -2 1 ]   | ( 1 7 0 ) | ( 1 9 4 )    | 2.490    | 1.045    | 2.38      | 54.1           | 77.8          |
| [ 14 -2 -13 ] | ( 1 7 0 ) | ( 3 -5 4 )   | 2.490    | 1.045    | 2.38      | 82.0           | 53.1          |
| [ 7 -1 -4 ]   | ( 1 7 0 ) | ( 3 5 4 )    | 2.490    | 1.045    | 2.38      | 65.2           | 60.8          |
| [ 35 -5 6 ]   | ( 1 7 0 ) | ( -1 -1 5 )  | 2.490    | 1.042    | 2.39      | 89.1           | 80.8          |
| [ 35 -5 8 ]   | ( 1 7 0 ) | ( -1 1 5 )   | 2.490    | 1.042    | 2.39      | 84.6           | 82.5          |
| [ 35 -5 28 ]  | ( 1 7 0 ) | ( -4 0 5 )   | 2.490    | 1.039    | 2.40      | 87.3           | 80.1          |
| [ 21 -3 -28 ] | ( 1 7 0 ) | ( 5 7 3 )    | 2.490    | 1.038    | 2.40      | 55.1           | 45.9          |
| [ 7 -1 11 ]   | ( 1 7 0 ) | ( 5 -9 -4 )  | 2.490    | 1.038    | 2.40      | 65.8           | 59.6          |
| [ 14 -2 13 ]  | ( 1 7 0 ) | ( 5 9 -4 )   | 2.490    | 1.038    | 2.40      | 54.0           | 76.3          |
| [ 35 -5 24 ]  | ( 1 7 0 ) | ( 3 -3 -5 )  | 2.490    | 1.037    | 2.40      | 81.5           | 83.5          |

**Tremolite (170) 269 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C |
|---------------|-----------|--------------|----------|----------|-----------|----------------|---------------|
| [ 35 -5 18 ]  | ( 1 7 0 ) | ( 3 3 -5 )   | 2.490    | 1.037    | 2.40      | 79.4           | 88.8          |
| [ 14 -2 -11 ] | ( 1 7 0 ) | ( 2 -8 4 )   | 2.490    | 1.033    | 2.41      | 70.7           | 56.0          |
| [ 14 -2 -3 ]  | ( 1 7 0 ) | ( 2 8 4 )    | 2.490    | 1.033    | 2.41      | 56.5           | 69.8          |
| [ 14 -2 27 ]  | ( 1 7 0 ) | ( 7 -5 -4 )  | 2.490    | 1.032    | 2.41      | 82.5           | 52.1          |
| [ 7 -1 11 ]   | ( 1 7 0 ) | ( 7 5 -4 )   | 2.490    | 1.032    | 2.41      | 65.1           | 59.6          |
| [ 7 -1 6 ]    | ( 1 7 0 ) | ( 4 -2 -5 )  | 2.490    | 1.032    | 2.41      | 86.3           | 78.4          |
| [ 35 -5 26 ]  | ( 1 7 0 ) | ( 4 2 -5 )   | 2.490    | 1.032    | 2.41      | 81.0           | 81.8          |
| [ 35 -5 4 ]   | ( 1 7 0 ) | ( -1 -3 5 )  | 2.490    | 1.028    | 2.42      | 82.8           | 79.1          |
| [ 7 -1 2 ]    | ( 1 7 0 ) | ( -1 3 5 )   | 2.490    | 1.028    | 2.42      | 78.3           | 84.2          |
| [ 7 -1 2 ]    | ( 1 7 0 ) | ( -2 -4 5 )  | 2.490    | 1.027    | 2.42      | 77.9           | 84.2          |
| [ 35 -5 18 ]  | ( 1 7 0 ) | ( -2 4 5 )   | 2.490    | 1.027    | 2.42      | 76.7           | 88.8          |
| [ 14 -2 25 ]  | ( 1 7 0 ) | ( 6 -8 -4 )  | 2.490    | 1.023    | 2.44      | 71.2           | 54.9          |
| [ 14 -2 17 ]  | ( 1 7 0 ) | ( 6 8 -4 )   | 2.490    | 1.023    | 2.44      | 56.5           | 68.4          |
| [ 14 -2 -13 ] | ( 1 7 0 ) | ( -4 -2 -4 ) | 2.490    | 1.015    | 2.45      | 74.2           | 53.1          |
| [ 35 -5 -2 ]  | ( 1 7 0 ) | ( 0 2 -5 )   | 2.490    | 1.015    | 2.45      | 87.6           | 74.1          |
| [ 35 -5 2 ]   | ( 1 7 0 ) | ( 0 -2 -5 )  | 2.490    | 1.015    | 2.45      | 79.9           | 77.4          |
| [ 35 -5 32 ]  | ( 1 7 0 ) | ( -4 4 5 )   | 2.490    | 1.012    | 2.46      | 80.1           | 76.7          |
| [ 35 -5 24 ]  | ( 1 7 0 ) | ( -4 -4 5 )  | 2.490    | 1.012    | 2.46      | 74.8           | 83.5          |
| [ 35 -5 36 ]  | ( 1 7 0 ) | ( 5 -1 -5 )  | 2.490    | 1.012    | 2.46      | 88.9           | 73.5          |
| [ 35 -5 34 ]  | ( 1 7 0 ) | ( 5 1 -5 )   | 2.490    | 1.012    | 2.46      | 82.7           | 75.1          |
| [ 35 -5 26 ]  | ( 1 7 0 ) | ( 3 -5 -5 )  | 2.490    | 1.011    | 2.46      | 75.4           | 81.8          |
| [ 35 -5 16 ]  | ( 1 7 0 ) | ( 3 5 -5 )   | 2.490    | 1.011    | 2.46      | 73.3           | 89.5          |
| [ 7 -1 -7 ]   | ( 1 7 0 ) | ( -3 7 -4 )  | 2.490    | 1.006    | 2.48      | 76.1           | 51.7          |
| [ 14 -2 -7 ]  | ( 1 7 0 ) | ( -3 -7 -4 ) | 2.490    | 1.006    | 2.48      | 59.2           | 62.5          |
| [ 35 -5 2 ]   | ( 1 7 0 ) | ( 1 5 -5 )   | 2.490    | 1.003    | 2.48      | 76.7           | 77.4          |
| [ 35 -5 12 ]  | ( 1 7 0 ) | ( 1 -5 -5 )  | 2.490    | 1.003    | 2.48      | 72.2           | 86.0          |
| [ 7 -1 16 ]   | ( 1 7 0 ) | ( 8 8 -3 )   | 2.490    | 1.002    | 2.49      | 52.5           | 45.9          |
| [ 14 -2 29 ]  | ( 1 7 0 ) | ( -8 2 4 )   | 2.490    | 1.001    | 2.49      | 86.5           | 49.5          |
| [ 14 -2 27 ]  | ( 1 7 0 ) | ( 8 2 -4 )   | 2.490    | 1.001    | 2.49      | 74.0           | 52.1          |

**Tremolite (350) 317 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 5 -3 0 ]   | ( 3 5 0 ) | ( 0 0 1 )    | 2.384    | 5.105    | 0.47      | 79.0           | 80.2        |
| [ 5 -3 8 ]   | ( 3 5 0 ) | ( -1 1 1 )   | 2.384    | 4.879    | 0.49      | 88.6           | 67.6        |
| [ 5 -3 2 ]   | ( 3 5 0 ) | ( 1 1 -1 )   | 2.384    | 4.879    | 0.49      | 67.6           | 88.4        |
| [ 5 -3 6 ]   | ( 3 5 0 ) | ( 0 -2 -1 )  | 2.384    | 4.444    | 0.54      | 60.6           | 75.1        |
| [ 5 -3 10 ]  | ( 3 5 0 ) | ( 2 0 -1 )   | 2.384    | 4.030    | 0.59      | 61.0           | 60.8        |
| [ 5 -3 -8 ]  | ( 3 5 0 ) | ( 1 -1 1 )   | 2.384    | 3.986    | 0.60      | 71.4           | 52.8        |
| [ 5 -3 -2 ]  | ( 3 5 0 ) | ( 1 1 1 )    | 2.384    | 3.986    | 0.60      | 52.4           | 72.3        |
| [ 5 -3 -4 ]  | ( 3 5 0 ) | ( -1 -3 1 )  | 2.384    | 3.877    | 0.61      | 54.1           | 65.0        |
| [ 5 -3 16 ]  | ( 3 5 0 ) | ( 2 -2 -1 )  | 2.384    | 3.680    | 0.65      | 80.0           | 45.1        |
| [ 5 -3 4 ]   | ( 3 5 0 ) | ( -2 -2 1 )  | 2.384    | 3.680    | 0.65      | 44.6           | 83.2        |
| [ 5 -3 12 ]  | ( 3 5 0 ) | ( 0 4 1 )    | 2.384    | 3.382    | 0.70      | 51.6           | 54.8        |
| [ 5 -3 4 ]   | ( 3 5 0 ) | ( -1 -3 -1 ) | 2.384    | 3.381    | 0.70      | 40.2           | 83.2        |
| [ 5 -3 -10 ] | ( 3 5 0 ) | ( 2 0 1 )    | 2.384    | 3.109    | 0.77      | 52.6           | 47.8        |
| [ 5 -3 12 ]  | ( 3 5 0 ) | ( -3 -1 1 )  | 2.384    | 3.024    | 0.79      | 44.5           | 54.8        |
| [ 5 -3 -2 ]  | ( 3 5 0 ) | ( 2 4 -1 )   | 2.384    | 3.006    | 0.79      | 36.7           | 72.3        |
| [ 5 -3 -10 ] | ( 3 5 0 ) | ( -1 -5 1 )  | 2.384    | 2.941    | 0.81      | 48.7           | 47.8        |
| [ 5 -3 -4 ]  | ( 3 5 0 ) | ( 2 2 1 )    | 2.384    | 2.940    | 0.81      | 37.9           | 65.0        |
| [ 5 -3 6 ]   | ( 3 5 0 ) | ( -3 -3 1 )  | 2.384    | 2.733    | 0.87      | 32.4           | 75.1        |
| [ 5 -3 10 ]  | ( 3 5 0 ) | ( 1 5 1 )    | 2.384    | 2.706    | 0.88      | 36.0           | 60.8        |
| [ 5 -3 4 ]   | ( 3 5 0 ) | ( 1 -1 -2 )  | 2.384    | 2.611    | 0.91      | 85.1           | 83.2        |
| [ 5 -3 1 ]   | ( 3 5 0 ) | ( 1 1 -2 )   | 2.384    | 2.611    | 0.91      | 83.9           | 84.3        |
| [ 5 -3 2 ]   | ( 3 5 0 ) | ( -2 -4 -1 ) | 2.384    | 2.561    | 0.93      | 29.0           | 88.4        |
| [ 5 -3 5 ]   | ( 3 5 0 ) | ( -2 0 2 )   | 2.384    | 2.534    | 0.94      | 77.9           | 79.1        |
| [ 5 -3 -3 ]  | ( 3 5 0 ) | ( 0 -2 2 )   | 2.384    | 2.456    | 0.97      | 89.8           | 68.5        |
| [ 5 -3 3 ]   | ( 3 5 0 ) | ( 0 2 2 )    | 2.384    | 2.456    | 0.97      | 68.7           | 87.4        |
| [ 5 -3 -8 ]  | ( 3 5 0 ) | ( -2 -6 1 )  | 2.384    | 2.411    | 0.99      | 35.0           | 52.8        |
| [ 5 -3 0 ]   | ( 3 5 0 ) | ( 3 5 -1 )   | 2.384    | 2.338    | 1.02      | 26.7           | 80.2        |
| [ 5 -3 14 ]  | ( 3 5 0 ) | ( 4 2 -1 )   | 2.384    | 2.323    | 1.03      | 35.3           | 49.6        |
| [ 5 -3 -4 ]  | ( 3 5 0 ) | ( -1 1 -2 )  | 2.384    | 2.303    | 1.03      | 74.3           | 65.0        |
| [ 5 -3 -1 ]  | ( 3 5 0 ) | ( 1 1 2 )    | 2.384    | 2.303    | 1.03      | 64.0           | 76.1        |
| [ 5 -3 9 ]   | ( 3 5 0 ) | ( -3 1 2 )   | 2.384    | 2.276    | 1.05      | 73.4           | 64.1        |
| [ 5 -3 6 ]   | ( 3 5 0 ) | ( 3 1 -2 )   | 2.384    | 2.276    | 1.05      | 63.1           | 75.1        |
| [ 5 -3 -6 ]  | ( 3 5 0 ) | ( -3 -3 -1 ) | 2.384    | 2.255    | 1.06      | 30.1           | 58.5        |
| [ 5 -3 11 ]  | ( 3 5 0 ) | ( -2 4 2 )   | 2.384    | 2.210    | 1.08      | 82.0           | 57.7        |
| [ 5 -3 -1 ]  | ( 3 5 0 ) | ( -2 -4 2 )  | 2.384    | 2.210    | 1.08      | 59.6           | 76.1        |
| [ 5 -3 16 ]  | ( 3 5 0 ) | ( 1 7 1 )    | 2.384    | 2.182    | 1.09      | 35.7           | 45.1        |
| [ 5 -3 -7 ]  | ( 3 5 0 ) | ( -1 3 -2 )  | 2.384    | 2.167    | 1.10      | 84.5           | 55.6        |
| [ 5 -3 2 ]   | ( 3 5 0 ) | ( 1 3 2 )    | 2.384    | 2.167    | 1.10      | 55.2           | 88.4        |
| [ 5 -3 8 ]   | ( 3 5 0 ) | ( -2 -6 -1 ) | 2.384    | 2.163    | 1.10      | 26.3           | 67.6        |
| [ 5 -3 12 ]  | ( 3 5 0 ) | ( 3 -3 -2 )  | 2.384    | 2.144    | 1.11      | 83.6           | 54.8        |
| [ 5 -3 3 ]   | ( 3 5 0 ) | ( -3 -3 2 )  | 2.384    | 2.144    | 1.11      | 54.4           | 87.4        |
| [ 5 -3 10 ]  | ( 3 5 0 ) | ( -1 5 2 )   | 2.384    | 2.131    | 1.12      | 67.6           | 60.8        |
| [ 5 -3 -5 ]  | ( 3 5 0 ) | ( -1 -5 2 )  | 2.384    | 2.131    | 1.12      | 66.5           | 61.7        |
| [ 5 -3 8 ]   | ( 3 5 0 ) | ( 4 4 -1 )   | 2.384    | 2.122    | 1.12      | 25.8           | 67.6        |
| [ 5 -3 -5 ]  | ( 3 5 0 ) | ( -2 0 -2 )  | 2.384    | 2.043    | 1.17      | 61.6           | 61.7        |
| [ 5 -3 0 ]   | ( 3 5 0 ) | ( -3 -5 -1 ) | 2.384    | 2.017    | 1.18      | 22.8           | 80.2        |
| [ 5 -3 -10 ] | ( 3 5 0 ) | ( -1 5 -2 )  | 2.384    | 1.953    | 1.22      | 86.8           | 47.8        |
| [ 5 -3 5 ]   | ( 3 5 0 ) | ( 1 5 2 )    | 2.384    | 1.953    | 1.22      | 48.9           | 79.1        |

**Tremolite (350) 317 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 5 -3 -9 ]   | ( 3 5 0 ) | ( 0 -6 2 )   | 2.384    | 1.947    | 1.22      | 73.7           | 50.2                   |
| [ 5 -3 9 ]    | ( 3 5 0 ) | ( 0 6 2 )    | 2.384    | 1.947    | 1.22      | 55.1           | 64.1                   |
| [ 5 -3 15 ]   | ( 3 5 0 ) | ( 3 -5 -2 )  | 2.384    | 1.936    | 1.23      | 87.7           | 47.2                   |
| [ 5 -3 0 ]    | ( 3 5 0 ) | ( 3 5 -2 )   | 2.384    | 1.936    | 1.23      | 48.1           | 80.2                   |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( -4 -6 1 )  | 2.384    | 1.878    | 1.27      | 20.8           | 88.4                   |
| [ 5 -3 -11 ]  | ( 3 5 0 ) | ( 2 -4 2 )   | 2.384    | 1.862    | 1.28      | 80.7           | 45.6                   |
| [ 5 -3 1 ]    | ( 3 5 0 ) | ( -2 -4 -2 ) | 2.384    | 1.862    | 1.28      | 45.1           | 84.3                   |
| [ 5 -3 16 ]   | ( 3 5 0 ) | ( 5 3 -1 )   | 2.384    | 1.858    | 1.28      | 29.8           | 45.1                   |
| [ 5 -3 13 ]   | ( 3 5 0 ) | ( 1 -7 -2 )  | 2.384    | 1.845    | 1.29      | 62.3           | 52.1                   |
| [ 5 -3 -8 ]   | ( 3 5 0 ) | ( 1 7 -2 )   | 2.384    | 1.845    | 1.29      | 61.3           | 52.8                   |
| [ 5 -3 14 ]   | ( 3 5 0 ) | ( -2 -8 -1 ) | 2.384    | 1.827    | 1.30      | 27.0           | 49.6                   |
| [ 5 -3 -8 ]   | ( 3 5 0 ) | ( 4 4 1 )    | 2.384    | 1.808    | 1.32      | 25.5           | 52.8                   |
| [ 5 -3 -9 ]   | ( 3 5 0 ) | ( -3 1 -2 )  | 2.384    | 1.771    | 1.35      | 60.8           | 50.2                   |
| [ 5 -3 -6 ]   | ( 3 5 0 ) | ( 3 1 2 )    | 2.384    | 1.771    | 1.35      | 51.9           | 58.5                   |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( -3 -7 -1 ) | 2.384    | 1.770    | 1.35      | 20.3           | 75.1                   |
| [ 15 -9 10 ]  | ( 3 5 0 ) | ( 2 0 -3 )   | 2.384    | 1.750    | 1.36      | 85.4           | 86.0                   |
| [ 5 -3 14 ]   | ( 3 5 0 ) | ( -5 1 2 )   | 2.384    | 1.747    | 1.36      | 60.3           | 49.6                   |
| [ 5 -3 11 ]   | ( 3 5 0 ) | ( 5 1 -2 )   | 2.384    | 1.747    | 1.36      | 51.5           | 57.7                   |
| [ 15 -9 2 ]   | ( 3 5 0 ) | ( -1 -1 3 )  | 2.384    | 1.746    | 1.37      | 89.7           | 82.9                   |
| [ 15 -9 8 ]   | ( 3 5 0 ) | ( -1 1 3 )   | 2.384    | 1.746    | 1.37      | 83.0           | 88.8                   |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( -1 -7 -2 ) | 2.384    | 1.726    | 1.38      | 45.0           | 67.6                   |
| [ 5 -3 10 ]   | ( 3 5 0 ) | ( 5 5 -1 )   | 2.384    | 1.718    | 1.39      | 21.9           | 60.8                   |
| [ 15 -9 16 ]  | ( 3 5 0 ) | ( 2 -2 -3 )  | 2.384    | 1.718    | 1.39      | 87.3           | 77.8                   |
| [ 15 -9 4 ]   | ( 3 5 0 ) | ( 2 2 -3 )   | 2.384    | 1.718    | 1.39      | 78.2           | 85.7                   |
| [ 5 -3 -3 ]   | ( 3 5 0 ) | ( -3 -7 2 )  | 2.384    | 1.714    | 1.39      | 44.3           | 68.5                   |
| [ 5 -3 -3 ]   | ( 3 5 0 ) | ( 3 3 2 )    | 2.384    | 1.707    | 1.40      | 44.0           | 68.5                   |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( -5 -3 2 )  | 2.384    | 1.685    | 1.41      | 43.7           | 67.6                   |
| [ 15 -9 -4 ]  | ( 3 5 0 ) | ( 1 3 -3 )   | 2.384    | 1.684    | 1.42      | 82.6           | 74.8                   |
| [ 15 -9 14 ]  | ( 3 5 0 ) | ( 1 -3 -3 )  | 2.384    | 1.684    | 1.42      | 76.1           | 80.5                   |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( 3 -1 -3 )  | 2.384    | 1.682    | 1.42      | 81.5           | 75.1                   |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( -3 -1 3 )  | 2.384    | 1.682    | 1.42      | 74.3           | 83.2                   |
| [ 5 -3 1 ]    | ( 3 5 0 ) | ( 4 6 -2 )   | 2.384    | 1.674    | 1.42      | 39.6           | 84.3                   |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( 0 2 -3 )   | 2.384    | 1.672    | 1.43      | 86.2           | 72.3                   |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( 0 2 3 )    | 2.384    | 1.672    | 1.43      | 71.9           | 88.4                   |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( -4 -6 -1 ) | 2.384    | 1.650    | 1.44      | 19.2           | 72.3                   |
| [ 5 -3 -4 ]   | ( 3 5 0 ) | ( 4 8 -1 )   | 2.384    | 1.645    | 1.45      | 20.1           | 65.0                   |
| [ 15 -9 22 ]  | ( 3 5 0 ) | ( 2 -4 -3 )  | 2.384    | 1.631    | 1.46      | 80.6           | 70.0                   |
| [ 15 -9 -2 ]  | ( 3 5 0 ) | ( 2 4 -3 )   | 2.384    | 1.631    | 1.46      | 71.8           | 77.5                   |
| [ 15 -9 -8 ]  | ( 3 5 0 ) | ( -1 1 -3 )  | 2.384    | 1.600    | 1.49      | 75.7           | 69.8                   |
| [ 15 -9 -2 ]  | ( 3 5 0 ) | ( 1 1 3 )    | 2.384    | 1.600    | 1.49      | 68.6           | 77.5                   |
| [ 5 -3 16 ]   | ( 3 5 0 ) | ( 1 -9 -2 )  | 2.384    | 1.597    | 1.49      | 58.7           | 45.1                   |
| [ 5 -3 -11 ]  | ( 3 5 0 ) | ( 1 9 -2 )   | 2.384    | 1.597    | 1.49      | 57.9           | 45.6                   |
| [ 5 -3 0 ]    | ( 3 5 0 ) | ( 3 5 2 )    | 2.384    | 1.597    | 1.49      | 37.9           | 80.2                   |
| [ 5 -3 -4 ]   | ( 3 5 0 ) | ( 0 -4 3 )   | 2.384    | 1.592    | 1.50      | 86.9           | 65.0                   |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( 0 4 3 )    | 2.384    | 1.592    | 1.50      | 65.7           | 83.2                   |
| [ 15 -9 20 ]  | ( 3 5 0 ) | ( -4 0 3 )   | 2.384    | 1.588    | 1.50      | 71.1           | 72.5                   |
| [ 5 -3 5 ]    | ( 3 5 0 ) | ( 5 5 -2 )   | 2.384    | 1.578    | 1.51      | 37.5           | 79.1                   |
| [ 15 -9 -10 ] | ( 3 5 0 ) | ( -1 -5 3 )  | 2.384    | 1.578    | 1.51      | 76.4           | 67.3                   |



**Tremolite (350) 317 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 15 -9 20 ]  | ( 3 5 0 ) | ( -1 5 3 )   | 2.384    | 1.578    | 1.51      | 70.1           | 72.5                   |
| [ 15 -9 26 ]  | ( 3 5 0 ) | ( -4 2 3 )   | 2.384    | 1.564    | 1.52      | 78.2           | 65.3                   |
| [ 15 -9 14 ]  | ( 3 5 0 ) | ( 4 2 -3 )   | 2.384    | 1.564    | 1.52      | 64.4           | 80.5                   |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( -5 -7 1 )  | 2.384    | 1.558    | 1.53      | 17.3           | 83.2                   |
| [ 15 -9 4 ]   | ( 3 5 0 ) | ( 1 3 3 )    | 2.384    | 1.552    | 1.54      | 62.2           | 85.7                   |
| [ 5 -3 12 ]   | ( 3 5 0 ) | ( -3 -9 -1 ) | 2.384    | 1.548    | 1.54      | 21.0           | 54.8                   |
| [ 5 -3 15 ]   | ( 3 5 0 ) | ( 6 0 -2 )   | 2.384    | 1.533    | 1.55      | 52.3           | 47.2                   |
| [ 5 -3 -7 ]   | ( 3 5 0 ) | ( -4 -2 -2 ) | 2.384    | 1.532    | 1.56      | 44.7           | 55.6                   |
| [ 5 -3 10 ]   | ( 3 5 0 ) | ( -3 5 3 )   | 2.384    | 1.530    | 1.56      | 84.9           | 60.8                   |
| [ 5 -3 0 ]    | ( 3 5 0 ) | ( -3 -5 3 )  | 2.384    | 1.530    | 1.56      | 62.0           | 80.2                   |
| [ 5 -3 11 ]   | ( 3 5 0 ) | ( 1 9 2 )    | 2.384    | 1.518    | 1.57      | 42.9           | 57.7                   |
| [ 5 -3 7 ]    | ( 3 5 0 ) | ( -2 -8 -2 ) | 2.384    | 1.515    | 1.57      | 37.3           | 71.3                   |
| [ 15 -9 28 ]  | ( 3 5 0 ) | ( -2 6 3 )   | 2.384    | 1.513    | 1.58      | 74.8           | 63.0                   |
| [ 15 -9 -8 ]  | ( 3 5 0 ) | ( -2 -6 3 )  | 2.384    | 1.513    | 1.58      | 66.4           | 69.8                   |
| [ 5 -3 -6 ]   | ( 3 5 0 ) | ( -3 -9 2 )  | 2.384    | 1.510    | 1.58      | 42.2           | 58.5                   |
| [ 5 -3 -10 ]  | ( 3 5 0 ) | ( -5 -5 -1 ) | 2.384    | 1.502    | 1.59      | 22.6           | 47.8                   |
| [ 15 -9 32 ]  | ( 3 5 0 ) | ( 4 -4 -3 )  | 2.384    | 1.498    | 1.59      | 85.1           | 58.7                   |
| [ 15 -9 8 ]   | ( 3 5 0 ) | ( -4 -4 3 )  | 2.384    | 1.498    | 1.59      | 58.4           | 88.8                   |
| [ 15 -9 -10 ] | ( 3 5 0 ) | ( 2 0 3 )    | 2.384    | 1.487    | 1.60      | 66.3           | 67.3                   |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( -4 -8 -1 ) | 2.384    | 1.486    | 1.60      | 16.5           | 83.2                   |
| [ 15 -9 -20 ] | ( 3 5 0 ) | ( -1 5 -3 )  | 2.384    | 1.467    | 1.62      | 89.3           | 56.5                   |
| [ 15 -9 10 ]  | ( 3 5 0 ) | ( 1 5 3 )    | 2.384    | 1.467    | 1.62      | 56.7           | 86.0                   |
| [ 15 -9 -16 ] | ( 3 5 0 ) | ( -2 2 -3 )  | 2.384    | 1.467    | 1.62      | 73.2           | 60.6                   |
| [ 15 -9 -4 ]  | ( 3 5 0 ) | ( 2 2 3 )    | 2.384    | 1.467    | 1.62      | 59.8           | 74.8                   |
| [ 5 -3 3 ]    | ( 3 5 0 ) | ( -3 -7 -2 ) | 2.384    | 1.465    | 1.63      | 33.8           | 87.4                   |
| [ 15 -9 28 ]  | ( 3 5 0 ) | ( 5 -1 -3 )  | 2.384    | 1.463    | 1.63      | 68.9           | 63.0                   |
| [ 15 -9 22 ]  | ( 3 5 0 ) | ( -5 -1 3 )  | 2.384    | 1.463    | 1.63      | 62.2           | 70.0                   |
| [ 5 -3 9 ]    | ( 3 5 0 ) | ( 6 4 -2 )   | 2.384    | 1.452    | 1.64      | 37.7           | 64.1                   |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( -5 -7 2 )  | 2.384    | 1.451    | 1.64      | 33.4           | 88.4                   |
| [ 15 -9 -16 ] | ( 3 5 0 ) | ( 1 7 -3 )   | 2.384    | 1.451    | 1.64      | 71.2           | 60.6                   |
| [ 15 -9 26 ]  | ( 3 5 0 ) | ( 1 -7 -3 )  | 2.384    | 1.451    | 1.64      | 65.2           | 65.3                   |
| [ 5 -3 12 ]   | ( 3 5 0 ) | ( 6 6 -1 )   | 2.384    | 1.438    | 1.66      | 19.5           | 54.8                   |
| [ 15 -9 34 ]  | ( 3 5 0 ) | ( -5 3 3 )   | 2.384    | 1.426    | 1.67      | 75.7           | 56.7                   |
| [ 15 -9 16 ]  | ( 3 5 0 ) | ( 5 3 -3 )   | 2.384    | 1.426    | 1.67      | 56.0           | 77.8                   |
| [ 5 -3 12 ]   | ( 3 5 0 ) | ( 3 -7 -3 )  | 2.384    | 1.413    | 1.69      | 79.3           | 54.8                   |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( 3 7 -3 )   | 2.384    | 1.413    | 1.69      | 57.5           | 72.3                   |
| [ 15 -9 -22 ] | ( 3 5 0 ) | ( -2 4 -3 )  | 2.384    | 1.412    | 1.69      | 79.9           | 54.6                   |
| [ 15 -9 2 ]   | ( 3 5 0 ) | ( 2 4 3 )    | 2.384    | 1.412    | 1.69      | 54.0           | 82.9                   |
| [ 15 -9 38 ]  | ( 3 5 0 ) | ( 4 -6 -3 )  | 2.384    | 1.405    | 1.70      | 88.7           | 53.0                   |
| [ 15 -9 2 ]   | ( 3 5 0 ) | ( 4 6 -3 )   | 2.384    | 1.405    | 1.70      | 53.6           | 82.9                   |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( -5 -9 1 )  | 2.384    | 1.400    | 1.70      | 16.2           | 72.3                   |
| [ 5 -3 -4 ]   | ( 3 5 0 ) | ( 5 7 1 )    | 2.384    | 1.391    | 1.71      | 16.9           | 65.0                   |
| [ 15 -9 34 ]  | ( 3 5 0 ) | ( 2 -8 -3 )  | 2.384    | 1.383    | 1.72      | 70.0           | 56.7                   |
| [ 15 -9 -14 ] | ( 3 5 0 ) | ( 2 8 -3 )   | 2.384    | 1.383    | 1.72      | 62.1           | 62.7                   |
| [ 5 -3 -1 ]   | ( 3 5 0 ) | ( -4 -6 -2 ) | 2.384    | 1.381    | 1.73      | 32.6           | 76.1                   |
| [ 15 -9 -26 ] | ( 3 5 0 ) | ( -1 7 -3 )  | 2.384    | 1.363    | 1.75      | 84.9           | 51.1                   |
| [ 15 -9 16 ]  | ( 3 5 0 ) | ( -1 -7 -3 ) | 2.384    | 1.363    | 1.75      | 52.5           | 77.8                   |
| [ 15 -9 40 ]  | ( 3 5 0 ) | ( 5 -5 -3 )  | 2.384    | 1.360    | 1.75      | 82.2           | 51.3                   |

**Tremolite (350) 317 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 15 -9 10 ]  | ( 3 5 0 ) | ( -5 -5 3 )  | 2.384    | 1.360    | 1.75      | 50.8           | 86.0                   |
| [ 5 -3 -8 ]   | ( 3 5 0 ) | ( 0 8 -3 )   | 2.384    | 1.359    | 1.75      | 75.8           | 52.8                   |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( 0 -8 -3 )  | 2.384    | 1.359    | 1.75      | 56.6           | 67.6                   |
| [ 5 -3 -6 ]   | ( 3 5 0 ) | ( 3 -1 3 )   | 2.384    | 1.358    | 1.75      | 64.9           | 58.5                   |
| [ 5 -3 -4 ]   | ( 3 5 0 ) | ( 3 1 3 )    | 2.384    | 1.358    | 1.75      | 58.4           | 65.0                   |
| [ 5 -3 16 ]   | ( 3 5 0 ) | ( -7 -1 2 )  | 2.384    | 1.347    | 1.77      | 46.1           | 45.1                   |
| [ 15 -9 -28 ] | ( 3 5 0 ) | ( 2 -6 3 )   | 2.384    | 1.333    | 1.79      | 86.1           | 49.4                   |
| [ 15 -9 8 ]   | ( 3 5 0 ) | ( -2 -6 -3 ) | 2.384    | 1.333    | 1.79      | 49.3           | 88.8                   |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( 3 9 2 )    | 2.384    | 1.332    | 1.79      | 31.5           | 75.1                   |
| [ 5 -3 12 ]   | ( 3 5 0 ) | ( -6 2 3 )   | 2.384    | 1.329    | 1.79      | 67.5           | 54.8                   |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( 6 2 -3 )   | 2.384    | 1.329    | 1.79      | 54.7           | 67.6                   |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( -6 -8 1 )  | 2.384    | 1.325    | 1.80      | 15.1           | 75.1                   |
| [ 5 -3 -1 ]   | ( 3 5 0 ) | ( 5 9 -2 )   | 2.384    | 1.321    | 1.80      | 31.0           | 76.1                   |
| [ 15 -9 -22 ] | ( 3 5 0 ) | ( -1 -9 3 )  | 2.384    | 1.321    | 1.80      | 67.0           | 54.6                   |
| [ 15 -9 32 ]  | ( 3 5 0 ) | ( -1 9 3 )   | 2.384    | 1.321    | 1.80      | 61.4           | 58.7                   |
| [ 10 -6 5 ]   | ( 3 5 0 ) | ( -2 0 4 )   | 2.384    | 1.320    | 1.81      | 89.4           | 89.5                   |
| [ 5 -3 13 ]   | ( 3 5 0 ) | ( 7 3 -2 )   | 2.384    | 1.318    | 1.81      | 39.3           | 52.1                   |
| [ 10 -6 1 ]   | ( 3 5 0 ) | ( 1 1 -4 )   | 2.384    | 1.306    | 1.82      | 87.4           | 82.2                   |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( -1 1 4 )   | 2.384    | 1.306    | 1.82      | 81.9           | 88.4                   |
| [ 10 -6 9 ]   | ( 3 5 0 ) | ( -3 1 4 )   | 2.384    | 1.301    | 1.83      | 86.2           | 81.1                   |
| [ 5 -3 3 ]    | ( 3 5 0 ) | ( 3 1 -4 )   | 2.384    | 1.301    | 1.83      | 80.7           | 87.4                   |
| [ 15 -9 44 ]  | ( 3 5 0 ) | ( 4 -8 -3 )  | 2.384    | 1.299    | 1.83      | 83.4           | 48.0                   |
| [ 15 -9 -4 ]  | ( 3 5 0 ) | ( 4 8 -3 )   | 2.384    | 1.299    | 1.83      | 49.9           | 74.8                   |
| [ 5 -3 14 ]   | ( 3 5 0 ) | ( -6 4 3 )   | 2.384    | 1.287    | 1.85      | 73.9           | 49.6                   |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( 6 4 -3 )   | 2.384    | 1.287    | 1.85      | 49.2           | 75.1                   |
| [ 5 -3 -1 ]   | ( 3 5 0 ) | ( 1 3 -4 )   | 2.384    | 1.280    | 1.86      | 87.1           | 76.1                   |
| [ 10 -6 7 ]   | ( 3 5 0 ) | ( 1 -3 -4 )  | 2.384    | 1.280    | 1.86      | 76.7           | 85.3                   |
| [ 5 -3 -5 ]   | ( 3 5 0 ) | ( 5 5 2 )    | 2.384    | 1.280    | 1.86      | 33.4           | 61.7                   |
| [ 15 -9 46 ]  | ( 3 5 0 ) | ( 5 -7 -3 )  | 2.384    | 1.276    | 1.87      | 88.1           | 46.5                   |
| [ 15 -9 4 ]   | ( 3 5 0 ) | ( -5 -7 3 )  | 2.384    | 1.276    | 1.87      | 46.6           | 85.7                   |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( 5 9 1 )    | 2.384    | 1.275    | 1.87      | 14.0           | 88.4                   |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( 3 -3 -4 )  | 2.384    | 1.275    | 1.87      | 88.4           | 75.1                   |
| [ 10 -6 3 ]   | ( 3 5 0 ) | ( 3 3 -4 )   | 2.384    | 1.275    | 1.87      | 75.5           | 86.4                   |
| [ 5 -3 -10 ]  | ( 3 5 0 ) | ( -3 5 -3 )  | 2.384    | 1.275    | 1.87      | 77.8           | 47.8                   |
| [ 5 -3 0 ]    | ( 3 5 0 ) | ( 3 5 3 )    | 2.384    | 1.275    | 1.87      | 47.3           | 80.2                   |
| [ 5 -3 3 ]    | ( 3 5 0 ) | ( 6 8 -2 )   | 2.384    | 1.268    | 1.88      | 28.8           | 87.4                   |
| [ 10 -6 -1 ]  | ( 3 5 0 ) | ( 2 4 -4 )   | 2.384    | 1.267    | 1.88      | 78.7           | 78.1                   |
| [ 5 -3 10 ]   | ( 3 5 0 ) | ( 7 5 -2 )   | 2.384    | 1.265    | 1.88      | 33.3           | 60.8                   |
| [ 10 -6 -3 ]  | ( 3 5 0 ) | ( 0 2 -4 )   | 2.384    | 1.264    | 1.89      | 84.4           | 74.2                   |
| [ 10 -6 3 ]   | ( 3 5 0 ) | ( 0 2 4 )    | 2.384    | 1.264    | 1.89      | 73.6           | 86.4                   |
| [ 10 -6 13 ]  | ( 3 5 0 ) | ( -4 2 4 )   | 2.384    | 1.255    | 1.90      | 83.3           | 73.2                   |
| [ 10 -6 7 ]   | ( 3 5 0 ) | ( 4 2 -4 )   | 2.384    | 1.255    | 1.90      | 72.5           | 85.3                   |
| [ 15 -9 -32 ] | ( 3 5 0 ) | ( 1 -9 3 )   | 2.384    | 1.254    | 1.90      | 80.1           | 46.3                   |
| [ 15 -9 22 ]  | ( 3 5 0 ) | ( 1 9 3 )    | 2.384    | 1.254    | 1.90      | 49.3           | 70.0                   |
| [ 15 -9 -20 ] | ( 3 5 0 ) | ( -4 0 -3 )  | 2.384    | 1.243    | 1.92      | 57.9           | 56.5                   |
| [ 15 -9 14 ]  | ( 3 5 0 ) | ( 2 8 3 )    | 2.384    | 1.242    | 1.92      | 45.7           | 80.5                   |
| [ 5 -3 14 ]   | ( 3 5 0 ) | ( -7 -7 1 )  | 2.384    | 1.234    | 1.93      | 17.9           | 49.6                   |
| [ 10 -6 -5 ]  | ( 3 5 0 ) | ( 1 5 -4 )   | 2.384    | 1.231    | 1.94      | 82.1           | 70.4                   |

**Tremolite (350) 317 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 5 -3 5 ]    | ( 3 5 0 ) | ( 1 -5 -4 )  | 2.384    | 1.231    | 1.94      | 71.8           | 79.1        |
| [ 15 -9 -26 ] | ( 3 5 0 ) | ( 4 -2 3 )   | 2.384    | 1.231    | 1.94      | 64.1           | 51.1        |
| [ 15 -9 -14 ] | ( 3 5 0 ) | ( -4 -2 -3 ) | 2.384    | 1.231    | 1.94      | 51.9           | 62.7        |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( 1 -1 4 )   | 2.384    | 1.222    | 1.95      | 76.4           | 72.3        |
| [ 10 -6 -1 ]  | ( 3 5 0 ) | ( -1 -1 -4 ) | 2.384    | 1.222    | 1.95      | 71.1           | 78.1        |
| [ 5 -3 7 ]    | ( 3 5 0 ) | ( 5 -1 -4 )  | 2.384    | 1.210    | 1.97      | 75.4           | 71.3        |
| [ 10 -6 11 ]  | ( 3 5 0 ) | ( 5 1 -4 )   | 2.384    | 1.210    | 1.97      | 70.1           | 77.1        |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( -5 -7 -2 ) | 2.384    | 1.209    | 1.97      | 28.7           | 72.3        |
| [ 15 -9 26 ]  | ( 3 5 0 ) | ( -7 -3 3 )  | 2.384    | 1.200    | 1.99      | 48.7           | 65.3        |
| [ 10 -6 -7 ]  | ( 3 5 0 ) | ( 1 -3 4 )   | 2.384    | 1.200    | 1.99      | 81.8           | 66.7        |
| [ 5 -3 1 ]    | ( 3 5 0 ) | ( -1 -3 -4 ) | 2.384    | 1.200    | 1.99      | 66.1           | 84.3        |
| [ 5 -3 -6 ]   | ( 3 5 0 ) | ( 6 8 1 )    | 2.384    | 1.200    | 1.99      | 15.5           | 58.5        |
| [ 15 -9 -32 ] | ( 3 5 0 ) | ( -4 4 -3 )  | 2.384    | 1.198    | 1.99      | 70.3           | 46.3        |
| [ 15 -9 -8 ]  | ( 3 5 0 ) | ( 4 4 3 )    | 2.384    | 1.198    | 1.99      | 46.5           | 69.8        |
| [ 5 -3 7 ]    | ( 3 5 0 ) | ( -7 -7 2 )  | 2.384    | 1.197    | 1.99      | 28.6           | 71.3        |
| [ 10 -6 17 ]  | ( 3 5 0 ) | ( 5 -3 -4 )  | 2.384    | 1.188    | 2.01      | 80.7           | 65.8        |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( -5 -3 4 )  | 2.384    | 1.188    | 2.01      | 65.1           | 83.2        |
| [ 15 -9 -2 ]  | ( 3 5 0 ) | ( 5 9 -3 )   | 2.384    | 1.185    | 2.01      | 43.6           | 77.5        |
| [ 10 -6 -9 ]  | ( 3 5 0 ) | ( 0 -6 4 )   | 2.384    | 1.175    | 2.03      | 85.3           | 63.3        |
| [ 10 -6 9 ]   | ( 3 5 0 ) | ( 0 6 4 )    | 2.384    | 1.175    | 2.03      | 64.3           | 81.1        |
| [ 5 -3 -9 ]   | ( 3 5 0 ) | ( -6 -4 -2 ) | 2.384    | 1.174    | 2.03      | 35.4           | 50.2        |
| [ 5 -3 -4 ]   | ( 3 5 0 ) | ( 1 7 -4 )   | 2.384    | 1.168    | 2.04      | 77.5           | 65.0        |
| [ 10 -6 13 ]  | ( 3 5 0 ) | ( 1 -7 -4 )  | 2.384    | 1.168    | 2.04      | 67.6           | 73.2        |
| [ 10 -6 19 ]  | ( 3 5 0 ) | ( -4 6 4 )   | 2.384    | 1.168    | 2.04      | 86.4           | 62.4        |
| [ 10 -6 1 ]   | ( 3 5 0 ) | ( -4 -6 4 )  | 2.384    | 1.168    | 2.04      | 63.3           | 82.2        |
| [ 5 -3 9 ]    | ( 3 5 0 ) | ( -3 7 4 )   | 2.384    | 1.164    | 2.05      | 78.7           | 64.1        |
| [ 10 -6 -3 ]  | ( 3 5 0 ) | ( -3 -7 4 )  | 2.384    | 1.164    | 2.05      | 66.5           | 74.2        |
| [ 5 -3 14 ]   | ( 3 5 0 ) | ( 8 4 -2 )   | 2.384    | 1.161    | 2.05      | 35.3           | 49.6        |
| [ 10 -6 -5 ]  | ( 3 5 0 ) | ( -2 0 -4 )  | 2.384    | 1.161    | 2.05      | 69.1           | 70.4        |
| [ 15 -9 20 ]  | ( 3 5 0 ) | ( 7 5 -3 )   | 2.384    | 1.160    | 2.05      | 43.7           | 72.5        |
| [ 5 -3 -5 ]   | ( 3 5 0 ) | ( -1 5 -4 )  | 2.384    | 1.160    | 2.06      | 86.9           | 61.7        |
| [ 10 -6 5 ]   | ( 3 5 0 ) | ( 1 5 4 )    | 2.384    | 1.160    | 2.06      | 61.5           | 89.5        |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( -6 -8 3 )  | 2.384    | 1.154    | 2.07      | 41.0           | 88.4        |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( 7 9 -1 )   | 2.384    | 1.151    | 2.07      | 13.6           | 67.6        |
| [ 5 -3 10 ]   | ( 3 5 0 ) | ( -5 5 4 )   | 2.384    | 1.149    | 2.07      | 85.9           | 60.8        |
| [ 10 -6 5 ]   | ( 3 5 0 ) | ( 5 5 -4 )   | 2.384    | 1.149    | 2.07      | 60.6           | 89.5        |
| [ 15 -9 -2 ]  | ( 3 5 0 ) | ( -4 -6 -3 ) | 2.384    | 1.149    | 2.08      | 42.0           | 77.5        |
| [ 10 -6 15 ]  | ( 3 5 0 ) | ( 6 0 -4 )   | 2.384    | 1.147    | 2.08      | 68.2           | 69.4        |
| [ 10 -6 17 ]  | ( 3 5 0 ) | ( 2 -8 -4 )  | 2.384    | 1.139    | 2.09      | 71.1           | 65.8        |
| [ 10 -6 -7 ]  | ( 3 5 0 ) | ( 2 8 -4 )   | 2.384    | 1.139    | 2.09      | 70.0           | 66.7        |
| [ 15 -9 -28 ] | ( 3 5 0 ) | ( -5 1 -3 )  | 2.384    | 1.131    | 2.11      | 57.8           | 49.4        |
| [ 15 -9 -22 ] | ( 3 5 0 ) | ( 5 1 3 )    | 2.384    | 1.131    | 2.11      | 52.1           | 54.6        |
| [ 5 -3 1 ]    | ( 3 5 0 ) | ( -5 -9 -2 ) | 2.384    | 1.131    | 2.11      | 25.5           | 84.3        |
| [ 10 -6 1 ]   | ( 3 5 0 ) | ( -2 -4 -4 ) | 2.384    | 1.124    | 2.12      | 59.3           | 82.2        |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( 7 9 -2 )   | 2.384    | 1.121    | 2.13      | 25.3           | 83.2        |
| [ 15 -9 40 ]  | ( 3 5 0 ) | ( -8 0 3 )   | 2.384    | 1.118    | 2.13      | 54.5           | 51.3        |
| [ 5 -3 11 ]   | ( 3 5 0 ) | ( 8 6 -2 )   | 2.384    | 1.116    | 2.14      | 30.0           | 57.7        |
| [ 15 -9 -16 ] | ( 3 5 0 ) | ( -5 -3 -3 ) | 2.384    | 1.114    | 2.14      | 46.6           | 60.6        |

**Tremolite (350) 317 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 10 -6 21 ]  | ( 3 5 0 ) | ( 6 -4 -4 )  | 2.384    | 1.112    | 2.14      | 78.6           | 59.2                   |
| [ 10 -6 9 ]   | ( 3 5 0 ) | ( -6 -4 4 )  | 2.384    | 1.112    | 2.14      | 58.5           | 81.1                   |
| [ 15 -9 14 ]  | ( 3 5 0 ) | ( 7 7 -3 )   | 2.384    | 1.107    | 2.15      | 39.6           | 80.5                   |
| [ 10 -6 -13 ] | ( 3 5 0 ) | ( 1 -7 4 )   | 2.384    | 1.106    | 2.15      | 88.3           | 57.0                   |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( 1 7 4 )    | 2.384    | 1.106    | 2.15      | 57.6           | 83.2                   |
| [ 10 -6 23 ]  | ( 3 5 0 ) | ( -5 7 4 )   | 2.384    | 1.097    | 2.17      | 89.3           | 56.2                   |
| [ 5 -3 1 ]    | ( 3 5 0 ) | ( -5 -7 4 )  | 2.384    | 1.097    | 2.17      | 56.7           | 84.3                   |
| [ 10 -6 -11 ] | ( 3 5 0 ) | ( 1 9 -4 )   | 2.384    | 1.097    | 2.17      | 73.6           | 60.1                   |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( 1 -9 -4 )  | 2.384    | 1.097    | 2.17      | 64.0           | 67.6                   |
| [ 10 -6 21 ]  | ( 3 5 0 ) | ( -3 9 4 )   | 2.384    | 1.094    | 2.18      | 74.7           | 59.2                   |
| [ 5 -3 -3 ]   | ( 3 5 0 ) | ( -3 -9 4 )  | 2.384    | 1.094    | 2.18      | 62.9           | 68.5                   |
| [ 10 -6 -9 ]  | ( 3 5 0 ) | ( 3 -1 4 )   | 2.384    | 1.090    | 2.19      | 67.6           | 63.3                   |
| [ 5 -3 -3 ]   | ( 3 5 0 ) | ( -3 -1 -4 ) | 2.384    | 1.090    | 2.19      | 62.5           | 68.5                   |
| [ 15 -9 4 ]   | ( 3 5 0 ) | ( 4 8 3 )    | 2.384    | 1.089    | 2.19      | 38.4           | 85.7                   |
| [ 15 -9 28 ]  | ( 3 5 0 ) | ( -8 -4 3 )  | 2.384    | 1.085    | 2.20      | 43.8           | 63.0                   |
| [ 10 -6 19 ]  | ( 3 5 0 ) | ( 7 -1 -4 )  | 2.384    | 1.075    | 2.22      | 66.8           | 62.4                   |
| [ 5 -3 8 ]    | ( 3 5 0 ) | ( -7 -1 4 )  | 2.384    | 1.075    | 2.22      | 61.8           | 67.6                   |
| [ 5 -3 -6 ]   | ( 3 5 0 ) | ( 3 -3 4 )   | 2.384    | 1.074    | 2.22      | 72.7           | 58.5                   |
| [ 10 -6 -3 ]  | ( 3 5 0 ) | ( -3 -3 -4 ) | 2.384    | 1.074    | 2.22      | 57.8           | 74.2                   |
| [ 5 -3 -3 ]   | ( 3 5 0 ) | ( 6 8 2 )    | 2.384    | 1.070    | 2.23      | 25.8           | 68.5                   |
| [ 5 -3 11 ]   | ( 3 5 0 ) | ( 7 -3 -4 )  | 2.384    | 1.060    | 2.25      | 71.9           | 57.7                   |
| [ 10 -6 13 ]  | ( 3 5 0 ) | ( -7 -3 4 )  | 2.384    | 1.060    | 2.25      | 57.1           | 73.2                   |
| [ 5 -3 2 ]    | ( 3 5 0 ) | ( -2 0 5 )   | 2.384    | 1.055    | 2.26      | 88.2           | 88.4                   |
| [ 5 -3 -8 ]   | ( 3 5 0 ) | ( -7 -9 -1 ) | 2.384    | 1.054    | 2.26      | 14.5           | 52.8                   |
| [ 25 -15 18 ] | ( 3 5 0 ) | ( 3 -1 -5 )  | 2.384    | 1.051    | 2.27      | 89.2           | 84.9                   |
| [ 25 -15 12 ] | ( 3 5 0 ) | ( 3 1 -5 )   | 2.384    | 1.051    | 2.27      | 84.8           | 89.9                   |
| [ 15 -9 22 ]  | ( 3 5 0 ) | ( 8 6 -3 )   | 2.384    | 1.048    | 2.28      | 39.3           | 70.0                   |
| [ 25 -15 4 ]  | ( 3 5 0 ) | ( -2 -2 5 )  | 2.384    | 1.048    | 2.28      | 87.4           | 83.4                   |
| [ 25 -15 16 ] | ( 3 5 0 ) | ( -2 2 5 )   | 2.384    | 1.048    | 2.28      | 83.8           | 86.5                   |
| [ 15 -9 8 ]   | ( 3 5 0 ) | ( -7 -9 3 )  | 2.384    | 1.046    | 2.28      | 36.5           | 88.8                   |
| [ 5 -3 -8 ]   | ( 3 5 0 ) | ( -1 9 -4 )  | 2.384    | 1.045    | 2.28      | 84.0           | 52.8                   |
| [ 10 -6 11 ]  | ( 3 5 0 ) | ( 1 9 4 )    | 2.384    | 1.045    | 2.28      | 54.4           | 77.1                   |
| [ 10 -6 -15 ] | ( 3 5 0 ) | ( -3 5 -4 )  | 2.384    | 1.045    | 2.28      | 77.7           | 54.2                   |
| [ 5 -3 0 ]    | ( 3 5 0 ) | ( 3 5 4 )    | 2.384    | 1.045    | 2.28      | 53.5           | 80.2                   |
| [ 5 -3 -10 ]  | ( 3 5 0 ) | ( -7 -5 -2 ) | 2.384    | 1.044    | 2.28      | 32.2           | 47.8                   |
| [ 25 -15 2 ]  | ( 3 5 0 ) | ( -1 -1 5 )  | 2.384    | 1.042    | 2.29      | 85.7           | 81.8                   |
| [ 25 -15 8 ]  | ( 3 5 0 ) | ( 1 -1 -5 )  | 2.384    | 1.042    | 2.29      | 81.3           | 86.8                   |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( 4 0 -5 )   | 2.384    | 1.039    | 2.29      | 82.3           | 83.2                   |
| [ 15 -9 -4 ]  | ( 3 5 0 ) | ( -5 -7 -3 ) | 2.384    | 1.038    | 2.30      | 37.7           | 74.8                   |
| [ 5 -3 13 ]   | ( 3 5 0 ) | ( -5 9 4 )   | 2.384    | 1.038    | 2.30      | 85.0           | 52.1                   |
| [ 10 -6 -1 ]  | ( 3 5 0 ) | ( 5 9 -4 )   | 2.384    | 1.038    | 2.30      | 53.5           | 78.1                   |
| [ 25 -15 24 ] | ( 3 5 0 ) | ( 3 -3 -5 )  | 2.384    | 1.037    | 2.30      | 86.4           | 79.9                   |
| [ 25 -15 6 ]  | ( 3 5 0 ) | ( 3 3 -5 )   | 2.384    | 1.037    | 2.30      | 80.5           | 85.1                   |
| [ 10 -6 -17 ] | ( 3 5 0 ) | ( 2 -8 4 )   | 2.384    | 1.033    | 2.31      | 89.1           | 51.5                   |
| [ 10 -6 7 ]   | ( 3 5 0 ) | ( -2 -8 -4 ) | 2.384    | 1.033    | 2.31      | 51.7           | 85.3                   |
| [ 10 -6 25 ]  | ( 3 5 0 ) | ( 7 -5 -4 )  | 2.384    | 1.032    | 2.31      | 76.9           | 53.4                   |
| [ 5 -3 5 ]    | ( 3 5 0 ) | ( -7 -5 4 )  | 2.384    | 1.032    | 2.31      | 52.8           | 79.1                   |
| [ 25 -15 26 ] | ( 3 5 0 ) | ( 4 -2 -5 )  | 2.384    | 1.032    | 2.31      | 86.7           | 78.3                   |

**Tremolite (350) 317 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|-----------|-----------|-----------|----------------|-------------|
| [ 25 -15 14 ] | ( 3 5 0 ) | ( 4 2 -5 )   | 2.384     | 1.032     | 2.31      | 78.0           | 88.2        |
| [ 5 -3 -8 ]   | ( 3 5 0 ) | ( -6 -2 -3 ) | 2.384     | 1.030     | 2.32      | 47.3           | 52.8        |
| [ 25 -15 -4 ] | ( 3 5 0 ) | ( 1 3 -5 )   | 2.384     | 1.028     | 2.32      | 89.9           | 76.9        |
| [ 25 -15 14 ] | ( 3 5 0 ) | ( 1 -3 -5 )  | 2.384     | 1.028     | 2.32      | 77.1           | 88.2        |
| [ 25 -15 -2 ] | ( 3 5 0 ) | ( 2 4 -5 )   | 2.384     | 1.027     | 2.32      | 83.1           | 78.5        |
| [ 25 -15 22 ] | ( 3 5 0 ) | ( 2 -4 -5 )  | 2.384     | 1.027     | 2.32      | 79.6           | 81.6        |
| [ 10 -6 27 ]  | ( 3 5 0 ) | ( 6 -8 -4 )  | 2.384     | 1.023     | 2.33      | 88.2           | 50.8        |
| [ 10 -6 3 ]   | ( 3 5 0 ) | ( -6 -8 4 )  | 2.384     | 1.023     | 2.33      | 50.9           | 86.4        |
| [ 5 -3 14 ]   | ( 3 5 0 ) | ( 9 1 -3 )   | 2.384     | 1.021     | 2.34      | 49.6           | 49.6        |
| [ 10 -6 -13 ] | ( 3 5 0 ) | ( 4 -2 4 )   | 2.384     | 1.015     | 2.35      | 66.5           | 57.0        |
| [ 10 -6 -7 ]  | ( 3 5 0 ) | ( -4 -2 -4 ) | 2.384     | 1.015     | 2.35      | 56.9           | 66.7        |
| [ 25 -15 -6 ] | ( 3 5 0 ) | ( 0 -2 5 )   | 2.384     | 1.015     | 2.35      | 83.4           | 75.4        |
| [ 25 -15 6 ]  | ( 3 5 0 ) | ( 0 2 5 )    | 2.384     | 1.015     | 2.35      | 74.7           | 85.1        |
| [ 25 -15 32 ] | ( 3 5 0 ) | ( -4 4 5 )   | 2.384     | 1.012     | 2.35      | 89.0           | 73.6        |
| [ 25 -15 8 ]  | ( 3 5 0 ) | ( -4 -4 5 )  | 2.384     | 1.012     | 2.35      | 73.8           | 86.8        |
| [ 25 -15 28 ] | ( 3 5 0 ) | ( 5 -1 -5 )  | 2.384     | 1.012     | 2.36      | 80.0           | 76.7        |
| [ 25 -15 22 ] | ( 3 5 0 ) | ( -5 -1 5 )  | 2.384     | 1.012     | 2.36      | 75.7           | 81.6        |
| [ 5 -3 6 ]    | ( 3 5 0 ) | ( -3 5 5 )   | 2.384     | 1.011     | 2.36      | 82.3           | 75.1        |
| [ 5 -3 0 ]    | ( 3 5 0 ) | ( -3 -5 5 )  | 2.384     | 1.011     | 2.36      | 76.4           | 80.2        |
| [ 5 -3 -6 ]   | ( 3 5 0 ) | ( 6 4 3 )    | 2.384     | 1.010     | 2.36      | 42.3           | 58.5        |
| [ 5 -3 12 ]   | ( 3 5 0 ) | ( 9 3 -3 )   | 2.384     | 1.008     | 2.37      | 44.5           | 54.8        |
| [ 5 -3 -9 ]   | ( 3 5 0 ) | ( 3 -7 4 )   | 2.384     | 1.006     | 2.37      | 82.4           | 50.2        |
| [ 10 -6 3 ]   | ( 3 5 0 ) | ( -3 -7 -4 ) | 2.384     | 1.006     | 2.37      | 49.8           | 86.4        |
| [ 5 -3 -7 ]   | ( 3 5 0 ) | ( 7 7 2 )    | 2.384     | 1.004     | 2.37      | 27.5           | 55.6        |
| [ 5 -3 -2 ]   | ( 3 5 0 ) | ( -1 -5 5 )  | 2.384     | 1.003     | 2.38      | 85.7           | 72.3        |
| [ 5 -3 4 ]    | ( 3 5 0 ) | ( -1 5 5 )   | 2.384     | 1.003     | 2.38      | 73.0           | 83.2        |
| [ 15 -9 16 ]  | ( 3 5 0 ) | ( -8 -8 3 )  | 2.384     | 1.002     | 2.38      | 35.6           | 77.8        |
| [ 10 -6 23 ]  | ( 3 5 0 ) | ( 8 -2 -4 )  | 2.384     | 1.001     | 2.38      | 65.8           | 56.2        |
| [ 10 -6 17 ]  | ( 3 5 0 ) | ( -8 -2 4 )  | 2.384     | 1.001     | 2.38      | 56.3           | 65.8        |

**Tremolite (420) 357 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 0 0 1 )    | 2.301    | 5.105    | 0.45      | 75.8           | 86.2        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( -1 1 1 )   | 2.301    | 4.879    | 0.47      | 78.9           | 70.4        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 1 1 -1 )   | 2.301    | 4.879    | 0.47      | 70.8           | 78.2        |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( 0 2 1 )    | 2.301    | 4.444    | 0.52      | 70.2           | 63.5        |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( -2 0 1 )   | 2.301    | 4.030    | 0.57      | 51.3           | 77.8        |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 1 -1 1 )   | 2.301    | 3.986    | 0.58      | 57.3           | 63.8        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( -1 -1 -1 ) | 2.301    | 3.986    | 0.58      | 49.2           | 85.7        |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( 1 -3 -1 )  | 2.301    | 3.877    | 0.59      | 87.5           | 47.3        |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( -1 -3 1 )  | 2.301    | 3.877    | 0.59      | 68.2           | 52.3        |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( 2 -2 -1 )  | 2.301    | 3.680    | 0.63      | 62.2           | 52.0        |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( -2 -2 1 )  | 2.301    | 3.680    | 0.63      | 47.6           | 70.7        |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( 1 3 1 )    | 2.301    | 3.381    | 0.68      | 49.5           | 57.4        |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( 2 0 1 )    | 2.301    | 3.109    | 0.74      | 38.6           | 70.7        |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -3 1 1 )   | 2.301    | 3.024    | 0.76      | 42.8           | 57.4        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 3 1 -1 )   | 2.301    | 3.024    | 0.76      | 35.1           | 85.7        |
| [ 1 -2 -6 ]  | ( 4 2 0 ) | ( 2 4 -1 )   | 2.301    | 3.006    | 0.77      | 50.5           | 47.5        |
| [ 1 -2 -6 ]  | ( 4 2 0 ) | ( -2 2 -1 )  | 2.301    | 2.940    | 0.78      | 49.0           | 47.5        |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( 2 2 1 )    | 2.301    | 2.940    | 0.78      | 34.7           | 77.8        |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 3 3 -1 )   | 2.301    | 2.733    | 0.84      | 35.2           | 63.8        |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( 1 -1 -2 )  | 2.301    | 2.611    | 0.88      | 88.7           | 81.8        |
| [ 2 -4 -1 ]  | ( 4 2 0 ) | ( 1 1 -2 )   | 2.301    | 2.611    | 0.88      | 87.1           | 82.2        |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( -2 -4 -1 ) | 2.301    | 2.561    | 0.90      | 38.0           | 52.0        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( -2 0 2 )   | 2.301    | 2.534    | 0.91      | 74.3           | 85.7        |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( 0 -2 2 )   | 2.301    | 2.456    | 0.94      | 80.4           | 70.7        |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( 0 -2 -2 )  | 2.301    | 2.456    | 0.94      | 72.2           | 77.8        |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( 3 -1 1 )   | 2.301    | 2.410    | 0.95      | 35.3           | 52.3        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( -3 -1 -1 ) | 2.301    | 2.410    | 0.95      | 27.8           | 78.2        |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( 4 0 -1 )   | 2.301    | 2.403    | 0.96      | 30.6           | 63.5        |
| [ 2 -4 -3 ]  | ( 4 2 0 ) | ( 1 -1 2 )   | 2.301    | 2.303    | 1.00      | 65.0           | 74.4        |
| [ 2 -4 1 ]   | ( 4 2 0 ) | ( 1 1 2 )    | 2.301    | 2.303    | 1.00      | 60.8           | 89.8        |
| [ 2 -4 5 ]   | ( 4 2 0 ) | ( -3 1 2 )   | 2.301    | 2.276    | 1.01      | 63.8           | 74.0        |
| [ 2 -4 1 ]   | ( 4 2 0 ) | ( 3 1 -2 )   | 2.301    | 2.276    | 1.01      | 59.6           | 89.8        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( -3 -3 -1 ) | 2.301    | 2.255    | 1.02      | 27.0           | 70.4        |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -2 4 2 )   | 2.301    | 2.210    | 1.04      | 83.6           | 57.4        |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 2 4 -2 )   | 2.301    | 2.210    | 1.04      | 68.8           | 63.8        |
| [ 2 -4 -7 ]  | ( 4 2 0 ) | ( 1 -3 2 )   | 2.301    | 2.167    | 1.06      | 70.3           | 60.7        |
| [ 2 -4 5 ]   | ( 4 2 0 ) | ( -1 -3 -2 ) | 2.301    | 2.167    | 1.06      | 58.6           | 74.0        |
| [ 2 -4 9 ]   | ( 4 2 0 ) | ( 3 -3 -2 )  | 2.301    | 2.144    | 1.07      | 69.1           | 60.4        |
| [ 2 -4 -3 ]  | ( 4 2 0 ) | ( -3 -3 2 )  | 2.301    | 2.144    | 1.07      | 57.5           | 74.4        |
| [ 2 -4 11 ]  | ( 4 2 0 ) | ( -1 5 2 )   | 2.301    | 2.131    | 1.08      | 82.0           | 54.6        |
| [ 2 -4 -9 ]  | ( 4 2 0 ) | ( -1 -5 2 )  | 2.301    | 2.131    | 1.08      | 80.7           | 54.9        |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( 4 4 -1 )   | 2.301    | 2.122    | 1.08      | 28.4           | 57.7        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( -2 0 -2 )  | 2.301    | 2.043    | 1.13      | 52.3           | 78.2        |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( 3 5 1 )    | 2.301    | 2.017    | 1.14      | 31.3           | 47.3        |
| [ 2 -4 -11 ] | ( 4 2 0 ) | ( -1 5 -2 )  | 2.301    | 1.953    | 1.18      | 75.6           | 49.8        |
| [ 2 -4 9 ]   | ( 4 2 0 ) | ( 1 5 2 )    | 2.301    | 1.953    | 1.18      | 58.4           | 60.4        |
| [ 1 -2 -6 ]  | ( 4 2 0 ) | ( 0 6 -2 )   | 2.301    | 1.947    | 1.18      | 88.7           | 47.5        |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( 0 6 2 )    | 2.301    | 1.947    | 1.18      | 69.4           | 52.0        |



**Tremolite (420) 357 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|-----------|-----------|-----------|----------------|-------------|
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( -5 1 1 )   | 2.301     | 1.942     | 1.18      | 30.0           | 47.3        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 5 1 -1 )   | 2.301     | 1.942     | 1.18      | 23.0           | 70.4        |
| [ 2 -4 13 ]  | ( 4 2 0 ) | ( -3 5 2 )   | 2.301     | 1.936     | 1.19      | 74.5           | 49.6        |
| [ 2 -4 -7 ]  | ( 4 2 0 ) | ( 3 5 -2 )   | 2.301     | 1.936     | 1.19      | 57.3           | 60.7        |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( -4 -2 -1 ) | 2.301     | 1.928     | 1.19      | 21.5           | 86.2        |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( 2 -4 2 )   | 2.301     | 1.862     | 1.24      | 63.1           | 52.3        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 2 4 2 )    | 2.301     | 1.862     | 1.24      | 48.5           | 70.4        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 5 3 -1 )   | 2.301     | 1.858     | 1.24      | 21.1           | 78.2        |
| [ 2 -4 15 ]  | ( 4 2 0 ) | ( 1 -7 -2 )  | 2.301     | 1.845     | 1.25      | 80.1           | 45.2        |
| [ 2 -4 -13 ] | ( 4 2 0 ) | ( 1 7 -2 )   | 2.301     | 1.845     | 1.25      | 78.9           | 45.4        |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( 4 4 1 )    | 2.301     | 1.808     | 1.27      | 22.5           | 63.5        |
| [ 2 -4 -5 ]  | ( 4 2 0 ) | ( -3 1 -2 )  | 2.301     | 1.771     | 1.30      | 46.7           | 67.2        |
| [ 2 -4 -1 ]  | ( 4 2 0 ) | ( 3 1 2 )    | 2.301     | 1.771     | 1.30      | 42.6           | 82.2        |
| [ 3 -6 2 ]   | ( 4 2 0 ) | ( -2 0 3 )   | 2.301     | 1.750     | 1.32      | 84.1           | 88.4        |
| [ 2 -4 7 ]   | ( 4 2 0 ) | ( 5 -1 -2 )  | 2.301     | 1.747     | 1.32      | 46.0           | 66.8        |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( -5 -1 2 )  | 2.301     | 1.747     | 1.32      | 42.0           | 81.8        |
| [ 3 -6 -1 ]  | ( 4 2 0 ) | ( -1 -1 3 )  | 2.301     | 1.746     | 1.32      | 87.1           | 83.5        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 1 -1 -3 )  | 2.301     | 1.746     | 1.32      | 84.3           | 85.7        |
| [ 2 -4 13 ]  | ( 4 2 0 ) | ( 1 7 2 )    | 2.301     | 1.726     | 1.33      | 59.2           | 49.6        |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( -5 -5 1 )  | 2.301     | 1.718     | 1.34      | 24.3           | 52.3        |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( 2 -2 -3 )  | 2.301     | 1.718     | 1.34      | 87.0           | 77.8        |
| [ 3 -6 -2 ]  | ( 4 2 0 ) | ( -2 -2 3 )  | 2.301     | 1.718     | 1.34      | 81.4           | 80.8        |
| [ 2 -4 -11 ] | ( 4 2 0 ) | ( 3 7 -2 )   | 2.301     | 1.714     | 1.34      | 58.2           | 49.8        |
| [ 2 -4 -9 ]  | ( 4 2 0 ) | ( -3 3 -2 )  | 2.301     | 1.707     | 1.35      | 52.2           | 54.9        |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( 3 3 2 )    | 2.301     | 1.707     | 1.35      | 40.8           | 81.8        |
| [ 2 -4 11 ]  | ( 4 2 0 ) | ( 5 -3 -2 )  | 2.301     | 1.685     | 1.37      | 51.5           | 54.6        |
| [ 2 -4 -1 ]  | ( 4 2 0 ) | ( -5 -3 2 )  | 2.301     | 1.685     | 1.37      | 40.1           | 82.2        |
| [ 3 -6 -5 ]  | ( 4 2 0 ) | ( -1 -3 3 )  | 2.301     | 1.684     | 1.37      | 89.9           | 73.2        |
| [ 3 -6 7 ]   | ( 4 2 0 ) | ( -1 3 3 )   | 2.301     | 1.684     | 1.37      | 81.7           | 75.3        |
| [ 3 -6 5 ]   | ( 4 2 0 ) | ( -3 1 3 )   | 2.301     | 1.682     | 1.37      | 75.8           | 80.4        |
| [ 3 -6 1 ]   | ( 4 2 0 ) | ( 3 1 -3 )   | 2.301     | 1.682     | 1.37      | 72.9           | 88.9        |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( -4 -6 2 )  | 2.301     | 1.674     | 1.37      | 48.6           | 57.7        |
| [ 3 -6 -4 ]  | ( 4 2 0 ) | ( 0 -2 3 )   | 2.301     | 1.672     | 1.38      | 78.8           | 75.7        |
| [ 3 -6 4 ]   | ( 4 2 0 ) | ( 0 -2 -3 )  | 2.301     | 1.672     | 1.38      | 73.2           | 83.1        |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 5 1 1 )    | 2.301     | 1.645     | 1.40      | 20.3           | 63.8        |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( -6 0 1 )   | 2.301     | 1.638     | 1.41      | 23.2           | 52.0        |
| [ 3 -6 10 ]  | ( 4 2 0 ) | ( 2 -4 -3 )  | 2.301     | 1.631     | 1.41      | 89.8           | 68.0        |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( -2 -4 3 )  | 2.301     | 1.631     | 1.41      | 79.2           | 70.7        |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( 6 2 -1 )   | 2.301     | 1.611     | 1.43      | 18.2           | 77.8        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 1 -1 3 )   | 2.301     | 1.600     | 1.44      | 68.2           | 78.2        |
| [ 3 -6 1 ]   | ( 4 2 0 ) | ( 1 1 3 )    | 2.301     | 1.600     | 1.44      | 65.4           | 88.9        |
| [ 2 -4 -13 ] | ( 4 2 0 ) | ( 3 -5 2 )   | 2.301     | 1.597     | 1.44      | 58.1           | 45.4        |
| [ 2 -4 7 ]   | ( 4 2 0 ) | ( -3 -5 -2 ) | 2.301     | 1.597     | 1.44      | 41.1           | 66.8        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 5 3 1 )    | 2.301     | 1.593     | 1.44      | 17.6           | 85.7        |
| [ 3 -6 -8 ]  | ( 4 2 0 ) | ( 0 4 -3 )   | 2.301     | 1.592     | 1.45      | 81.9           | 66.1        |
| [ 3 -6 8 ]   | ( 4 2 0 ) | ( 0 4 3 )    | 2.301     | 1.592     | 1.45      | 71.3           | 72.8        |
| [ 3 -6 4 ]   | ( 4 2 0 ) | ( -4 0 3 )   | 2.301     | 1.588     | 1.45      | 65.4           | 83.1        |
| [ 2 -4 15 ]  | ( 4 2 0 ) | ( 5 -5 -2 )  | 2.301     | 1.578     | 1.46      | 57.4           | 45.2        |

**Tremolite (420) 357 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 2 -4 -5 ]  | ( 4 2 0 ) | ( -5 -5 2 )  | 2.301    | 1.578    | 1.46      | 40.4           | 67.2                   |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 1 5 -3 )   | 2.301    | 1.578    | 1.46      | 87.5           | 63.8                   |
| [ 3 -6 11 ]  | ( 4 2 0 ) | ( 1 -5 -3 )  | 2.301    | 1.578    | 1.46      | 79.7           | 65.7                   |
| [ 3 -6 8 ]   | ( 4 2 0 ) | ( 4 -2 -3 )  | 2.301    | 1.564    | 1.47      | 68.6           | 72.8                   |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 4 2 -3 )   | 2.301    | 1.564    | 1.47      | 63.0           | 86.2                   |
| [ 3 -6 5 ]   | ( 4 2 0 ) | ( 1 3 3 )    | 2.301    | 1.552    | 1.48      | 63.4           | 80.4                   |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( -6 -4 1 )  | 2.301    | 1.539    | 1.49      | 18.0           | 70.7                   |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 6 0 -2 )   | 2.301    | 1.533    | 1.50      | 38.1           | 70.4                   |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( -4 2 -2 )  | 2.301    | 1.532    | 1.50      | 43.4           | 57.7                   |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 4 2 2 )    | 2.301    | 1.532    | 1.50      | 35.6           | 86.2                   |
| [ 3 -6 13 ]  | ( 4 2 0 ) | ( -3 5 3 )   | 2.301    | 1.530    | 1.50      | 82.1           | 61.4                   |
| [ 3 -6 -7 ]  | ( 4 2 0 ) | ( 3 5 -3 )   | 2.301    | 1.530    | 1.50      | 69.3           | 68.4                   |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( 2 8 2 )    | 2.301    | 1.515    | 1.52      | 51.3           | 47.3                   |
| [ 3 -6 14 ]  | ( 4 2 0 ) | ( 2 -6 -3 )  | 2.301    | 1.513    | 1.52      | 87.7           | 59.4                   |
| [ 3 -6 -10 ] | ( 4 2 0 ) | ( 2 6 -3 )   | 2.301    | 1.513    | 1.52      | 77.5           | 61.7                   |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -5 -5 -1 ) | 2.301    | 1.502    | 1.53      | 19.7           | 57.4                   |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( 4 -4 -3 )  | 2.301    | 1.498    | 1.54      | 72.1           | 63.5                   |
| [ 3 -6 -4 ]  | ( 4 2 0 ) | ( -4 -4 3 )  | 2.301    | 1.498    | 1.54      | 61.5           | 75.7                   |
| [ 3 -6 -2 ]  | ( 4 2 0 ) | ( 2 0 3 )    | 2.301    | 1.487    | 1.55      | 58.9           | 80.8                   |
| [ 3 -6 -11 ] | ( 4 2 0 ) | ( 1 -5 3 )   | 2.301    | 1.467    | 1.57      | 75.1           | 59.7                   |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( -1 -5 -3 ) | 2.301    | 1.467    | 1.57      | 62.3           | 70.4                   |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( 2 -2 3 )   | 2.301    | 1.467    | 1.57      | 62.0           | 70.7                   |
| [ 3 -6 2 ]   | ( 4 2 0 ) | ( -2 -2 -3 ) | 2.301    | 1.467    | 1.57      | 56.5           | 88.4                   |
| [ 2 -4 11 ]  | ( 4 2 0 ) | ( 3 7 2 )    | 2.301    | 1.465    | 1.57      | 42.9           | 54.6                   |
| [ 3 -6 7 ]   | ( 4 2 0 ) | ( -5 1 3 )   | 2.301    | 1.463    | 1.57      | 59.3           | 75.3                   |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 5 1 -3 )   | 2.301    | 1.463    | 1.57      | 56.5           | 85.7                   |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( -6 4 2 )   | 2.301    | 1.452    | 1.58      | 48.5           | 47.3                   |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 6 4 -2 )   | 2.301    | 1.452    | 1.58      | 34.2           | 78.2                   |
| [ 2 -4 -9 ]  | ( 4 2 0 ) | ( -5 -7 2 )  | 2.301    | 1.451    | 1.59      | 42.2           | 54.9                   |
| [ 3 -6 -13 ] | ( 4 2 0 ) | ( 1 7 -3 )   | 2.301    | 1.451    | 1.59      | 85.4           | 55.8                   |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -1 7 3 )   | 2.301    | 1.451    | 1.59      | 78.1           | 57.4                   |
| [ 1 -2 -6 ]  | ( 4 2 0 ) | ( 6 6 -1 )   | 2.301    | 1.438    | 1.60      | 21.7           | 47.5                   |
| [ 3 -6 11 ]  | ( 4 2 0 ) | ( -5 3 3 )   | 2.301    | 1.426    | 1.61      | 62.7           | 65.7                   |
| [ 3 -6 -1 ]  | ( 4 2 0 ) | ( 5 3 -3 )   | 2.301    | 1.426    | 1.61      | 54.6           | 83.5                   |
| [ 1 -2 -6 ]  | ( 4 2 0 ) | ( -6 0 -1 )  | 2.301    | 1.416    | 1.62      | 21.3           | 47.5                   |
| [ 3 -6 17 ]  | ( 4 2 0 ) | ( 3 -7 -3 )  | 2.301    | 1.413    | 1.63      | 85.0           | 53.7                   |
| [ 3 -6 -11 ] | ( 4 2 0 ) | ( 3 7 -3 )   | 2.301    | 1.413    | 1.63      | 68.5           | 59.7                   |
| [ 3 -6 -10 ] | ( 4 2 0 ) | ( -2 4 -3 )  | 2.301    | 1.412    | 1.63      | 65.7           | 61.7                   |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( 2 4 3 )    | 2.301    | 1.412    | 1.63      | 55.2           | 77.8                   |
| [ 3 -6 16 ]  | ( 4 2 0 ) | ( -4 6 3 )   | 2.301    | 1.405    | 1.64      | 75.6           | 55.5                   |
| [ 3 -6 -8 ]  | ( 4 2 0 ) | ( 4 6 -3 )   | 2.301    | 1.405    | 1.64      | 60.9           | 66.1                   |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -7 -1 1 )  | 2.301    | 1.402    | 1.64      | 18.4           | 57.4                   |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( 6 2 1 )    | 2.301    | 1.399    | 1.64      | 16.3           | 70.7                   |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( 2 -8 -3 )  | 2.301    | 1.383    | 1.66      | 85.7           | 52.0                   |
| [ 3 -6 -14 ] | ( 4 2 0 ) | ( 2 8 -3 )   | 2.301    | 1.383    | 1.66      | 76.3           | 54.0                   |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( -4 -6 -2 ) | 2.301    | 1.381    | 1.67      | 35.8           | 63.5                   |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 7 3 -1 )   | 2.301    | 1.369    | 1.68      | 15.1           | 85.7                   |
| [ 2 -4 -3 ]  | ( 4 2 0 ) | ( 5 1 2 )    | 2.301    | 1.364    | 1.69      | 32.5           | 74.4                   |

**Tremolite (420) 357 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( -1 7 -3 )  | 2.301    | 1.363    | 1.69      | 78.4           | 52.3                   |
| [ 3 -6 13 ]  | ( 4 2 0 ) | ( 1 7 3 )    | 2.301    | 1.363    | 1.69      | 62.0           | 61.4                   |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -5 5 3 )   | 2.301    | 1.360    | 1.69      | 66.5           | 57.4                   |
| [ 3 -6 -5 ]  | ( 4 2 0 ) | ( 5 5 -3 )   | 2.301    | 1.360    | 1.69      | 53.8           | 73.2                   |
| [ 3 -6 -16 ] | ( 4 2 0 ) | ( 0 8 -3 )   | 2.301    | 1.359    | 1.69      | 87.5           | 50.6                   |
| [ 3 -6 16 ]  | ( 4 2 0 ) | ( 0 8 3 )    | 2.301    | 1.359    | 1.69      | 69.5           | 55.5                   |
| [ 3 -6 -5 ]  | ( 4 2 0 ) | ( -3 1 -3 )  | 2.301    | 1.358    | 1.69      | 53.8           | 73.2                   |
| [ 3 -6 -1 ]  | ( 4 2 0 ) | ( 3 1 3 )    | 2.301    | 1.358    | 1.69      | 51.0           | 83.5                   |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( -6 -4 -1 ) | 2.301    | 1.351    | 1.70      | 15.2           | 77.8                   |
| [ 2 -4 9 ]   | ( 4 2 0 ) | ( 7 -1 -2 )  | 2.301    | 1.347    | 1.71      | 36.0           | 60.4                   |
| [ 2 -4 5 ]   | ( 4 2 0 ) | ( -7 -1 2 )  | 2.301    | 1.347    | 1.71      | 32.1           | 74.0                   |
| [ 2 -4 1 ]   | ( 4 2 0 ) | ( 5 3 2 )    | 2.301    | 1.334    | 1.72      | 30.4           | 89.8                   |
| [ 3 -6 -14 ] | ( 4 2 0 ) | ( -2 6 -3 )  | 2.301    | 1.333    | 1.73      | 69.5           | 54.0                   |
| [ 3 -6 10 ]  | ( 4 2 0 ) | ( 2 6 3 )    | 2.301    | 1.333    | 1.73      | 54.8           | 68.0                   |
| [ 2 -4 15 ]  | ( 4 2 0 ) | ( -3 -9 -2 ) | 2.301    | 1.332    | 1.73      | 45.3           | 45.2                   |
| [ 3 -6 10 ]  | ( 4 2 0 ) | ( 6 -2 -3 )  | 2.301    | 1.329    | 1.73      | 54.5           | 68.0                   |
| [ 3 -6 2 ]   | ( 4 2 0 ) | ( 6 2 -3 )   | 2.301    | 1.329    | 1.73      | 49.1           | 88.4                   |
| [ 2 -4 -13 ] | ( 4 2 0 ) | ( 5 9 -2 )   | 2.301    | 1.321    | 1.74      | 44.6           | 45.4                   |
| [ 3 -6 -17 ] | ( 4 2 0 ) | ( -1 -9 3 )  | 2.301    | 1.321    | 1.74      | 83.6           | 49.0                   |
| [ 3 -6 19 ]  | ( 4 2 0 ) | ( -1 9 3 )   | 2.301    | 1.321    | 1.74      | 77.0           | 50.4                   |
| [ 2 -4 1 ]   | ( 4 2 0 ) | ( -2 0 4 )   | 2.301    | 1.320    | 1.74      | 89.2           | 89.8                   |
| [ 2 -4 13 ]  | ( 4 2 0 ) | ( 7 -3 -2 )  | 2.301    | 1.318    | 1.75      | 41.0           | 49.6                   |
| [ 2 -4 1 ]   | ( 4 2 0 ) | ( 7 3 -2 )   | 2.301    | 1.318    | 1.75      | 30.0           | 89.8                   |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 7 5 -1 )   | 2.301    | 1.310    | 1.76      | 16.1           | 63.8                   |
| [ 4 -8 -1 ]  | ( 4 2 0 ) | ( -1 -1 4 )  | 2.301    | 1.306    | 1.76      | 84.2           | 84.2                   |
| [ 4 -8 3 ]   | ( 4 2 0 ) | ( 1 -1 -4 )  | 2.301    | 1.306    | 1.76      | 82.1           | 87.8                   |
| [ 4 -8 5 ]   | ( 4 2 0 ) | ( 3 -1 -4 )  | 2.301    | 1.301    | 1.77      | 82.7           | 83.7                   |
| [ 4 -8 1 ]   | ( 4 2 0 ) | ( -3 -1 4 )  | 2.301    | 1.301    | 1.77      | 80.5           | 88.2                   |
| [ 3 -6 20 ]  | ( 4 2 0 ) | ( 4 -8 -3 )  | 2.301    | 1.299    | 1.77      | 78.8           | 48.8                   |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( -4 -8 3 )  | 2.301    | 1.299    | 1.77      | 60.9           | 57.7                   |
| [ 3 -6 14 ]  | ( 4 2 0 ) | ( 6 -4 -3 )  | 2.301    | 1.287    | 1.79      | 58.3           | 59.4                   |
| [ 3 -6 -2 ]  | ( 4 2 0 ) | ( -6 -4 3 )  | 2.301    | 1.287    | 1.79      | 47.8           | 80.8                   |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( 6 6 1 )    | 2.301    | 1.282    | 1.80      | 17.9           | 52.0                   |
| [ 4 -8 -5 ]  | ( 4 2 0 ) | ( -1 -3 4 )  | 2.301    | 1.280    | 1.80      | 86.4           | 76.3                   |
| [ 4 -8 7 ]   | ( 4 2 0 ) | ( 1 -3 -4 )  | 2.301    | 1.280    | 1.80      | 80.2           | 79.8                   |
| [ 2 -4 5 ]   | ( 4 2 0 ) | ( 5 5 2 )    | 2.301    | 1.280    | 1.80      | 30.3           | 74.0                   |
| [ 3 -6 19 ]  | ( 4 2 0 ) | ( 5 -7 -3 )  | 2.301    | 1.276    | 1.80      | 70.3           | 50.4                   |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( -5 -7 3 )  | 2.301    | 1.276    | 1.80      | 53.9           | 63.8                   |
| [ 4 -8 9 ]   | ( 4 2 0 ) | ( 3 -3 -4 )  | 2.301    | 1.275    | 1.80      | 84.9           | 75.9                   |
| [ 4 -8 -3 ]  | ( 4 2 0 ) | ( -3 -3 4 )  | 2.301    | 1.275    | 1.80      | 78.6           | 80.2                   |
| [ 3 -6 -13 ] | ( 4 2 0 ) | ( 3 -5 3 )   | 2.301    | 1.275    | 1.81      | 61.1           | 55.8                   |
| [ 3 -6 7 ]   | ( 4 2 0 ) | ( -3 -5 -3 ) | 2.301    | 1.275    | 1.81      | 48.5           | 75.3                   |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( 6 8 -2 )   | 2.301    | 1.268    | 1.81      | 37.4           | 52.3                   |
| [ 2 -4 -3 ]  | ( 4 2 0 ) | ( 2 4 -4 )   | 2.301    | 1.267    | 1.82      | 85.1           | 74.4                   |
| [ 2 -4 -3 ]  | ( 4 2 0 ) | ( -7 -5 2 )  | 2.301    | 1.265    | 1.82      | 29.9           | 74.4                   |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 0 -2 4 )   | 2.301    | 1.264    | 1.82      | 78.0           | 78.2                   |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 0 2 4 )    | 2.301    | 1.264    | 1.82      | 73.8           | 85.7                   |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( -4 2 4 )   | 2.301    | 1.255    | 1.83      | 76.5           | 77.8                   |

**Tremolite (420) 357 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 4 2 -4 )   | 2.301    | 1.255    | 1.83      | 72.3           | 86.2        |
| [ 3 -6 -19 ] | ( 4 2 0 ) | ( 1 -9 3 )   | 2.301    | 1.254    | 1.84      | 81.4           | 46.1        |
| [ 3 -6 17 ]  | ( 4 2 0 ) | ( -1 -9 -3 ) | 2.301    | 1.254    | 1.84      | 62.1           | 53.7        |
| [ 3 -6 -4 ]  | ( 4 2 0 ) | ( 4 0 3 )    | 2.301    | 1.243    | 1.85      | 46.8           | 75.7        |
| [ 1 -2 -6 ]  | ( 4 2 0 ) | ( -2 8 -3 )  | 2.301    | 1.242    | 1.85      | 73.0           | 47.5        |
| [ 3 -6 14 ]  | ( 4 2 0 ) | ( 2 8 3 )    | 2.301    | 1.242    | 1.85      | 55.1           | 59.4        |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( -7 -1 -1 ) | 2.301    | 1.235    | 1.86      | 17.2           | 52.3        |
| [ 4 -8 -9 ]  | ( 4 2 0 ) | ( -1 -5 4 )  | 2.301    | 1.231    | 1.87      | 88.6           | 68.9        |
| [ 4 -8 11 ]  | ( 4 2 0 ) | ( 1 -5 -4 )  | 2.301    | 1.231    | 1.87      | 78.5           | 72.2        |
| [ 3 -6 -8 ]  | ( 4 2 0 ) | ( 4 -2 3 )   | 2.301    | 1.231    | 1.87      | 50.0           | 66.1        |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( -4 -2 -3 ) | 2.301    | 1.231    | 1.87      | 44.5           | 86.2        |
| [ 4 -8 -3 ]  | ( 4 2 0 ) | ( 1 -1 4 )   | 2.301    | 1.222    | 1.88      | 70.0           | 80.2        |
| [ 4 -8 1 ]   | ( 4 2 0 ) | ( -1 -1 -4 ) | 2.301    | 1.222    | 1.88      | 67.9           | 88.2        |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( 8 2 -1 )   | 2.301    | 1.219    | 1.89      | 14.9           | 63.5        |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( -6 0 -2 )  | 2.301    | 1.216    | 1.89      | 30.9           | 63.8        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 7 3 1 )    | 2.301    | 1.213    | 1.90      | 13.6           | 78.2        |
| [ 4 -8 7 ]   | ( 4 2 0 ) | ( -5 1 4 )   | 2.301    | 1.210    | 1.90      | 68.6           | 79.8        |
| [ 4 -8 3 ]   | ( 4 2 0 ) | ( 5 1 -4 )   | 2.301    | 1.210    | 1.90      | 66.5           | 87.8        |
| [ 2 -4 9 ]   | ( 4 2 0 ) | ( -5 -7 -2 ) | 2.301    | 1.209    | 1.90      | 31.8           | 60.4        |
| [ 3 -6 13 ]  | ( 4 2 0 ) | ( -7 3 3 )   | 2.301    | 1.200    | 1.92      | 51.0           | 61.4        |
| [ 3 -6 1 ]   | ( 4 2 0 ) | ( 7 3 -3 )   | 2.301    | 1.200    | 1.92      | 43.0           | 88.9        |
| [ 4 -8 -7 ]  | ( 4 2 0 ) | ( -1 3 -4 )  | 2.301    | 1.200    | 1.92      | 72.4           | 72.6        |
| [ 4 -8 5 ]   | ( 4 2 0 ) | ( 1 3 4 )    | 2.301    | 1.200    | 1.92      | 66.2           | 83.7        |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( -4 4 -3 )  | 2.301    | 1.198    | 1.92      | 53.7           | 57.7        |
| [ 3 -6 4 ]   | ( 4 2 0 ) | ( 4 4 3 )    | 2.301    | 1.198    | 1.92      | 43.3           | 83.1        |
| [ 2 -4 -7 ]  | ( 4 2 0 ) | ( -7 -7 2 )  | 2.301    | 1.197    | 1.92      | 31.3           | 60.7        |
| [ 1 -2 6 ]   | ( 4 2 0 ) | ( 8 -2 -2 )  | 2.301    | 1.191    | 1.93      | 34.9           | 52.0        |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( -8 -2 2 )  | 2.301    | 1.191    | 1.93      | 27.5           | 77.8        |
| [ 4 -8 11 ]  | ( 4 2 0 ) | ( 5 -3 -4 )  | 2.301    | 1.188    | 1.94      | 71.1           | 72.2        |
| [ 4 -8 -1 ]  | ( 4 2 0 ) | ( 5 3 -4 )   | 2.301    | 1.188    | 1.94      | 64.8           | 84.2        |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 8 4 -1 )   | 2.301    | 1.187    | 1.94      | 13.0           | 86.2        |
| [ 3 -6 -13 ] | ( 4 2 0 ) | ( 5 9 -3 )   | 2.301    | 1.185    | 1.94      | 54.5           | 55.8        |
| [ 1 -2 -3 ]  | ( 4 2 0 ) | ( 0 6 -4 )   | 2.301    | 1.175    | 1.96      | 82.7           | 63.8        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 0 6 4 )    | 2.301    | 1.175    | 1.96      | 71.0           | 70.4        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 6 4 2 )    | 2.301    | 1.174    | 1.96      | 26.5           | 85.7        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( -7 -5 -1 ) | 2.301    | 1.171    | 1.96      | 13.6           | 70.4        |
| [ 4 -8 -13 ] | ( 4 2 0 ) | ( 1 7 -4 )   | 2.301    | 1.168    | 1.97      | 89.5           | 62.2        |
| [ 4 -8 15 ]  | ( 4 2 0 ) | ( 1 -7 -4 )  | 2.301    | 1.168    | 1.97      | 77.2           | 65.2        |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( 4 -6 -4 )  | 2.301    | 1.168    | 1.97      | 81.3           | 63.5        |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( 4 6 -4 )   | 2.301    | 1.168    | 1.97      | 69.6           | 70.7        |
| [ 4 -8 17 ]  | ( 4 2 0 ) | ( 3 -7 -4 )  | 2.301    | 1.164    | 1.98      | 89.1           | 61.9        |
| [ 4 -8 -11 ] | ( 4 2 0 ) | ( -3 -7 4 )  | 2.301    | 1.164    | 1.98      | 75.8           | 65.5        |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 8 4 -2 )   | 2.301    | 1.161    | 1.98      | 26.2           | 86.2        |
| [ 2 -4 -1 ]  | ( 4 2 0 ) | ( -2 0 -4 )  | 2.301    | 1.161    | 1.98      | 62.6           | 82.2        |
| [ 3 -6 17 ]  | ( 4 2 0 ) | ( 7 -5 -3 )  | 2.301    | 1.160    | 1.98      | 54.9           | 53.7        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( -7 -5 3 )  | 2.301    | 1.160    | 1.98      | 42.3           | 78.2        |
| [ 4 -8 -11 ] | ( 4 2 0 ) | ( 1 -5 4 )   | 2.301    | 1.160    | 1.98      | 75.0           | 65.5        |
| [ 4 -8 9 ]   | ( 4 2 0 ) | ( 1 5 4 )    | 2.301    | 1.160    | 1.98      | 65.0           | 75.9        |

**Tremolite (420) 357 Zone Axes*****a* 9.84Å *b* 18.06Å *c* 5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°**Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | <i>d</i> (hk0) | <i>d</i> (hkl) | <i>d</i> Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------------|----------------|----------------|----------------|-------------|
| [ 3 -6 22 ]  | ( 4 2 0 ) | ( -6 8 3 )   | 2.301          | 1.154          | 1.99           | 66.0           | 45.9        |
| [ 3 -6 -10 ] | ( 4 2 0 ) | ( 6 8 -3 )   | 2.301          | 1.154          | 1.99           | 48.2           | 61.7        |
| [ 4 -8 15 ]  | ( 4 2 0 ) | ( -5 5 4 )   | 2.301          | 1.149          | 2.00           | 73.7           | 65.2        |
| [ 4 -8 -5 ]  | ( 4 2 0 ) | ( 5 5 -4 )   | 2.301          | 1.149          | 2.00           | 63.7           | 76.3        |
| [ 3 -6 -16 ] | ( 4 2 0 ) | ( -4 6 -3 )  | 2.301          | 1.149          | 2.00           | 57.6           | 50.6        |
| [ 3 -6 8 ]   | ( 4 2 0 ) | ( 4 6 3 )    | 2.301          | 1.149          | 2.00           | 43.1           | 72.8        |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( -6 0 4 )   | 2.301          | 1.147          | 2.01           | 61.4           | 81.8        |
| [ 2 -4 9 ]   | ( 4 2 0 ) | ( -2 8 4 )   | 2.301          | 1.139          | 2.02           | 83.3           | 60.4        |
| [ 2 -4 -7 ]  | ( 4 2 0 ) | ( -2 -8 4 )  | 2.301          | 1.139          | 2.02           | 81.9           | 60.7        |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( 8 6 -1 )   | 2.301          | 1.139          | 2.02           | 14.8           | 57.7        |
| [ 3 -6 -7 ]  | ( 4 2 0 ) | ( -5 1 -3 )  | 2.301          | 1.131          | 2.03           | 43.8           | 68.4        |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 5 1 3 )    | 2.301          | 1.131          | 2.03           | 41.1           | 78.2        |
| [ 2 -4 13 ]  | ( 4 2 0 ) | ( -5 -9 -2 ) | 2.301          | 1.131          | 2.04           | 34.2           | 49.6        |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( -2 -4 -4 ) | 2.301          | 1.124          | 2.05           | 59.4           | 81.8        |
| [ 2 -4 -11 ] | ( 4 2 0 ) | ( 7 9 -2 )   | 2.301          | 1.121          | 2.05           | 33.8           | 49.8        |
| [ 3 -6 8 ]   | ( 4 2 0 ) | ( -8 0 3 )   | 2.301          | 1.118          | 2.06           | 41.7           | 72.8        |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( 7 7 1 )    | 2.301          | 1.116          | 2.06           | 16.7           | 47.3        |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( -8 -6 2 )  | 2.301          | 1.116          | 2.06           | 26.6           | 70.7        |
| [ 3 -6 -11 ] | ( 4 2 0 ) | ( 5 -3 3 )   | 2.301          | 1.114          | 2.07           | 47.2           | 59.7        |
| [ 3 -6 1 ]   | ( 4 2 0 ) | ( -5 -3 -3 ) | 2.301          | 1.114          | 2.07           | 39.3           | 88.9        |
| [ 2 -4 7 ]   | ( 4 2 0 ) | ( 6 -4 -4 )  | 2.301          | 1.112          | 2.07           | 66.4           | 66.8        |
| [ 2 -4 -1 ]  | ( 4 2 0 ) | ( -6 -4 4 )  | 2.301          | 1.112          | 2.07           | 58.2           | 82.2        |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( -7 7 3 )   | 2.301          | 1.107          | 2.08           | 58.8           | 47.3        |
| [ 3 -6 -7 ]  | ( 4 2 0 ) | ( 7 7 -3 )   | 2.301          | 1.107          | 2.08           | 42.6           | 68.4        |
| [ 4 -8 -15 ] | ( 4 2 0 ) | ( -1 7 -4 )  | 2.301          | 1.106          | 2.08           | 77.5           | 59.2        |
| [ 4 -8 13 ]  | ( 4 2 0 ) | ( 1 7 4 )    | 2.301          | 1.106          | 2.08           | 64.2           | 68.6        |
| [ 4 -8 19 ]  | ( 4 2 0 ) | ( 5 -7 -4 )  | 2.301          | 1.097          | 2.10           | 76.3           | 58.9        |
| [ 4 -8 -9 ]  | ( 4 2 0 ) | ( -5 -7 4 )  | 2.301          | 1.097          | 2.10           | 63.0           | 68.9        |
| [ 4 -8 -17 ] | ( 4 2 0 ) | ( 1 9 -4 )   | 2.301          | 1.097          | 2.10           | 87.7           | 56.3        |
| [ 4 -8 19 ]  | ( 4 2 0 ) | ( 1 -9 -4 )  | 2.301          | 1.097          | 2.10           | 76.2           | 58.9        |
| [ 4 -8 21 ]  | ( 4 2 0 ) | ( -3 9 4 )   | 2.301          | 1.094          | 2.10           | 89.1           | 56.0        |
| [ 4 -8 -15 ] | ( 4 2 0 ) | ( -3 -9 4 )  | 2.301          | 1.094          | 2.10           | 74.8           | 59.2        |
| [ 1 -2 -4 ]  | ( 4 2 0 ) | ( 8 2 1 )    | 2.301          | 1.091          | 2.11           | 14.1           | 57.7        |
| [ 1 -2 7 ]   | ( 4 2 0 ) | ( -9 -1 1 )  | 2.301          | 1.090          | 2.11           | 16.3           | 47.3        |
| [ 4 -8 -5 ]  | ( 4 2 0 ) | ( 3 -1 4 )   | 2.301          | 1.090          | 2.11           | 58.2           | 76.3        |
| [ 4 -8 -1 ]  | ( 4 2 0 ) | ( 3 1 4 )    | 2.301          | 1.090          | 2.11           | 56.1           | 84.2        |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( -4 -8 -3 ) | 2.301          | 1.089          | 2.11           | 43.7           | 63.5        |
| [ 2 -4 -9 ]  | ( 4 2 0 ) | ( 7 -1 2 )   | 2.301          | 1.089          | 2.11           | 30.3           | 54.9        |
| [ 2 -4 -5 ]  | ( 4 2 0 ) | ( -7 -1 -2 ) | 2.301          | 1.089          | 2.11           | 26.6           | 67.2        |
| [ 3 -6 16 ]  | ( 4 2 0 ) | ( 8 -4 -3 )  | 2.301          | 1.085          | 2.12           | 48.4           | 55.5        |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 8 4 -3 )   | 2.301          | 1.085          | 2.12           | 38.2           | 86.2        |
| [ 2 -4 11 ]  | ( 4 2 0 ) | ( 9 -1 -2 )  | 2.301          | 1.077          | 2.14           | 30.0           | 54.6        |
| [ 2 -4 7 ]   | ( 4 2 0 ) | ( -9 -1 2 )  | 2.301          | 1.077          | 2.14           | 26.3           | 66.8        |
| [ 4 -8 9 ]   | ( 4 2 0 ) | ( 7 -1 -4 )  | 2.301          | 1.075          | 2.14           | 57.2           | 75.9        |
| [ 4 -8 5 ]   | ( 4 2 0 ) | ( -7 -1 4 )  | 2.301          | 1.075          | 2.14           | 55.1           | 83.7        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 9 3 -1 )   | 2.301          | 1.075          | 2.14           | 12.5           | 70.4        |
| [ 4 -8 -9 ]  | ( 4 2 0 ) | ( -3 3 -4 )  | 2.301          | 1.074          | 2.14           | 60.7           | 68.9        |
| [ 4 -8 3 ]   | ( 4 2 0 ) | ( 3 3 4 )    | 2.301          | 1.074          | 2.14           | 54.6           | 87.8        |

**Tremolite (420) 357 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 2 -4 -13 ] | ( 4 2 0 ) | ( -7 3 -2 )  | 2.301    | 1.073    | 2.14      | 34.8           | 45.4                   |
| [ 2 -4 -1 ]  | ( 4 2 0 ) | ( 7 3 2 )    | 2.301    | 1.073    | 2.14      | 24.2           | 82.2                   |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( 6 8 2 )    | 2.301    | 1.070    | 2.15      | 28.8           | 57.4                   |
| [ 2 -4 15 ]  | ( 4 2 0 ) | ( 9 -3 -2 )  | 2.301    | 1.062    | 2.17      | 34.5           | 45.2                   |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( -9 -3 2 )  | 2.301    | 1.062    | 2.17      | 24.0           | 81.8                   |
| [ 4 -8 13 ]  | ( 4 2 0 ) | ( -7 3 4 )   | 2.301    | 1.060    | 2.17      | 59.7           | 68.6                   |
| [ 4 -8 1 ]   | ( 4 2 0 ) | ( 7 3 -4 )   | 2.301    | 1.060    | 2.17      | 53.5           | 88.2                   |
| [ 5 -10 2 ]  | ( 4 2 0 ) | ( 2 0 -5 )   | 2.301    | 1.055    | 2.18      | 87.7           | 89.4                   |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 3 -1 -5 )  | 2.301    | 1.051    | 2.19      | 87.0           | 85.7                   |
| [ 5 -10 1 ]  | ( 4 2 0 ) | ( 3 1 -5 )   | 2.301    | 1.051    | 2.19      | 85.3           | 87.8                   |
| [ 3 -6 20 ]  | ( 4 2 0 ) | ( 8 -6 -3 )  | 2.301    | 1.048    | 2.20      | 52.3           | 48.8                   |
| [ 3 -6 -4 ]  | ( 4 2 0 ) | ( 8 6 -3 )   | 2.301    | 1.048    | 2.20      | 37.9           | 75.7                   |
| [ 5 -10 -2 ] | ( 4 2 0 ) | ( 2 2 -5 )   | 2.301    | 1.048    | 2.20      | 89.4           | 83.0                   |
| [ 5 -10 6 ]  | ( 4 2 0 ) | ( -2 2 5 )   | 2.301    | 1.048    | 2.20      | 86.0           | 84.1                   |
| [ 3 -6 -11 ] | ( 4 2 0 ) | ( -7 -9 3 )  | 2.301    | 1.046    | 2.20      | 43.5           | 59.7                   |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( 9 5 -1 )   | 2.301    | 1.045    | 2.20      | 11.7           | 78.2                   |
| [ 4 -8 -19 ] | ( 4 2 0 ) | ( -1 9 -4 )  | 2.301    | 1.045    | 2.20      | 79.9           | 53.6                   |
| [ 4 -8 17 ]  | ( 4 2 0 ) | ( 1 9 4 )    | 2.301    | 1.045    | 2.20      | 63.9           | 61.9                   |
| [ 4 -8 -13 ] | ( 4 2 0 ) | ( -3 5 -4 )  | 2.301    | 1.045    | 2.20      | 63.5           | 62.2                   |
| [ 4 -8 7 ]   | ( 4 2 0 ) | ( 3 5 4 )    | 2.301    | 1.045    | 2.20      | 53.6           | 79.8                   |
| [ 2 -4 3 ]   | ( 4 2 0 ) | ( -7 -5 -2 ) | 2.301    | 1.044    | 2.20      | 23.6           | 81.8                   |
| [ 5 -10 -1 ] | ( 4 2 0 ) | ( -1 -1 5 )  | 2.301    | 1.042    | 2.21      | 82.5           | 84.6                   |
| [ 5 -10 3 ]  | ( 4 2 0 ) | ( 1 -1 -5 )  | 2.301    | 1.042    | 2.21      | 80.8           | 89.0                   |
| [ 5 -10 4 ]  | ( 4 2 0 ) | ( 4 0 -5 )   | 2.301    | 1.039    | 2.21      | 80.1           | 87.4                   |
| [ 3 -6 -19 ] | ( 4 2 0 ) | ( -5 7 -3 )  | 2.301    | 1.038    | 2.22      | 54.9           | 46.1                   |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 5 7 3 )    | 2.301    | 1.038    | 2.22      | 38.8           | 70.4                   |
| [ 4 -8 23 ]  | ( 4 2 0 ) | ( -5 9 4 )   | 2.301    | 1.038    | 2.22      | 78.7           | 53.3                   |
| [ 4 -8 -13 ] | ( 4 2 0 ) | ( 5 9 -4 )   | 2.301    | 1.038    | 2.22      | 62.7           | 62.2                   |
| [ 5 -10 9 ]  | ( 4 2 0 ) | ( -3 3 5 )   | 2.301    | 1.037    | 2.22      | 88.7           | 79.4                   |
| [ 5 -10 -3 ] | ( 4 2 0 ) | ( 3 3 -5 )   | 2.301    | 1.037    | 2.22      | 83.7           | 81.4                   |
| [ 2 -4 -9 ]  | ( 4 2 0 ) | ( -2 8 -4 )  | 2.301    | 1.033    | 2.23      | 73.0           | 54.9                   |
| [ 2 -4 7 ]   | ( 4 2 0 ) | ( 2 8 4 )    | 2.301    | 1.033    | 2.23      | 58.3           | 66.8                   |
| [ 4 -8 17 ]  | ( 4 2 0 ) | ( -7 5 4 )   | 2.301    | 1.032    | 2.23      | 62.5           | 61.9                   |
| [ 4 -8 -3 ]  | ( 4 2 0 ) | ( 7 5 -4 )   | 2.301    | 1.032    | 2.23      | 52.5           | 80.2                   |
| [ 5 -10 8 ]  | ( 4 2 0 ) | ( -4 2 5 )   | 2.301    | 1.032    | 2.23      | 81.9           | 81.0                   |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( 4 2 -5 )   | 2.301    | 1.032    | 2.23      | 78.5           | 86.2                   |
| [ 1 -2 4 ]   | ( 4 2 0 ) | ( -8 -6 -1 ) | 2.301    | 1.032    | 2.23      | 12.6           | 63.5                   |
| [ 3 -6 -10 ] | ( 4 2 0 ) | ( 6 -2 3 )   | 2.301    | 1.030    | 2.23      | 41.6           | 61.7                   |
| [ 3 -6 -2 ]  | ( 4 2 0 ) | ( -6 -2 -3 ) | 2.301    | 1.030    | 2.23      | 36.3           | 80.8                   |
| [ 1 -2 -1 ]  | ( 4 2 0 ) | ( -1 -3 5 )  | 2.301    | 1.028    | 2.24      | 84.3           | 78.2                   |
| [ 5 -10 7 ]  | ( 4 2 0 ) | ( 1 -3 -5 )  | 2.301    | 1.028    | 2.24      | 79.2           | 82.5                   |
| [ 5 -10 -6 ] | ( 4 2 0 ) | ( 2 4 -5 )   | 2.301    | 1.027    | 2.24      | 88.9           | 76.7                   |
| [ 1 -2 2 ]   | ( 4 2 0 ) | ( 2 -4 -5 )  | 2.301    | 1.027    | 2.24      | 84.5           | 77.8                   |
| [ 2 -4 11 ]  | ( 4 2 0 ) | ( 6 -8 -4 )  | 2.301    | 1.023    | 2.25      | 71.9           | 54.6                   |
| [ 2 -4 -5 ]  | ( 4 2 0 ) | ( -6 -8 4 )  | 2.301    | 1.023    | 2.25      | 57.2           | 67.2                   |
| [ 3 -6 7 ]   | ( 4 2 0 ) | ( -9 -1 3 )  | 2.301    | 1.021    | 2.25      | 36.9           | 75.3                   |
| [ 1 -2 -2 ]  | ( 4 2 0 ) | ( 4 -2 4 )   | 2.301    | 1.015    | 2.27      | 54.6           | 70.7                   |
| [ 1 -2 0 ]   | ( 4 2 0 ) | ( -4 -2 -4 ) | 2.301    | 1.015    | 2.27      | 50.4           | 86.2                   |



**Tremolite (420) 357 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 5 -10 -4 ] | ( 4 2 0 ) | ( 0 -2 5 )   | 2.301    | 1.015    | 2.27      | 77.5           | 79.8        |
| [ 5 -10 4 ]  | ( 4 2 0 ) | ( 0 -2 -5 )  | 2.301    | 1.015    | 2.27      | 74.2           | 87.4        |
| [ 5 -10 12 ] | ( 4 2 0 ) | ( 4 -4 -5 )  | 2.301    | 1.012    | 2.27      | 83.7           | 74.8        |
| [ 5 -10 -4 ] | ( 4 2 0 ) | ( -4 -4 5 )  | 2.301    | 1.012    | 2.27      | 77.0           | 79.8        |
| [ 5 -10 7 ]  | ( 4 2 0 ) | ( 5 -1 -5 )  | 2.301    | 1.012    | 2.27      | 75.2           | 82.5        |
| [ 5 -10 3 ]  | ( 4 2 0 ) | ( -5 -1 5 )  | 2.301    | 1.012    | 2.27      | 73.5           | 89.0        |
| [ 5 -10 13 ] | ( 4 2 0 ) | ( -3 5 5 )   | 2.301    | 1.011    | 2.28      | 89.6           | 73.3        |
| [ 5 -10 -7 ] | ( 4 2 0 ) | ( -3 -5 5 )  | 2.301    | 1.011    | 2.28      | 82.2           | 75.2        |
| [ 3 -6 -14 ] | ( 4 2 0 ) | ( 6 -4 3 )   | 2.301    | 1.010    | 2.28      | 45.2           | 54.0        |
| [ 3 -6 2 ]   | ( 4 2 0 ) | ( 6 4 3 )    | 2.301    | 1.010    | 2.28      | 35.0           | 88.4        |
| [ 1 -2 5 ]   | ( 4 2 0 ) | ( -9 3 3 )   | 2.301    | 1.008    | 2.28      | 42.8           | 57.4        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 9 3 -3 )   | 2.301    | 1.008    | 2.28      | 35.1           | 85.7        |
| [ 1 -2 -5 ]  | ( 4 2 0 ) | ( -9 -7 1 )  | 2.301    | 1.006    | 2.29      | 13.9           | 52.3        |
| [ 4 -8 -17 ] | ( 4 2 0 ) | ( 3 -7 4 )   | 2.301    | 1.006    | 2.29      | 66.4           | 56.3        |
| [ 4 -8 11 ]  | ( 4 2 0 ) | ( -3 -7 -4 ) | 2.301    | 1.006    | 2.29      | 53.2           | 72.2        |
| [ 2 -4 7 ]   | ( 4 2 0 ) | ( 7 7 2 )    | 2.301    | 1.004    | 2.29      | 24.5           | 66.8        |
| [ 5 -10 -9 ] | ( 4 2 0 ) | ( 1 5 -5 )   | 2.301    | 1.003    | 2.29      | 86.1           | 72.2        |
| [ 5 -10 11 ] | ( 4 2 0 ) | ( -1 5 5 )   | 2.301    | 1.003    | 2.29      | 77.9           | 76.3        |
| [ 3 -6 -8 ]  | ( 4 2 0 ) | ( -8 -8 3 )  | 2.301    | 1.002    | 2.30      | 38.5           | 66.1        |
| [ 1 -2 3 ]   | ( 4 2 0 ) | ( 8 -2 -4 )  | 2.301    | 1.001    | 2.30      | 53.7           | 70.4        |
| [ 1 -2 1 ]   | ( 4 2 0 ) | ( 8 2 -4 )   | 2.301    | 1.001    | 2.30      | 49.5           | 85.7        |

**Tremolite (280) 277 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]   | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|-------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 4 -1 0 ]  | ( 2 8 0 ) | ( 0 0 1 )    | 2.040    | 5.105    | 0.40      | 83.7           | 76.6                   |
| [ 4 -1 5 ]  | ( 2 8 0 ) | ( 1 -1 -1 )  | 2.040    | 4.879    | 0.42      | 82.6           | 68.8                   |
| [ 4 -1 3 ]  | ( 2 8 0 ) | ( 1 1 -1 )   | 2.040    | 4.879    | 0.42      | 68.9           | 82.1                   |
| [ 4 -1 2 ]  | ( 2 8 0 ) | ( 0 2 1 )    | 2.040    | 4.444    | 0.46      | 57.3           | 89.3                   |
| [ 4 -1 8 ]  | ( 2 8 0 ) | ( -2 0 1 )   | 2.040    | 4.030    | 0.51      | 73.9           | 52.6                   |
| [ 4 -1 -5 ] | ( 2 8 0 ) | ( 1 -1 1 )   | 2.040    | 3.986    | 0.51      | 86.3           | 49.2                   |
| [ 4 -1 -3 ] | ( 2 8 0 ) | ( -1 -1 -1 ) | 2.040    | 3.986    | 0.51      | 62.4           | 58.5                   |
| [ 4 -1 7 ]  | ( 2 8 0 ) | ( -1 3 1 )   | 2.040    | 3.877    | 0.53      | 60.7           | 57.4                   |
| [ 4 -1 1 ]  | ( 2 8 0 ) | ( 1 3 -1 )   | 2.040    | 3.877    | 0.53      | 47.6           | 83.6                   |
| [ 4 -1 6 ]  | ( 2 8 0 ) | ( -2 -2 1 )  | 2.040    | 3.680    | 0.55      | 51.6           | 62.8                   |
| [ 4 -1 -4 ] | ( 2 8 0 ) | ( 0 4 -1 )   | 2.040    | 3.382    | 0.60      | 52.8           | 53.5                   |
| [ 4 -1 4 ]  | ( 2 8 0 ) | ( 0 -4 -1 )  | 2.040    | 3.382    | 0.60      | 41.5           | 75.2                   |
| [ 4 -1 -1 ] | ( 2 8 0 ) | ( 1 3 1 )    | 2.040    | 3.381    | 0.60      | 43.0           | 70.1                   |
| [ 4 -1 4 ]  | ( 2 8 0 ) | ( -2 -4 1 )  | 2.040    | 3.006    | 0.68      | 36.1           | 75.2                   |
| [ 4 -1 9 ]  | ( 2 8 0 ) | ( -1 5 1 )   | 2.040    | 2.941    | 0.69      | 48.2           | 48.3                   |
| [ 4 -1 -1 ] | ( 2 8 0 ) | ( -1 -5 1 )  | 2.040    | 2.941    | 0.69      | 36.4           | 70.1                   |
| [ 4 -1 -6 ] | ( 2 8 0 ) | ( 2 2 1 )    | 2.040    | 2.940    | 0.69      | 51.6           | 45.3                   |
| [ 4 -1 9 ]  | ( 2 8 0 ) | ( -3 -3 1 )  | 2.040    | 2.733    | 0.75      | 43.9           | 48.3                   |
| [ 4 -1 1 ]  | ( 2 8 0 ) | ( 1 5 1 )    | 2.040    | 2.706    | 0.75      | 31.1           | 83.6                   |
| [ 8 -2 5 ]  | ( 2 8 0 ) | ( 1 -1 -2 )  | 2.040    | 2.611    | 0.78      | 82.8           | 85.7                   |
| [ 8 -2 3 ]  | ( 2 8 0 ) | ( 1 1 -2 )   | 2.040    | 2.611    | 0.78      | 82.1           | 87.2                   |
| [ 4 -1 -6 ] | ( 2 8 0 ) | ( 0 -6 1 )   | 2.040    | 2.593    | 0.79      | 43.7           | 45.3                   |
| [ 4 -1 6 ]  | ( 2 8 0 ) | ( 0 6 1 )    | 2.040    | 2.593    | 0.79      | 33.5           | 62.8                   |
| [ 4 -1 -4 ] | ( 2 8 0 ) | ( -2 -4 -1 ) | 2.040    | 2.561    | 0.80      | 37.1           | 53.5                   |
| [ 4 -1 4 ]  | ( 2 8 0 ) | ( -2 0 2 )   | 2.040    | 2.534    | 0.80      | 83.1           | 75.2                   |
| [ 4 -1 -1 ] | ( 2 8 0 ) | ( 0 2 -2 )   | 2.040    | 2.456    | 0.83      | 81.9           | 70.1                   |
| [ 4 -1 1 ]  | ( 2 8 0 ) | ( 0 2 2 )    | 2.040    | 2.456    | 0.83      | 69.5           | 83.6                   |
| [ 4 -1 2 ]  | ( 2 8 0 ) | ( 2 6 -1 )   | 2.040    | 2.411    | 0.85      | 27.2           | 89.3                   |
| [ 4 -1 7 ]  | ( 2 8 0 ) | ( -3 -5 1 )  | 2.040    | 2.338    | 0.87      | 31.7           | 57.4                   |
| [ 8 -2 -5 ] | ( 2 8 0 ) | ( 1 -1 2 )   | 2.040    | 2.303    | 0.89      | 85.0           | 61.2                   |
| [ 8 -2 -3 ] | ( 2 8 0 ) | ( -1 -1 -2 ) | 2.040    | 2.303    | 0.89      | 71.5           | 67.0                   |
| [ 4 -1 -3 ] | ( 2 8 0 ) | ( 1 7 -1 )   | 2.040    | 2.299    | 0.89      | 30.7           | 58.5                   |
| [ 8 -2 13 ] | ( 2 8 0 ) | ( -3 1 2 )   | 2.040    | 2.276    | 0.90      | 84.5           | 60.0                   |
| [ 8 -2 11 ] | ( 2 8 0 ) | ( 3 1 -2 )   | 2.040    | 2.276    | 0.90      | 71.1           | 65.7                   |
| [ 4 -1 6 ]  | ( 2 8 0 ) | ( 2 -4 -2 )  | 2.040    | 2.210    | 0.92      | 70.3           | 62.8                   |
| [ 4 -1 2 ]  | ( 2 8 0 ) | ( 2 4 -2 )   | 2.040    | 2.210    | 0.92      | 56.9           | 89.3                   |
| [ 4 -1 3 ]  | ( 2 8 0 ) | ( -1 -7 -1 ) | 2.040    | 2.182    | 0.93      | 24.7           | 82.1                   |
| [ 8 -2 -7 ] | ( 2 8 0 ) | ( -1 3 -2 )  | 2.040    | 2.167    | 0.94      | 82.2           | 55.9                   |
| [ 8 -2 -1 ] | ( 2 8 0 ) | ( -1 -3 -2 ) | 2.040    | 2.167    | 0.94      | 59.0           | 73.3                   |
| [ 4 -1 -2 ] | ( 2 8 0 ) | ( 2 6 1 )    | 2.040    | 2.163    | 0.94      | 27.1           | 64.0                   |
| [ 8 -2 15 ] | ( 2 8 0 ) | ( 3 -3 -2 )  | 2.040    | 2.144    | 0.95      | 82.9           | 54.9                   |
| [ 8 -2 9 ]  | ( 2 8 0 ) | ( 3 3 -2 )   | 2.040    | 2.144    | 0.95      | 58.7           | 71.9                   |
| [ 8 -2 9 ]  | ( 2 8 0 ) | ( 1 -5 -2 )  | 2.040    | 2.131    | 0.96      | 58.1           | 71.9                   |
| [ 8 -2 -1 ] | ( 2 8 0 ) | ( 1 5 -2 )   | 2.040    | 2.131    | 0.96      | 57.5           | 73.3                   |
| [ 4 -1 8 ]  | ( 2 8 0 ) | ( 0 -8 -1 )  | 2.040    | 2.065    | 0.99      | 29.5           | 52.6                   |
| [ 4 -1 -4 ] | ( 2 8 0 ) | ( 2 0 2 )    | 2.040    | 2.043    | 1.00      | 74.3           | 53.5                   |
| [ 8 -2 -9 ] | ( 2 8 0 ) | ( -1 5 -2 )  | 2.040    | 1.953    | 1.04      | 71.5           | 51.3                   |
| [ 8 -2 1 ]  | ( 2 8 0 ) | ( -1 -5 -2 ) | 2.040    | 1.953    | 1.04      | 48.7           | 80.1                   |

**Tremolite (280) 277 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d$ (hk0) | $d$ (hkl) | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|--------------|-----------|--------------|-----------|-----------|-----------|----------------|-------------|
| [ 4 -1 -3 ]  | ( 2 8 0 ) | ( 0 6 -2 )   | 2.040     | 1.947     | 1.05      | 59.9           | 58.5        |
| [ 4 -1 3 ]   | ( 2 8 0 ) | ( 0 -6 -2 )  | 2.040     | 1.947     | 1.05      | 48.1           | 82.1        |
| [ 8 -2 17 ]  | ( 2 8 0 ) | ( 3 -5 -2 )  | 2.040     | 1.936     | 1.05      | 72.2           | 50.4        |
| [ 8 -2 7 ]   | ( 2 8 0 ) | ( 3 5 -2 )   | 2.040     | 1.936     | 1.05      | 48.4           | 78.6        |
| [ 4 -1 -5 ]  | ( 2 8 0 ) | ( -1 -9 1 )  | 2.040     | 1.866     | 1.09      | 27.8           | 49.2        |
| [ 4 -1 -6 ]  | ( 2 8 0 ) | ( -2 4 -2 )  | 2.040     | 1.862     | 1.10      | 82.8           | 45.3        |
| [ 4 -1 -2 ]  | ( 2 8 0 ) | ( -2 -4 -2 ) | 2.040     | 1.862     | 1.10      | 51.7           | 64.0        |
| [ 8 -2 11 ]  | ( 2 8 0 ) | ( -1 7 2 )   | 2.040     | 1.845     | 1.11      | 50.1           | 65.7        |
| [ 8 -2 -3 ]  | ( 2 8 0 ) | ( -1 -7 2 )  | 2.040     | 1.845     | 1.11      | 49.4           | 67.0        |
| [ 4 -1 5 ]   | ( 2 8 0 ) | ( 1 9 1 )    | 2.040     | 1.801     | 1.13      | 21.5           | 68.8        |
| [ 8 -2 -11 ] | ( 2 8 0 ) | ( -3 -1 -2 ) | 2.040     | 1.771     | 1.15      | 66.2           | 47.2        |
| [ 4 -1 -5 ]  | ( 2 8 0 ) | ( 3 7 1 )    | 2.040     | 1.770     | 1.15      | 26.3           | 49.2        |
| [ 12 -3 8 ]  | ( 2 8 0 ) | ( -2 0 3 )   | 2.040     | 1.750     | 1.17      | 87.4           | 84.5        |
| [ 8 -2 19 ]  | ( 2 8 0 ) | ( 5 1 -2 )   | 2.040     | 1.747     | 1.17      | 66.0           | 46.4        |
| [ 4 -1 1 ]   | ( 2 8 0 ) | ( -1 -1 3 )  | 2.040     | 1.746     | 1.17      | 86.9           | 83.6        |
| [ 12 -3 5 ]  | ( 2 8 0 ) | ( -1 1 3 )   | 2.040     | 1.746     | 1.17      | 83.1           | 88.4        |
| [ 8 -2 -11 ] | ( 2 8 0 ) | ( 1 -7 2 )   | 2.040     | 1.726     | 1.18      | 63.1           | 47.2        |
| [ 8 -2 3 ]   | ( 2 8 0 ) | ( 1 7 2 )    | 2.040     | 1.726     | 1.18      | 40.9           | 87.2        |
| [ 12 -3 10 ] | ( 2 8 0 ) | ( 2 -2 -3 )  | 2.040     | 1.718     | 1.19      | 82.7           | 79.8        |
| [ 4 -1 2 ]   | ( 2 8 0 ) | ( 2 2 -3 )   | 2.040     | 1.718     | 1.19      | 77.5           | 89.3        |
| [ 8 -2 19 ]  | ( 2 8 0 ) | ( -3 7 2 )   | 2.040     | 1.714     | 1.19      | 63.8           | 46.4        |
| [ 8 -2 5 ]   | ( 2 8 0 ) | ( -3 -7 2 )  | 2.040     | 1.714     | 1.19      | 40.6           | 85.7        |
| [ 8 -2 -9 ]  | ( 2 8 0 ) | ( 3 3 2 )    | 2.040     | 1.707     | 1.19      | 56.0           | 51.3        |
| [ 8 -2 17 ]  | ( 2 8 0 ) | ( -5 -3 2 )  | 2.040     | 1.685     | 1.21      | 55.9           | 50.4        |
| [ 12 -3 1 ]  | ( 2 8 0 ) | ( 1 3 -3 )   | 2.040     | 1.684     | 1.21      | 77.2           | 78.9        |
| [ 12 -3 7 ]  | ( 2 8 0 ) | ( 1 -3 -3 )  | 2.040     | 1.684     | 1.21      | 73.5           | 86.9        |
| [ 12 -3 13 ] | ( 2 8 0 ) | ( 3 -1 -3 )  | 2.040     | 1.682     | 1.21      | 88.0           | 73.0        |
| [ 12 -3 11 ] | ( 2 8 0 ) | ( -3 -1 3 )  | 2.040     | 1.682     | 1.21      | 78.3           | 77.5        |
| [ 4 -1 3 ]   | ( 2 8 0 ) | ( 3 9 -1 )   | 2.040     | 1.679     | 1.21      | 18.7           | 82.1        |
| [ 4 -1 5 ]   | ( 2 8 0 ) | ( 4 6 -2 )   | 2.040     | 1.674     | 1.22      | 42.9           | 68.8        |
| [ 12 -3 -2 ] | ( 2 8 0 ) | ( 0 -2 3 )   | 2.040     | 1.672     | 1.22      | 86.5           | 72.2        |
| [ 12 -3 2 ]  | ( 2 8 0 ) | ( 0 2 3 )    | 2.040     | 1.672     | 1.22      | 74.1           | 81.2        |
| [ 4 -1 8 ]   | ( 2 8 0 ) | ( -4 -8 1 )  | 2.040     | 1.645     | 1.24      | 23.1           | 52.6        |
| [ 4 -1 4 ]   | ( 2 8 0 ) | ( -2 4 3 )   | 2.040     | 1.631     | 1.25      | 73.5           | 75.2        |
| [ 12 -3 4 ]  | ( 2 8 0 ) | ( -2 -4 3 )  | 2.040     | 1.631     | 1.25      | 68.4           | 86.0        |
| [ 12 -3 -5 ] | ( 2 8 0 ) | ( 1 -1 3 )   | 2.040     | 1.600     | 1.28      | 84.6           | 65.9        |
| [ 4 -1 -1 ]  | ( 2 8 0 ) | ( -1 -1 -3 ) | 2.040     | 1.600     | 1.28      | 75.3           | 70.1        |
| [ 8 -2 13 ]  | ( 2 8 0 ) | ( -1 9 2 )   | 2.040     | 1.597     | 1.28      | 44.3           | 60.0        |
| [ 8 -2 -5 ]  | ( 2 8 0 ) | ( 1 9 -2 )   | 2.040     | 1.597     | 1.28      | 43.7           | 61.2        |
| [ 8 -2 -7 ]  | ( 2 8 0 ) | ( -3 -5 -2 ) | 2.040     | 1.597     | 1.28      | 46.9           | 55.9        |
| [ 12 -3 -4 ] | ( 2 8 0 ) | ( 0 4 -3 )   | 2.040     | 1.592     | 1.28      | 77.5           | 68.0        |
| [ 12 -3 4 ]  | ( 2 8 0 ) | ( 0 -4 -3 )  | 2.040     | 1.592     | 1.28      | 65.1           | 86.0        |
| [ 12 -3 16 ] | ( 2 8 0 ) | ( 4 0 -3 )   | 2.040     | 1.588     | 1.28      | 79.4           | 66.7        |
| [ 8 -2 15 ]  | ( 2 8 0 ) | ( -5 -5 2 )  | 2.040     | 1.578     | 1.29      | 46.9           | 54.9        |
| [ 12 -3 -1 ] | ( 2 8 0 ) | ( 1 5 -3 )   | 2.040     | 1.578     | 1.29      | 68.6           | 74.4        |
| [ 4 -1 3 ]   | ( 2 8 0 ) | ( 1 -5 -3 )  | 2.040     | 1.578     | 1.29      | 64.9           | 82.1        |
| [ 4 -1 6 ]   | ( 2 8 0 ) | ( 4 -2 -3 )  | 2.040     | 1.564     | 1.30      | 88.6           | 62.8        |
| [ 12 -3 14 ] | ( 2 8 0 ) | ( 4 2 -3 )   | 2.040     | 1.564     | 1.30      | 70.2           | 70.9        |

**Tremolite (280) 277 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 12 -3 -7 ]  | ( 2 8 0 ) | ( 1 -3 3 )   | 2.040    | 1.552    | 1.31      | 86.4           | 62.1        |
| [ 12 -3 -1 ]  | ( 2 8 0 ) | ( 1 3 3 )    | 2.040    | 1.552    | 1.31      | 66.3           | 74.4        |
| [ 4 -1 -3 ]   | ( 2 8 0 ) | ( -3 -9 -1 ) | 2.040    | 1.548    | 1.32      | 20.1           | 58.5        |
| [ 12 -3 17 ]  | ( 2 8 0 ) | ( -3 5 3 )   | 2.040    | 1.530    | 1.33      | 74.1           | 64.7        |
| [ 12 -3 7 ]   | ( 2 8 0 ) | ( -3 -5 3 )  | 2.040    | 1.530    | 1.33      | 60.6           | 86.9        |
| [ 8 -2 5 ]    | ( 2 8 0 ) | ( 1 9 2 )    | 2.040    | 1.518    | 1.34      | 35.2           | 85.7        |
| [ 4 -1 0 ]    | ( 2 8 0 ) | ( -2 -8 -2 ) | 2.040    | 1.515    | 1.35      | 36.2           | 76.6        |
| [ 12 -3 14 ]  | ( 2 8 0 ) | ( -2 6 3 )   | 2.040    | 1.513    | 1.35      | 65.5           | 70.9        |
| [ 12 -3 2 ]   | ( 2 8 0 ) | ( -2 -6 3 )  | 2.040    | 1.513    | 1.35      | 60.4           | 81.2        |
| [ 8 -2 3 ]    | ( 2 8 0 ) | ( 3 9 -2 )   | 2.040    | 1.510    | 1.35      | 35.0           | 87.2        |
| [ 12 -3 20 ]  | ( 2 8 0 ) | ( -4 4 3 )   | 2.040    | 1.498    | 1.36      | 82.8           | 59.1        |
| [ 4 -1 4 ]    | ( 2 8 0 ) | ( -4 -4 3 )  | 2.040    | 1.498    | 1.36      | 61.7           | 75.2        |
| [ 12 -3 -8 ]  | ( 2 8 0 ) | ( 2 0 3 )    | 2.040    | 1.487    | 1.37      | 76.8           | 60.2        |
| [ 4 -1 -3 ]   | ( 2 8 0 ) | ( -1 5 -3 )  | 2.040    | 1.467    | 1.39      | 78.1           | 58.5        |
| [ 12 -3 1 ]   | ( 2 8 0 ) | ( -1 -5 -3 ) | 2.040    | 1.467    | 1.39      | 58.2           | 78.9        |
| [ 12 -3 -10 ] | ( 2 8 0 ) | ( 2 -2 3 )   | 2.040    | 1.467    | 1.39      | 85.5           | 56.8        |
| [ 4 -1 -2 ]   | ( 2 8 0 ) | ( -2 -2 -3 ) | 2.040    | 1.467    | 1.39      | 68.1           | 64.0        |
| [ 8 -2 -5 ]   | ( 2 8 0 ) | ( 3 7 2 )    | 2.040    | 1.465    | 1.39      | 39.3           | 61.2        |
| [ 4 -1 7 ]    | ( 2 8 0 ) | ( -5 1 3 )   | 2.040    | 1.463    | 1.39      | 80.7           | 57.4        |
| [ 12 -3 19 ]  | ( 2 8 0 ) | ( 5 1 -3 )   | 2.040    | 1.463    | 1.39      | 72.0           | 60.9        |
| [ 8 -2 13 ]   | ( 2 8 0 ) | ( 5 7 -2 )   | 2.040    | 1.451    | 1.41      | 39.4           | 60.0        |
| [ 4 -1 -1 ]   | ( 2 8 0 ) | ( -1 -7 3 )  | 2.040    | 1.451    | 1.41      | 61.3           | 70.1        |
| [ 12 -3 11 ]  | ( 2 8 0 ) | ( -1 7 3 )   | 2.040    | 1.451    | 1.41      | 57.6           | 77.5        |
| [ 12 -3 23 ]  | ( 2 8 0 ) | ( -5 3 3 )   | 2.040    | 1.426    | 1.43      | 89.1           | 54.1        |
| [ 12 -3 17 ]  | ( 2 8 0 ) | ( 5 3 -3 )   | 2.040    | 1.426    | 1.43      | 63.7           | 64.7        |
| [ 12 -3 19 ]  | ( 2 8 0 ) | ( 3 -7 -3 )  | 2.040    | 1.413    | 1.44      | 66.8           | 60.9        |
| [ 12 -3 5 ]   | ( 2 8 0 ) | ( 3 7 -3 )   | 2.040    | 1.413    | 1.44      | 53.5           | 88.4        |
| [ 4 -1 -4 ]   | ( 2 8 0 ) | ( 2 -4 3 )   | 2.040    | 1.412    | 1.44      | 86.3           | 53.5        |
| [ 12 -3 -4 ]  | ( 2 8 0 ) | ( 2 4 3 )    | 2.040    | 1.412    | 1.44      | 60.0           | 68.0        |
| [ 12 -3 22 ]  | ( 2 8 0 ) | ( 4 -6 -3 )  | 2.040    | 1.405    | 1.45      | 75.0           | 55.7        |
| [ 12 -3 10 ]  | ( 2 8 0 ) | ( 4 6 -3 )   | 2.040    | 1.405    | 1.45      | 54.2           | 79.8        |
| [ 12 -3 16 ]  | ( 2 8 0 ) | ( 2 -8 -3 )  | 2.040    | 1.383    | 1.47      | 58.8           | 66.7        |
| [ 4 -1 0 ]    | ( 2 8 0 ) | ( 2 8 -3 )   | 2.040    | 1.383    | 1.47      | 53.9           | 76.6        |
| [ 4 -1 -5 ]   | ( 2 8 0 ) | ( -4 -6 -2 ) | 2.040    | 1.381    | 1.48      | 43.8           | 49.2        |
| [ 4 -1 1 ]    | ( 2 8 0 ) | ( 1 7 3 )    | 2.040    | 1.363    | 1.50      | 51.2           | 83.6        |
| [ 12 -3 25 ]  | ( 2 8 0 ) | ( 5 -5 -3 )  | 2.040    | 1.360    | 1.50      | 83.0           | 51.1        |
| [ 4 -1 5 ]    | ( 2 8 0 ) | ( 5 5 -3 )   | 2.040    | 1.360    | 1.50      | 56.0           | 68.8        |
| [ 12 -3 -8 ]  | ( 2 8 0 ) | ( 0 -8 3 )   | 2.040    | 1.359    | 1.50      | 62.8           | 60.2        |
| [ 12 -3 8 ]   | ( 2 8 0 ) | ( 0 8 3 )    | 2.040    | 1.359    | 1.50      | 50.9           | 84.5        |
| [ 12 -3 -13 ] | ( 2 8 0 ) | ( -3 1 -3 )  | 2.040    | 1.358    | 1.50      | 78.3           | 52.0        |
| [ 12 -3 -11 ] | ( 2 8 0 ) | ( 3 1 3 )    | 2.040    | 1.358    | 1.50      | 70.2           | 55.1        |
| [ 12 -3 -2 ]  | ( 2 8 0 ) | ( 2 6 3 )    | 2.040    | 1.333    | 1.53      | 52.7           | 72.2        |
| [ 8 -2 -3 ]   | ( 2 8 0 ) | ( -3 -9 -2 ) | 2.040    | 1.332    | 1.53      | 33.2           | 67.0        |
| [ 12 -3 26 ]  | ( 2 8 0 ) | ( 6 -2 -3 )  | 2.040    | 1.329    | 1.54      | 81.9           | 49.7        |
| [ 12 -3 22 ]  | ( 2 8 0 ) | ( -6 -2 3 )  | 2.040    | 1.329    | 1.54      | 66.0           | 55.7        |
| [ 8 -2 11 ]   | ( 2 8 0 ) | ( 5 9 -2 )   | 2.040    | 1.321    | 1.54      | 33.3           | 65.7        |
| [ 12 -3 -5 ]  | ( 2 8 0 ) | ( -1 -9 3 )  | 2.040    | 1.321    | 1.54      | 55.3           | 65.9        |
| [ 12 -3 13 ]  | ( 2 8 0 ) | ( -1 9 3 )   | 2.040    | 1.321    | 1.54      | 51.7           | 73.0        |

**Tremolite (280) 277 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 4 -1 2 ]    | ( 2 8 0 ) | ( -2 0 4 )   | 2.040    | 1.320    | 1.55      | 89.6           | 89.3                   |
| [ 16 -4 3 ]   | ( 2 8 0 ) | ( 1 1 -4 )   | 2.040    | 1.306    | 1.56      | 89.3           | 81.8                   |
| [ 16 -4 5 ]   | ( 2 8 0 ) | ( 1 -1 -4 )  | 2.040    | 1.306    | 1.56      | 83.2           | 85.4                   |
| [ 16 -4 13 ]  | ( 2 8 0 ) | ( -3 1 4 )   | 2.040    | 1.301    | 1.57      | 90.0           | 80.4                   |
| [ 16 -4 11 ]  | ( 2 8 0 ) | ( 3 1 -4 )   | 2.040    | 1.301    | 1.57      | 82.5           | 83.9                   |
| [ 4 -1 8 ]    | ( 2 8 0 ) | ( 4 -8 -3 )  | 2.040    | 1.299    | 1.57      | 68.3           | 52.6                   |
| [ 12 -3 8 ]   | ( 2 8 0 ) | ( 4 8 -3 )   | 2.040    | 1.299    | 1.57      | 47.9           | 84.5                   |
| [ 12 -3 28 ]  | ( 2 8 0 ) | ( -6 4 3 )   | 2.040    | 1.287    | 1.58      | 89.6           | 47.0                   |
| [ 12 -3 20 ]  | ( 2 8 0 ) | ( 6 4 -3 )   | 2.040    | 1.287    | 1.58      | 58.5           | 59.1                   |
| [ 16 -4 1 ]   | ( 2 8 0 ) | ( 1 3 -4 )   | 2.040    | 1.280    | 1.59      | 81.9           | 78.3                   |
| [ 16 -4 7 ]   | ( 2 8 0 ) | ( 1 -3 -4 )  | 2.040    | 1.280    | 1.59      | 75.9           | 88.9                   |
| [ 4 -1 9 ]    | ( 2 8 0 ) | ( 5 -7 -3 )  | 2.040    | 1.276    | 1.60      | 76.0           | 48.3                   |
| [ 12 -3 13 ]  | ( 2 8 0 ) | ( 5 7 -3 )   | 2.040    | 1.276    | 1.60      | 49.3           | 73.0                   |
| [ 16 -4 15 ]  | ( 2 8 0 ) | ( 3 -3 -4 )  | 2.040    | 1.275    | 1.60      | 82.6           | 76.9                   |
| [ 16 -4 9 ]   | ( 2 8 0 ) | ( 3 3 -4 )   | 2.040    | 1.275    | 1.60      | 75.2           | 87.5                   |
| [ 12 -3 -17 ] | ( 2 8 0 ) | ( 3 -5 3 )   | 2.040    | 1.275    | 1.60      | 86.3           | 46.5                   |
| [ 12 -3 -7 ]  | ( 2 8 0 ) | ( 3 5 3 )    | 2.040    | 1.275    | 1.60      | 55.1           | 62.1                   |
| [ 4 -1 8 ]    | ( 2 8 0 ) | ( 6 8 -2 )   | 2.040    | 1.268    | 1.61      | 37.2           | 52.6                   |
| [ 4 -1 1 ]    | ( 2 8 0 ) | ( -2 -4 4 )  | 2.040    | 1.267    | 1.61      | 75.0           | 83.6                   |
| [ 8 -2 -1 ]   | ( 2 8 0 ) | ( 0 2 -4 )   | 2.040    | 1.264    | 1.61      | 88.9           | 73.3                   |
| [ 8 -2 1 ]    | ( 2 8 0 ) | ( 0 -2 -4 )  | 2.040    | 1.264    | 1.61      | 76.4           | 80.1                   |
| [ 8 -2 9 ]    | ( 2 8 0 ) | ( -4 2 4 )   | 2.040    | 1.255    | 1.63      | 89.6           | 71.9                   |
| [ 8 -2 7 ]    | ( 2 8 0 ) | ( -4 -2 4 )  | 2.040    | 1.255    | 1.63      | 75.9           | 78.6                   |
| [ 12 -3 -13 ] | ( 2 8 0 ) | ( -1 9 -3 )  | 2.040    | 1.254    | 1.63      | 64.7           | 52.0                   |
| [ 12 -3 5 ]   | ( 2 8 0 ) | ( -1 -9 -3 ) | 2.040    | 1.254    | 1.63      | 45.5           | 88.4                   |
| [ 12 -3 -16 ] | ( 2 8 0 ) | ( 4 0 3 )    | 2.040    | 1.243    | 1.64      | 72.3           | 47.8                   |
| [ 12 -3 -16 ] | ( 2 8 0 ) | ( 2 -8 3 )   | 2.040    | 1.242    | 1.64      | 72.2           | 47.8                   |
| [ 4 -1 0 ]    | ( 2 8 0 ) | ( 2 8 3 )    | 2.040    | 1.242    | 1.64      | 46.5           | 76.6                   |
| [ 16 -4 -1 ]  | ( 2 8 0 ) | ( -1 -5 4 )  | 2.040    | 1.231    | 1.66      | 75.0           | 74.9                   |
| [ 16 -4 9 ]   | ( 2 8 0 ) | ( -1 5 4 )   | 2.040    | 1.231    | 1.66      | 69.0           | 87.5                   |
| [ 4 -1 -6 ]   | ( 2 8 0 ) | ( 4 -2 3 )   | 2.040    | 1.231    | 1.66      | 79.8           | 45.3                   |
| [ 12 -3 -14 ] | ( 2 8 0 ) | ( -4 -2 -3 ) | 2.040    | 1.231    | 1.66      | 64.9           | 50.6                   |
| [ 4 -1 9 ]    | ( 2 8 0 ) | ( 7 1 -3 )   | 2.040    | 1.222    | 1.67      | 68.4           | 48.3                   |
| [ 16 -4 -5 ]  | ( 2 8 0 ) | ( -1 1 -4 )  | 2.040    | 1.222    | 1.67      | 84.4           | 68.5                   |
| [ 16 -4 -3 ]  | ( 2 8 0 ) | ( 1 1 4 )    | 2.040    | 1.222    | 1.67      | 77.3           | 71.7                   |
| [ 16 -4 21 ]  | ( 2 8 0 ) | ( -5 1 4 )   | 2.040    | 1.210    | 1.69      | 83.8           | 67.2                   |
| [ 16 -4 19 ]  | ( 2 8 0 ) | ( 5 1 -4 )   | 2.040    | 1.210    | 1.69      | 76.7           | 70.3                   |
| [ 16 -4 -7 ]  | ( 2 8 0 ) | ( -1 3 -4 )  | 2.040    | 1.200    | 1.70      | 88.6           | 65.4                   |
| [ 16 -4 -1 ]  | ( 2 8 0 ) | ( -1 -3 -4 ) | 2.040    | 1.200    | 1.70      | 70.3           | 74.9                   |
| [ 4 -1 -4 ]   | ( 2 8 0 ) | ( 4 4 3 )    | 2.040    | 1.198    | 1.70      | 57.8           | 53.5                   |
| [ 16 -4 23 ]  | ( 2 8 0 ) | ( 5 -3 -4 )  | 2.040    | 1.188    | 1.72      | 89.3           | 64.2                   |
| [ 16 -4 17 ]  | ( 2 8 0 ) | ( 5 3 -4 )   | 2.040    | 1.188    | 1.72      | 69.9           | 73.6                   |
| [ 12 -3 29 ]  | ( 2 8 0 ) | ( 5 -9 -3 )  | 2.040    | 1.185    | 1.72      | 70.0           | 45.8                   |
| [ 12 -3 11 ]  | ( 2 8 0 ) | ( 5 9 -3 )   | 2.040    | 1.185    | 1.72      | 43.6           | 77.5                   |
| [ 8 -2 -3 ]   | ( 2 8 0 ) | ( 0 -6 4 )   | 2.040    | 1.175    | 1.74      | 75.4           | 67.0                   |
| [ 8 -2 3 ]    | ( 2 8 0 ) | ( 0 6 4 )    | 2.040    | 1.175    | 1.74      | 63.1           | 87.2                   |
| [ 16 -4 -3 ]  | ( 2 8 0 ) | ( -1 -7 4 )  | 2.040    | 1.168    | 1.75      | 68.8           | 71.7                   |
| [ 16 -4 11 ]  | ( 2 8 0 ) | ( -1 7 4 )   | 2.040    | 1.168    | 1.75      | 62.9           | 83.9                   |

**Tremolite (280) 277 Zone Axes** **$a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°**Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 8 -2 11 ]   | ( 2 8 0 ) | ( 4 -6 -4 )  | 2.040    | 1.168    | 1.75      | 76.1           | 65.7                   |
| [ 8 -2 5 ]    | ( 2 8 0 ) | ( 4 6 -4 )   | 2.040    | 1.168    | 1.75      | 62.5           | 85.7                   |
| [ 16 -4 19 ]  | ( 2 8 0 ) | ( 3 -7 -4 )  | 2.040    | 1.164    | 1.75      | 69.5           | 70.3                   |
| [ 16 -4 5 ]   | ( 2 8 0 ) | ( 3 7 -4 )   | 2.040    | 1.164    | 1.75      | 62.3           | 85.4                   |
| [ 4 -1 -2 ]   | ( 2 8 0 ) | ( -2 0 -4 )  | 2.040    | 1.161    | 1.76      | 78.2           | 64.0                   |
| [ 12 -3 23 ]  | ( 2 8 0 ) | ( 7 5 -3 )   | 2.040    | 1.160    | 1.76      | 54.4           | 54.1                   |
| [ 16 -4 -9 ]  | ( 2 8 0 ) | ( -1 5 -4 )  | 2.040    | 1.160    | 1.76      | 82.0           | 62.6                   |
| [ 16 -4 1 ]   | ( 2 8 0 ) | ( -1 -5 -4 ) | 2.040    | 1.160    | 1.76      | 63.8           | 78.3                   |
| [ 12 -3 16 ]  | ( 2 8 0 ) | ( 6 8 -3 )   | 2.040    | 1.154    | 1.77      | 45.6           | 66.7                   |
| [ 16 -4 25 ]  | ( 2 8 0 ) | ( 5 -5 -4 )  | 2.040    | 1.149    | 1.77      | 82.7           | 61.4                   |
| [ 16 -4 15 ]  | ( 2 8 0 ) | ( 5 5 -4 )   | 2.040    | 1.149    | 1.77      | 63.4           | 76.9                   |
| [ 12 -3 -10 ] | ( 2 8 0 ) | ( -4 -6 -3 ) | 2.040    | 1.149    | 1.78      | 51.3           | 56.8                   |
| [ 4 -1 6 ]    | ( 2 8 0 ) | ( 6 0 -4 )   | 2.040    | 1.147    | 1.78      | 77.8           | 62.8                   |
| [ 4 -1 4 ]    | ( 2 8 0 ) | ( 2 -8 -4 )  | 2.040    | 1.139    | 1.79      | 63.2           | 75.2                   |
| [ 4 -1 0 ]    | ( 2 8 0 ) | ( 2 8 -4 )   | 2.040    | 1.139    | 1.79      | 62.5           | 76.6                   |
| [ 8 -2 -11 ]  | ( 2 8 0 ) | ( -5 -9 -2 ) | 2.040    | 1.131    | 1.80      | 35.7           | 47.2                   |
| [ 4 -1 -3 ]   | ( 2 8 0 ) | ( 2 -4 4 )   | 2.040    | 1.124    | 1.81      | 88.4           | 58.5                   |
| [ 4 -1 -1 ]   | ( 2 8 0 ) | ( 2 4 4 )    | 2.040    | 1.124    | 1.81      | 65.0           | 70.1                   |
| [ 8 -2 19 ]   | ( 2 8 0 ) | ( -7 -9 2 )  | 2.040    | 1.121    | 1.82      | 35.9           | 46.4                   |
| [ 12 -3 -17 ] | ( 2 8 0 ) | ( 5 3 3 )    | 2.040    | 1.114    | 1.83      | 60.7           | 46.5                   |
| [ 4 -1 7 ]    | ( 2 8 0 ) | ( 6 -4 -4 )  | 2.040    | 1.112    | 1.83      | 89.0           | 57.4                   |
| [ 4 -1 5 ]    | ( 2 8 0 ) | ( 6 4 -4 )   | 2.040    | 1.112    | 1.83      | 64.7           | 68.8                   |
| [ 16 -4 3 ]   | ( 2 8 0 ) | ( -1 -7 -4 ) | 2.040    | 1.106    | 1.84      | 57.9           | 81.8                   |
| [ 16 -4 27 ]  | ( 2 8 0 ) | ( -5 7 4 )   | 2.040    | 1.097    | 1.86      | 76.6           | 58.7                   |
| [ 16 -4 13 ]  | ( 2 8 0 ) | ( -5 -7 4 )  | 2.040    | 1.097    | 1.86      | 57.5           | 80.4                   |
| [ 16 -4 -5 ]  | ( 2 8 0 ) | ( 1 9 -4 )   | 2.040    | 1.097    | 1.86      | 63.3           | 68.5                   |
| [ 16 -4 13 ]  | ( 2 8 0 ) | ( 1 -9 -4 )  | 2.040    | 1.097    | 1.86      | 57.4           | 80.4                   |
| [ 16 -4 21 ]  | ( 2 8 0 ) | ( -3 9 4 )   | 2.040    | 1.094    | 1.86      | 64.0           | 67.2                   |
| [ 16 -4 3 ]   | ( 2 8 0 ) | ( -3 -9 4 )  | 2.040    | 1.094    | 1.86      | 56.9           | 81.8                   |
| [ 16 -4 -13 ] | ( 2 8 0 ) | ( 3 -1 4 )   | 2.040    | 1.090    | 1.87      | 79.3           | 57.2                   |
| [ 16 -4 -11 ] | ( 2 8 0 ) | ( -3 -1 -4 ) | 2.040    | 1.090    | 1.87      | 72.9           | 59.8                   |
| [ 12 -3 -8 ]  | ( 2 8 0 ) | ( 4 8 3 )    | 2.040    | 1.089    | 1.87      | 45.5           | 60.2                   |
| [ 12 -3 28 ]  | ( 2 8 0 ) | ( -8 -4 3 )  | 2.040    | 1.085    | 1.88      | 57.4           | 47.0                   |
| [ 16 -4 27 ]  | ( 2 8 0 ) | ( 7 1 -4 )   | 2.040    | 1.075    | 1.90      | 72.5           | 58.7                   |
| [ 16 -4 -15 ] | ( 2 8 0 ) | ( -3 3 -4 )  | 2.040    | 1.074    | 1.90      | 85.7           | 54.7                   |
| [ 16 -4 -9 ]  | ( 2 8 0 ) | ( 3 3 4 )    | 2.040    | 1.074    | 1.90      | 66.5           | 62.6                   |
| [ 16 -4 31 ]  | ( 2 8 0 ) | ( 7 -3 -4 )  | 2.040    | 1.060    | 1.92      | 85.2           | 53.7                   |
| [ 16 -4 25 ]  | ( 2 8 0 ) | ( -7 -3 4 )  | 2.040    | 1.060    | 1.92      | 66.2           | 61.4                   |
| [ 20 -5 8 ]   | ( 2 8 0 ) | ( -2 0 5 )   | 2.040    | 1.055    | 1.93      | 89.0           | 87.9                   |
| [ 20 -5 13 ]  | ( 2 8 0 ) | ( -3 1 5 )   | 2.040    | 1.051    | 1.94      | 88.7           | 85.0                   |
| [ 20 -5 11 ]  | ( 2 8 0 ) | ( -3 -1 5 )  | 2.040    | 1.051    | 1.94      | 85.3           | 87.8                   |
| [ 12 -3 26 ]  | ( 2 8 0 ) | ( 8 6 -3 )   | 2.040    | 1.048    | 1.95      | 51.3           | 49.7                   |
| [ 20 -5 6 ]   | ( 2 8 0 ) | ( -2 -2 5 )  | 2.040    | 1.048    | 1.95      | 85.0           | 85.0                   |
| [ 4 -1 2 ]    | ( 2 8 0 ) | ( -2 2 5 )   | 2.040    | 1.048    | 1.95      | 83.0           | 89.3                   |
| [ 12 -3 19 ]  | ( 2 8 0 ) | ( -7 -9 3 )  | 2.040    | 1.046    | 1.95      | 42.8           | 60.9                   |
| [ 16 -4 -13 ] | ( 2 8 0 ) | ( -1 9 -4 )  | 2.040    | 1.045    | 1.95      | 70.5           | 57.2                   |
| [ 16 -4 5 ]   | ( 2 8 0 ) | ( -1 -9 -4 ) | 2.040    | 1.045    | 1.95      | 52.6           | 85.4                   |
| [ 16 -4 -17 ] | ( 2 8 0 ) | ( -3 5 -4 )  | 2.040    | 1.045    | 1.95      | 88.2           | 52.4                   |



**Tremolite (280) 277 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 16 -4 -7 ]  | ( 2 8 0 ) | ( -3 -5 -4 ) | 2.040    | 1.045    | 1.95      | 60.5           | 65.4        |
| [ 20 -5 3 ]   | ( 2 8 0 ) | ( -1 -1 5 )  | 2.040    | 1.042    | 1.96      | 89.3           | 80.8        |
| [ 4 -1 1 ]    | ( 2 8 0 ) | ( -1 1 5 )   | 2.040    | 1.042    | 1.96      | 83.3           | 83.6        |
| [ 20 -5 16 ]  | ( 2 8 0 ) | ( 4 0 -5 )   | 2.040    | 1.039    | 1.96      | 85.6           | 80.7        |
| [ 12 -3 -13 ] | ( 2 8 0 ) | ( 5 7 3 )    | 2.040    | 1.038    | 1.97      | 48.4           | 52.0        |
| [ 16 -4 29 ]  | ( 2 8 0 ) | ( 5 -9 -4 )  | 2.040    | 1.038    | 1.97      | 71.2           | 56.2        |
| [ 16 -4 11 ]  | ( 2 8 0 ) | ( 5 9 -4 )   | 2.040    | 1.038    | 1.97      | 52.3           | 83.9        |
| [ 4 -1 3 ]    | ( 2 8 0 ) | ( 3 -3 -5 )  | 2.040    | 1.037    | 1.97      | 82.7           | 82.1        |
| [ 20 -5 9 ]   | ( 2 8 0 ) | ( 3 3 -5 )   | 2.040    | 1.037    | 1.97      | 79.3           | 89.3        |
| [ 4 -1 -4 ]   | ( 2 8 0 ) | ( -2 8 -4 )  | 2.040    | 1.033    | 1.98      | 76.6           | 53.5        |
| [ 4 -1 0 ]    | ( 2 8 0 ) | ( -2 -8 -4 ) | 2.040    | 1.033    | 1.98      | 53.5           | 76.6        |
| [ 16 -4 33 ]  | ( 2 8 0 ) | ( -7 5 4 )   | 2.040    | 1.032    | 1.98      | 88.8           | 51.5        |
| [ 16 -4 23 ]  | ( 2 8 0 ) | ( -7 -5 4 )  | 2.040    | 1.032    | 1.98      | 60.3           | 64.2        |
| [ 20 -5 18 ]  | ( 2 8 0 ) | ( -4 2 5 )   | 2.040    | 1.032    | 1.98      | 88.4           | 78.0        |
| [ 20 -5 14 ]  | ( 2 8 0 ) | ( -4 -2 5 )  | 2.040    | 1.032    | 1.98      | 79.7           | 83.5        |
| [ 20 -5 1 ]   | ( 2 8 0 ) | ( 1 3 -5 )   | 2.040    | 1.028    | 1.98      | 84.8           | 78.0        |
| [ 20 -5 7 ]   | ( 2 8 0 ) | ( 1 -3 -5 )  | 2.040    | 1.028    | 1.98      | 77.4           | 86.4        |
| [ 20 -5 4 ]   | ( 2 8 0 ) | ( 2 4 -5 )   | 2.040    | 1.027    | 1.99      | 79.1           | 82.2        |
| [ 20 -5 12 ]  | ( 2 8 0 ) | ( 2 -4 -5 )  | 2.040    | 1.027    | 1.99      | 77.1           | 86.4        |
| [ 4 -1 8 ]    | ( 2 8 0 ) | ( -6 8 4 )   | 2.040    | 1.023    | 1.99      | 77.3           | 52.6        |
| [ 4 -1 4 ]    | ( 2 8 0 ) | ( -6 -8 4 )  | 2.040    | 1.023    | 1.99      | 53.3           | 75.2        |
| [ 8 -2 -7 ]   | ( 2 8 0 ) | ( 4 2 4 )    | 2.040    | 1.015    | 2.01      | 68.2           | 55.9        |
| [ 20 -5 -2 ]  | ( 2 8 0 ) | ( 0 2 -5 )   | 2.040    | 1.015    | 2.01      | 89.6           | 74.0        |
| [ 20 -5 2 ]   | ( 2 8 0 ) | ( 0 2 5 )    | 2.040    | 1.015    | 2.01      | 77.9           | 79.4        |
| [ 4 -1 4 ]    | ( 2 8 0 ) | ( 4 -4 -5 )  | 2.040    | 1.012    | 2.01      | 82.6           | 75.2        |
| [ 20 -5 12 ]  | ( 2 8 0 ) | ( 4 4 -5 )   | 2.040    | 1.012    | 2.01      | 73.9           | 86.4        |
| [ 20 -5 21 ]  | ( 2 8 0 ) | ( -5 1 5 )   | 2.040    | 1.012    | 2.02      | 86.0           | 73.9        |
| [ 20 -5 19 ]  | ( 2 8 0 ) | ( 5 1 -5 )   | 2.040    | 1.012    | 2.02      | 80.2           | 76.6        |
| [ 20 -5 17 ]  | ( 2 8 0 ) | ( 3 -5 -5 )  | 2.040    | 1.011    | 2.02      | 77.0           | 79.3        |
| [ 20 -5 7 ]   | ( 2 8 0 ) | ( 3 5 -5 )   | 2.040    | 1.011    | 2.02      | 73.6           | 86.4        |
| [ 16 -4 -19 ] | ( 2 8 0 ) | ( -3 7 -4 )  | 2.040    | 1.006    | 2.03      | 82.5           | 50.2        |
| [ 16 -4 -5 ]  | ( 2 8 0 ) | ( -3 -7 -4 ) | 2.040    | 1.006    | 2.03      | 55.0           | 68.5        |
| [ 20 -5 -1 ]  | ( 2 8 0 ) | ( 1 5 -5 )   | 2.040    | 1.003    | 2.03      | 79.1           | 75.3        |
| [ 20 -5 9 ]   | ( 2 8 0 ) | ( 1 -5 -5 )  | 2.040    | 1.003    | 2.03      | 71.8           | 89.3        |
| [ 4 -1 8 ]    | ( 2 8 0 ) | ( 8 8 -3 )   | 2.040    | 1.002    | 2.04      | 45.8           | 52.6        |
| [ 8 -2 17 ]   | ( 2 8 0 ) | ( -8 2 4 )   | 2.040    | 1.001    | 2.04      | 79.9           | 50.4        |
| [ 8 -2 15 ]   | ( 2 8 0 ) | ( 8 2 -4 )   | 2.040    | 1.001    | 2.04      | 68.0           | 54.9        |

**Tremolite (370) 297 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]    | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|--------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 7 -3 0 ]   | ( 3 7 0 ) | ( 0 0 1 )    | 2.002    | 5.105    | 0.39      | 80.8           | 78.5                   |
| [ 7 -3 10 ]  | ( 3 7 0 ) | ( 1 -1 -1 )  | 2.002    | 4.879    | 0.41      | 87.7           | 67.7                   |
| [ 7 -3 4 ]   | ( 3 7 0 ) | ( 1 1 -1 )   | 2.002    | 4.879    | 0.41      | 67.7           | 87.6                   |
| [ 7 -3 6 ]   | ( 3 7 0 ) | ( 0 -2 -1 )  | 2.002    | 4.444    | 0.45      | 58.6           | 80.6                   |
| [ 7 -3 14 ]  | ( 3 7 0 ) | ( 2 0 -1 )   | 2.002    | 4.030    | 0.50      | 65.9           | 56.7                   |
| [ 7 -3 -10 ] | ( 3 7 0 ) | ( 1 -1 1 )   | 2.002    | 3.986    | 0.50      | 77.4           | 50.7                   |
| [ 7 -3 -4 ]  | ( 3 7 0 ) | ( 1 1 1 )    | 2.002    | 3.986    | 0.50      | 55.9           | 65.8                   |
| [ 7 -3 16 ]  | ( 3 7 0 ) | ( -1 3 1 )   | 2.002    | 3.877    | 0.52      | 68.6           | 52.1                   |
| [ 7 -3 -2 ]  | ( 3 7 0 ) | ( -1 -3 1 )  | 2.002    | 3.877    | 0.52      | 50.6           | 71.9                   |
| [ 7 -3 8 ]   | ( 3 7 0 ) | ( 2 2 -1 )   | 2.002    | 3.680    | 0.54      | 46.5           | 73.9                   |
| [ 7 -3 -12 ] | ( 3 7 0 ) | ( 0 -4 1 )   | 2.002    | 3.382    | 0.59      | 61.6           | 46.7                   |
| [ 7 -3 12 ]  | ( 3 7 0 ) | ( 0 4 1 )    | 2.002    | 3.382    | 0.59      | 46.6           | 61.9                   |
| [ 7 -3 2 ]   | ( 3 7 0 ) | ( -1 -3 -1 ) | 2.002    | 3.381    | 0.59      | 40.0           | 85.4                   |
| [ 7 -3 18 ]  | ( 3 7 0 ) | ( 3 1 -1 )   | 2.002    | 3.024    | 0.66      | 50.5           | 47.9                   |
| [ 7 -3 2 ]   | ( 3 7 0 ) | ( -2 -4 1 )  | 2.002    | 3.006    | 0.67      | 34.8           | 85.4                   |
| [ 7 -3 -8 ]  | ( 3 7 0 ) | ( 1 5 -1 )   | 2.002    | 2.941    | 0.68      | 42.7           | 55.2                   |
| [ 7 -3 -8 ]  | ( 3 7 0 ) | ( -2 -2 -1 ) | 2.002    | 2.940    | 0.68      | 42.7           | 55.2                   |
| [ 7 -3 12 ]  | ( 3 7 0 ) | ( 3 3 -1 )   | 2.002    | 2.733    | 0.73      | 35.9           | 61.9                   |
| [ 7 -3 8 ]   | ( 3 7 0 ) | ( -1 -5 -1 ) | 2.002    | 2.706    | 0.74      | 32.2           | 73.9                   |
| [ 7 -3 5 ]   | ( 3 7 0 ) | ( -1 1 2 )   | 2.002    | 2.611    | 0.77      | 84.1           | 84.1                   |
| [ 7 -3 2 ]   | ( 3 7 0 ) | ( -1 -1 2 )  | 2.002    | 2.611    | 0.77      | 83.0           | 85.4                   |
| [ 7 -3 18 ]  | ( 3 7 0 ) | ( 0 6 1 )    | 2.002    | 2.593    | 0.77      | 41.4           | 47.9                   |
| [ 7 -3 -2 ]  | ( 3 7 0 ) | ( -2 -4 -1 ) | 2.002    | 2.561    | 0.78      | 30.7           | 71.9                   |
| [ 7 -3 7 ]   | ( 3 7 0 ) | ( -2 0 2 )   | 2.002    | 2.534    | 0.79      | 79.8           | 77.2                   |
| [ 7 -3 -3 ]  | ( 3 7 0 ) | ( 0 2 -2 )   | 2.002    | 2.456    | 0.81      | 86.8           | 68.8                   |
| [ 7 -3 3 ]   | ( 3 7 0 ) | ( 0 -2 -2 )  | 2.002    | 2.456    | 0.81      | 68.6           | 88.9                   |
| [ 7 -3 -4 ]  | ( 3 7 0 ) | ( 2 6 -1 )   | 2.002    | 2.411    | 0.83      | 30.1           | 65.8                   |
| [ 7 -3 6 ]   | ( 3 7 0 ) | ( -3 -5 1 )  | 2.002    | 2.338    | 0.86      | 26.7           | 80.6                   |
| [ 7 -3 -5 ]  | ( 3 7 0 ) | ( 1 -1 2 )   | 2.002    | 2.303    | 0.87      | 78.6           | 62.9                   |
| [ 7 -3 -2 ]  | ( 3 7 0 ) | ( -1 -1 -2 ) | 2.002    | 2.303    | 0.87      | 66.6           | 71.9                   |
| [ 7 -3 12 ]  | ( 3 7 0 ) | ( 3 -1 -2 )  | 2.002    | 2.276    | 0.88      | 77.8           | 61.9                   |
| [ 7 -3 9 ]   | ( 3 7 0 ) | ( -3 -1 2 )  | 2.002    | 2.276    | 0.88      | 66.0           | 70.7                   |
| [ 7 -3 -12 ] | ( 3 7 0 ) | ( 3 3 1 )    | 2.002    | 2.255    | 0.89      | 35.9           | 46.7                   |
| [ 7 -3 13 ]  | ( 3 7 0 ) | ( 2 -4 -2 )  | 2.002    | 2.210    | 0.91      | 77.0           | 59.2                   |
| [ 7 -3 1 ]   | ( 3 7 0 ) | ( 2 4 -2 )   | 2.002    | 2.210    | 0.91      | 57.7           | 81.9                   |
| [ 7 -3 14 ]  | ( 3 7 0 ) | ( -1 -7 -1 ) | 2.002    | 2.182    | 0.92      | 29.6           | 56.7                   |
| [ 7 -3 -8 ]  | ( 3 7 0 ) | ( 1 -3 2 )   | 2.002    | 2.167    | 0.92      | 90.0           | 55.2                   |
| [ 7 -3 1 ]   | ( 3 7 0 ) | ( -1 -3 -2 ) | 2.002    | 2.167    | 0.92      | 56.0           | 81.9                   |
| [ 7 -3 4 ]   | ( 3 7 0 ) | ( 2 6 1 )    | 2.002    | 2.163    | 0.93      | 24.2           | 87.6                   |
| [ 7 -3 15 ]  | ( 3 7 0 ) | ( -3 3 2 )   | 2.002    | 2.144    | 0.93      | 89.1           | 54.3                   |
| [ 7 -3 6 ]   | ( 3 7 0 ) | ( 3 3 -2 )   | 2.002    | 2.144    | 0.93      | 55.4           | 80.6                   |
| [ 7 -3 11 ]  | ( 3 7 0 ) | ( 1 -5 -2 )  | 2.002    | 2.131    | 0.94      | 63.2           | 64.7                   |
| [ 7 -3 -4 ]  | ( 3 7 0 ) | ( 1 5 -2 )   | 2.002    | 2.131    | 0.94      | 62.3           | 65.8                   |
| [ 7 -3 16 ]  | ( 3 7 0 ) | ( 4 4 -1 )   | 2.002    | 2.122    | 0.94      | 30.6           | 52.1                   |
| [ 7 -3 -7 ]  | ( 3 7 0 ) | ( -2 0 -2 )  | 2.002    | 2.043    | 0.98      | 66.5           | 57.6                   |
| [ 7 -3 -6 ]  | ( 3 7 0 ) | ( 3 5 1 )    | 2.002    | 2.017    | 0.99      | 26.1           | 60.2                   |
| [ 7 -3 11 ]  | ( 3 7 0 ) | ( -4 -2 2 )  | 2.002    | 1.966    | 1.02      | 55.5           | 64.7                   |
| [ 7 -3 -11 ] | ( 3 7 0 ) | ( -1 5 -2 )  | 2.002    | 1.953    | 1.02      | 80.4           | 48.6                   |

**Tremolite (370) 297 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 7 -3 4 ]    | ( 3 7 0 ) | ( -1 -5 -2 ) | 2.002    | 1.953    | 1.02      | 47.8           | 87.6                   |
| [ 7 -3 -9 ]   | ( 3 7 0 ) | ( 0 6 -2 )   | 2.002    | 1.947    | 1.03      | 67.7           | 52.9                   |
| [ 7 -3 9 ]    | ( 3 7 0 ) | ( 0 -6 -2 )  | 2.002    | 1.947    | 1.03      | 51.4           | 70.7                   |
| [ 7 -3 18 ]   | ( 3 7 0 ) | ( -3 5 2 )   | 2.002    | 1.936    | 1.03      | 81.2           | 47.9                   |
| [ 7 -3 3 ]    | ( 3 7 0 ) | ( -3 -5 2 )  | 2.002    | 1.936    | 1.03      | 47.2           | 88.9                   |
| [ 7 -3 10 ]   | ( 3 7 0 ) | ( 4 6 -1 )   | 2.002    | 1.878    | 1.07      | 22.6           | 67.7                   |
| [ 7 -3 -1 ]   | ( 3 7 0 ) | ( -2 -4 -2 ) | 2.002    | 1.862    | 1.08      | 46.9           | 75.1                   |
| [ 7 -3 14 ]   | ( 3 7 0 ) | ( -1 7 2 )   | 2.002    | 1.845    | 1.09      | 56.7           | 56.7                   |
| [ 7 -3 -7 ]   | ( 3 7 0 ) | ( -1 -7 2 )  | 2.002    | 1.845    | 1.09      | 55.9           | 57.6                   |
| [ 7 -3 10 ]   | ( 3 7 0 ) | ( -2 -8 -1 ) | 2.002    | 1.827    | 1.10      | 22.0           | 67.7                   |
| [ 7 -3 -12 ]  | ( 3 7 0 ) | ( 3 -1 2 )   | 2.002    | 1.771    | 1.13      | 67.2           | 46.7                   |
| [ 7 -3 -9 ]   | ( 3 7 0 ) | ( -3 -1 -2 ) | 2.002    | 1.771    | 1.13      | 57.3           | 52.9                   |
| [ 7 -3 0 ]    | ( 3 7 0 ) | ( 3 7 1 )    | 2.002    | 1.770    | 1.13      | 20.0           | 78.5                   |
| [ 21 -9 14 ]  | ( 3 7 0 ) | ( 2 0 -3 )   | 2.002    | 1.750    | 1.14      | 86.2           | 85.3                   |
| [ 7 -3 19 ]   | ( 3 7 0 ) | ( -5 1 2 )   | 2.002    | 1.747    | 1.15      | 66.8           | 46.1                   |
| [ 7 -3 16 ]   | ( 3 7 0 ) | ( 5 1 -2 )   | 2.002    | 1.747    | 1.15      | 57.0           | 52.1                   |
| [ 21 -9 4 ]   | ( 3 7 0 ) | ( -1 -1 3 )  | 2.002    | 1.746    | 1.15      | 88.5           | 83.0                   |
| [ 21 -9 10 ]  | ( 3 7 0 ) | ( -1 1 3 )   | 2.002    | 1.746    | 1.15      | 82.9           | 89.9                   |
| [ 7 -3 7 ]    | ( 3 7 0 ) | ( -1 -7 -2 ) | 2.002    | 1.726    | 1.16      | 42.1           | 77.2                   |
| [ 21 -9 20 ]  | ( 3 7 0 ) | ( -2 2 3 )   | 2.002    | 1.718    | 1.17      | 85.3           | 78.4                   |
| [ 21 -9 8 ]   | ( 3 7 0 ) | ( -2 -2 3 )  | 2.002    | 1.718    | 1.17      | 77.7           | 87.7                   |
| [ 7 -3 0 ]    | ( 3 7 0 ) | ( 3 7 -2 )   | 2.002    | 1.714    | 1.17      | 41.5           | 78.5                   |
| [ 7 -3 -6 ]   | ( 3 7 0 ) | ( 3 3 2 )    | 2.002    | 1.707    | 1.17      | 48.2           | 60.2                   |
| [ 7 -3 13 ]   | ( 3 7 0 ) | ( -5 -3 2 )  | 2.002    | 1.685    | 1.19      | 48.0           | 59.2                   |
| [ 21 -9 -2 ]  | ( 3 7 0 ) | ( 1 3 -3 )   | 2.002    | 1.684    | 1.19      | 80.2           | 76.2                   |
| [ 21 -9 16 ]  | ( 3 7 0 ) | ( 1 -3 -3 )  | 2.002    | 1.684    | 1.19      | 74.7           | 82.9                   |
| [ 7 -3 8 ]    | ( 3 7 0 ) | ( 3 -1 -3 )  | 2.002    | 1.682    | 1.19      | 84.1           | 73.9                   |
| [ 7 -3 6 ]    | ( 3 7 0 ) | ( -3 -1 3 )  | 2.002    | 1.682    | 1.19      | 75.6           | 80.6                   |
| [ 7 -3 -6 ]   | ( 3 7 0 ) | ( 3 9 -1 )   | 2.002    | 1.679    | 1.19      | 21.5           | 60.2                   |
| [ 7 -3 5 ]    | ( 3 7 0 ) | ( -4 -6 2 )  | 2.002    | 1.674    | 1.20      | 39.6           | 84.1                   |
| [ 7 -3 -2 ]   | ( 3 7 0 ) | ( 0 -2 3 )   | 2.002    | 1.672    | 1.20      | 89.2           | 71.9                   |
| [ 7 -3 2 ]    | ( 3 7 0 ) | ( 0 -2 -3 )  | 2.002    | 1.672    | 1.20      | 72.5           | 85.4                   |
| [ 7 -3 -10 ]  | ( 3 7 0 ) | ( 4 6 1 )    | 2.002    | 1.650    | 1.21      | 23.8           | 50.7                   |
| [ 7 -3 4 ]    | ( 3 7 0 ) | ( 4 8 -1 )   | 2.002    | 1.645    | 1.22      | 18.2           | 87.6                   |
| [ 21 -9 26 ]  | ( 3 7 0 ) | ( 2 -4 -3 )  | 2.002    | 1.631    | 1.23      | 77.4           | 71.8                   |
| [ 21 -9 2 ]   | ( 3 7 0 ) | ( 2 4 -3 )   | 2.002    | 1.631    | 1.23      | 70.0           | 80.7                   |
| [ 21 -9 -10 ] | ( 3 7 0 ) | ( -1 1 -3 )  | 2.002    | 1.600    | 1.25      | 79.2           | 67.8                   |
| [ 21 -9 -4 ]  | ( 3 7 0 ) | ( 1 1 3 )    | 2.002    | 1.600    | 1.25      | 71.0           | 74.0                   |
| [ 7 -3 17 ]   | ( 3 7 0 ) | ( 1 -9 -2 )  | 2.002    | 1.597    | 1.25      | 52.3           | 49.9                   |
| [ 7 -3 -10 ]  | ( 3 7 0 ) | ( 1 9 -2 )   | 2.002    | 1.597    | 1.25      | 51.5           | 50.7                   |
| [ 7 -3 -3 ]   | ( 3 7 0 ) | ( -3 -5 -2 ) | 2.002    | 1.597    | 1.25      | 40.5           | 68.8                   |
| [ 7 -3 -4 ]   | ( 3 7 0 ) | ( 0 4 -3 )   | 2.002    | 1.592    | 1.26      | 82.9           | 65.8                   |
| [ 7 -3 4 ]    | ( 3 7 0 ) | ( 0 4 3 )    | 2.002    | 1.592    | 1.26      | 64.9           | 87.6                   |
| [ 21 -9 28 ]  | ( 3 7 0 ) | ( -4 0 3 )   | 2.002    | 1.588    | 1.26      | 74.3           | 69.7                   |
| [ 7 -3 10 ]   | ( 3 7 0 ) | ( 5 5 -2 )   | 2.002    | 1.578    | 1.27      | 40.3           | 67.7                   |
| [ 21 -9 -8 ]  | ( 3 7 0 ) | ( -1 -5 3 )  | 2.002    | 1.578    | 1.27      | 72.9           | 69.8                   |
| [ 21 -9 22 ]  | ( 3 7 0 ) | ( -1 5 3 )   | 2.002    | 1.578    | 1.27      | 67.5           | 76.1                   |
| [ 21 -9 34 ]  | ( 3 7 0 ) | ( -4 2 3 )   | 2.002    | 1.564    | 1.28      | 82.4           | 63.8                   |

**Tremolite (370) 297 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 21 -9 22 ]  | ( 3 7 0 ) | ( 4 2 -3 )   | 2.002    | 1.564    | 1.28      | 66.3           | 76.1                   |
| [ 7 -3 14 ]   | ( 3 7 0 ) | ( 5 7 -1 )   | 2.002    | 1.558    | 1.29      | 20.7           | 56.7                   |
| [ 21 -9 -16 ] | ( 3 7 0 ) | ( -1 3 -3 )  | 2.002    | 1.552    | 1.29      | 87.2           | 62.0                   |
| [ 21 -9 2 ]   | ( 3 7 0 ) | ( 1 3 3 )    | 2.002    | 1.552    | 1.29      | 63.3           | 80.7                   |
| [ 7 -3 6 ]    | ( 3 7 0 ) | ( -3 -9 -1 ) | 2.002    | 1.548    | 1.29      | 17.3           | 80.6                   |
| [ 7 -3 -11 ]  | ( 3 7 0 ) | ( 4 2 2 )    | 2.002    | 1.532    | 1.31      | 50.6           | 48.6                   |
| [ 7 -3 12 ]   | ( 3 7 0 ) | ( -3 5 3 )   | 2.002    | 1.530    | 1.31      | 80.3           | 61.9                   |
| [ 7 -3 2 ]    | ( 3 7 0 ) | ( -3 -5 3 )  | 2.002    | 1.530    | 1.31      | 60.7           | 85.4                   |
| [ 7 -3 10 ]   | ( 3 7 0 ) | ( 1 9 2 )    | 2.002    | 1.518    | 1.32      | 38.5           | 67.7                   |
| [ 7 -3 5 ]    | ( 3 7 0 ) | ( 2 8 2 )    | 2.002    | 1.515    | 1.32      | 35.2           | 84.1                   |
| [ 21 -9 32 ]  | ( 3 7 0 ) | ( 2 -6 -3 )  | 2.002    | 1.513    | 1.32      | 70.6           | 65.7                   |
| [ 21 -9 -4 ]  | ( 3 7 0 ) | ( 2 6 -3 )   | 2.002    | 1.513    | 1.32      | 63.4           | 74.0                   |
| [ 7 -3 -3 ]   | ( 3 7 0 ) | ( 3 9 -2 )   | 2.002    | 1.510    | 1.33      | 37.9           | 68.8                   |
| [ 21 -9 40 ]  | ( 3 7 0 ) | ( -4 4 3 )   | 2.002    | 1.498    | 1.34      | 89.9           | 58.4                   |
| [ 21 -9 16 ]  | ( 3 7 0 ) | ( -4 -4 3 )  | 2.002    | 1.498    | 1.34      | 59.1           | 82.9                   |
| [ 21 -9 -14 ] | ( 3 7 0 ) | ( 2 0 3 )    | 2.002    | 1.487    | 1.35      | 70.3           | 63.9                   |
| [ 7 -3 -4 ]   | ( 3 7 0 ) | ( -4 -8 -1 ) | 2.002    | 1.486    | 1.35      | 18.0           | 65.8                   |
| [ 21 -9 -22 ] | ( 3 7 0 ) | ( 1 -5 3 )   | 2.002    | 1.467    | 1.36      | 85.4           | 56.8                   |
| [ 21 -9 8 ]   | ( 3 7 0 ) | ( 1 5 3 )    | 2.002    | 1.467    | 1.36      | 56.6           | 87.7                   |
| [ 21 -9 -20 ] | ( 3 7 0 ) | ( 2 -2 3 )   | 2.002    | 1.467    | 1.36      | 78.1           | 58.5                   |
| [ 21 -9 -8 ]  | ( 3 7 0 ) | ( 2 2 3 )    | 2.002    | 1.467    | 1.36      | 62.7           | 69.8                   |
| [ 7 -3 0 ]    | ( 3 7 0 ) | ( -3 -7 -2 ) | 2.002    | 1.465    | 1.37      | 34.5           | 78.5                   |
| [ 21 -9 38 ]  | ( 3 7 0 ) | ( 5 -1 -3 )  | 2.002    | 1.463    | 1.37      | 73.5           | 60.1                   |
| [ 21 -9 32 ]  | ( 3 7 0 ) | ( -5 -1 3 )  | 2.002    | 1.463    | 1.37      | 65.8           | 65.7                   |
| [ 7 -3 15 ]   | ( 3 7 0 ) | ( 6 4 -2 )   | 2.002    | 1.452    | 1.38      | 42.6           | 54.3                   |
| [ 7 -3 7 ]    | ( 3 7 0 ) | ( -5 -7 2 )  | 2.002    | 1.451    | 1.38      | 34.3           | 77.2                   |
| [ 21 -9 -14 ] | ( 3 7 0 ) | ( 1 7 -3 )   | 2.002    | 1.451    | 1.38      | 66.7           | 63.9                   |
| [ 21 -9 28 ]  | ( 3 7 0 ) | ( 1 -7 -3 )  | 2.002    | 1.451    | 1.38      | 61.5           | 69.7                   |
| [ 21 -9 44 ]  | ( 3 7 0 ) | ( 5 -3 -3 )  | 2.002    | 1.426    | 1.40      | 81.1           | 55.1                   |
| [ 21 -9 26 ]  | ( 3 7 0 ) | ( -5 -3 3 )  | 2.002    | 1.426    | 1.40      | 58.5           | 71.8                   |
| [ 7 -3 14 ]   | ( 3 7 0 ) | ( -3 7 3 )   | 2.002    | 1.413    | 1.42      | 73.9           | 56.7                   |
| [ 7 -3 0 ]    | ( 3 7 0 ) | ( 3 7 -3 )   | 2.002    | 1.413    | 1.42      | 55.1           | 78.5                   |
| [ 21 -9 -26 ] | ( 3 7 0 ) | ( -2 4 -3 )  | 2.002    | 1.412    | 1.42      | 85.5           | 53.6                   |
| [ 21 -9 -2 ]  | ( 3 7 0 ) | ( 2 4 3 )    | 2.002    | 1.412    | 1.42      | 55.7           | 76.2                   |
| [ 21 -9 46 ]  | ( 3 7 0 ) | ( 4 -6 -3 )  | 2.002    | 1.405    | 1.42      | 83.0           | 53.6                   |
| [ 21 -9 10 ]  | ( 3 7 0 ) | ( 4 6 -3 )   | 2.002    | 1.405    | 1.42      | 53.0           | 89.9                   |
| [ 7 -3 8 ]    | ( 3 7 0 ) | ( -5 -9 1 )  | 2.002    | 1.400    | 1.43      | 16.0           | 73.9                   |
| [ 21 -9 38 ]  | ( 3 7 0 ) | ( -2 8 3 )   | 2.002    | 1.383    | 1.45      | 65.0           | 60.1                   |
| [ 21 -9 -10 ] | ( 3 7 0 ) | ( -2 -8 3 )  | 2.002    | 1.383    | 1.45      | 58.1           | 67.8                   |
| [ 7 -3 -5 ]   | ( 3 7 0 ) | ( 4 6 2 )    | 2.002    | 1.381    | 1.45      | 36.0           | 62.9                   |
| [ 21 -9 14 ]  | ( 3 7 0 ) | ( 1 7 3 )    | 2.002    | 1.363    | 1.47      | 51.0           | 85.3                   |
| [ 21 -9 50 ]  | ( 3 7 0 ) | ( -5 5 3 )   | 2.002    | 1.360    | 1.47      | 88.3           | 50.6                   |
| [ 21 -9 20 ]  | ( 3 7 0 ) | ( 5 5 -3 )   | 2.002    | 1.360    | 1.47      | 52.1           | 78.4                   |
| [ 7 -3 -8 ]   | ( 3 7 0 ) | ( 0 -8 3 )   | 2.002    | 1.359    | 1.47      | 70.2           | 55.2                   |
| [ 7 -3 8 ]    | ( 3 7 0 ) | ( 0 8 3 )    | 2.002    | 1.359    | 1.47      | 53.5           | 73.9                   |
| [ 7 -3 -8 ]   | ( 3 7 0 ) | ( -3 1 -3 )  | 2.002    | 1.358    | 1.47      | 70.1           | 55.2                   |
| [ 7 -3 -6 ]   | ( 3 7 0 ) | ( 3 1 3 )    | 2.002    | 1.358    | 1.47      | 62.8           | 60.2                   |
| [ 21 -9 4 ]   | ( 3 7 0 ) | ( -2 -6 -3 ) | 2.002    | 1.333    | 1.50      | 49.8           | 83.0                   |

**Tremolite (370) 297 Zone Axes** $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 7 -3 3 ]    | ( 3 7 0 ) | ( 3 9 2 )    | 2.002    | 1.332    | 1.50      | 30.3           | 88.9                   |
| [ 7 -3 16 ]   | ( 3 7 0 ) | ( 6 -2 -3 )  | 2.002    | 1.329    | 1.51      | 73.2           | 52.1                   |
| [ 7 -3 12 ]   | ( 3 7 0 ) | ( -6 -2 3 )  | 2.002    | 1.329    | 1.51      | 58.9           | 61.9                   |
| [ 7 -3 18 ]   | ( 3 7 0 ) | ( 6 8 -1 )   | 2.002    | 1.325    | 1.51      | 19.8           | 47.9                   |
| [ 7 -3 4 ]    | ( 3 7 0 ) | ( -5 -9 2 )  | 2.002    | 1.321    | 1.52      | 30.1           | 87.6                   |
| [ 21 -9 -20 ] | ( 3 7 0 ) | ( 1 9 -3 )   | 2.002    | 1.321    | 1.52      | 61.7           | 58.5                   |
| [ 21 -9 34 ]  | ( 3 7 0 ) | ( 1 -9 -3 )  | 2.002    | 1.321    | 1.52      | 56.8           | 63.8                   |
| [ 14 -6 7 ]   | ( 3 7 0 ) | ( 2 0 -4 )   | 2.002    | 1.320    | 1.52      | 89.5           | 89.4                   |
| [ 7 -3 1 ]    | ( 3 7 0 ) | ( 1 1 -4 )   | 2.002    | 1.306    | 1.53      | 88.8           | 81.9                   |
| [ 14 -6 5 ]   | ( 3 7 0 ) | ( -1 1 4 )   | 2.002    | 1.306    | 1.53      | 82.3           | 87.1                   |
| [ 7 -3 6 ]    | ( 3 7 0 ) | ( 3 -1 -4 )  | 2.002    | 1.301    | 1.54      | 87.7           | 80.6                   |
| [ 14 -6 9 ]   | ( 3 7 0 ) | ( -3 -1 4 )  | 2.002    | 1.301    | 1.54      | 81.3           | 85.8                   |
| [ 21 -9 52 ]  | ( 3 7 0 ) | ( -4 8 3 )   | 2.002    | 1.299    | 1.54      | 77.0           | 49.3                   |
| [ 21 -9 4 ]   | ( 3 7 0 ) | ( -4 -8 3 )  | 2.002    | 1.299    | 1.54      | 48.1           | 83.0                   |
| [ 7 -3 18 ]   | ( 3 7 0 ) | ( 6 -4 -3 )  | 2.002    | 1.287    | 1.55      | 80.2           | 47.9                   |
| [ 7 -3 10 ]   | ( 3 7 0 ) | ( -6 -4 3 )  | 2.002    | 1.287    | 1.55      | 52.3           | 67.7                   |
| [ 14 -6 -1 ]  | ( 3 7 0 ) | ( -1 -3 4 )  | 2.002    | 1.280    | 1.56      | 84.9           | 76.8                   |
| [ 7 -3 4 ]    | ( 3 7 0 ) | ( -1 3 4 )   | 2.002    | 1.280    | 1.56      | 76.1           | 87.6                   |
| [ 7 -3 -10 ]  | ( 3 7 0 ) | ( -5 -5 -2 ) | 2.002    | 1.280    | 1.56      | 38.8           | 50.7                   |
| [ 21 -9 56 ]  | ( 3 7 0 ) | ( 5 -7 -3 )  | 2.002    | 1.276    | 1.57      | 85.3           | 46.7                   |
| [ 21 -9 14 ]  | ( 3 7 0 ) | ( 5 7 -3 )   | 2.002    | 1.276    | 1.57      | 46.7           | 85.3                   |
| [ 7 -3 -8 ]   | ( 3 7 0 ) | ( -5 -9 -1 ) | 2.002    | 1.275    | 1.57      | 17.1           | 55.2                   |
| [ 14 -6 15 ]  | ( 3 7 0 ) | ( -3 3 4 )   | 2.002    | 1.275    | 1.57      | 85.9           | 75.6                   |
| [ 7 -3 3 ]    | ( 3 7 0 ) | ( -3 -3 4 )  | 2.002    | 1.275    | 1.57      | 75.1           | 88.9                   |
| [ 7 -3 -12 ]  | ( 3 7 0 ) | ( 3 -5 3 )   | 2.002    | 1.275    | 1.57      | 84.3           | 46.7                   |
| [ 7 -3 -2 ]   | ( 3 7 0 ) | ( -3 -5 -3 ) | 2.002    | 1.275    | 1.57      | 49.7           | 71.9                   |
| [ 7 -3 9 ]    | ( 3 7 0 ) | ( 6 8 -2 )   | 2.002    | 1.268    | 1.58      | 30.6           | 70.7                   |
| [ 14 -6 1 ]   | ( 3 7 0 ) | ( -2 -4 4 )  | 2.002    | 1.267    | 1.58      | 76.9           | 80.2                   |
| [ 7 -3 17 ]   | ( 3 7 0 ) | ( 7 5 -2 )   | 2.002    | 1.265    | 1.58      | 38.8           | 49.9                   |
| [ 14 -6 -3 ]  | ( 3 7 0 ) | ( 0 2 -4 )   | 2.002    | 1.264    | 1.58      | 87.1           | 73.5                   |
| [ 14 -6 3 ]   | ( 3 7 0 ) | ( 0 2 4 )    | 2.002    | 1.264    | 1.58      | 74.5           | 83.6                   |
| [ 14 -6 17 ]  | ( 3 7 0 ) | ( -4 2 4 )   | 2.002    | 1.255    | 1.60      | 86.2           | 72.3                   |
| [ 14 -6 11 ]  | ( 3 7 0 ) | ( 4 2 -4 )   | 2.002    | 1.255    | 1.60      | 73.6           | 82.4                   |
| [ 21 -9 -34 ] | ( 3 7 0 ) | ( 1 -9 3 )   | 2.002    | 1.254    | 1.60      | 73.5           | 48.0                   |
| [ 21 -9 20 ]  | ( 3 7 0 ) | ( 1 9 3 )    | 2.002    | 1.254    | 1.60      | 46.7           | 78.4                   |
| [ 21 -9 -28 ] | ( 3 7 0 ) | ( -4 0 -3 )  | 2.002    | 1.243    | 1.61      | 63.5           | 52.1                   |
| [ 21 -9 -38 ] | ( 3 7 0 ) | ( -2 8 -3 )  | 2.002    | 1.242    | 1.61      | 81.7           | 45.5                   |
| [ 21 -9 10 ]  | ( 3 7 0 ) | ( 2 8 3 )    | 2.002    | 1.242    | 1.61      | 44.9           | 89.9                   |
| [ 7 -3 -2 ]   | ( 3 7 0 ) | ( -1 -5 4 )  | 2.002    | 1.231    | 1.63      | 79.0           | 71.9                   |
| [ 14 -6 11 ]  | ( 3 7 0 ) | ( -1 5 4 )   | 2.002    | 1.231    | 1.63      | 70.3           | 82.4                   |
| [ 21 -9 -34 ] | ( 3 7 0 ) | ( -4 2 -3 )  | 2.002    | 1.231    | 1.63      | 70.3           | 48.0                   |
| [ 21 -9 -22 ] | ( 3 7 0 ) | ( 4 2 3 )    | 2.002    | 1.231    | 1.63      | 56.8           | 56.8                   |
| [ 21 -9 46 ]  | ( 3 7 0 ) | ( -7 -1 3 )  | 2.002    | 1.222    | 1.64      | 59.7           | 53.6                   |
| [ 14 -6 -5 ]  | ( 3 7 0 ) | ( 1 -1 4 )   | 2.002    | 1.222    | 1.64      | 79.5           | 70.3                   |
| [ 7 -3 -1 ]   | ( 3 7 0 ) | ( -1 -1 -4 ) | 2.002    | 1.222    | 1.64      | 73.3           | 75.1                   |
| [ 14 -6 19 ]  | ( 3 7 0 ) | ( 5 -1 -4 )  | 2.002    | 1.210    | 1.65      | 78.6           | 69.2                   |
| [ 7 -3 8 ]    | ( 3 7 0 ) | ( -5 -1 4 )  | 2.002    | 1.210    | 1.65      | 72.5           | 73.9                   |
| [ 7 -3 -7 ]   | ( 3 7 0 ) | ( 5 7 2 )    | 2.002    | 1.209    | 1.66      | 32.8           | 57.6                   |

**Tremolite (370) 297 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 21 -9 40 ]  | ( 3 7 0 ) | ( -7 -3 3 )  | 2.002    | 1.200    | 1.67      | 53.2           | 58.4        |
| [ 7 -3 -4 ]   | ( 3 7 0 ) | ( 1 -3 4 )   | 2.002    | 1.200    | 1.67      | 85.7           | 65.8        |
| [ 14 -6 1 ]   | ( 3 7 0 ) | ( -1 -3 -4 ) | 2.002    | 1.200    | 1.67      | 67.4           | 80.2        |
| [ 21 -9 -16 ] | ( 3 7 0 ) | ( 4 4 3 )    | 2.002    | 1.198    | 1.67      | 50.5           | 62.0        |
| [ 7 -3 14 ]   | ( 3 7 0 ) | ( -7 -7 2 )  | 2.002    | 1.197    | 1.67      | 32.9           | 56.7        |
| [ 7 -3 11 ]   | ( 3 7 0 ) | ( 5 -3 -4 )  | 2.002    | 1.188    | 1.68      | 84.8           | 64.7        |
| [ 14 -6 13 ]  | ( 3 7 0 ) | ( -5 -3 4 )  | 2.002    | 1.188    | 1.68      | 66.6           | 78.9        |
| [ 21 -9 8 ]   | ( 3 7 0 ) | ( 5 9 -3 )   | 2.002    | 1.185    | 1.69      | 42.4           | 87.7        |
| [ 14 -6 -9 ]  | ( 3 7 0 ) | ( 0 -6 4 )   | 2.002    | 1.175    | 1.70      | 81.1           | 64.3        |
| [ 14 -6 9 ]   | ( 3 7 0 ) | ( 0 6 4 )    | 2.002    | 1.175    | 1.70      | 63.2           | 85.8        |
| [ 14 -6 -7 ]  | ( 3 7 0 ) | ( -1 -7 4 )  | 2.002    | 1.168    | 1.71      | 73.6           | 67.3        |
| [ 7 -3 7 ]    | ( 3 7 0 ) | ( -1 7 4 )   | 2.002    | 1.168    | 1.71      | 65.1           | 77.2        |
| [ 14 -6 23 ]  | ( 3 7 0 ) | ( 4 -6 -4 )  | 2.002    | 1.168    | 1.71      | 82.1           | 63.3        |
| [ 14 -6 5 ]   | ( 3 7 0 ) | ( 4 6 -4 )   | 2.002    | 1.168    | 1.71      | 62.4           | 87.1        |
| [ 14 -6 21 ]  | ( 3 7 0 ) | ( 3 -7 -4 )  | 2.002    | 1.164    | 1.72      | 74.6           | 66.2        |
| [ 7 -3 0 ]    | ( 3 7 0 ) | ( 3 7 -4 )   | 2.002    | 1.164    | 1.72      | 64.2           | 78.5        |
| [ 14 -6 -7 ]  | ( 3 7 0 ) | ( 2 0 4 )    | 2.002    | 1.161    | 1.72      | 72.6           | 67.3        |
| [ 21 -9 34 ]  | ( 3 7 0 ) | ( -7 -5 3 )  | 2.002    | 1.160    | 1.73      | 47.3           | 63.8        |
| [ 14 -6 -11 ] | ( 3 7 0 ) | ( -1 5 -4 )  | 2.002    | 1.160    | 1.73      | 88.5           | 61.5        |
| [ 7 -3 2 ]    | ( 3 7 0 ) | ( -1 -5 -4 ) | 2.002    | 1.160    | 1.73      | 61.8           | 85.4        |
| [ 7 -3 6 ]    | ( 3 7 0 ) | ( 6 8 -3 )   | 2.002    | 1.154    | 1.73      | 41.7           | 80.6        |
| [ 14 -6 25 ]  | ( 3 7 0 ) | ( 5 -5 -4 )  | 2.002    | 1.149    | 1.74      | 89.4           | 60.6        |
| [ 7 -3 5 ]    | ( 3 7 0 ) | ( 5 5 -4 )   | 2.002    | 1.149    | 1.74      | 61.1           | 84.1        |
| [ 21 -9 -10 ] | ( 3 7 0 ) | ( -4 -6 -3 ) | 2.002    | 1.149    | 1.74      | 44.9           | 67.8        |
| [ 14 -6 21 ]  | ( 3 7 0 ) | ( 6 0 -4 )   | 2.002    | 1.147    | 1.75      | 71.8           | 66.2        |
| [ 14 -6 19 ]  | ( 3 7 0 ) | ( 2 -8 -4 )  | 2.002    | 1.139    | 1.76      | 67.4           | 69.2        |
| [ 14 -6 -5 ]  | ( 3 7 0 ) | ( 2 8 -4 )   | 2.002    | 1.139    | 1.76      | 66.5           | 70.3        |
| [ 21 -9 -38 ] | ( 3 7 0 ) | ( -5 1 -3 )  | 2.002    | 1.131    | 1.77      | 64.3           | 45.5        |
| [ 21 -9 -32 ] | ( 3 7 0 ) | ( 5 1 3 )    | 2.002    | 1.131    | 1.77      | 58.0           | 49.3        |
| [ 7 -3 -4 ]   | ( 3 7 0 ) | ( -5 -9 -2 ) | 2.002    | 1.131    | 1.77      | 28.0           | 65.8        |
| [ 14 -6 -1 ]  | ( 3 7 0 ) | ( -2 -4 -4 ) | 2.002    | 1.124    | 1.78      | 61.1           | 76.8        |
| [ 7 -3 11 ]   | ( 3 7 0 ) | ( 7 9 -2 )   | 2.002    | 1.121    | 1.79      | 28.0           | 64.7        |
| [ 21 -9 56 ]  | ( 3 7 0 ) | ( -8 0 3 )   | 2.002    | 1.118    | 1.79      | 60.8           | 46.7        |
| [ 7 -3 19 ]   | ( 3 7 0 ) | ( 8 6 -2 )   | 2.002    | 1.116    | 1.79      | 36.0           | 46.1        |
| [ 21 -9 -26 ] | ( 3 7 0 ) | ( -5 -3 -3 ) | 2.002    | 1.114    | 1.80      | 51.8           | 53.6        |
| [ 14 -6 27 ]  | ( 3 7 0 ) | ( 6 -4 -4 )  | 2.002    | 1.112    | 1.80      | 83.6           | 58.0        |
| [ 14 -6 15 ]  | ( 3 7 0 ) | ( -6 -4 4 )  | 2.002    | 1.112    | 1.80      | 60.4           | 75.6        |
| [ 7 -3 -7 ]   | ( 3 7 0 ) | ( -1 7 -4 )  | 2.002    | 1.106    | 1.81      | 83.1           | 57.6        |
| [ 14 -6 7 ]   | ( 3 7 0 ) | ( -1 -7 -4 ) | 2.002    | 1.106    | 1.81      | 57.0           | 89.4        |
| [ 7 -3 14 ]   | ( 3 7 0 ) | ( -5 7 4 )   | 2.002    | 1.097    | 1.82      | 84.0           | 56.7        |
| [ 14 -6 7 ]   | ( 3 7 0 ) | ( -5 -7 4 )  | 2.002    | 1.097    | 1.82      | 56.2           | 89.4        |
| [ 7 -3 -5 ]   | ( 3 7 0 ) | ( 1 9 -4 )   | 2.002    | 1.097    | 1.83      | 69.0           | 62.9        |
| [ 14 -6 17 ]  | ( 3 7 0 ) | ( 1 -9 -4 )  | 2.002    | 1.097    | 1.83      | 60.7           | 72.3        |
| [ 7 -3 12 ]   | ( 3 7 0 ) | ( -3 9 4 )   | 2.002    | 1.094    | 1.83      | 69.9           | 61.9        |
| [ 14 -6 -3 ]  | ( 3 7 0 ) | ( -3 -9 4 )  | 2.002    | 1.094    | 1.83      | 59.8           | 73.5        |
| [ 7 -3 -6 ]   | ( 3 7 0 ) | ( 3 -1 4 )   | 2.002    | 1.090    | 1.84      | 72.1           | 60.2        |
| [ 14 -6 -9 ]  | ( 3 7 0 ) | ( -3 -1 -4 ) | 2.002    | 1.090    | 1.84      | 66.4           | 64.3        |
| [ 21 -9 -4 ]  | ( 3 7 0 ) | ( 4 8 3 )    | 2.002    | 1.089    | 1.84      | 40.1           | 74.0        |



**Tremolite (370) 297 Zone Axes**  
 $a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°  
 Space Group C2/m permits only  $(h+k)=2n$

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ C $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|------------------------|
| [ 21 -9 44 ]  | ( 3 7 0 ) | ( 8 4 -3 )   | 2.002    | 1.085    | 1.85      | 48.7           | 55.1                   |
| [ 14 -6 23 ]  | ( 3 7 0 ) | ( 7 1 -4 )   | 2.002    | 1.075    | 1.86      | 65.8           | 63.3                   |
| [ 14 -6 -15 ] | ( 3 7 0 ) | ( -3 3 -4 )  | 2.002    | 1.074    | 1.86      | 77.9           | 56.4                   |
| [ 7 -3 -3 ]   | ( 3 7 0 ) | ( 3 3 4 )    | 2.002    | 1.074    | 1.86      | 60.8           | 68.8                   |
| [ 7 -3 -9 ]   | ( 3 7 0 ) | ( -6 -8 -2 ) | 2.002    | 1.070    | 1.87      | 30.6           | 52.9                   |
| [ 14 -6 29 ]  | ( 3 7 0 ) | ( -7 3 4 )   | 2.002    | 1.060    | 1.89      | 77.2           | 55.5                   |
| [ 7 -3 10 ]   | ( 3 7 0 ) | ( 7 3 -4 )   | 2.002    | 1.060    | 1.89      | 60.3           | 67.7                   |
| [ 35 -15 14 ] | ( 3 7 0 ) | ( 2 0 -5 )   | 2.002    | 1.055    | 1.90      | 88.5           | 88.2                   |
| [ 35 -15 24 ] | ( 3 7 0 ) | ( -3 1 5 )   | 2.002    | 1.051    | 1.90      | 89.9           | 84.8                   |
| [ 35 -15 18 ] | ( 3 7 0 ) | ( -3 -1 5 )  | 2.002    | 1.051    | 1.90      | 84.9           | 89.0                   |
| [ 21 -9 38 ]  | ( 3 7 0 ) | ( 8 6 -3 )   | 2.002    | 1.048    | 1.91      | 43.4           | 60.1                   |
| [ 35 -15 8 ]  | ( 3 7 0 ) | ( -2 -2 5 )  | 2.002    | 1.048    | 1.91      | 86.3           | 84.0                   |
| [ 7 -3 4 ]    | ( 3 7 0 ) | ( -2 2 5 )   | 2.002    | 1.048    | 1.91      | 83.4           | 87.6                   |
| [ 21 -9 22 ]  | ( 3 7 0 ) | ( 7 9 -3 )   | 2.002    | 1.046    | 1.91      | 37.7           | 76.1                   |
| [ 14 -6 -17 ] | ( 3 7 0 ) | ( 1 -9 4 )   | 2.002    | 1.045    | 1.91      | 78.3           | 54.0                   |
| [ 7 -3 5 ]    | ( 3 7 0 ) | ( 1 9 4 )    | 2.002    | 1.045    | 1.91      | 52.8           | 84.1                   |
| [ 7 -3 -9 ]   | ( 3 7 0 ) | ( -3 5 -4 )  | 2.002    | 1.045    | 1.92      | 83.4           | 52.9                   |
| [ 14 -6 -3 ]  | ( 3 7 0 ) | ( 3 5 4 )    | 2.002    | 1.045    | 1.92      | 55.7           | 73.5                   |
| [ 35 -15 4 ]  | ( 3 7 0 ) | ( 1 1 -5 )   | 2.002    | 1.042    | 1.92      | 87.1           | 81.2                   |
| [ 7 -3 2 ]    | ( 3 7 0 ) | ( -1 1 5 )   | 2.002    | 1.042    | 1.92      | 82.0           | 85.4                   |
| [ 35 -15 28 ] | ( 3 7 0 ) | ( -4 0 5 )   | 2.002    | 1.039    | 1.93      | 83.6           | 82.0                   |
| [ 21 -9 -14 ] | ( 3 7 0 ) | ( 5 7 3 )    | 2.002    | 1.038    | 1.93      | 41.1           | 63.9                   |
| [ 14 -6 31 ]  | ( 3 7 0 ) | ( 5 -9 -4 )  | 2.002    | 1.038    | 1.93      | 79.2           | 53.2                   |
| [ 7 -3 2 ]    | ( 3 7 0 ) | ( 5 9 -4 )   | 2.002    | 1.038    | 1.93      | 52.1           | 85.4                   |
| [ 7 -3 6 ]    | ( 3 7 0 ) | ( -3 3 5 )   | 2.002    | 1.037    | 1.93      | 84.8           | 80.6                   |
| [ 35 -15 12 ] | ( 3 7 0 ) | ( -3 -3 5 )  | 2.002    | 1.037    | 1.93      | 79.8           | 86.8                   |
| [ 14 -6 -19 ] | ( 3 7 0 ) | ( -2 8 -4 )  | 2.002    | 1.033    | 1.94      | 84.9           | 51.8                   |
| [ 14 -6 5 ]   | ( 3 7 0 ) | ( -2 -8 -4 ) | 2.002    | 1.033    | 1.94      | 51.6           | 87.1                   |
| [ 7 -3 16 ]   | ( 3 7 0 ) | ( 7 -5 -4 )  | 2.002    | 1.032    | 1.94      | 82.7           | 52.1                   |
| [ 14 -6 17 ]  | ( 3 7 0 ) | ( -7 -5 4 )  | 2.002    | 1.032    | 1.94      | 55.2           | 72.3                   |
| [ 35 -15 34 ] | ( 3 7 0 ) | ( 4 -2 -5 )  | 2.002    | 1.032    | 1.94      | 88.7           | 77.9                   |
| [ 35 -15 22 ] | ( 3 7 0 ) | ( -4 -2 5 )  | 2.002    | 1.032    | 1.94      | 78.5           | 86.2                   |
| [ 7 -3 -12 ]  | ( 3 7 0 ) | ( 6 2 3 )    | 2.002    | 1.030    | 1.94      | 53.5           | 46.7                   |
| [ 35 -15 -2 ] | ( 3 7 0 ) | ( -1 -3 5 )  | 2.002    | 1.028    | 1.95      | 87.8           | 77.1                   |
| [ 35 -15 16 ] | ( 3 7 0 ) | ( -1 3 5 )   | 2.002    | 1.028    | 1.95      | 76.9           | 89.6                   |
| [ 35 -15 2 ]  | ( 3 7 0 ) | ( -2 -4 5 )  | 2.002    | 1.027    | 1.95      | 81.3           | 79.8                   |
| [ 35 -15 26 ] | ( 3 7 0 ) | ( -2 4 5 )   | 2.002    | 1.027    | 1.95      | 78.4           | 83.4                   |
| [ 14 -6 33 ]  | ( 3 7 0 ) | ( -6 8 4 )   | 2.002    | 1.023    | 1.96      | 85.8           | 51.0                   |
| [ 14 -6 9 ]   | ( 3 7 0 ) | ( -6 -8 4 )  | 2.002    | 1.023    | 1.96      | 51.0           | 85.8                   |
| [ 14 -6 -11 ] | ( 3 7 0 ) | ( 4 2 4 )    | 2.002    | 1.015    | 1.97      | 61.1           | 61.5                   |
| [ 35 -15 -6 ] | ( 3 7 0 ) | ( 0 2 -5 )   | 2.002    | 1.015    | 1.97      | 85.9           | 74.5                   |
| [ 35 -15 6 ]  | ( 3 7 0 ) | ( 0 2 5 )    | 2.002    | 1.015    | 1.97      | 75.7           | 82.6                   |
| [ 7 -3 8 ]    | ( 3 7 0 ) | ( 4 -4 -5 )  | 2.002    | 1.012    | 1.98      | 86.3           | 73.9                   |
| [ 35 -15 16 ] | ( 3 7 0 ) | ( 4 4 -5 )   | 2.002    | 1.012    | 1.98      | 73.5           | 89.6                   |
| [ 35 -15 38 ] | ( 3 7 0 ) | ( -5 1 5 )   | 2.002    | 1.012    | 1.98      | 82.4           | 75.3                   |
| [ 35 -15 32 ] | ( 3 7 0 ) | ( 5 1 -5 )   | 2.002    | 1.012    | 1.98      | 77.3           | 79.3                   |
| [ 35 -15 36 ] | ( 3 7 0 ) | ( 3 -5 -5 )  | 2.002    | 1.011    | 1.98      | 79.9           | 76.6                   |
| [ 35 -15 6 ]  | ( 3 7 0 ) | ( 3 5 -5 )   | 2.002    | 1.011    | 1.98      | 75.0           | 82.6                   |

**Tremolite (370) 297 Zone Axes** **$a$  9.84Å  $b$  18.06Å  $c$  5.28Å  $\alpha$  90°  $\beta$  104.73°  $\gamma$  90°**Space Group C2/m permits only  $(h+k)=2n$ 

| [ U V W ]     | ( h k 0 ) | ( h k l )    | $d(hk0)$ | $d(hkl)$ | $d$ Ratio | $\theta^\circ$ | ZA $^\circ$ |
|---------------|-----------|--------------|----------|----------|-----------|----------------|-------------|
| [ 7 -3 -10 ]  | ( 3 7 0 ) | ( -6 -4 -3 ) | 2.002    | 1.010    | 1.98      | 47.9           | 50.7        |
| [ 7 -3 18 ]   | ( 3 7 0 ) | ( 9 3 -3 )   | 2.002    | 1.008    | 1.99      | 50.5           | 47.9        |
| [ 14 -6 -21 ] | ( 3 7 0 ) | ( 3 -7 4 )   | 2.002    | 1.006    | 1.99      | 88.6           | 49.7        |
| [ 7 -3 0 ]    | ( 3 7 0 ) | ( -3 -7 -4 ) | 2.002    | 1.006    | 1.99      | 51.0           | 78.5        |
| [ 35 -15 -8 ] | ( 3 7 0 ) | ( 1 5 -5 )   | 2.002    | 1.003    | 2.00      | 82.9           | 73.2        |
| [ 35 -15 22 ] | ( 3 7 0 ) | ( -1 5 5 )   | 2.002    | 1.003    | 2.00      | 72.2           | 86.2        |
| [ 21 -9 32 ]  | ( 3 7 0 ) | ( -8 -8 3 )  | 2.002    | 1.002    | 2.00      | 38.7           | 65.7        |
| [ 14 -6 31 ]  | ( 3 7 0 ) | ( 8 -2 -4 )  | 2.002    | 1.001    | 2.00      | 71.4           | 53.2        |
| [ 14 -6 25 ]  | ( 3 7 0 ) | ( -8 -2 4 )  | 2.002    | 1.001    | 2.00      | 60.6           | 60.6        |