there are likely less expensive sources available to the budget-minded shopper.

REFERENCES

1. McCrone, W.C. and Delly, J.G. *The Particle Atlas, Volume I: Principles and Techniques (Edition Two)*, Ann Arbor Science Publishers: Ann Arbor, MI, 1973.

2. Teetsov, A. "Preparation and Use of Needles and Micropipets for Handling Very Small Particles," *The Microscope,* **47(2),** pp 63-70, 1999.

3. Teetsov, A. "An Organized Approach to Isolating and Mounting Small Particles for Polarized Light Microscopy," *The Microscope,* **50(4),** pp 159-168, 2002.

APPENDIX A. MATERIALS AND COSTS

• The variable transformer used is a Superior Electric Powerstat Model 3PN116C purchased new from Allied Electronics for approximately $325.85.

• The alligator clips, type 270-380, were purchased from Radio Shack for $3.07.

• The laboratory jack was purchased from Gorilla Scientific for $35.85.

• The support system consisted of a support stand with rod (item Z509442), a clamp holder (item Z562491) and a three-prong benchclamp (item Z567574) were all purchased from Sigma-Aldrich for a total of $95.63.

• Platinum wire can be purchased from Electron Microscopy Sciences for $295 for a 10 foot roll, enough for an essentially endless supply of platinum wire.

• Tungsten wire can be purchased from Electron Microscopy Sciences for $38 for a 20 foot roll, enough for approximately 120 tungsten needles.

• The glass beaker is a common laboratory supply, and most laboratories will not need to buy one. They are available from a variety of scientific supply companies, including VWR, Fisher Scientific and Sigma-Aldrich.

• Potassium hydroxide is a common laboratory chemical, and most laboratories will not need to buy it. It is available from a variety of chemical supply companies, including Sigma-Aldrich.

Product prices are subject to change.

LETTER TO THE EDITOR

Microspectrophotometry of Blood

I was pleased to read Larry K. Peterson's forensics article," Microspectrophotometry (MSP) of Blood – An Update," in *The Microscope* (58:2, pp 81-84, 2010). It brought to mind a few other related papers, which may be of interest to readers:

• Stokes, G.G. "On the Reduction and Oxidation Colouring-matter in Blood," *Proceedings of the Royal Society,* 13, 355-364, 1864. Also cited in Hogg, Jabez, *The Microscope, its History, Construction, and Application*, George Routledge & Sons: New York, p 131, 1883.

• Macrae, Robert A., McClure, Joseph A. and Latimert, Paul. "Spectral Transmission and Scattering Properties of Red Blood Cells," *Journal of the Optical Society of America*, 51(12), pp 1366-1372, 1961.

• De Wael, K., Lepot, L., Gason, F. and Gilbert, B. "In search of blood — Detection of minute particles using spectroscopic methods," *Forensic Science International,* 180, pp 37-42, 2008.

G. G. Stokes, MA, was secretary of the Royal Society and Lucasian Professor of Mathematics at the University of Cambridge. Jabez Hogg, MRCS, FRMS, provides modified spectral graphs after Stokes's paper for arterial blood, venous blood, blood treated with acetic acid, and haematin. Hogg was a consulting surgeon to the Royal Westminster Ophthalmic Hospital and late president of the Medical Microscopical Society.

The Macrae paper looks at the spectra from about 350-550 nm and derives a predictive equation for blood spectral curves in terms of cell and layer parameters. In the De Wael paper, they look at IR and Raman Spectra as well as the visible spectrum.

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