1936 First PLM course from Chamot
1938 B.A. Chemistry Cornell
1942 Ph.D. Organic Chemistry Cornell
1944-1956 Supervisor and assistant chairman, ARF
1948 First "Inter-Micro" conference
1956 McCrone Associates founded
1957 Walter and Lucy married
1958 PLM courses 501 E 33rd St.
"The Crystal Front" published
1959 M.A. staff expansion.
J. Keffner, A. Teetsov (61'), M. Bayard (63'),
J. Dally (65')
1960 McCrone Research Institute founded
1962 McCrone Microscopes & Accessories founded
1965 "The Microscope" journal acquired.
1967 "The Particle Atlas" published
1968 "The Particle Analyst" published
1970 Benedetti Pichler Award, AMS
1972 Laboratory built at 2820 S. Michigan Ave.
1973 "The Particle Atlas" V.1-4, McCrone and Dally
1974 McCrone shows the "Vinland Map" to be a fake.
1977 Abbe Ernst Award in microscopy, NYMS
1978 McCrone begins work on The Shroud of Turin
1979-1980 "The Particle Atlas" Volumes 5 and 6
Atlanta child murders case
1980-90's "Old Masters" painting authenticity cases
1981 Anachem award, Assoc. of Analy. Chemists
1987 M.A. builds a new state-of-the-art laboratory
MCRI remodels S. Michigan lab as permanent location
1993 Endowment of the Chamot Professorship, Cornell Univer.
1998 Emile M. Chamot Award, SMSI
2000 Fisher National Award, ACS
2002 Kohler Award, SMSI
2003 MCRI teaches 23,000th student in 2150 classes

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The Life Work of Walter C. McCrone Jr. - Bibliography and Selected Historical Facts

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KEYWORDS
Walter McCrone, McCrone, bibliography, reference, history

This article is in response to the interest that many people have expressed in obtaining a list of the publications of W. C. McCrone. This list was assembled primarily through the use of the electronic citation database service, SciFinder Scholar which searches over 9000 journals, patents, conference proceedings, books, technical reports and includes the chemical abstracts service of the American Chemical Society. Additional references were obtained from the records of The McCrone Research Institute (MCRI) which had been maintained by W. C. McCrone and Debra Gilliland. However, despite extensive searching it is probable that this list remains incomplete. In fact, several of the references herein do not contain a complete citation, but are included nonetheless. For clarity these incomplete references are marked with an asterisk. It is the hope of the author that those interested in helping to complete this list will send any additional references to the author. This publication as well as any additions will be available in electronic form from The MCRI website - www.mcrl.org.

The present list of publications by W. C. McCrone (and his aliases, 'Oppenheimer Goldberg' and 'Ronnie V. Smith') includes 434 citations from: journals, newsletters, books and book chapters, encyclopedias, patents, films and bulletins (Table 1). Not included in this list are over one-hundred editorials from several publications edited by W. C. McCrone, including: 'The Crystal Front' newsletter; 'The Particle Analyst' journal; and 'The Microscope' journal. Also not included are some instructional videos (1), film/cassettes/slides (2), reports, interviews, EPA test method(s) (3), postcards, possibly additional patents and at least one reference which is a reprint (Mccrone, W.C., 'The renascence of light microscopy' first appeared in 'American Laboratory', and was later reprinted in 'Micro-Notes II' volume 14, number 1, 1992). It should be noted that the author did not obtain hardcopies of each reference and therefore could not confirm if other articles referenced herein are in fact also reprints. References are given as they appeared in their original publication, with no changes or corrections for: misspelling; capitalization; or the use of registered or trademarked names (e.g. Aroclor®). To the author's knowledge there is at least one instance in which McCrone was the primary author, but did not list himself (Lindsay, D.B., (1961) Crystallographic analysis. The Crystal Front 2(1), 4-7).

Few scientists have bibliographies as extensive or respectable as that of W. C. McCrone's. His body of work is a testament to his passions for microscopy and teaching. The contents of his articles tell us much concerning the type of scientist that he was. Figure 1 shows the results of an attempt to categorize the 434 articles into 11 subjects. The most prolific subject, 'crystallography', contains 99 publications and is as Lucy McCrone put it, 'one of Walter's favorite subjects'. The second most abundant subject category, 'methods and techniques', includes 97 articles dealing with topics such as: tricks of the trade, the use of microscopes and accessories, microchemical tests, fusion methods, photomicrography and particle handling. These papers relate McCrone's widespread knowledge on how to characterize and study materials, including many ingenious ways to approach and solve particle problems.

The third most abundant category 'general education', includes 83 articles which provide relatively non-technical commentary on the utility of a specific technique or general use of the microscope. Also included in 'general education' are commentaries on the annual Inter/Micro meetings and suggestions for purchasing and maintaining a microscope. The remaining categories are more specific and therefore have

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fewer articles per subject. It should be noted that there is some overlap between various subjects. For example, some of the articles dealing with narcotics could have been categorized with 'Forensics' instead of 'Drugs'. However, no matter how McCrone's articles are categorized those who knew him best know that his foremost interest was - Educating the world in the utility of the microscope.

Dr. McCrone was extremely generous with his knowledge and time, always being available for his students and to the microscopy community in general. McCrone was not motivated by profit and openly shared his knowledge with competitors, probably because he regarded them as students, or disciples of microscopy. McCrone would meet privately with students before the start of 8 am class and on weekends, he traveled extensively giving hundreds of invited lectures and was always willing to write an article at the behest of a journal editor, or teach a specialized microscopy course for a particular company, college or field of study.

Since 1956 McCrone's efforts have resulted in 23,000 enrollments in MCRI courses, tens-of-thousands of clients assisted by McCrone Associates, a journal devoted to microscopy, numerous awards, the respect and admiration of colleagues and perhaps most importantly the successful promotion of microscopical methods to the next generation (Figure 2, 4-10).

Although we no longer have the opportunity to learn directly from Walter McCrone, his publications provide us with a record of his vast knowledge and experiences. His dedication and hard work continue to inspire us to communicate our knowledge, wisdom and experience through teaching, research and publication.

Table 1. List of publications of W.C. McCrone


![Figure 1. Histogram showing the number of publications by W.C. McCrone as organized into eleven subject categories.](image-url)
2003 Kohler Award, SMSI
2002 MCRI teaches 23,000th student in 2150 classes

1980-90's McCrone involved in 'Old Masters' painting authenticity (Manet, Monet, Rembrandt, DiVinci, Picasso, Titian and others)
1981 Anachem award in analytical chemistry, Ass. of Anal. Chemists
1987 M.A. sold to Don Brooks. A state-of-the-art laboratory built, Westmont, IL. MCRI remodels 2820 S. Michigan laboratory as its permanent location
1993 McCrone completes the endowment of the Chamot Professorship, Cornell U.
1998 Emile M. Chamot Award for excellence in microscopy, SMSI
2000 Fisher National Award in analytical chemistry, ACS

Figure 2. 'Stage' of time highlighting some of Walter C. McCrone, Jr.'s significant achievements and historic moments throughout his career and during the growth of the organizations he founded.
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