



FRIENDS OF MINERALOGY

Pennsylvania Chapter

NEWSLETTER

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PRESIDENT'S MESSAGE

The 1997 Symposium: Carbonates

It is once again that time of year for all Chapter members to think about attending our annual Symposium (a preregistration form is included). Your participation not only helps with the overall success of the group, but supports activities such as the Grant Fund and our book publishing efforts, unique to our F.M. Chapter. George Rambo has headed the push to assemble another good group of talks, and to get access to a field trip site not available to the general public.

I would like to encourage everyone to attend this year's Symposium, Saturday, October 25, and the field trip, Sunday, October 26, and might also suggest that you encourage a friend or two to join in and come to the Symposium as well. Members of the Chapter should tell their friends in local clubs who are not familiar with F.M. symposia that these events are geared toward the mineral collector, and not the Ph.D.-level researcher. There is something for everyone.

Symposium Auction and "What's New" Program

We are in need of donations for the auction (minerals, books, magazines, and other ephemera). If everyone brings something, we should have another successful sale.

The "What's New" Program on Friday night, October 24, is for and by members and guests. Please bring giveaway specimens, news, and slides to share with the audience. Refreshments will be provided.

Upcoming Election

Please support your officers and directors, and be willing to replace one, if asked. Thank you.

Roland Bounds, President

Officers of the Board of Directors

President: Roland Bounds, 315 Stamford Dr., Newark, DE 19711-2723 (302-731-8407 or e-mail, 25628@udel.edu)

Vice-President: Jay Lininger, 119 West Ridge Rd., Dillsburg, PA 17019

Treasurer: Arnold Mogel, 15 Oak Rd., Schuylkill Haven, PA 17972-9330

Editor: Juliet C. Reed, 336 Rockland Rd., Wayne, PA 19087 (610-688-6180)

Membership Chairman: Marge Matula, 10231 Honeysuckle Drive, Walnutport, PA 18988 (610-767-8056)

DUES

Remember that **1997 dues are now \$15.00 (seniors and students, \$10.00)**. Membership cards are included for paid-up members who have not yet received them.

COMING EVENTS

September 19-21: Micromounting Symposium, sponsored by the Baltimore Mineral Society; special 40th Anniversary program, "Masters of Micromounting," Sept. 19, at the Ascension Lutheran Church, 7601 York Rd., Towson, Md.; Symposium on Sept. 20 and 21 at Dumbarton Middle School, 300 Dunbarton Rd., Baltimore; for information call Cal Pierson at 410-472-9406.

September 19-21: Symposium on Lead, Zinc, and Iron Minerals, sponsored by the Pennsylvania State University Mineral Museum and the Nittany Mineral Society; for information, call Andrew Sicree at 814-865-6427.

October 4: Pennsylvania Earth Science Association Autumn Mineralfest; 9 a.m. to 3 p.m., Macungie Memorial Park Building, Macungie, Pa.

October 20-21: Mineralogical Society of Pennsylvania "Earth Treasures" Gem and Mineral Show: Solanco Fairgrounds, Quarryville, Lancaster Co., Pa.; Sat., 10 a.m. to 6 p.m. and Sunday, 10 a.m. to 5 p.m.

October 24, 25, and 26: F.M., Pa. Chapter, Symposium on Carbonates, West Chester State University; Friday night "What's New," Saturday talks, luncheon, auction; Sunday field trip; registration forms are included with this Newsletter.

October 25: The "Ultraviolation" Fluorescence Show, sponsored by the Rock and Mineral Club of Lower Bucks County; Fairless Hills Methodist Church; call Ralph Thomas at 215-295-9730 for information.

CONGRATULATIONS

The September/October/, 1997, issue of *Rocks and Minerals* (vol. 72, no. 5, p. 297), reports that Honorary Award winners for the American Federation of Mineral Societies Scholarship Foundation have been named by their regional federations. The honorees are being recognized for their outstanding contributions to our hobby and the earth science field. Each will choose two students for scholarship grants.

Congratulations to the two F.M., Pa. Chapter, members who are among the recipients of the honor: Dr. Steven Chamberlain, of Syracuse University, and Dr. Peter J. Modreski, U.S.G.S., Denver. Both are ardent collectors and contributors to magazines. Among their mineralogical activities, Steve is a well-known contributor to the Rochester Symposium, while Pete chaired a recent Tucson F.M. Symposium.

A FIND OF MICRO-STAUROLITE CRYSTALS

Vandall King reported, in "What's New in Minerals," in the program for the 23rd annual Rochester Symposium (April, 1996, p. 45) that, following a map drawn by legendary micromounter and collector Leonard Morgan, he and Bob Rotherberg found microscopic crystals of extraordinary quality in sand in the stream in Johnson Park, Trainer, Upper Chichester Twp., Delaware County. Transparent, flawless brown staurolites are accompanied by black to brown tourmaline, red rutile, yellow-green epidote, magnetite, amphibole, and other silicates, in a quartz sand.

An F.M., Pa. Chapter, Grant Recipient's Thesis Abstract

Editor's Note: Chuma Kumbala Keswa, from South Africa, has completed her work in geology at Pennsylvania State University, and has moved to New Jersey with her husband, an engineer, and her new baby son. Hoping to teach, she is applying for various jobs in geology. Chuma wishes to extend her gratitude to the membership for the grant to support her laboratory work, which she completed under Dr. David Gold. Members may remember Chuma's interesting illustrated talk on kimberlite dikes in a Pennsylvania coal mine at the Chapter Symposium at Penn State, several years ago. Below is the abstract she wrote for her thesis.

NATURE AND OCCURRENCE OF POLYPHASE CRYSTALLINE INCLUSIONS IN GARNET AND PYROXENE MEGACRYSTS FROM THE TANOMA KIMBERLITE, S.W. PENNSYLVANIA

Chuma Mbalu Keswa
1425 Leslie St.
Hillside, NJ 07205

A swarm of thin kimberlite dikes is exposed in the Lower Kittatinny coal seam, at a depth of approximately 60-100 meters in the underground workings at the Tanoma Coal Mine, near Indiana, Pa. The dikes intrude rocks of the Allegheny Group over a strike length of more than 2 kilometers. Several joints can be seen, which may have played a role in controlling the intrusion of the kimberlite magma. A coked aureole from the contact with the coal, approximately 10 cm thick, is well-discriminated. Reflectance measurements made on the unaltered coal adjacent to the dike indicate a peak temperature at the wall rock of nearly 500 C.

The dikes are typically a grey, carbonate-rich, micaceous kimberlite, with rounded to subangular clastic and igneous nodules. Megacrysts of olivine, phlogopite, pyrope, ilmenite, and magnetite abound, some as large as 10 cm across, in a fine-grained matrix of carbonate, serpentine, spinel, perovskite, and phlogopite. Polyphase crystalline inclusions as large as 3 mm in width, comprised mainly of phlogopite, calcite, ilmenite perovskite, apatite, spinel, and olivine, are found in some garnet and diopside megacrysts. The quasi-radial arrangement of some of the included phases suggests that the inclusions were incorporated as a liquid phase. A network of micro-cracks surround the inclusions, and are thought to be due to pressure release during ascent of the kimberlite in which the megacrysts traveled. Loss of volatiles from the evolving kimberlite may have enhanced crack propagation. These cracks may have subsequently provided channels for fluids which then altered the original inclusion minerals.

Bulk compositions calculated from electron microprobe data indicate the inclusions to have a composition similar to a kimberlite magma enriched in calcite and phlogopite components."

MONTGOMERY BOOK

Jay Lininger reports that Dr. Arthur Montgomery's book of reminiscences about his life in mineralogy, especially his colorful adventures collecting in the 1930's with his partner, Ed Over, combined with basic crystallography, will be published shortly. If you have not already done so, order now (for information, contact Arnold Mogel, F.M., Pa., Treasurer).

MYSTERY MINERALS

Vandall King reported in the program of the 1996 Rochester Mineralogical Symposium (p. 41) on the 1995 F.M./Pa. Symposium trip to the Penn./Md.Quarry, Lancaster Co.: some of the crystals on antigorite grade from what appears to be white pyroaurite to the orange of desautelsite to bright yellowish-green crystals (reevesite?), all minerals in the hydrotalcite group.