



## MICROMOUNTERS OF NEW ENGLAND NEWSLETTER

*The MMNE was organized on November 8, 1966 for the purpose of promoting the study of minerals that require a microscope*

No. 245

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**Next Meeting**  
Saturday, April 19  
Northboro, MA  
Public Library  
9:30AM - 3:00PM

**Map and directions**  
**are on the back page**

**Dues:** \$10/person or  
\$15/family for the  
calendar year, payable  
to MMNE and mailed  
to membership  
chairperson

### FROM THE EDITOR

Those of you who have e-mail address on record will be receiving both a PAPER and an E-MAIL COPY of the *Newsletter*. The e-mail copy does not include the logo or map which are on the hard copies. It is sent as a MS Word format because many of you probably cannot open MS Publisher which I normally use. I would appreciate feed back, both good and bad, regarding the e-mail version. If enough of you want it, we can discuss a possible dues reduction for those who opt for the e-mail version only (A significant portion of the MMNE dues go to the cost of publishing and mailing the *Newsletter*.) For those of you with Macintosh products, the *Newsletter* can be sent as a direct e-mail rather than an attachment if necessary. If you have not received an e-mail copy, it is because I do not have a record of your e-mail address. If you would like to try the e-mail version, please send me your e-mail address (msmicros@crocker.com) and indicate whether you want it sent as an attachment (safer in terms of avoiding viruses) or a regular e-mail message. Please take the time to make comments.

### REMINDER

The May Meeting is fast approaching. We need specimens for the **GIVE-AWAY TABLE** as well as for the **SALES TABLE**. Any mineral related hardware, accessories and printed material are good for the silent auctions. Any and all material will be gratefully appreciated. These donations help defray the cost of the speaker. We need **VOLUNTEERS** to man the sales table from 9AM to noon and 2PM to 3:30PM. Edna Lerer cannot do the job this year. Please consider volunteering in half hour blocks. Contact Mike Swanson at (413) 773-3867 or msmicros@crocker.com to **SIGN UP**.

If sales table materials are received prior to the meeting, they can be tagged and priced by one of the MMNE members. If they are brought in the day of the meeting, they need to be priced by the donors.

### ANNUAL BUSINESS MEETING

The MMNE **ELECTION OF OFFICERS** and **UPDATING THE BYLAWS** will be the primary topics at the upcoming April meeting. The slate of officers was published in the last *Newsletter*. Nominations from the floor will be accepted.

We also need to **UPDATE THE BYLAWS** which have not had a total review since 1966 as far as anyone can remember. All members were sent the recommended revisions and additions via the *Newsletter* as they have been drafted. Most of the revisions are house cleaning, but several important issues are being brought up. The MMNE has no policies to deal with sanctions of members or dispersal of MMNE properties if the MMNE disbands. We also do not have a privacy policy or a code of ethics. It is recommended that the positions of recording secretary and corresponding secretary be combined into one job. It is also recommended that we create a category of honorary membership.

All of these issues have been detailed in your mailings. Please review them carefully and bring your copy with you for purposes of discussion. There will be some copies of the proposed new set of bylaws at the meeting.

This is an important meeting. Please attend so we have enough members to conduct business. Hopefully all the business can be done quickly so we can have our usual time with our friends and microscopes.

Mike Swanson, Chairperson bylaws review committee

# MICROMOUNTING BITS AND PIECES

Garry Glenn: e-mail: ghglenn@hotmail.com

I use a trim saw to reduce the bulk on many specimens to be mounted. It is less risky than breaking them. This unfortunately creates a mud residue that must be cleaned off the specimen immediately. It dries like cement.

On delicate pieces I often dry cut them. To do this I jam a wet rag into the blade and then cut the specimen normally. This produces a thick paste of mud on the back of the specimen, but with a little practice this can be done so as not to affect the area of interest.

However, when the specimen is delicate and on a silica matrix (or other very hard material), the saw will not dry cut this without damaging the blade. The other day, in desperation, I discovered a new method. Using paper toweling I made a small pad by folding it several times and trimming it to fit loosely over the crystallized surface of the specimen. I then wrapped masking tape around the edge of the sample to secure the pad. Then I cut off the back of the specimen *through the tape*, using sufficient water to do the job. After rinsing the back of the sample I peeled off the tape and paper. It worked perfectly. The sample was wet but clean. The paper acted like a filter to keep out the dirt.

Reproduced from the CMAA Micronews, Jan./Feb. 2003 with permission of the author

## GREIFENSTEINITE AND THE ROSCHERITE-GROUP MINERALS

Van King recently mentioned in micromounters@yahoo.com that GREIFENSTEINITE has now been identified at the Palermo and Charles Davis mines in New Hampshire, and at the Dunton, Black Mountain, Estes, and Mount Mica quarries in Maine. It is visually and optically almost impossible to distinguish greifensteinite from roscherite, leaving us in the position of needing to relabel all our roscherite specimens as "roscherite-group" unless definitive optical or chemical testing has been done.

ROSCHERITE was originally described from the granite cavities in Greifenstein, near Ehrenfriedersdorf, Saxony, Germany and named for Walter Roscher, mineral collector of Ehrenfriedersdorf in 1914. ZANAZZITE was described from the Lavra da Ilha pegmatite in northeastern Minas Gerais, Brazil in 1991. GREIFENSTEINITE (IMA2001-044) was described from the Sapucaia Mine, Galiléia, Minas Gerais, Brazil in 2001. The general formula of the roscherite-group minerals is  $\text{Ca}_2\text{Be}_4\text{Me}_5(\text{PO}_4)_6(\text{OH})_4 \cdot 6\text{H}_2\text{O}$ . The valid species are roscherite ( $\text{Me} = \text{Mn}^{2+}$ ), zanazzite ( $\text{Me} = \text{Mg}$ ) and greifensteinite ( $\text{Me} = \text{Fe}^{2+}$ ).  $\text{Fe}^{3+}$  also appears in some samples, but for the most part it does not appear that any attempt has been made to identify or describe  $\text{Fe}^{3+}$  dominant species or to segregate the  $\text{Fe}^{2+}$  from  $\text{Fe}^{3+}$  dominant species. The three species are described as monoclinic but triclinic polytypes have been described. Looking at the optical characteristics below would suggest that zanazzite can be identified fairly easily, but that roscherite and greifensteinite probably cannot be without extensive chemical work.

Species	General Formula	Optical sign	$\alpha$	$\beta$	$\gamma$
Greifensteinite	$\text{Ca}_2\text{Be}_4(\text{Mn}^{2+}_2, \text{Fe}^{2+}_3)(\text{PO}_4)_6(\text{OH})_4 \cdot 6\text{H}_2\text{O}$	biaxial (-)	1.624	1.634	1.638
Roscherite	$\text{Ca}_2\text{Be}_4(\text{Mn}^{2+}, \text{Fe}^{2+}_3)(\text{PO}_4)_6(\text{OH})_4 \cdot 6\text{H}_2\text{O}$	biaxial (-)	1.624	1.639	1.643
Zanazzite	$\text{Ca}_2\text{Be}_4(\text{Mg}, \text{Fe}^{2+}_x, \text{Mg}, \text{Fe}^{2+}, \text{Al}, \text{Mn}^{2+}\text{Fe}^{3+})_4(\text{PO}_4)_6(\text{OH})_4 \cdot 6\text{H}_2\text{O}$	biaxial (+)	1.606	1.61	1.62

### References:

- Anthony, et al. Handbook of Mineralogy Vol. IV. Arsenates, Phosphates, Vanadates. (Zanazzite, Roscherite). Mineral Data Publishing, Tucson, AZ. 2000.  
 Web.mineral.com. (IMA2001-044 (Greifensteinite), Roscherite, Zanazzite)  
 Mindat.org/min-11356.html. (Greifensteinite)