



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. 240

September 2002

OFFICERS 2001-2002

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Next Meeting

Saturday, Sept. 14
Westford, MA
J.V. Fletcher Library
Doors open at 10 AM

*Map and directions
are on the back page*

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

MEMBERSHIP NEWS

Since I have not heard from anyone over the summer, there is not much to report in membership news. Please note that your editor has moved:

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Note a new e-mail address for Brian Porter
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MICRO TESTING FOR CARBONATES

As we approach the fall and winter months, most of us will do our collecting from the flats and pails of material collected over the summer. Simple testing, particularly for carbonates, can go a long way helping making identification possible. The following article was published in the *Newsletter* several years ago, but it is timeless enough that it bears repeating with some additions.

Reliable Micro Test for Carbonate Minerals W.A. Henderson, Jr.

There are a number of pitfalls in testing for carbonate minerals using acids. First, many amateurs use vinegar, a source of acetic acid. While it may work for highly reactive species such as calcite or strontianite, it is rather iffy for slowly dissolving species. There is no reason why every collector cannot use hydrochloric acid (HCl), which is much more reactive and reliable. It sells under the name muriatic acid for a couple of bucks a quart at most hardware stores.

The acid should be diluted to about 1/5 its original concentration by adding one part of it to four parts of water (do not add the water to the acid). I store mine in a small glass bottle with a plastic closure. The lid should not have a metal liner, as metal ones may be attacked by the vapors of the acid. Even a small spill near your scope or other metal instruments can cause rusting if not cleaned up relatively quickly. There are some people who say that

prolonged exposure to HCl will degrade the anti-reflective coatings on the objective lens. During tests taking a minute or more, I move the test sample a couple of feet away from the scope and observe it only at intervals.

In most cases, it is sufficient to remove a tiny crystal or crystal fragment from a specimen using a needle mounted point outwards in a 4" long piece of 1/4" square balsa wood handle. Rubbing the needle on the side of one's nose greases the needle end and makes the fragment adhere to it temporarily. Next, the sample is put in a tiny drop of acid previously placed on the black top from a micromount box will do. Note that we refer here to a micro drop, not one applied using a medicine dropper. The amount picked up on a thin glass rod or similar implement is sufficient, and even this drop can be subdivided using the needle. The fragment will fall into the acid, and significant effervescence and be easily observed.

Note the word significant. If the mineral is a poorly reactive carbonate, the slowly evolved carbon dioxide can diffuse from the tiny acid drop fast enough so no bubbles can be observed. Further, the acid drop can itself evaporate if the test takes on the order of several minutes. Alternatively, with a very small or highly reactive sample, especially a small number of very fine crystal fragments or fibers, the sample can dissolve so quickly and with such rapidly rising bubbles that they can easily be missed.

In these cases, the test can still be done in a very sensitive and definitive manner. Transfer the sample to the top of a black MM box and place a cover slip (Ed: or small piece of a cover slip) over the specimen. Place a small drop of acid near, not on the cover slip. Under the microscope, using the needle, drag tiny increments of the acid drop to the edge of the cover slip where capillary action will pull the acid to the specimen. The tiniest, very reactive samples will dissolve like a flash, but will leave a large, flattened bubble or bubbles trapped under the cover slip. A small bubble, if dealing with micro fibers, may only be

Continued on page 5

The *Newsletter* is the official publication of the Micromounters of New England (MMNE). The last by-laws revision was 1966. The MMNE is a member of the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) (cf <<http://www.amfed.org/efmls>>) and the American Federation of Mineralogical Societies (AFMS) (<http://www.afms.org>). Material from the *Newsletter* may be copied in other rock and mineral publications if credit is given to the author and the *Newsletter* unless the author has reserved all rights in which case written permission must be obtained from the author. If there are questions regarding copying contact the editor. The club address is c/o the Corresponding Secretary. Meetings are held monthly, September through May, except for December, and usually on an informal basis in July and August. Sites rotate and will be posted in the *Newsletter* as far in advance as possible. Visitors are welcome to attend all meetings. Bring a microscope and light source if you have one.

Officers for 2001/2002

President: Jim Cahoon, 31 Parker St., Maynard, MA 01754
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Dues are for the calendar year (1/1 through 12/31), payable to the MMNE, and mailed to the membership chairperson.

CALENDAR OF UPCOMING EVENTS

October 2002

- 5-6 - Capitol Mineral Club Annual Show, Sunapee State Park, Rte 103, Newbury, NH. Contact John McCrory. (603) 796-2152. quartetmc@netzero.net
 MMNE will have a set up as usual on Saturday
- 14 - Saturday. MMNE meeting at the home of Vera Fogg, Dunbarton, NH. Start at 9AM. Bring pot luck meals, lights, scopes, cords and tables.
- 26 - MSH scheduled collecting date

November 2002

- 1-3 - MM Society of the Cleveland Museum of Natural History Symposium. 1 Wade Oval, University Circle, Cleveland, OH. Contact: Richard Green, 1745 13th St., Cuyahoga Falls, OH 44223, (330) 929-2395, jgreen2@neo.rr.com
- 9 - Saturday. MMNE meeting, Burlington, MA public library. Doors open at 10 AM
- 23 - CMMA fall workshop. Travelodge, Burlington, ON.

WEB SITES AND OTHER REFERENCES OF MINERALOGICAL INTEREST

The following items from Micronews (CMMA) May/Aug 2002
 New address for ALKALI NUTS
<http://www.saint-hilaire.ca/>
 Online Canadian micro mineral dealers
 Element 51 - Tim Jokela
<http://www.element51.com/>
 Simkev Micromounts - Rod Lee and Maureen Campeau
<http://www.simkevmicromounts.com/>
 David Joyce Minerals
<http://www.davidjoyceminerals.com>

WINTER PROJECTS

On those long winter nights (or days) when you run out of new material to breakdown, or when you are tired of mounting and labeling, give a thought to the following - how many micromounts do you have? When was the last time that you went through all of them? All of us who have been collecting for any length of time will have specimens which have not been examined for YEARS! You didn't even know you had them! I am willing to bet that none of you (me included) can go through fifty random specimens without finding an error in identification or a previously unidentified species. If you go through specimens from sites which you collect frequently, you most likely will find many specimens which have been upgraded, and which you can then remove from the collection and potentially use for trading material.

Do you know what you have for specimens and/or species? Do you know where they are? If you wanted to look at all the apatite specimens in your collection would you be able to find them? Cataloging sounds like a huge process, and indeed is no mean feat, but the ultimate benefits do seem to outweigh the downside, especially when you have nothing else to do during a winter. It is not as bad as it sounds. There are commercial and shareware products which are readily available which are specifically designed for mineral catalogs. Microsoft and Lotus, to name just two, have database and spreadsheet programs which are easily adaptable to mineral catalogs. Start with newly mounted specimens and then work back through the old ones as you review them for quality and accuracy of labeling.

Most of us have computers which make the process very easy. The simplest system will have a random number assigned to each system. You can simply catalog by species and locality, or you can do a more extensive catalog which includes associations, crystal system, chemical class, etc. You can then sort the collection by any field or combination of fields. In the long run, the ability to search through your collection and find whatever you want is very rewarding. Ed.

PROPOSED BYLAWS REVISIONS

Last year a committee was formed to review and update the MMNE Bylaws which have not been updated since originally written in 1966. With this issue of the *Newsletter* the Bylaws committee will start publishing the proposed changes for review of the membership. The changes will be voted on at the annual business meeting in April, 2003. The committee asks that each member review the suggested changes, and send any recommendations to the committee chairman, Mike Swanson. (24 South County Road, Leyden, MA 01301-9429 or e-mail: msmicros@crocker.com). Please review these changes carefully so that only minimal discussion needs to be carried out at the annual meeting. All suggestions will be reviewed by the committee and published whenever possible. A complete copy of the updated bylaws will be sent to all members in the March issue of the *Newsletter*.

.....
The original by-laws are in standard type.

Changes (additions or changes) to the original by-laws are in bold type.

Deletions to the original by-laws are in bold italics and enclosed in brackets []

ARTICLE 1

Section 1. Name: The name of this organization shall be "MICROMOUNTERS OF NEW ENGLAND" and hereafter referred to as "MMNE".

Section 2. Object: The MMNE is [constituted] organized to promote the study of [minerals, especially those] minerals [that] which require the use of [a microscope] magnification for better study and appreciation of their characteristics. [This is to be a non-profit organization.] (Note: The MMNE has never been a nonprofit organization. This possibility has been explored and does not seem to make sense for an organization this small.)

Section 3. Compensation: No member of the MMNE shall receive compensation for the performance of his or her duties as an elected officer of the MMNE.

ARTICLE 2
Membership

Section 1. Eligibility: All persons [of the] age [of] 16 or over who are interested in the study of [minerals, especially those] minerals [that] which require the use of [a microscope] magnification for better study and appreciation of their characteristics, are eligible to apply for membership in the MMNE [Club].

Persons under 16 years of age must have a member to serve as a sponsor [may be admitted to] in order to apply for membership in the MMNE [at the discretion of the officers]. (Note: A parent who is a member can serve as the sponsor.)

Section 2. **Membership:** The names of [the] candidates for membership shall be presented to the recording secretary at a regular meeting and shall be accompanied by dues for one year [and an initiation fee of one dollar]. Election to membership shall be [approved] reviewed by the membership [committee] chairperson and presented to the membership for approval by a simple majority vote at the next scheduled MMNE meeting at which a quorum is present

Section 3. "Members in good standing" are persons who have been elected to membership in the MMNE and are not in arrears in the payment of their dues. Hereafter in these bylaws the term "member(s)" shall be synonymous with "member(s) in good standing of the Micromounters of New England."

Section 4 [3]. Honorary [Members] Membership – Any person who is not a member of the MMNE and who has conspicuously promoted the [science of mineralogy] study of microminerals or micromounting or has rendered [signal] significant service to [this club] the MMNE may be elected to honorary membership. Each candidate for honorary membership shall be presented to the executive committee by a sponsor who is a member of the MMNE with a letter of introduction explaining the reason(s) for nomination. Election to honorary membership shall be made by a two-thirds vote of the executive committee and confirmed by a simple majority vote of the membership at the annual business meeting. [Such] Honorary members shall be exempt from the payment of dues. Honorary membership does not confer voting privileges [Election to honorary membership shall be made only by a two-thirds vote of a mail ballot] and does not entitle the honorary member to receive a free subscription to the *Newsletter*.

Section 5. Life membership - Life membership may be conferred on any person who has been an actively participating member of the MMNE for an extended period of time, and who, for whatever reason, does not or cannot continue to participate in MMNE activities. Each candidate for life membership must be presented to the executive committee by a sponsor who is a member of the MMNE with a letter of introduction explaining the reason(s) for nomination. Election to Life membership shall be made by a two-thirds vote of the executive committee and confirmed by a simple majority vote at the annual business meeting. Life members shall be exempt from the payment of dues, shall have voting privileges, and shall receive a free subscription to the *Newsletter*.

Continued on page 4

Continued from page 3

Section 6. Benefits: Members shall be entitled to attend all meetings, participate in all activities and receive a subscription to the *Newsletter*. Guests will be welcome at all meetings, but will be required to pay dues if attending more than two (2) meetings within a twelve (12) month period. Members in arrears may participate in club activities under the rules for guests. They may not vote or be counted as part of a quorum and will not receive a *Newsletter*.

Section 7. Membership list: A list containing the names and other demographics of all members, including life and honorary members, will be distributed in the March *Newsletter* to members and life members.

Section 8. Arrears. A member is considered to be in arrears when annual dues have not been paid by January 15 of the current year. Notification of renewal of membership shall be sent to each member in the November *Newsletter* of the prior year. No member who is in arrears may be elected to office, serve on a committee, or continue as an elected officer without the approval of the Executive Committee. No member who is in arrears will receive a copy of the *Newsletter*.

Section 9. Expulsion of a Member. The Executive Committee may, at a regular meeting, recommend to the membership expulsion of any member who breaks the AFMS or EFMLS code of ethics or whose attitude or conduct is considered extremely detrimental to the welfare of the MMNE. Such expulsion may be made only after the member has been given an opportunity to show cause why the expulsion is not justified. A quorum of the Executive Committee must attempt to meet with the member prior to the regular meeting. All members of the Executive Committee must be notified by the corresponding secretary of the planned meeting with the member. (Note: This is taken almost verbatim from the AFMS by-laws for the expulsion of members.)

Section 10. Renewal membership: application for renewal does not require approval by the membership unless a group of three or more members requests in writing to the membership chairperson that a renewal application be presented to and reviewed by the membership for approval. At least one of the members requesting the review must be present at the meeting in which the approval vote will be taken. Any member whose application for renewal is denied is entitled to address the executive committee for reconsideration. (Note: The MMNE needs some processes built into the by-laws for removing bad apples from the organization. This is one that comes to mind. Renewal of membership should be easy but not automatic.)

ARTICLE 3 Officers and Their Duties

Section 1. Eligibility: Any member may run for and be elected to any office of the MMNE. The officers of [this club] the MMNE shall consist of a President, Vice-president, Recording Secretary, Corresponding Secretary, Treasurer, Membership Chairperson, and editor of the *Newsletter*, all of whom shall be elected at the annual business meeting and shall hold office for a term of one year until the next annual business meeting or until their successors are elected. A member may hold any two of these offices at the discretion of the Executive Committee and the membership except for the combination of President and Vice-President.

Section 2. President: The President shall preside at all meetings of the [Club] MMNE and shall preside as Chairman of the Executive [Board] Committee.

Section 3. Vice-President: The Vice-President shall act as an aide to the President and shall preside in the absence of that officer. The Vice-President shall automatically succeed the President should he/she vacate the office of President or become incapacitated for any reason. The Vice-President shall continue to serve in that capacity until the President is able to resume the duties of the office of President or until the next scheduled elections.

Section 4. Recording Secretary: The Recording Secretary shall keep an accurate record of all the [Club] MMNE meetings, [and shall] act as Secretary of the Executive [Board] Committee and perform such other duties as are customary to the office. [The Corresponding Secretary shall notify all the members of all meetings of the Club and shall conduct its ordinary correspondence including the mailing of absentee ballots and the list of nominees for any club election.] Unless there is a secure site in which records can be stored, the recording secretary shall maintain the minutes of the MMNE for the duration of his/her tenure in office, and then pass those records on to the next elected recording secretary.

Section 5. Corresponding Secretary: The Corresponding Secretary [shall notify all the members of all meetings of the Club and] shall conduct [its] the ordinary correspondence of the MMNE. [including the mailing of absentee ballots and the list of nominees for any club election]. Absentee ballots and election slates will be drawn up by the corresponding secretary and published in the *Newsletter* in a timely fashion.

Section 6. Treasurer: The Treasurer shall receive and disburse all monies, [monies; shall] keep a strict account in writing of all monies [monies] which he/she may receive and disburse, [and shall] retain written vouchers for payments made and shall [make] submit a written statement monthly an

Continued on page 5

Continued from page 4

made and shall [make] submit a written statement monthly and an annual report. All records, including receipts and vouchers shall be kept for a period of time consistent with Internal Revenue Service Rules and Regulations, made available for any audits, passed on to any successor and destroyed only with the explicit written permission of the Executive Committee.

Section 7. Editor: The Editor shall produce and mail the Newsletter on a timely basis. The Newsletter shall include a listing of the officers of the club and a schedule of upcoming meetings. Unless there is a secure site in which records can be stored, the Editor shall maintain the Newsletters for the duration of his/her tenure in office, and then pass those records on to the next elected editor.

Section 8. Membership Chairperson: The membership chairperson shall be responsible for maintaining a current membership and mailing list and shall report all additions and/or changes to the editor of the Newsletter on a timely basis.

ARTICLE 4

[The] Executive [Board] Committee

Section 1. Members: The Executive [Board] Committee shall consist of the officers of the [Club] MMNE.

Section 2. Duties: The [duties of the] Executive [Board] Committee shall [be to transact] oversee all business of the MMNE and shall be responsible for all funds and properties of the MMNE. [necessary business between regular meetings and such other business as may be referred to it by the Club and to] The Executive Committee shall appoint standing committees as necessary, approve the plans and work of standing committees [The Executive Board shall be responsible for all funds, and property of the Club.] and fill any vacancy which may arise in an office [to serve] with that member serving until the next election of officers.

Section 3. Meetings: The Executive [Board] Committee shall meet, (a) at the discretion of the President, (b) by request of three members of the [board] Executive Committee, or (c) by request of 10 members of the [Club] MMNE. The executive board must meet at least once a year during the month prior to the annual business meeting.

Section 4. [Any vacancy in office shall be filled by the Executive Board and the appointee shall serve until the next annual meeting.] A quorum of the Executive Committee shall consist of majority of the officers.

To be continued. Please read carefully and submit any suggestions

Continued from page 1

trapped air. Real carbon dioxide bubbles will have a total volume larger than that of a fibrous sample. Slowly reactive samples may sit without the appearance of bubbles for minutes, but a bubble will form after some time since the carbon dioxide is trapped under the cover slip. This is the surest and best way to test for effervescence on a micro scale.

It's really not fair to ask a professional or even a more knowledgeable friend what a mineral unknown is unless one has at least determined whether it is a carbonate. Carbonates occur in most of the colors of the rainbow, and in a bewildering variety of forms, so use the carbonate test and use it regularly. WAH, Jr.

(Ed:) Bob Fisher wrote an article for "Micronews" in 1983 in which he suggested using very fine capillary tubes for testing. The tubes can be manufactured by taking a 5"-6" long piece of soft glass tubing 5-6 mm in diameter, heating it with a propane torch, and drawing it out (when it begins to sag) into a fine capillary tube about 2 feet in length. Then wash your hands to prevent oil from contaminating the tube, divide the capillary tube into sections about 2" long and attach each one to a wooden coffee stirrer or similar object so that the tip protrudes about 1/4". Under the microscope the fine tube is touched to a drop of acid, and capillary action will draw the acid into the tube. The tip of the tube is then placed against the sample forming a smooth contact plane between the tube and sample - not an angled contact plane - so that the acid does not run out all over the sample. If the sample is a relatively reactive carbonate, then bubbles can be seen going up the tube.

Some other suggestions to enhance the testing:

1) The slide with cover slip and acid in place can be held over a gentle source of heat such as a light bulb to heat up the acid and speed up the reaction process. The heating may actually be required for some poorly reactive carbonates.

2) Steve Cares used to take a clear piece of plastic, approximately 1"x2"x1/4" and drill a series of wells about 1/8" wide and 1/8" into it. A drop of acid can be placed in a well and a specimen added using a needle. The reaction can be observed through the microscope. If a cover slip is left on the well overnight, there is usually enough acid left so that meaningful observations can be carried out the next day. Even if you do not see an effervescence, you may see that the sample has either dissolved or turned to a gel. These occurrences do not indicate the presence of a carbonate, but may point the tester to another category of minerals such as zeolites or phosphates.

Any additions or other comments would be appreciated and will be published.