

## Zoom Meeting February 24 Time: 7:30 p.m.

### Program: Minerals of Sardinia from the Lundgren Collection

by Beth Heesacker, of Forest Grove, Oregon  
President of the Northwest Federation of  
Mineralogical Societies and President of the Pacific  
Northwest Micro Mineral Study Group.

At the Tucson show in 2020, Beth had the privilege of purchasing the 7,800+ worldwide micros of the Allen and Barbara Lundgren collection, which included their handwritten catalogue. Most of it was collected on the 1980's and 1990's. Beth spent some time picturing portions of the collection starting with Sardinia, Italy since that is where one of their son's lives with his wife and two grandsons. The island has been mined for minerals since prehistoric times (6000 BC - obsidian, 3000 BC metals, 238 BC- the Romans, gold, lead, silver), to today (lead, silver, zinc). Beth's biography is published on page 2.

### Photo of the Month:



**Hemimorphite** Silius mine, Cagliari Province, Sardinia, Italy by Beth Heesacker

### President's Message:

by Dave MacLean

I watched three mineral related programs on Zoom this last week NVMC, MNCA and Friends of Mineralogy. All were different and interesting. Thank you to our host for getting us all in. On Feb 3 at 7:30pm MSDC will host Mike Seeds. I read an account where one club went on a field trip in this time of Covid-19. Every person wore a mask and stayed six feet apart.



Sadly, this wily Covid-19 virus is rapidly learning how to spread among us more rapidly creating more cases to mutate to super Covid-19's and the not so imaginary horrible vaccine resistant Covid-19's. Current advice is double masking to ward off enhanced spreader Covid19's. even if a person has been fully vaccinated. I look forward to meeting in person in Fall the Covid-19 prevalence is low.

### Atlantic Micromounters' Conference Saturday April 10, 2021 1-4pm Zoom

by Kathy Hrechka, Conference Chair

We have decided to remain with caution and broadcast our conference via Zoom.

Speakers include:

- \* Quintin Wight, Canada
- \* Mike Seeds, Lancaster, Pennsylvania
- \* Micromineral auction will be moderated by Michael Pabst, Penn Laird, Virginia
- \* Mark Kucera host on Zoom

Details are on listed on page 4 & our club website.

## Micromineralogists of the National Capital Area, Inc.

### Beth Heesacker biography:

I am a woman of many faces and like to try many things. I met my husband while studying electronics back in the '60s. After marriage and getting our three children into school (a girl and twin boys) I went to work in the electronics industry working my way from technician to engineer to computer system manager for Tektronix and Mentor Graphics. I retired early to go back to school and received my Masters in Theology in 1992. After working for my church for a while, I again retired. My husband and I were rockhounds but about 12 years ago a couple of guys came to one of our club meetings and talked about micro minerals. I fell in love.

Since then, I have acquired a huge micro mineral collection. I have over 17,000 specimens in my computer-based catalog (I designed the relational database myself using Access). That amount does not include an east coast collection (maybe 2,500 mounted specimens, former Micky Marks), two large collections purchased from Mike Shannon (one of almost 8,000 mounted specimens, formerly Allen and Barbara Lundgren) and one of many flats of rough from Tony Sobelek that I have processed). I also have a large collection from Gerald Woods and a smaller one from Ray Schneider. Of course, freebee tables have been very "lucrative". We try to make it to the Northern and Southern California meetings when they are held.

I love to make a home for orphan/estate collections. We have self-collected, but my husband's health has limited that to some extent.

I am the current President of the Northwest Federation of Mineralogical Societies and President of the Pacific Northwest Micro Mineral Study Group. I edit four newsletters: Clackamette Gem for our rock Club the NFMS Newsletter, the Pacific Northwest Friends of Mineralogy Newsletter, and the Bulletin of Friends of Mineralogy national newsletter.

My Covid time is spent processing, sorting, and picturing some of my collection and avidly watching Nick Zentner's YouTube videos on geology and attending Zoom meetings with my kids and with other clubs around the world. And editing newsletters.



### Preview screen shots of Beth's Feb. 24 program



### Interest in Nick Zentner geology information:

<https://na01.safelinks.protection.outlook/?url=https%3A%2F%2Fwww.youtube.com%2Fuser%2FGeologyNick%2Fplaylist&data=04%7C01%7C%7C418b34a625c94f7d457308d8c333943f%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C637473973581176556%7CUnknown%7CTWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjIhaWwiLCJXVCi6Mn0%3D%7C1000&psdata=ygG3KF3RMzbKq8NOaA%2BdweBMzh9cdKdnZqlaqNt9UKw%3D&reserved=0> (link will get you to all of his playlists)

Virtual hugs, Beth Heesacker



# Micromineralogists of the National Capital Area, Inc.

## Previous Meeting Minutes: 1/27/21

By Bob Cooke, secretary

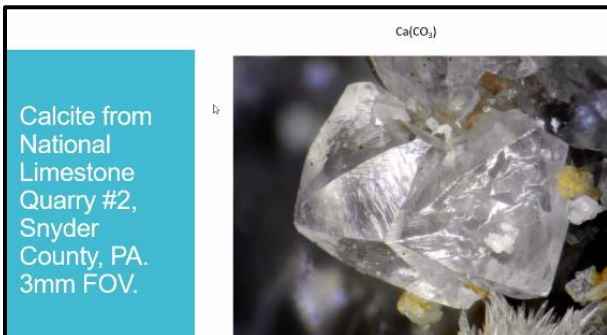
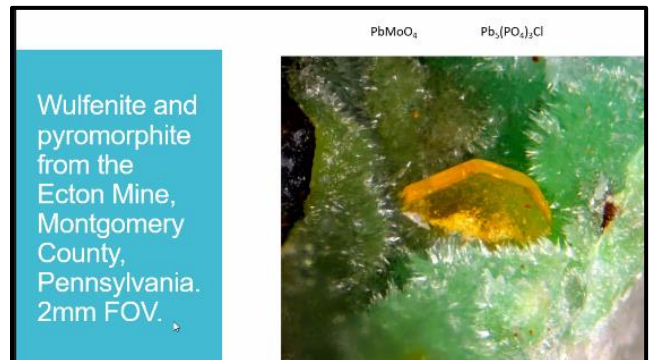
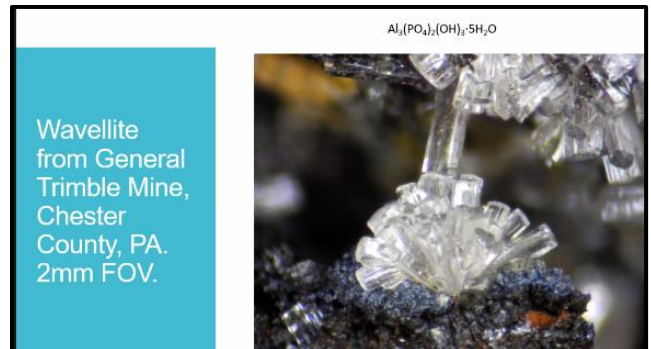
No meeting was held; however, Kathy announced that the Atlantic Micromineralogists' Conference will be held via Zoom on April 10, 2020. Details are published on page 4.



## Previous Program Review: 1/27/21

**Program: Some Pennsylvania Microminerals** by Steve Stuart of Bethlehem, Pennsylvania

Attendees viewed Steve's photography setup and technique, followed by a gallery of 50-60 images of Pennsylvania micros that he has accumulated since moving to the state in April of 2017.



Screen shots by Kathy Hrechka

**Atlantic Micromounters' Conference**  
**Saturday April 10, 2021 1-4pm Zoom**  
by Kathy Hrechka, Conference Chair  
Details [www.dcmicrominerals.org](http://www.dcmicrominerals.org)

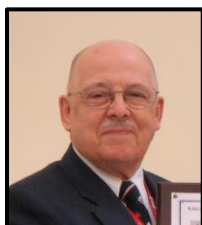
**Speakers:**

- \*Quintin Wight, Canada
- \*Mike Seeds, Lancaster, Pennsylvania
- \*Micromineral auction by Michael Pabst

**The Scientific Value of Micromounting**

by Colonel (Ret.) Quintin Wight, CD, MA Canada

For a long time micromounters have felt rather scorned by the collectors of large, showy pieces who spend thousands on their collections. Museum curators also tend to dislike micromounts because they are difficult to display. This talk demonstrates that micromounters have every reason to be proud of their accomplishments and introduces some of the people and institutions that are keeping the science of mineralogy alive and up to date through micromounting. In the last few years, micromounters have discovered more than 270 new mineral species. How many have the cabinet collectors found?



**Biography:** Quintin's thirty-seven-year career in the RCA/CF took him, a graduate of Queen's, Carleton, and Concordia Universities, to many localities in which he could find mineral specimens to add to a growing collection. He began writing about minerals in 1966 and has since published a book *The Complete Book of Micromounting*, which was published in 1993. He has also written over 185 articles and reviews on mineral-related subjects. He began to specialize in mineral photomicrography in 1973 and has given more than 180 presentations to groups across North America, and in England, Belgium, Italy, Switzerland, Tanzania, and New Zealand. Inducted to the Micromounters' Hall of Fame in 1990, he now coordinates that organization in Baltimore, Maryland, and heads an annual gathering of specialists in microscopic minerals in Rochester, New York. The mineral *quintinite* was named in his honor in 1992.

**The Universe in a Micro Box**

by Mike Seeds PhD, Lancaster, Pennsylvania

Hydrogen and helium atoms were made in the big bang, but where did all the heavier elements come from? They were cooked up in stars and, in some cases, blasted into existence in cataclysmic explosions called supernovae.



Mike Seeds combines his experience as an astronomer with his love of minerals to trace the different ways stars have made the atoms in our minerals and in our bodies. The iron in our blood and in our pyrite crystals exists because dead stars called white dwarfs explode in supernovae and blast newly formed atoms into space. Mike's talk is illustrated with photos of exploding stars and beautiful minerals.

**Biography:** Mike Seeds is Emeritus Professor of Astronomy at Franklin & Marshall College, in Lancaster, Pennsylvania. He has enjoyed minerals since childhood, and his wife and daughter joined him in the family hobby of geology and minerals. They often attended mineral shows, and Mike most enjoyed the micromounters showing off tiny minerals under their 'scopes. He bought his first microscope in 1999 and has been making micromounts ever since. He is past president of the Baltimore Mineral Society, Chair of the Desautels Micromount Symposium, and has been editor of the club newsletter for over 10 years. He has written over 100 articles about micromounting called *Shoebox Adventures*. Mike was inducted into the Micromounters Hall of Fame in 2020.

**Micromineral Auction:**

Michael Pabst of Penn Laird, Virginia will conduct the micromineral auction in between speakers to invigorate attendees. He will have as many as forty micros from George Reimherr's original collection. Michael will prepare a photograph of each specimen which will accompany the micromineral to the highest bidder.





## Xanthoconite

by Michael Pabst PhD, Treasurer

Our last article focused on the silver ruby sulfosalt, Pyrostilpnite  $\text{Ag}_3\text{SbS}_3$ . Here we describe an arsenic analog called Xanthoconite  $\text{Ag}_3\text{AsS}_3$ . Xanthoconite has a crystal structure similar to that of Pyrostilpnite. Both are monoclinic  $2/m$ , but  $\beta = 110.0^\circ$  for Xanthoconite with space group  $C2/c$ , whereas  $\beta = 117.15^\circ$  for Pyrostilpnite with space group  $P2_1/c$ . Both have hardness 2-3, and both have adamantine luster. For similar size crystals, Pyrostilpnite is likely to be darker in color compared with Xanthoconite.



Years ago, I was lucky to acquire a wonderful specimen of Xanthoconite, which was buried in a box of mostly uninteresting and cheap minerals at the Tucson Show. These Xanthoconite crystals, from the Bote Mine in Zacatecas, Mexico, are an intense orange-red color, probably because the crystals are remarkably large. A small gray crystal of possible Acanthite  $\text{Ag}_2\text{S}$  (after Argentite) or Stephanite  $\text{Ag}_5\text{SbS}_4$  garnishes the specimen on the left center. Later we will see more typical yellow micro-crystals.

There is one photo of Xanthoconite from this locality on Mindat: <https://www.mindat.org/photo-307009.html>.

This Mindat specimen looks like my specimen pictured below; even the mounting appears similar. On Mindat, there is a question mark for Xanthoconite in the list of minerals from the Bote Mine. Apparently, someone was worried that the mine harbors Pyrargyrite (which contains antimony) but not Proustite (which contains arsenic). The problem is where does the arsenic come from to make Xanthoconite? An analysis was suggested. I do not know anything about how my specimen was identified. Therefore, it may be that these specimens are really Pyrostilpnite? Or something else entirely? I will let whoever bought the Xanthoconite on Mindat volunteer to have that specimen analyzed first, especially if it involves destroying the sample. The crystal form on the Mindat sample is described as pseudo-orthorhombic twin, which might also apply to my specimen below. I lack the expertise to tell.

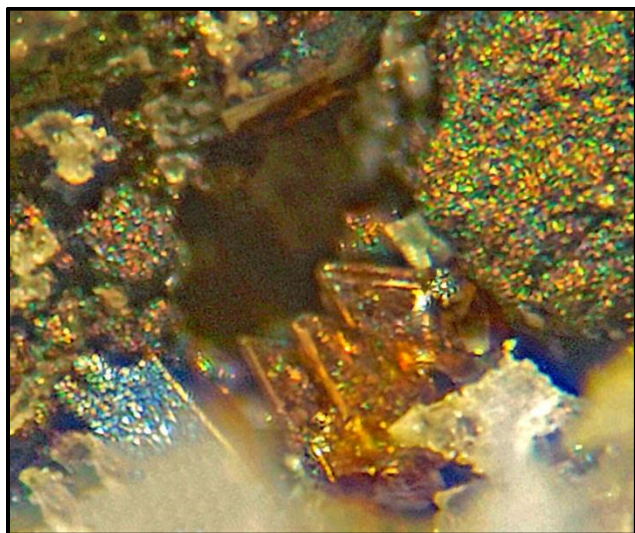


**Xanthoconite**, Bote Mine (Mina El Botes), Zacatecas, Zacatecas, Mexico. The crystal group is 7 mm wide, in the orientation shown. (The specimen is mounted on a thin black post stuck in a Styrofoam base in a plastic box, giving a white background. Therefore, it is difficult to see the edge of the photo on a white page, which is problematic if only FOV is provided.) Photo by Michael Pabst, using a macro lens, and stacking 24 images with CombineZP.

Next, here are two photos of tiny yellow Xanthoconite crystals from the same specimen from Gowganda, Ontario, Canada. The associated red material is Proustite, and the brassy material is probably chalcopyrite.



## Xanthoconite continued



**Xanthoconite** from Gowconda area, Timiskaming District, Ontario. FOV ~1 mm for both photos. Photos by Michael Pabst. Top photo taken with Mitutoyo lens and bellows, stacking 22 images; bottom photo taken with stereomicroscope, stacking 4 images.

To see other beautiful specimens of Xanthoconite that are not so small and hard to photograph, I recommend that you click on this link to Mineral Atlas:

<https://www.mineralatlas.eu/lexikon/index.php/MineralData?mineral=Xanthoconit>

If you click, you will be rewarded with six stunning photos of Xanthoconite, which is truly one of the most beautiful minerals.

Xanthoconite and Proustite are often found together. The next article will be on Proustite, which is the arsenic analog of Pyrargyrite, and a dimorph of Xanthoconite.

## Friends of Mineralogy Virginia FMVA

A nonprofit organization dedicated to promoting and expanding the study of mineralogy and the hobby of mineral collecting. Our mission is to promote and preserve Virginia mineral and mining heritage while expanding the knowledge of minerals more broadly through community programs and partnerships. We appreciate your support!

<https://www.friendsofmineralogyvirginia.org/>

## Friends of Mineralogy Virginia FMVA

by Thomas N. Hale, President FMVA

Our January meeting had an incredible conversation about Mid-Ocean Ridge Basalts (MORBs) with Dr. Allie Gale. If you were unable to attend the meeting, no worries as the video is now uploaded on YouTube!



### Video Link: Mid-Ocean Ridge Basalts

<https://www.youtube.com/watch?v=HO5OyN6Vq2Q>

### February 12th @ 7pm EST: Program History of the R.V. Dietrich Publications

Description: The *Minerals of Virginia* books by R.V. Dietrich inspired an entire generation of Virginia mineral collectors. The 1990 publication (including the 1991 update) has become a hegemonic text for those interested in studying Virginia mineral localities. Despite these later works being more prominent, earlier copies and smaller publications date back to the 1950's under the Virginia Tech Engineering Experiment Station. The VMP will go back in time and break down the evolution of these publications and how they became the ultimate resource for Virginia mineral collectors. A discussion of the book chapters and format will be included along with an open discussion where participants can ask questions and engage in conversation about each text. A short update of the VMP goals and objectives for 2021 will conclude the presentation!

**RSVPLINK:** <https://us02web.zoom.us/meeting/register/tZYpcOytrz4sH9Af7X9kA4HhxAGdEb-xuoRr>

### February 26 @ 7pm EST: Program by Evan Jones Wulfenite - The Official State Mineral of Arizona

We hope you can join us for our speaker on February 26! We will have Evan Jones presenting "Wulfenite - The Official State Mineral of Arizona." Mr. Jones will tell us the history on how wulfenite became the official state mineral of Arizona, then run through the major localities for wulfenite in the state! More information will be coming in the middle of February. You can RSVP early [HERE](#).

Please submit any questions to:  
[friendsofmineralogy.virginia@gmail.com](mailto:friendsofmineralogy.virginia@gmail.com)



**Microminerals “Down Under”**

by Kathy Hrechka, editor

Our December 23, 2020 featured speaker was Steve Sorrell from Melbourne, Australia. He hosts a program every other Tuesday at 2pm (EST) with various geology persons of interest. On January 26, micromineral collector Henk Smeets, from the Netherlands shared his microminerals from Udersdorf, Emmelberg, Hillsheim, Graulai, In den Dellen, and Wannenkopfe.



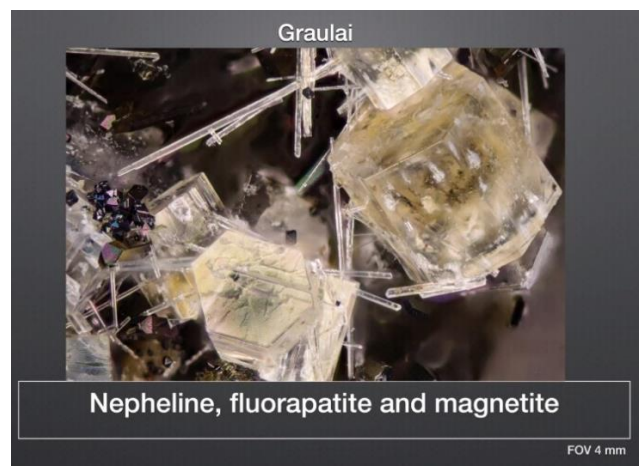
Steve recorded Henk’s program and posted it to Utube. [https://youtu.be/D7nSKqre\\_7g](https://youtu.be/D7nSKqre_7g)

Sign up for Steve’s programs, and meet new presenters, while enjoying friendly faces within our geology community. [steve@sorrellpublications.com](mailto:steve@sorrellpublications.com)

Screen shots by Kathy - portrait photo Steve Sorrell

Personal website of Henk Smeets, Netherlands

[www.tomeikminerals.com](http://www.tomeikminerals.com)



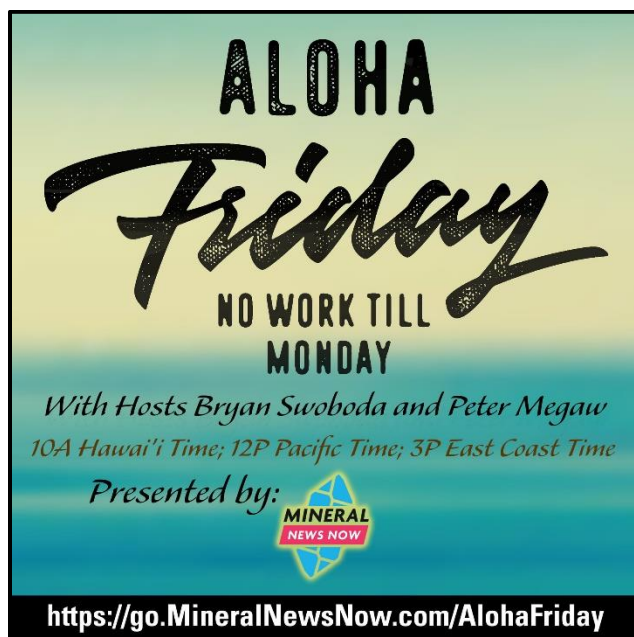
## Mineral Talks Live: 1pm Wednesdays

by Kathy Hrechka, editor

Each Wednesday at 1pm EST Bryan Swoboda, Blue Cap Productions in Honolulu, Hawaii has been moderating various mineral persons of interest on Zoom. Each of his programs are recorded, so you can view archived speaker topics.

All lectures are complementary to our geology community through the following individuals: Bryon Swoboda BCP, Dr. Rachel Alanzo Perez from the Mineralogical & Geological Museum at Harvard University, and Dr. Eloise-Gaillou, curator of the Mineralogy Museum Paris School of Mines in France representing the Society of Mineral Museum Professionals SMMP.

<http://go.mineraltalkslive.com>



## "Current News on Scott Duresky's Rutherford Mine Research"

by Scott Duresky, Charlottesville, VA

Tony Nikischer of Excalibur Mineral has asked Scott and Michael Pabst of the MNCA to write an article about Scott's research for publication in Tony's Mineral News.



Scott has discovered another species that had not been previously reported from the Rutherford pegmatite - in this case, Phlogopite. Interestingly, the Phlogopite originally reported from the Morefield Mine turned out to be Zinnwaldite, a quite rare member of the Mica Group. What was subsequently reported as Zinnwaldite occurring at the Rutherford mine as well, turns out to be a mica unique to the Rutherford Mine among Virginia pegmatites.

In addition to three members of the Microlite Group not previously reported from the pegmatite (Oxycalciumicrolite, Kenoplumbomicrolite and Oxystannomicrolite), Phlogopite joins two other species that are not currently listed in Mindat - Brockite and Columbite -(Mn).

Over the next couple of months, Scott expects that he will have the opportunity to examine material that came from the core of the pegmatite. Since the 1950's material has only received a cursory examination, he would be incredibly surprised if something unusual did not turn up, and in those instances, will continue to work with Tony Nikischer at Excalibur Mineral for any EDS testing results that might be necessary.

Again, anyone who has material from the Rutherford Mine are encouraged to consider making donations of their own by contacting Scott.

Scott Duresky's phone (434) 882-3863

LORA ROBINS GALLERY of Design from Nature, University of Richmond, promotes an awareness and appreciation of nature, which was a special publication of the Rochester Mineralogical Symposium in 1991.



## Micromineralogists of the National Capital Area, Inc.



American Federation of Mineralogical Societies

(AFMS)  
[www.amfed.org](http://www.amfed.org)



Eastern Federation of Mineralogical and Lapidary Societies

(EFMLS)  
<https://efmls.org>

**Please read the AFMS bulletin attached in original monthly email to MNCA members.**

2021 Purpose of the AFMS: To promote popular interest and education in the various Earth Sciences, and in particular the subjects of Geology, Mineralogy, Paleontology, Lapidary and related subjects, and to sponsor and provide ways to coordinate the work and efforts of all interested persons and groups; to sponsor and encourage the formation and international development of Societies and Regional Federations and thereby to strive toward greater international good will and fellowship.

The A.F.M.S. Newsletter is normally published monthly except January, July, and August by the American Federation of Mineralogical Societies. Each Regional Federation Club is entitled to receive three (3) copies of the AFMS Newsletter. These are usually sent to the President, Federation Director and Editor. Subscription Information, Distribution Questions and address changes should be sent to the AFMS Central Office.



The Rock & Gem magazine is recognized as the official magazine of the AFMS.

Communication and Involvement  
Are the Keys to Our Success!

**Please read the EFMLS bulletin attached in original monthly email to MNCA members.**

**Local Geology Club Meetings: Zoom  
February 2021**

**3: Mineralogical Society of the District of Columbia - MSDC 7:30 Mike Seeds Zoom**  
[www.mineralsocietyofdc.org](http://www.mineralsocietyofdc.org)

**8: The Gem, Lapidary and Mineral Society of Montgomery County, Maryland - GLMSMC**  
7:30 pm Kathy Hrechka - Zoom [www.glmsmc.com](http://www.glmsmc.com)

**? The Gem, Lapidary and Mineral Society of Washington, DC - GLMS-DC meeting**  
[www.glmsdc.org](http://www.glmsdc.org)

**18: Leidy Microscopical Society, Pennsylvania**  
Speaker: Quintin Wight "Smaller Localities in Eastern Canada" 7:30pm Zoom

**22: Northern VA Mineral Club – NVMC meeting**  
7:30 Zoom [www.novamineralclub.org](http://www.novamineralclub.org)

**24: Micromineralogists of the National Capital Area, Inc. - MNCA 7:30pm Beth Heesacker Zoom**  
[www.dcmicrominerals.org](http://www.dcmicrominerals.org)

**April 10: Atlantic Micromounters' Conference will be held via Zoom 1-4pm**

\*Quintin Wight, Canada  
\*Mike Seeds, Lancaster, Pennsylvania  
\*Micromineral auction will be moderated by Michael Pabst, Penn Laird, Virginia  
[www.dcmicrominerals.org](http://www.dcmicrominerals.org)  
by Kathy Hrechka, Conference Chair

**April 17: Rochester Mineralogical Symposium will be hosted via Zoom this year.**

## Micromineralogists of the National Capital Area, Inc.



### GeoWord of the Day and its definition:

**diamond simulant** Any material which is not diamond or synthetic diamond, but which simulates a faceted diamond's appearance and is used in its place. Common diamond simulants include cubic zirconia (CZ), gadolinium gallium garnet (GGG), synthetic spinel, and yttrium aluminum garnet (YAG). Also called diamond substitute.

**emildine** (em'-il-dine) A variety of spessartine garnet containing yttrium.

**wedge [paleont]** A five-sided crystalline element of a *heterococcolith*, having two dimensions subequal and the third dimension small at one edge and approaching zero at the other.

**wolfram** (wolf-ram) (a) *wolframite*. (b) The metallic element *tungsten*.

All terms and definitions come from the [Glossary of Geology, 5th Edition Revised](#). GeoWord of the Day is brought to you by: EnviroTech!

[envirotechonline.comwordoftheday@agiweb.org](http://envirotechonline.comwordoftheday@agiweb.org)

AGI was founded in 1948, under a directive of the National Academy of Sciences, as a network of associations representing geoscientists with a diverse array of skills and knowledge of our planet. The Institute provides information services to geoscientists, serves as a voice of shared interests in our profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resilience to natural hazards, and the health of the environment.

AGI is a not-for-profit 501(c)(3) organization dedicated to serving the geoscience community and addressing the needs of society. AGI headquarters are in Alexandria, Virginia.

**Micromineralogists of the National Capital Area Meeting:** The 4th Wed. of each month 7:30 -10 p.m. Long Branch Nature Center (No meetings July & Aug) 625 S. Carlin Springs Road, Arlington VA 22204 Phone (703) 228-6535 (Long Branch is still closed)

**MNCA Purpose:** To promote, educate and encourage interest in geology, mineralogy, and related sciences.

President: Dave MacLean  
Vice President: David Fryauff  
Secretary: Bob Cooke  
Treasurer: Michael Pabst  
Editor/Historian: Kathy Hrechka  
Website: Kathy Hrechka  
AMC Conference: Kathy Hrechka

### The society is a member of:

\* Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) [www.efmls.org](http://www.efmls.org)  
\* American Federation of Mineralogical Societies (AFMS) [www.amfed.org](http://www.amfed.org) affiliation

**Dues:** MNCA Membership **No Dues 2021**  
\$15 (single) or \$20 (family) donations  
**MNCA - Michael Pabst, Treasurer**  
270 Rachel Drive  
Penn Laird, VA 22846



### Editor's Note:

By  
Kathy Hrechka



Send your articles and photos to your editor.  
**Club Article Deadline is 1st of each month.**  
***The Mineral Mite* will be emailed on 5th.**  
**No newsletter July/August**

**Inducted into Editor's Hall of Fame – 2018**  
**AFMS Trophy 2019 Small bulletins**



### Newsletter inputs:

\*Beth Heesacker  
\*Dave MacLean  
\*David Fryauff  
\*Bob Cooke  
\*Michael Pabst  
\*Kathy Hrechka  
\*Scott Duresky

