

MNCA Website [www.dcmicrominerals.org](http://www.dcmicrominerals.org)

# The Mineral Mite



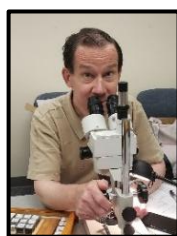
Vol. 58 – No. 2 Washington D.C. A Journal for Micromineralogists Feb 2025

**Meeting: Feb 24 3-5:30pm**

**Kings Park Library, Burke**

## **Program: "Switzerland Minerals and Mountains"**

By Jeff Guerber, Vice president



Our February meeting will be on Mon. Feb. 24, from 3:00-5:30 in the large meeting room at Kings Park Library, Burke. John Sanborn will present "Switzerland Minerals and Mountains", his photo discussion of the geography and scenery of various parts of Switzerland as well as several museums. Our March meeting will be Mon. March 24 (4th Monday) at KPL.

## **President's Message:**

By David Fryauff, PhD President



I would like to have us all recognize, and thank our secretary, Bob Cooke, for his initiative and attention in reviewing and revising our MNCA bylaws and membership. Bob has put a lot of thought and time into our membership records, and I really appreciate his work. Continued next page.

## **Mystery Micro Mineral of the Month**



*Clue: pinkish brown hexagonal crystal with colorless barite. Sterling Mine (TL), Ogdensburg, Sussex County, New Jersey!!!! By Aloha Peter Chin, Honolulu, Hawaii. Answer p 2.*



*Staubbach Falls, Lauterbrunnen, Switzerland.*

*Photo by John Sanborn, Secretary MNCA*

## Micromineralogists of the National Capital Area, Inc.

### Micro Mineral of the Month

By Aloha Peter Chin, Honolulu, Hawaii

**Manganpyrosmalite**, pinkish brown hexagonal crystal with colorless barite. Sterling Mine (TL), Ogdensburg, Sussex County, New Jersey!!!!

### President's Message continued

This is an important part of our organization that I have not given proper attention to, and it is essential to our growth, progress, and security as a member club under the umbrella of the Eastern Federation of Mineral and Lapidary Society. In talking about these organizational matters at our last meeting I mistakenly took the number of participants at one of the Atlantic Micromounter's Conference for the actual number of MNCA members we had back in the 1990s....somewhere around 90 or 95!!!! I was shocked at such a number but soon thereafter I was depressed to think how much we had declined. Kathy brought me around--somewhat--by letting me know that those numbers were not MNCA membership but the head count of all participants at one of our largest ever Atlantic Micromounter Conferences, years before I joined MNCA in 2012. But I looked at our actual past membership records and discovered that back in 1983, which may have been our first year as a club, we had a healthy group of 44 members.

Interestingly, the records showed that membership was a bit erratic during the 80s declining to just 18 in 1986, rising to 26 in 1987, 30 in 1988, 38 in 1989, and then, for some strange reason, our membership rose dramatically with a massive record high of 96 in 1998!!!!....all carefully recorded by past treasurer Fred Schaefermeyer. In 2012 we had 51 members, and in 2013, my first year in the club, we were quite healthy with 56 members. We are now 20, with 6 honorary members. I don't feel great about our current membership, and I think we have a lot going on to interest, encourage, and entice new members.

Minerals have never been so widely recognized as important in our lives and Mindat has never made the mineral kingdom so accessible to virtually anyone with a cell phone/laptop. Decent close-up photomicrography has become wonderfully attainable with just a cell phone, and used, good quality microscopes can be purchased for under 300 dollars online.

I am continually impressed with the excellent, talented, and gifted members who make up our MNCA and I am proud to serve you. Please use your skills and contacts to help our MNCA grow. Spread the news about great benefits and joys that can come from microminerals and our excellent fellowship.



L-R David Fryauff, Kathy Hrechka, Jeff Guerber, Michael Pabst, MNCA meeting. Photo by John Sanborn

### Previous Meeting Minutes 1.27.2025

By John Sanborn, Secretary

The Micromineralogists of the National Capital Area gathered in the Kings Park Library large meeting room at 3:00 pm on January 27, 2025. Eleven members were present: President Dave Fryauff, Vice President Jeff Guerber, Treasurer Michael Pabst, Secretary John Sanborn, Editor/Historian/Webmaster Kathy Hrechka, Bob Cooke, Tom Tucker, Dave MacLean, Dave Hennessey, Craig Moore, Corrine Wilson.



Thanks to Dave Fryauff, David MacLean, Tom Tucker for "give away" specimens.

After general discussions and Mineral viewing, President Dave Fryauff "gaveled" the meeting to order at 4:30 PM. Dave MacLean Tom Tucker were recognized for their prior service as President.

The minutes of the December 27, 2024, meeting were approved as published in the Mineral Mite.

## Micromineralogists of the National Capital Area, Inc.

### Minutes continued 1.27.2025

Michael Pabst presented the treasurer's report, noting our bank balance and our tax forms are in process and up to date. Michael also noted that he would like to step down from the treasurer's position at the end of the calendar year 2025. He asked if anyone was interested in training for his position to let him know. A suggestion was raised that perhaps he could present at a future meeting the basics of what he does as far as record keeping and the responsibilities of the position. It was requested by a member that the financial data be published in the newsletter. This information is available to members and attendees, but the general feeling is it should not be published in the newsletter. While some other organizations do this and some do not, it is up to open to further discussion whether we do or not.

The next topic of discussion was regarding the bylaws. Bob Cooke will distribute an electronic copy of the current bylaws via email as well as his suggested changes. The board members will review and suggest edits or acceptance of any or all changes. The current bylaws allow for business to be conducted by the officers or Board (officers plus appointees) via telephone and a proposal was made to update this to include via email. Pending official acceptance of this update, we can, (by default, have already) start the discussion of the bylaws via email.

Regarding membership, the question was raised about what constitutes an active member. Speculation was that a person current with dues payment (calendar year) is considered active. Further speculation was that individuals may be designated as active members based on past contributions or other criteria without paying dues. This topic will be clarified in the updated bylaws if it is not already there.

On a related subject, the group discussed the distribution of the Mineral Mite newsletter. Specifically, who should get it. Kathy sent the last newsletter with BCC to currently active and inactive members as well as several institutions and clubs via email. It was noted that the newsletter email formerly was sent with full addresses and names shown to all on the distribution list. Some club emails announcing meetings, etc. still show full names and addresses. The consensus was that email addresses and names should be hidden (blind carbon copy, BCC).

A proposal was discussed for active members to be listed fully but other addresses/names to be hidden. Further discussion will be had, and each person can opt out of BCC status which should be the default.

The topic of hosting a micro mount conference was raised. Several fond memories of past conferences were recited. The dissenting view of who is going to perform all of the tasks needed was also noted. There was no consensus approval or disapproval of the idea.

Next MNCA meeting will be on February 24 from 3-5:30 PM in the Kings Park Library large meeting room. Meeting adjourned at 5:30 PM



*L-R Tom Tucker, Dave Hennessey, Craig Moore, Dave MacLean, MNCA meeting. Photo by John Sanborn*



*L-R Corrine Wilson, Bob Cooke, MNCA meeting. Photo by John Sanborn*

## Micromineralogists of the National Capital Area, Inc.

### Previous Program Review 1.27.2025

By Michael Pabst, Treasurer

Michael Pabst talked about Mineral Photography. He showed examples of mineral photographs taken by cell phones, macro lenses, microscopes, and macro rails with infinite focus objectives. Some examples below: an iPhone photo of Peruvian Rhodonite taken at the Colorado School of Mines.



*Peruvian Rhodonite. Colorado School of Mines.*

Below, an Olympus camera photo of Torbernite from Musonoi in DR Congo, taken with a macro lens at the James Madison University Mineral Museum.



*Torbernite from Musonoi in DR Congo.*

Examples of higher magnification photos can be seen in his article on Pauladamsite in this issue. The Field-of-View (FOV) of the Pauladamsite photos ranged down from 21 mm to 0.25 mm, which is truly tiny. Besides lighting and focus, he emphasized the importance of artistic judgement and luck in getting good photos.

Michael will be leading a course on Photography at the upcoming Wildacres Retreat on May 12-18, 2025, near Little Switzerland, North Carolina. The Wildacres Retreat is sponsored by the Eastern Federation of Mineral and Lapidary Societies. This year, courses at Wildacres will be cabochon cutting, chain maille, silver metal clay, silversmithing, faceting, wire wrapping, and photography, as well as a featured speaker on gemology. More information can be found at EFMLS.org.



*Michael Pabst presenting "Mineral Photography" of Peruvian Rhodonite, Colorado School of Mines.*



*Michael Pabst presenting "Mineral Photography" of Torbernite from Musonoi in DR Congo.*

*Michael Pabst will be teaching photography on May 12-18, 2025, at the Wildacres Retreat, Little Switzerland, N C. Photo K Hrechka 2017*



## Pauladamsite and Schmiederite

By Michael Pabst PhD, Treasurer

Pauladamsite is a copper selenite and sulfate  
 $\text{Cu}_4(\text{SeO}_3)(\text{SO}_4)(\text{OH})_4 \cdot 2\text{H}_2\text{O}$ .

The color of Pauladamsite is slightly greenish-blue, not a pure blue. I took some of the photos shown below in indirect daylight to try to capture the true color. The tiny crystals are transparent and silky. Hardness is 2 on Mohs scale. Pauladamsite is triclinic  $\bar{1}$ -pinacoidal. All the crystals on my sample and in Mindat photos appear to be in groups, so it is hard to see a clear crystal form of the individual crystals, although they can be described as sprays of ragged blades.



Here is my specimen of Pauladamsite, purchased in the auction at the 2024 Desautels Symposium in Baltimore. The specimen was donated to the Symposium by Paul M. Adams himself, who discovered the mineral. Paul attended the meeting, and I had the pleasure of talking with him. This specimen comes from the type locality in Inyo County, California. Here are series of photos of the specimen at increasing magnification. In the legend of each photo there is some detail about the equipment used to produce each photo, and the cost of the equipment. I have not described this practical information in recent articles.



*Pauladamsite. Santa Rosa Mine, Inyo County, California. FOV 21 mm. Photo and specimen by Michael Pabst, using an OM-D E-M5 camera (formerly "Olympus", \$1000) and M.Zuiko Digital ED 60mm F2.8 Macro lens (\$400), stacking 6 images with CombineZP software (free). Illumination by LED lamp. Image cropped and adjusted with Photoshop Elements (\$100).*



*Pauladamsite. Santa Rosa Mine, Inyo County, California. FOV 5 mm. Photo and specimen by Michael Pabst, using OM macro lens + Raynox DCR-250 macro lens (\$72), stacking 45 images with CombineZP. Continued next page.*

**Pauladamsite continued**



*Pauladamsite. Santa Rosa Mine, Inyo County, California. FOV 2 mm. Photo and specimen by Michael Pabst, using Bausch & Lomb Stereozoom7 stereo microscope (~\$400 used) and OM camera, stacking 18 images. Illumination by LED lamp.*



*Pauladamsite. Santa Rosa Mine, Inyo County, California. FOV 0.5 mm. Photo and specimen by Michael Pabst, using WeMacro computer-controlled rail (\$400) with Mitutoyo 10X infinity-focus lens (\$1000), stacking 18 images. Illumination by indirect daylight.*



*Pauladamsite. Santa Rosa Mine, Inyo County, California. FOV 1 mm. Photo and specimen by Michael Pabst, using WeMacro computer-controlled rail (\$400) with Mitutoyo M Plan Apo 10X infinity-focus lens (\$1000), stacking 24 images. Illumination by indirect daylight.*



*Pauladamsite. Santa Rosa Mine, Inyo County, California. FOV 0.25 mm. Photo and specimen by Michael Pabst, using WeMacro rail with Mitutoyo 10X infinity-focus lens, stacking 18 images. Illumination by indirect daylight. This image is cropped from the photo above, using Photoshop Elements.*

*Continued next page.*

## Pauladamsite continued

Notice the fiber optic effect shown by the Pauladamsite crystals at high magnification, wherein the shafts look colorless, but the tips are dark blue-green. The basis for this effect is that Pauladamsite is pleochroic, being yellowish green, bluish green and nearly colorless, depending on the direction of view.

On Mindat, I found a good photo by Chris Emproto of Pauladamsite from a different locality which is in Colorado.



*Pauladamsite with minor Devilline and Chalcomenite. Burro Mine, Slick Rock Mining District, San Miguel County, Colorado. FOV 4 mm. Photo and specimen from Chris Emproto. <https://www.mindat.org/photo-1409268.html>. 18 photos stacked. (Creative commons license.)*

The original article\* that described Pauladamsite has two nice figures. Figure 1 is a photo that shows sprays of Pauladamsite blades or laths, with FOV 2 mm. Figure 2 is an SEM photo with FOV 0.030  $\mu\text{m}$ , showing Pauladamsite laths with grooves along the lengths of the crystals, suggesting twinning.

\*Pauladamsite,  $\text{Cu}_4(\text{SeO}_3)(\text{SO}_4)(\text{OH})_4 \cdot 2\text{H}_2\text{O}$ , a new mineral from the Santa Rosa mine, Darwin district, California, USA, by A.R. Kampf, S.J. Mills, and B.P. Nash, Mineralogical Magazine, October 2016, Vol 80(6), pp. 949-958. (Available on the ruff.info website).

There are two minerals that are close to Pauladamsite, but that contain lead as well as copper.

## Munakataite $\text{Pb}_2\text{Cu}_2(\text{Se}^{4+}\text{O}_3)(\text{SO}_4)(\text{OH})_4$ .

Munakataite is a closely related lead copper sulfate and selenite that is also found at the Santa Rosa Mine in Inyo County, California. Munakataite is monoclinic  $2/m$  - prismatic, whereas Pauladamsite is triclinic. Munakataite is blue. I have not yet acquired a specimen of Munakataite, but here are some pretty photos from Mindat: Photo by Daniel Evanich: <https://www.mindat.org/photo-826439.html>, and photo by Jean Paul Dol: <https://www.mindat.org/photo-954238.html>.

**Schmiederite**  $\text{Pb}_2\text{Cu}_2(\text{Se}^{6+}\text{O}_4)(\text{Se}^{4+}\text{O}_3)(\text{OH})_4$  is a related mineral lead copper mineral, containing only selenium with no sulfur. It is bright blue. Crystallizes in the monoclinic system  $2/m$  - prismatic. The selenium occurs as both selenate and selenite, as shown by the two oxidation states in the formula. Here is a photo by Christian Rewitzer of Schmiederite from the El Dragon Mine in Bolivia:

<https://www.mindat.org/photo-107145.html>.

I recently acquired a specimen of Schmiederite from Sardinia; different parts of the specimen are shown in the two photos below:



*Schmiederite (blue) with Brochantite (green). Bacchu Locci Mine, Villaputzu, Cagliari Province, Sardinia, Italy. FOV 1.5 mm. Photo and specimen by Michael Pabst, using WeMacro rail with Mitutoyo 10X infinity-focus lens, stacking 24 images.*

Continued next page.

## Schmiederite continued



*Schmiederite* (blue) with *Brochantite* (green). Baccu Locci Mine, Villaputzu, Cagliari Province, Sardinia, Italy. Same specimen as photo above. FOV 1 mm. Photo by Michael Pabst using WeMacro rail with Mitutoyo 10X infinity-focus lens, stacking 25 images.

Here is a photograph by Enrico Bonacina of a similar specimen of Schmiederite from Sardinia  
<https://www.mindat.org/photo-313233.html>.

The related mineral that contains lead, copper and sulfate (but no selenite) is Linarite  $PbCu(SO_4)(OH)_2$ , which was described in an earlier article. A related mineral that contains copper and selenium *only* is the copper selenite Chalcocite  $Cu_2SeO_3 \cdot 2H_2O$ . Chalcocite will be featured in the next article.

Correction: In my last article on Langite, in describing the crystal drawing in Figure 1, I wrote “pseudo octahedral” when I meant “pseudo orthorhombic”. Thanks to Herwig Pelckmans for spotting the error.

## Have you Seen the Price of Eggs 1999?

By David Fryauff, PhD



*Tsumebite, brochantite, pyromorphite* in the Humpty Dumpty egg carton 1999. Photo by David Fryauff.



*Tsumebite* 1.0 mm FOV. Mex -Tex mine, NM Collected April 1999 at the Mex-Tex Mine, NM. Eggs and photo by David Fryauff.



**Books: The Mineralogy of Franklin and Ogdensburg, NJ: 3 Vol set for Sanborn**

By Kathy Hrechka, editor

John Sanborn brought his newly acquired three volumes set of 1,400 pages of the “best ever” reading on fluorescent minerals to our January meeting. I was particularly interested in finding mineral photos from the Smithsonian’s exhibit. Since I volunteer at the Natural History Museum, Peter Chin asked me to host and assist Dr. Earl R Verbeek, Curator of the Franklin Mineral Museum, NJ. In 2018 Dr. Verbeek was given permission to photograph minerals of his choice for this set of books. My job was to enter data on his laptop, which he dictated to me. In return, Dr. Verbeek gave me a personal tour of the Franklin Mineral Museum and the Sterling Hill Mine. That’s when I took an interest in collecting fluorescent minerals from that locality in New Jersey. I now have fluorescent micromineral, including sand of many colors which illuminate by short wave ultraviolet light.

Peter Chin’s name is listed on the front cover as an editor. Chapter nine, of volume one, features him along with his brother Wellington. Chapter 9: Peter Chin Collection, by Peter Chin and Wellington Chin. Peter’s collection is well documented and may contain the best zincite from Franklin in the world.



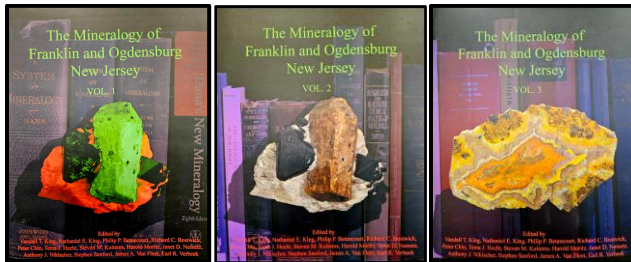
John Sanborn sharing his books at MNCA



L-R Peter Chin and Wellington Chin p377, Vol 1. Photo screenshots by Kathy Hrechka for this article.



Zincite, Franklin Mine. This specimen is among the world’s best zincite crystals. It shows the typical steep pyramid and is associated with white fibrous sussexite. The crystal is on a black painted cork base made by a previous owner, Robert Gage. 1.4 cm tall. WC





*“Zincite, Sterling Hill Mine. Sigmoidal red zincite masses in white calcite with tan willemite and black franklinite mirrored in a broken block NMNH 18 cm tall. ERV. P1169 Chapter 24. Minerals of the Franklin – Ogdensburg Mining District A – Z.” National Museum of Natural History collection photographed by Dr. Earl R Verbeek, assisted by Kathy Hrechka.*



*Franklin- Sterling Hill, NJ collection, Smithsonian National Museum of Natural History. Many of these specimens are in the book, including Zincite at the top. “Since the 1930s, Smithsonian geologists have studied this unique mineral deposit. They have discovered and described several of its new mineral species. The spectacular specimens here represent only a small percentage of our Franklin-Sterling Hill collection”. Photo by Kathy Hrechka, Geology, Gems & Mineral Gallery volunteer NMNH.*



*Dr. Earl R. Verbeek, Museum Curator at Franklin Mineral Museum, Franklin, New Jersey. He is a PhD geologist with a strong background in geological research. He is responsible for updating mineral displays, organizing the museum’s reference collection of minerals and performing research on the minerals of Franklin and Sterling Hill, New Jersey. Dr. Verbeek also coordinates research projects with other individuals and institutions. Photo of Dr. Verbeek in his office by Kathy Hrechka 2018.*

## The Book Odyssey by Peter Chin

I moved from Virginia to Hawaii in 2005 and I have been there except for two years, 2010 -2012, when I returned to Virginia. I don’t miss the 100o F and smog filled summer days, or the winter days of sleet, icy roads, and driveways to shovel snow from.

I enjoyed activities that Hawaii is known for: whale and volcano watching, snorkeling in Hanauma Bay and swimming and picnicking on many beaches year around. BUT Hawaii is a mineralogical desert! When Van King, whom I have known for many decades, called me in November of 2013 and invited me to join him to produce a mineral picture book of the best examples of minerals from Franklin and Sterling Hill minerals, I was a bit hesitant because over the last four plus decades, several serious attempts to produce a photographic survey of Franklin and Sterling minerals ended in complete failure due to lack of sustained effort and financial support. Continued next page.

## The Book Odyssey continued

Van and his future wife, Janet Nemetz, stayed with us in Hawaii the week of November 11, 2013, and during their stay, he convinced me he had the necessary financial, material and personal backing to complete the picture book project. I also spoke to Dick Hauck who assured me that the book project had received necessary financial support from him, Steven Phillips, Franklin Mineral Museum, Franklin Ogdensburg Mineralogical Society as well as other individual donors. I agreed to join in the Book project, which I thought would take one or two years to complete, BOY, was I wrong! There were many pitfalls that occurred during the project that could have doomed the project to failure if not for the herculean efforts of Dick Hauck and especially Stephen Phillips, who herded the “cats” and kept the project from falling off the track.

The Mineralogy of Franklin and Ogdensburg New Jersey, aka “The Book” or “Das Buch”, is a 1,400-page culmination of eight years of hard work and 2,000 emails, a monumental collective effort to create a definitive photographic survey of as many, if not all known mineral species from Franklin and Sterling Hill that could be photographed. The Book project was international in scope involving people not only in the US but also from Canada and France.



Figure 1. *Wawayandaite* type specimen. White powdery flakes overcoating microcrystalline *friedelite* coated *calcite* and *willemite* crystals. Peter Chin specimen and photograph.



Figure 2. Type specimen of *Hardystonite*. The Mineralogical and Geological Museum at Harvard specimen, Kevin Czaja photograph.

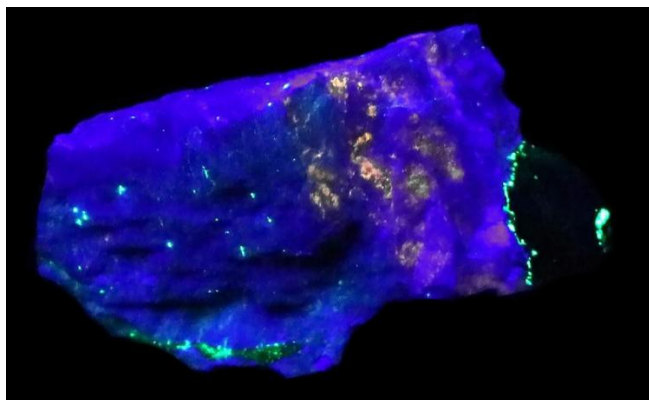


Figure 3. SW fluorescent image of the type specimen of *Hardystonite*: *Hardystonite* (purple), *Esperite* (yellow), *Clinohedrite* (orange) and *Willemite* (green). Kevin Czaja photograph.

One of the other goals of the project shared by Van and me was that rare species in the Book must be verified wherever possible. Type specimens were used, if available, Figure 1, Wawayandaite is an example. Not all type specimens made the cut for the book. Type specimens of common species were not used because there were much better examples to photograph. For example, I didn't select the type specimen of *Hardystonite*, Figures 2 and 3, for possible inclusion into the Book because there were much better examples that had already been photographed. Mineral species on non-type specimens were verified by proper analyses where possible. Collectors who contributed to specimens for photography were persuaded to have their minerals analyzed to confirm their identity, if identification was questionable and documentation was lacking; it was no small task.

## The Book Odyssey continued

This all took time, a lot of time. I played a part in seeking museums, university and private labs to perform analyses: Dr. Yang (Yangite) at the University of Arizona, Tucson Arizona; Dr. Travis Olds (Oldsite) at Carnie Museum of Nature, Pittsburg, Pennsylvania; Dr. Piilonen, Canadian Museum, Ottawa, Canada. of Nature; Tony Nikischer (Nikischerite), Excalibur, Charlottesville, Virginia; and Joy Desor (Desorite), Mineralanalytik, Bad Homburg, Germany. The new mineral, Peterchinite, is one result of this effort. I added mineral species new to the area added to the list of minerals, e.g. Woodwardite, 5 and Chalcoalumite. Other collectors also added mineral species new to the area. Mineral species were also removed in the course of the verification process. The Book updated the list of minerals found in Franklin and Ogdensburg.

The photography was international in scope. I was graced by the extraordinary cooperation and courtesy extended to me by Eloïse Gaillou, Director and Curator of the Mineralogy Museum, Ecole des Mines de Paris and Cristiano Ferrais, Curator of the Mineral and Gem Collection, Muséum Nationale d'Histoire Naturelle de Paris. They gave me a spread sheet of all their Franklin mineral specimens in their collection and the ability to select any one for examination and photography.

Thank God for the internet! They went as far as to photograph specimens initially that might be of interest for the Book, and not all such photographed specimens made it into the Book. Photos of the final selections in The Ecole des Mines Chapter were shot by Gaillou and Muséum Nationale d'Histoire Naturelle by French mineral collector, Vincent Bourgoïn. During the review of specimen photos from Muséum Nationale d'Histoire Naturelle, I discovered probably the world's finest Samfowlerite crystals! It was in a Cahn micromount of Cahnite! The label, Figure 4, notes white unidentified crystals which decades later were finally characterized and named as the new mineral, Samfowlerite. I also worked to a lesser extent with Kevin Czaja at Harvard to locate some historic specimens and with other collectors who contributed to the Book.

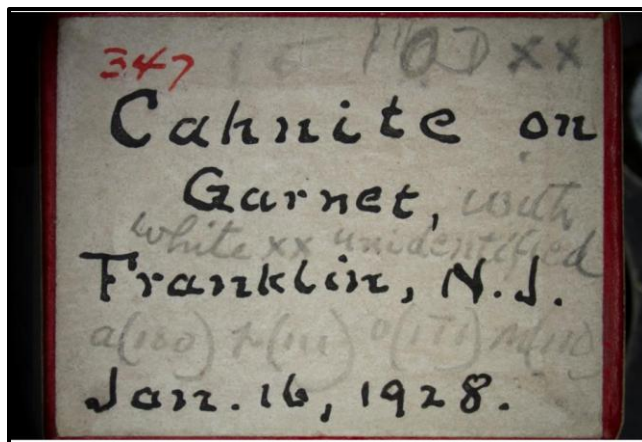


Figure 4. Cahn micromount label. "White xx unidentified" is Samfowlerite. Vincent Bourgoïn photograph.

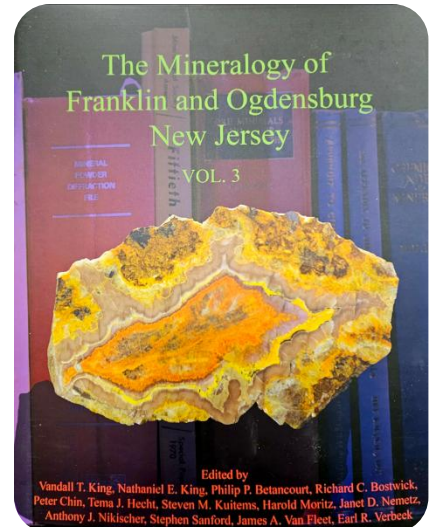
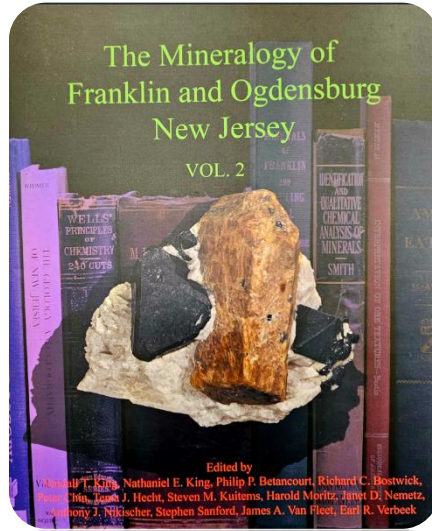
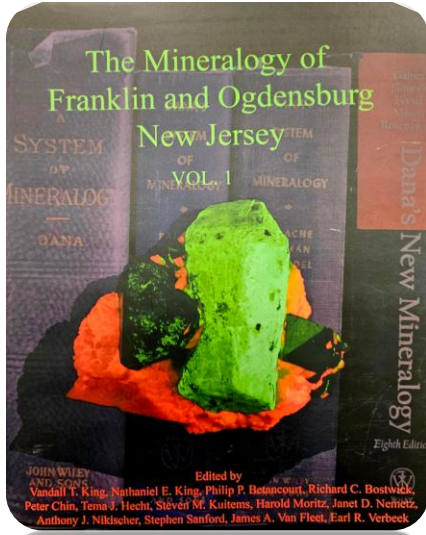
The project also forced me to learn how to make stacked shot photomicrographs using microscope lens on a SLR camera with an automated rail system. The Book has its warts, it is not perfect, and a number of edits didn't make it before publication. I guess in another lifetime it will be all fixed!

While The Book project has been completed, I am not finished in my quest to find new mineral species. I have focused much of my efforts to Franklin, where I still have many minerals yet to be identified, I haven't forgotten other localities e.g., the first reported occurrence of Dravite in Northern Virginia trap rock quarries (Bull Run Quarry, Conklin, Loudoun Co., VA), read **George Loud's** wonderful article on the trap rock quarries of Northern Virginia (Loud, G.A., Weingart, R.L., Tucker, T.E., and Francis, C.A. (2023). The Trap Rock Quarries of Northern Virginia and Their Minerals. *Rocks & Minerals* 98(2):114-140).



Aloha Peter Chin with George Loud Feb 14, 2025.

Micromineralogists of the National Capital Area, Inc.



**Note by MNCA Editor, Kathy Hrechka**

I am grateful that John Sanborn brought his new books to our meeting. My endeavor was to find fluorescent minerals from the Smithsonian. I was pleased to see Peter Chin as a contributing author, as well as having his own chapter. We are honored with his contributing article entitled, Book Odyssey. Also, what an eye-opening view on professional contributions.

Many years ago, when Peter lived in the DC Metro area he was involved in our local mineral clubs. He was the president of the Northern VA Mineral Club, while I was his VP. Keeping in touch with MNCA, he provides “Mystery Micromineral” each month for our newsletter. Peter now resides in Hawaii, collecting basalt and olivine. Peterchinite is named after him.

**Happy Birthday Peter! February 21, 2025**



*Kathy Hrechka and John Sanborn reviewing Dr. Chin’s chapter pages 377-378 in book number one, 3 volume Mineralogy of Franklin and Ogdensburg, New Jersey. Photo by Corrine Wilson at MNCA meeting.*



*Gas Pocket Peter taking a breather in a gas pocket in Koko Crater (volcano)???? Photo credit Peter Chin*

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## Peterchinite

A valid IMA mineral species

This page kindly sponsored by [Kathy Hrechka](#)

### Photos of Peterchinite (2)



**Peterchinite**

Franklin Mine, Franklin, Sussex County, New Jersey, USA



**Peterchinite**

Franklin Mine, Franklin, Sussex County, New Jersey, USA

### About Peterchinite

Hide

- Formula:**  $Zn_3Zn_2(OH)_6As[O_3(OH)_3]$
- Crystal System:** Monoclinic
- Member of:** Chlorophoenicite Group
- Type Locality:** [Franklin Mine, Franklin, Sussex County, New Jersey, USA](#)
- Isostructural with:** [Chlorophoenicite](#)



**Peter Chin**

The Zn (or rather Zn<sub>3</sub>) analogue of [chlorophoenicite](#) and [magnesiochlorophoenicite](#).

### Mineral Symbols

Hide

As of 2021 there are now IMA–CNMNC approved mineral symbols (abbreviations) for each mineral species, useful for tables and diagrams.

Symbol	Source	Reference
Pcn	IMA–CNMNC	Warr, L.N. (2021). IMA–CNMNC approved mineral symbols. Mineralogical Magazine, 85(3), 291-320. doi:10.1180/mgm.2021.43

### Chemistry of Peterchinite

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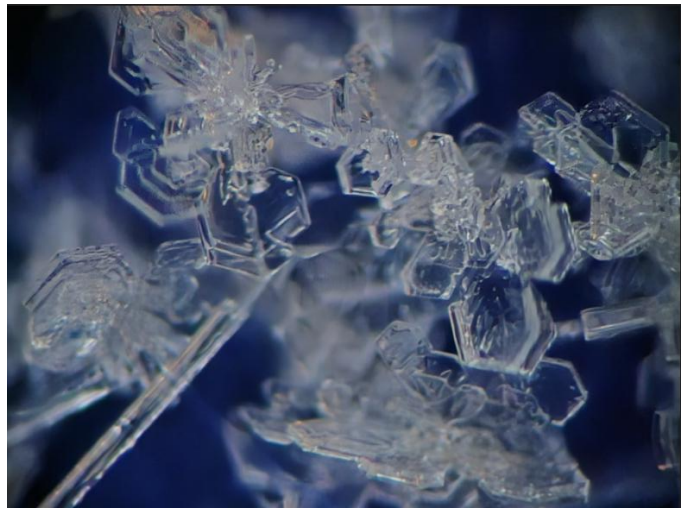
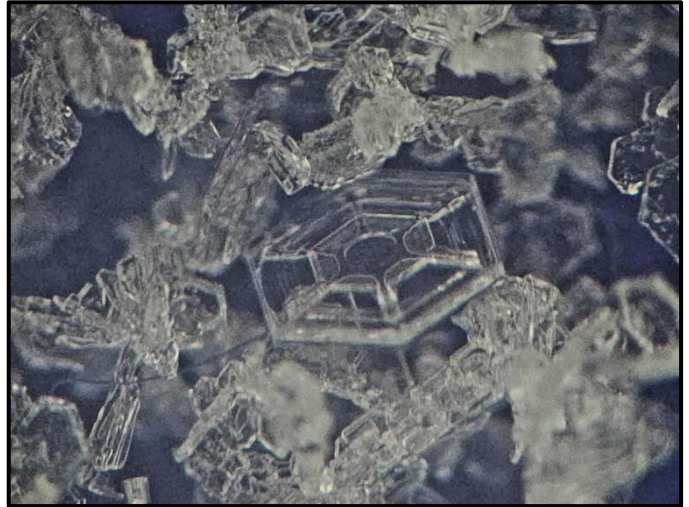
- Mindat Formula:**  $Zn_3Zn_2(OH)_6As[O_3(OH)_3]$
- Elements listed:** [As, H, O, Zn - search for minerals with similar chemistry listed:](#)

## Let it Snow Micromineral Ice Crystals

By Kathy Hrechka, Editor

On February 11, 2025, I anticipated an adventure of photographing snow crystals. The weather forecast predicted eight inches of snowfall in Alexandria from 2pm continuing through the night. The temperature was 32F with 85% humidity when the snowflakes began quietly falling, colliding though the atmosphere.

My outdoor set-up consisted of a table extending slightly beyond the roofline (area capturing snow crystals) on our front porch. I set up my Olympus binocular microscope with my Samsung 23 cellphone attached. 5x5" felt squares were designed as snow collection platforms, for viewing under my scope. Magnification ranged 15–30 powers, depending on number of crystals to be studied. I have learned through the years; each snowfall has a crystal signature formation based on temperature. This snowfall at 32F consisted of hexagonal plates and blocky arm growth. By 5pm, crystals began to form hexagonal straws at 30F. The magical dance of tiny snow crystals became my adventure all day, commencing at 2pm-6pm. The snowfall stopped.



*Micromineral ice crystals 30x by Kathy Hrechka.*

**Desautels Symposium Treasure: 5 in 1**

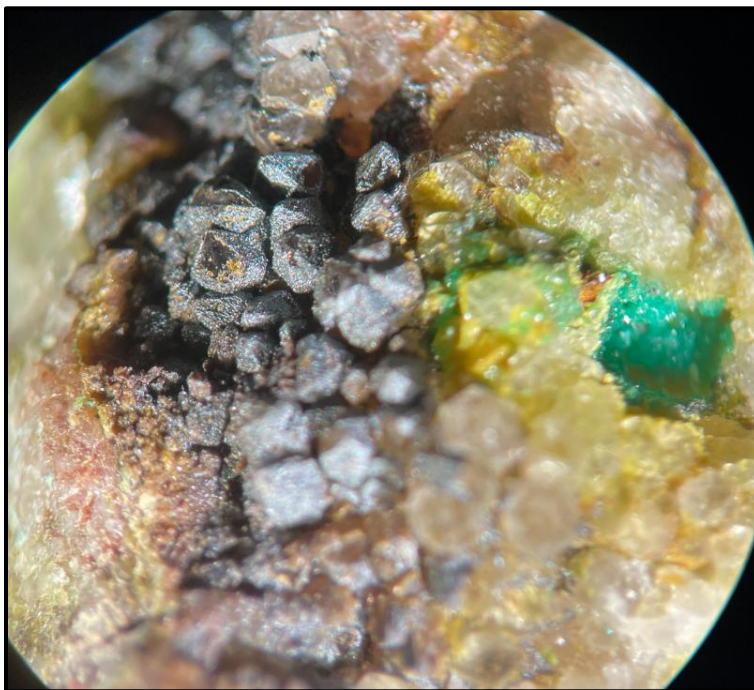
By David Fryauff, PhD President

I encountered a micromineral which was collected in April 1999 and donated at the 2023 or 2024 Desautels Symposium. The minerals present according to dominance are quartz, hematite, pyromorphite, tsumebite, and scrutinyite. Minor amounts of galena and anglesite are also present. In fact, that square hole that is now filled with bright green tsumebite was formerly a galena crystal which had become pseudomorphed by gray-black anglesite before becoming beautiful (and rare) green tsumebite. Also attached is a rather poor photomicrograph of some of the crystallized tsumebite. A wander through the Mindat page for tsumebite includes lots of photos but very few good photos that show the nice monoclinic crystallized form of this Cu-Pb mineral. The 26-year-old styrofoam egg carton that I have contains more than a dozen TN and smaller specimens of tsumebite and a surprising number that show good crystals. I am quite excited to get these samples into the capable hands of Mike Pabst because we have now seen the skillful photomicrography he produces.

*This 15 mm FOV close-up shows 5 mineral species: quartz, hematite, pyromorphite, tsumebite, and scrutinyite from the Mex-Tex mine in Bingham, Hansonburg District, Socorro Co., New Mexico. Photo by David Fryauff*



*Tsumebite on quartz with pyromorphite. FOV = 2.0 mm -- Mex-Tex Mine, Socorro Co., NM USA*





# 49<sup>th</sup> Annual Leidy Microscopical Society Micromount Symposium



## TWO GREAT LECTURES

*SATURDAY*

### **“Diving Into Olivine”**

By P.M.S. member Chris Duerr  
Geologist



### **“The Fascinating World of Diatoms”**

By Bill Dailey

Bill is a collector of high-quality  
samples of diatomite and freshly  
collected diatom samples from all over  
the world for 25 years.



\*Silent Auctions\*Give-Away Tables\*



**Celebrating 100 Years of Microscopical Magnificence**

**March 7<sup>th</sup> – 8<sup>th</sup> Fri. Noon to 6:00 PM**  
**2025 Sat. 9:00 AM to 6:00 PM**

Lunch to be Provided on Saturday with Paid Admission

Table Space for Two Days: \$30.00 for ½ of 6 Foot Table, \$40.00 for Full 6 Foot Table

Visitor's Fee: \$5.00 for Friday, \$10.00 for Saturday (Includes Lunch)

#### **RESERVATIONS & ADMISSIONS:**

Make Checks Payable to: The Leidy Microscopical Society

Mail to: Don McAlarnen, Treasurer

916 Senator Road

East Norriton, PA 19403

For Questions: Contact Don at (610) 584-1364

Or Email: [donmcalarnen@outlook.com](mailto:donmcalarnen@outlook.com)

Same Great Location:

**Advent Lutheran Church**  
**45 Worthington Mill Road**  
**Richboro, PA 18954**

## Micromineralogists of the National Capital Area, Inc.

**Micromount Club Zoom Host:** Steve Sorrell resides in Melbourne, Australia and hosts various geology persons of interest at his micromount meeting each month on Zoom. You can sign up for Steve's programs, while enjoying friendly faces within our geology community around the globe.



<https://crocoite.com/index.php/2023/07/the-micromount-club-zoom-sessions/>

All sessions are held on the third Wednesday of the month (unless noted otherwise) **6am Australian time**. Steve has set up a recurring Zoom meeting, which means you only need to register once, and join as many sessions as you like.

### 2025 Micromount Club Zoom Meetings: 2pm ET

(Please verify your local time zone once signed up).

**February 19:** "Roy Starkey Micros" presented by Martin Stolworthy.

**March 19:** "Minerals from the South of Spain" presented by Henk Smeets.

**April 16:** "Minerals of Japan" presented by Steve Sorrell.

**May 21:** "Crystal shapes: spheres, cubes, fibers and more" presented by Frank Loman.

**June 18:** "Minerals on Stamps" presented by Steve Sorrell.

**July 16:** Topic & Speaker TBD.

*MNCA Editor's note: thanks to Steve Sorrell from Melbourne, Australia, we have been connecting with new mineral friends around the world for the past three years. I have learned that he is a master photomicrographer, as well as an author of mineral books and a talented mineral artist.*

## David Fryauff's 7<sup>th</sup> Grade Minerals



White *mimetite* on yellow ochre/*limonite* matrix from Mina Ojuela, Mapimi, Durango Mexico. 6 mm FOV A specimen I purchased by sending cash in the mail to Harry Sering Minerals in Indiana back in 1964 when I was in 6<sup>th</sup> or 7<sup>th</sup> grade and just starting to get interested in minerals



*Pyroaurite*, pale yellow cluster with white *magnesite* from the Penn-Md serpentine quarry, Lancaster Co., PA. FOV 3mm Collected by DJ Fryauff, Nov 2024.

## Micromineralogists of the National Capital Area, Inc.



American Federation of Mineralogical Societies

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

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

2025 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.



Celebrating over 50 years!

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

[Rock & Gem Magazine Archive : Free Download, Borrow, and Streaming : Internet Archive](#)



Eastern Federation of Mineralogical and Lapidary Societies

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

Communication and Involvement  
Are the Keys to Our Success!

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

### February 2025 Local Geology Club Meetings

**3: Northern Virginia Mineral Club NVMC**  
Meeting 6:30pm Holiday Party with MNCA  
[www.novamineralclub.org](http://www.novamineralclub.org)

**5: Mineralogical Society of the District of Columbia MSDC** Meeting 7:30pm on Zoom  
[www.mineralogicalsocietyofdc.org](http://www.mineralogicalsocietyofdc.org)

**10: The Gem, Lapidary and Mineral Society of Montgomery County, Maryland – GLMSMC**  
Meeting 7:30 pm [www.glmsmc.com](http://www.glmsmc.com)

**?: The Gem, Lapidary and Mineral Society of Washington, DC – GLMS-DC** meeting 7 p.m.  
Chevy Chase Community Center, 5601 Connecticut Ave; Washington, DC. [www.glmsdc.org](http://www.glmsdc.org)

**19: Baltimore Mineral Society BMS** meeting  
[www.baltimoremineralsociety.org](http://www.baltimoremineralsociety.org)

**24: Micromineralogists of the National Capital Area, Inc. MNCA** Meeting 3pm Kings Park Library  
[www.dcmicrominerals.org](http://www.dcmicrominerals.org)

### MNCA Dues are Due 2025

Note: MNCA members, remember to pay your dues for 2025. Details are found on page 20. Michael Pabst, Treasurer

## Micromineralogists of the National Capital Area, Inc.



### Geo Word of the Day and its definition

**allokite** (al-lok'-ite) A clay mineral intermediate in structure between kaolinite and allophane.

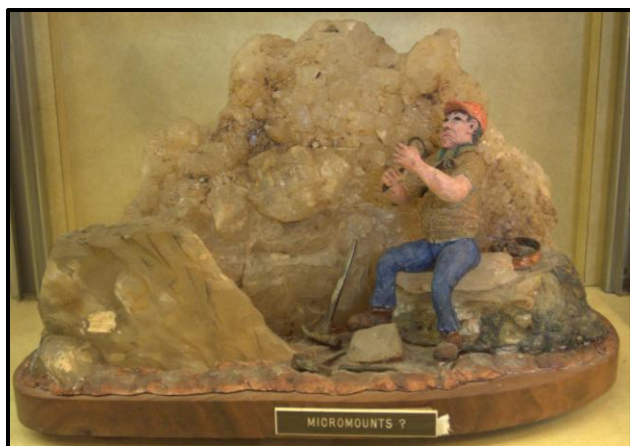
**bastite** (bas'-tite) An olive-green, blackish-green, or brownish variety of serpentine mineral resulting from the alteration of orthorhombic pyroxene (esp. enstatite), occurring as foliated masses in igneous rocks, and characterized by a schiller (metallic or pearly luster) on the chief cleavage face of the pyroxene. Syn: *schiller spar*.

**dixenite** (di'-xen-ite) A deep copper-red platy rhombohedral mineral  
 $\text{CuFeMn}_{14}(\text{OH})_6(\text{AsO}_3)_5(\text{AsO}_4)(\text{SiO}_4)_2$ .

**gebhardite** (geb'-hard-ite) An adamantine brown monoclinic secondary mineral, originally found at Tsumeb, Namibia:  $\text{Pb}_8(\text{As}^{3+}_2\text{O}_5)_2\text{OCl}_6$ .

All terms and definitions come from the [Glossary of Geology, 5th Edition Revised](#).

GeoWord of the Day is brought to you by: EnviroTech! [envirotechonline.com](http://envirotechonline.com).



*Micromounts? Geology curio collection at Wild-aces in Little Switzerland, North Carolina. Michael Pabst is teaching photography on May 12-18, 2025.*

Micromineralogists of the National Capital Area  
[www.dcmicrominerals.org](http://www.dcmicrominerals.org)

We are meeting at Kings Park Library in Burke, VA  
3-5:30pm (forth Monday to Wednesday)

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

President: David Fryauff  
Vice President: Jeff Guerber  
Secretary: John Sanborn  
Treasurer: Michael Pabst  
Editor/Historian: Kathy Hrechka  
Website: Kathy Hrechka  
AMC Conference: open

### 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 Dues 2025**  
\$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 the 1st of each month.**  
**The Mineral Mite will be emailed by the 5th.**  
**No newsletter July/August**

**Inducted into Editor's Hall of Fame – 2018**  
**EFMLS Trophy 2021 Small bulletins**



### Newsletter inputs:

\* David Fryauff  
\* Jeff Guerber  
\* Michael Pabst  
\* Peter Chin  
\* John Sanborn  
\* Kathy Hrechka  
\* Don McAlarnen

