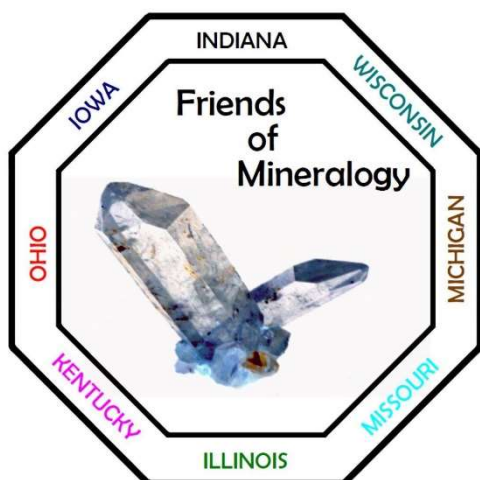


FRIENDS OF MINERALOGY

MIDWEST



Midwest Chapter Newsletter for January – February 2020



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Reflections – Ken Bladh

Please read the minutes from the November business meeting in Cleveland located on page 5 of this Newsletter. Frank's narrative accurately describes what happened. I hope that you take a few moments to reflect on the President's annual report and suggestions on activities to continue and new ones to undertake in 2020. The officers for 2020 identified in the minutes are still interested in self-nominations for President or Vice President for Programs. Both Randy and I will be available to advise new holders of those offices. You don't have to be a former officer to qualify. Please contact me by email (kbladh@wittenberg.edu) if you are interested and need more information or would like to nominate someone else.

The 8th FM Midwest Symposium, being organized by Randy Marsh, has three great invited speakers scheduled with more to come. Call for abstracts from students went out last week and appears elsewhere in this Newsletter. Please keep March 14th reserved on your calendars. Our host again will be the Miami University Dept. of Geology & Environmental Earth Science.

Classic Ohio Mineral Locality – Pugh quarry (update)

I asked for access to unusual specimens from Pugh quarry in the previous Newsletter and shared photos of 3 examples. Afterwards, I viewed and photographed 8 micro mounts (Janet Clifford Collection) including this interesting purple fluorite cube with corner and edge modifications.



I also received invitations to visit the Pugh collections and “excess/trading” material of two long-time, advanced regional collectors. I greatly appreciate this assistance with my project and would still welcome more invitations or suggestions of unusual specimens that you have seen on display somewhere.

Classic Indiana Mineral Locality – Mershberger quarry

Clearly calcite is the mineral of interest here. I am curious about how many types of overgrowths (crystal forms involved), phantoms and inclusions are common. These two photos illustrate a phantom and unusual termination (1.5 cm calcite – upper photo) and a partial overgrowth leading to a phantom with marcasite inclusions (1.5 cm calcite – lower photo). Do any of you have other examples that I could view and photograph?



Treasurer's Report

Treasurer@fommidwest.org

2019 Summary

Friends of Mineralogy Inc Midwest Chapter

2019

2019 Interim Financial Statement - 12/15/19	Amount	Notes
Beginning Account Balance	\$7,431.72	includes 37 2019 registrations
2019 Dues Amt. Received in 2019	\$1,260.00	
2020 Dues Amt. Received in 2019	\$560.00	
Total Dues Amt. Received in 2019	\$1,820.00	
2019 symposium donations received in 2019	\$190.00	
2020 symposium donations received in 2019	\$150.00	
Total Symposium Donations	\$340.00	
Fund raising - Cincinnati Show swap table donations	\$451.00	
General Fund donations	\$230.00	
other income	\$0.00	
Total Non-Dues income	\$1,021.00	
Total Income	\$2,841.00	
Symposium expense - shared speaker expense CMS	\$296.16	
Symposium expense - refreshments, etc.	\$123.06	
Symposium expense - speaker awards	\$350.00	
Total Symposium expenses	\$769.22	
2018 Swap table - expense	\$58.00	
CMS Show Educational Exhibit award	\$100.00	
Web domain registration, security and hosting	\$0.00	
Ohio State continued operations registration	\$0.00	
insurance payment	\$650.00	budget item
National Dues payment 1	\$212.00	52 members 2019, 1 from 2018
National Dues payment 2	\$192.00	48 members 2019
Total National Dues Paid	\$404.00	
Total Disbursements	\$1,981.22	
2019 Surplus/Shortfall	\$859.78	includes 2020 dues and donations
Current Account Balance	\$8,291.50	
2019 Symposium Fund from 2018	\$300.00	ear-marked donations
2019 Symposium Fund total	\$490.00	"
2020 Symposium Fund	\$150.00	"
2019 memberships paid in 2018	37	\$740.00
2019 memberships paid in 2019	63	\$1,260.00
2019 total members	100	\$2,000.00
2019 new members	8	
2019 previous members who lapsed in 2018 and re-registered	1	
2019 non-renewals	24	
2019 membership gain(loss)	-15	
2020 memberships deposited in 2018	0	
2020 memberships deposited in 2019	28	
2020 National Dues amt unpaid	\$112.00	

Jeff Spencer – Treasurer
Friends of Mineralogy Midwest Chapter



**Friends of Mineralogy, Inc. Midwest Chapter
Annual Business Meeting Minutes - November 2, 2019
Cleveland Museum of Natural History
Cleveland, Ohio**

President Bladh welcomed those who attended the meeting.

Called to order by President Kenneth Bladh at 2:52 PM, after declaring a quorum. Fourteen members were present during the meeting. The following officers were present: Kenneth Bladh, President; Randy Marsh, Vice President Programs; Jeff Spencer, Treasurer; Frank Konieczki, Secretary. Vice President Field Trips Reggie Rose and Liaison Clyde Spencer were unable to attend. The meeting took place in conjunction with the 2019 Micromineral Symposium that was held by the Micromineral Society of the Cleveland Museum of Natural History.

The following items/topics were presented and discussed:

Approval of Previous Meeting Minutes:

President Bladh asked if any corrections to the June 8, 2019 meeting minutes that were published in the last newsletter were necessary. He displayed the minutes to the attendees for review. No changes to the minutes were suggested or adopted by the attendees. A motion was requested and made to accept the minutes as published, and the motion was passed by unanimous vote. (Hall/RMarsh/P).

Approval of Annual Business Meeting Agenda:

The agenda outline was presented to those in attendance. President Bladh asked if there were any comments or propositions for changes to the agenda. No changes were recommended, and the motion introduced to approve the agenda passed without opposition (RMarsh/JSpencer/P).

Officer Reports:

Treasurer's Report: Treasurer Jeff Spencer stated that there have been no changes since the last report that was published in the newsletter.

Vice President Programs Report: Randy Marsh reported that the 2020 FM Midwest Symposium will take place on March 14, 2020, and the keynote speaker will be John Jaszczak. He indicated additional speakers are being sought.

Vice President Programs Marsh is interested in seeing who may be interested in organizing the sales table at next year's Cincy GeoFair, as his availability may be limited. He will help as much as possible, and he reminded attendees that donations of materials by members are welcomed and appreciated.

Vice President Field Trips Report: President Bladh reported for Vice President Reggie Rose, who was unavailable to attend the meeting. The last FM field trip for the year will be at (Graymont Dolime Quarry) on November 16.

Old Business:

John Medici stated he had been involved with FM Midwest since it was organized, and he was not sure when the acronym FoM was coined, because the organization was initially known as FM Midwest, not FoM Midwest. He also noted that our parent organization is always referred to as FM National, so he believed our chapter's condensed name, including the acronym, should revert to FM Midwest. President Bladh, as a point of clarification, observed that this would more logically fit under For the Good of the Order, but accepted discussion of the matter. After brief discussion, a motion to subsequently refer to FoM Midwest as FM Midwest was initiated (JMedici/Cook/P) as carried without opposition. (Secretary's note: these minutes have adopted the change, save the current paragraph, since they were formulated after the meeting and vote.)

New Business:

The nomination and election of officers was discussed. President Bladh indicated that he was no longer able to serve as President, owing to other commitments. He had asked the other current officers (Randy Marsh, Jeff Spencer, Reggie Rose, Clyde Spencer, and Frank Konieczki) if they would be willing to continue in their current roles for the coming year. Three officers, namely Vice President Field Trips Reggie Rose, Treasurer Jeff Spencer and Secretary Frank Konieczki, indicated they would be willing to continue serving in their current capacities. Vice President Programs Randy Marsh and Liaison Clyde Spencer indicated that they would not seek reelection for the coming year. President Bladh asked if there was anyone willing to serve for any of the positions, including the three positions that would be vacant if no nominations were received for those offices. After discussion, there was one self-nomination for an office, specifically Randy Marsh for Liaison to FM National. President Bladh observed that the Executive Board may appoint an officer to a position after the meeting. Jeff Spencer suggested Mike Royal might be a good candidate for office. The floor was opened for nominations, and the proposed slate of officers placed on the ballot was: Reggie Rose, Vice President- Field Trips; Jeff Spencer, Treasurer; Randy Marsh, Liaison Officer; Frank Konieczki, Secretary. The floor was closed for nominations (Hall/JSpencer/P). A motion was made to accept the aforementioned slate of officers, and the motion was carried by unanimous vote (JDaly/Fox/P).

Annual dues were briefly discussed. The current amount had been set at \$20 per individual with no family discount because those under 18 cannot attend FM field trips. The question of whether the current amount would constitute a burden to (college) students was posed, and the lone student who attended the meeting indicated that \$20 was not an undue burden. A motion was introduced for dues to remain the same (\$20 per member) in 2020, and the motion passed unanimously (Konieczki/JSpencer/P).

The minimum number of meetings was discussed. President Bladh noted that the Chapter had not met the requirement of six meetings for years, and that the meetings for the last few years have been associated with the following events: FM Midwest Symposium (March); GeoFair (May); Micromineral Symposium (November). He also noted that a Chapter meeting was held this year at the Mansfield show. President Bladh asked if the number of meetings should be reduced, especially since there typically is not enough pending business to warrant six meetings. John Medici suggested holding quarterly meetings. Further discussion ensued, and there was general agreement that the 3rd quarter was a difficult time to schedule a meeting, unless it was in

conjunction with a scheduled field trip, and that previous suggestions for such meetings did not result in substantial interest. Ann Cook introduced a subsequent motion to change the minimum number of meetings to three per year, and the motion was passed without dissent (Cook/JSpencer/P).

The budget for the annual symposium was briefly discussed. The budget typically has been \$1,000, and the funds have been used to defray travel costs for speakers, etc. President Bladh asked what amount should be set aside for the coming year. Vice President Programs Randy Marsh indicated that \$1,000 was reasonable and it should cover the expenses. A motion was made to set the 2020 symposium budget at \$1,000 was made and passed unanimously (RMarsh/JSpencer/P).

The last item brought forth as new business was modification of the field trip guidelines. President Bladh noted that the matter had been discussed extensively among the officers because of a pair of recent instances suggested amendments to the guidelines were advisable. The amendments would align our rules with safety training, and they would also codify penalties for unsafe and/or discourteous behavior. He noted the proposed changes had already been sent to members in an e-mail message, and during the meeting he displayed the guidelines, including all of the changes in highlighted text, for the attendees to review. He stated the burden of compliance would fall on the field trip coordinators. President Bladh observed that the Field Trip Committee is determined by the Chapter president upon suggestion of the Vice President. Sharon Fox noted that the members also bear an individual responsibility for taking all rules outlined by quarry staff seriously, because inappropriate behavior may result in not being invited back to collecting locations. President Bladh asked if there was opposition to the revisions, or if any members had suggestions for changes to the wording. Janet Clifford suggested substituting the phrase “involved individuals” for the word “culprit”, and there was unanimous agreement with the proposed substitution. A motion was made to adopt the revised field trips guidelines, as reviewed and discussed, and the motion passed unanimously (JMediciSr/Konieczki/P)

President's Annual Report:

President Bladh discussed the following topics:

1. Activities in 2019 that respond to the survey of FM Midwest members in 2018
 - a) Have chapter meetings closer (less than 2-hour drive) and tied to an event
 - March: FM Symposium at Miami University – Chapter meeting
 - May: Cincinnati GeoFair – Chapter meeting on Saturday
 - June: Mansfield Show – Chapter meeting on Saturday
 - November: Cleveland Micromineral Symposium – Annual business meeting
 - b) Present and FM Midwest presence at more regional mineral events
 - Geofest 2020: Indiana State Museum – Information Table
 - October: Detroit Show – FM Info Table on the main floor
2. Collecting field trips (5) organized by Reggie Rose – Vice President Field Trips
 - a) Lafarge Quarry, Marblehead, OH – April 11, 2019
 - b) Stoneco - Auglaize quarry, Junction, OH – June 15, 2019
 - c) Great Lakes Aggregates, Sylvania Minerals, South Rockwood, MI – July 13, 2019
 - d) Melvin Stone quarry near Williamsport, OH – August 24, 2019
 - e) Graymont Dolime quarry, Genoa, OH - November 16, 2019

Additionally, a non-FM organized event was open to FM members– Dolomite Products Inc. quarry, Walworth, NY - October 12-13, 2019

3. Chapter activities that raised public awareness of minerals and mineralogy and should be continued and [supplemented with some new activities?]
 - a) Cincinnati GeoFair: Swap Table, Best Educational Exhibit Award, FM Midwest Exhibit, Chapter meeting.
 - b) Mansfield Show: Chapter meeting. [public talks on minerals; FM Midwest Exhibit]
 - c) Detroit Show: Chapter Info Table. [FM Midwest Exhibit]
 - d) Cleveland Micromineral Symposium: Annual Chapter Meeting. [Micromineral Photo Award]
 - e) FM Symposium: Chapter meeting, awards for best student papers. [Award for Best Midwest Mineral Specimen – cabinet, thumbnail, single crystal, self-collected]
 - f) Columbus Show: Nothing now. [Why not?]
 - g) Reggie Rose and Scott Kell will attend the OAIMA Tradeshow - November 2019.
4. Financial condition of the chapter was reported by Treasurer Spencer and published in the November newsletter. An audit was completed of the previous year by Frank Konieczki. No issues were reported.
5. Membership has decreased slightly to 99 paid members in 2019.
6. Volunteer Opportunities
 - a. Program Committee (First VP) – contact Randy Marsh
 - b. Field Trip Committee (Second VP) – contact Reggie Rose or Clyde Spencer
 - c. Chair of Fund Raising – contact Jeff Spencer
 - d. Nominating Committee – contact Ken Bladh
 - e. Audit Committee – contact Jeff Spencer
7. President Bladh extended his personal gratitude for the mentoring received during his tenure, and also for the patience and dedicated work on behalf of the Chapter by the current officers over the past 3 years.

For the Good of the Order: Please refer to Old Business.

A motion to adjourn was entered (Cook/JMediciSr))

Meeting adjourned: 3:37 PM.

Respectfully submitted by Frank Konieczki, Secretary

Call for Abstracts

Friends of Mineralogy Midwest Chapter 8th Annual Mineralogical Symposium

Hosted by the Miami University
Dept. of Geology & Environmental Earth Science

Saturday, March 14, 2020
Miami University, Oxford, Ohio

Deadline for Submission February 15, 2020

We are soliciting abstracts for short talks on topics of **specimen mineralogy**, including species mineralogy, topographic mineralogy, crystallography, the origin of mineral deposits, history of mineralogy and related subjects. Previous speakers have included college students, advanced field collectors, college professors, museum curators, and professional geologists.

Submitted abstracts will be reviewed and accepted or rejected by a panel consisting of Drs. Kenneth Bladh, Randy Marsh and John Rakovan. All accepted abstracts will be published in the Program Notes and on the FM webpage with author's permission.

About FM and the Symposium

FM's objective is to promote, support, protect and expand the collecting of mineral specimens, while furthering the recognition of the scientific, economic, and aesthetic value of minerals and mineral collecting. The purpose of the symposium is to bring together professional and amateur mineral enthusiasts to share info of common interest, to build a local mineralogical community and to provide college students (graduate and undergraduate) with an opportunity to share their work and receive public recognition for it.

Guidelines for Abstracts

Length: *Maximum of 600 words.*

Figures: *Maximum of 2 figures.*

Submission: Send the text as a Word (RTF) file AND as a PDF file, and the figures as high-resolution jpg files to Kenneth Bladh at kbladh@wittenberg.edu. A pdf version is needed in case some special characters don't show in our version of Word. Twelve-point Times Roman is the font standard.

Projected Timeline

- 1) Abstracts received by February 15, 2020
- 2) Notification to authors by February 22, 2020
- 3) Final editorial changes by March 1, 2020

Abstract Format

NEW LOCATION FOR SMYTHITE INCLUSIONS
IN BARITE NEAR BLOOMINGTON, IN. J.Q. Public¹
and I.M. Mineral².

¹52 Gravel Banger Lane, Rhyolite, NV.

²Dept. of Geology, College Corner, OH.

In the fall of 2015, excavation for a drive-thru wedding chapel in Manlius exposed a vein of unusual mineralogy...

- Name of the presenting author is underlined.
- Name, address, phone number, and e-mail of the presenting author should be added to the bottom of the abstract.
- Figure captions should be included after the text as appropriate.

Presentation Format

Presentations must be in Microsoft PowerPoint or PDF format. A computer and projection facilities will be supplied.

Length: The submitted talk session is divided into 15-minute blocks. Plan on a 12-minute presentation with several minutes to answer questions from the audience.

Awards for Student Presentations

Awards will be given for the best student presentations. 1st place will receive \$200, 2nd place will receive \$100, and 3rd place will receive \$50 from the FM Midwest Chapter.



Investigating the Interaction between Sphalerite and Ultraviolet Light

by Calvin Harris, Chicago, IL

Introduction

Sphalerite, an abundant and chief source of zinc, is found in various geological settings. It can form where hydrothermal fluids from igneous or contact metamorphic activity infill fractures in carbonate rock. Example of deposits include Mississippi Valley Type (MVT) or marble formations. Sphalerite can display fluorescence and phosphorescence when exposed to several different wavelengths of ultraviolet (UV) radiation. The fluorescence is impressive because of the number and richness of colors that can be produced. The phosphorescence can be long lasting and at times spectacular when multiple phosphors respond concurrently.

The purpose of this paper is to demonstrate how sphalerite from five localities can be affected by four different ultraviolet wavelengths. The variety of locations can show how different geological settings can impact the quality of luminescent responses. A summary of possible chemical agents known as activators that can cause luminosity will be offered. The knowledge gleaned from this study can serve as an introduction for comprehensive educational study. Additionally, this information can be used by fluorescent mineral collectors, when acquiring sphalerite specimens.

Specimen Descriptions

The specimens used for this study are from my collection of fluorescent minerals and were collected from locations near Bisbee, Arizona; the Franklin mine, Franklin, New Jersey; Hasselhojden mine, Varmland, Sweden; Horn Silver mine, Beaver County, Utah and Raibl mine(s), Cave del Predil Tarvisio, Udine Province, Friuli-Venezia Giulia, Italy.

The specimen from Bisbee, Arizona is irregularly shaped and approximately 3.25"x 1.75"x 1.5" in size. It is dark brown and generally unremarkable. No other minerals are associated with this sample. Although the exact origin is not known, likely localities include Junction Shaft mine, the Campbell Shaft mine or other nearby locations. Essentially, these deposits are within limestone formations (Mississippian Escabrosa formation, etc.) and in close proximity to igneous intrusions (dikes and sills).

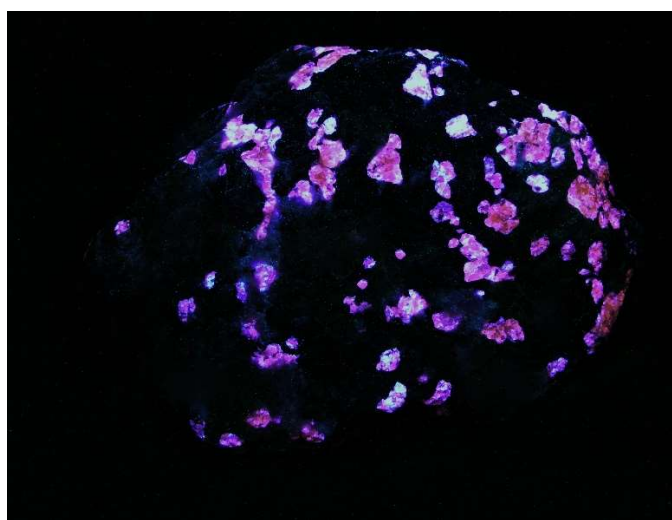


Bisbee, AZ under 370nm longwave light

The sphalerite sample from Franklin mine, Franklin, Sussex County, New Jersey was collected from a mine that is situated within the deposit known as Franklin marble. Ancient marine sediments were infused with metal bearing fluids from hot springs as they formed as layered limestone. Subsequently, the formations became elevated and were eventually metamorphosed into marble. Later, pegmatites formed and during development, hydrothermal solution was introduced and changed some minerals in the host rock. This specimen consists of sphalerite, willemite and franklinite disseminated as masses and grains of various sizes and colors including dark brown, white and black. It is wedge shaped and measures 4"x 2.75"x 2.25".



Franklin Mine under artificial light



Franklin Mine under 370nm longwave light

Hasselhojden mine, Grythyttan, Hallefors, Varmland, Sweden is a limestone quarry, where MVT minerals such as calcite and galena are formed, as well as, a suite of secondary minerals such as hydrozincite and hemimorphite. The sample from this site consists of a sphalerite vein that runs near one edge of a calcite matrix. It is roughly disc shaped and measures approximately 3"x 2.75"x 0.75". It is entirely white, except for patches of metallic gray and reddish-brown substances on one side; the other side has similar, but less prominent features.

The specimen from Horn Silver mine, San Francisco Mountains, Beaver County, Utah, has a drab appearance consisting of tan and gray areas. Its dimensions are 5.38"x 2.38"x 2.88". Sphalerite developed as quartz monzonite intruded limestone formations at a depth below 600 feet.

The Raibl mine and similar diggings are situated within dolomitic limestone associated with upper Permian limestone. Areas of the sample consisting of dolomite exhibit a higher degree of fluorescence and phosphorescence than the sphalerite. Overall, the specimen measures 3"x 2.5"x 2.78" and consists of brown, tan, white and gray areas that are interwoven. Small areas of gray metallic material are also present.

Testing Procedures

Three SuperBright II lamps used for this study emit the following wavelengths: 254nm (short-wave), 312nm (mid-wave), 351nm (long-wave). A SuperBright III unit that emits 370nm long-wave wavelength was also used. These instruments are manufactured by UV SYSTEMS, INC., based in Renton, Washington. All of the units were operated using a portable battery unit that is distributed by UV SYSTEMS, INC. Testing was conducted in a dark environment to ensure meaningful observation.

Fluorescence was determined by placing the ultraviolet lamps some 3-4 inches from the specimen.

Evaluating phosphorescence was conducted by placing a UV light source about 1 inch from the specimen; an exposure time of either 10 or 25 seconds proved adequate for careful observation. Evaluating phosphorescence was conducted before viewing fluorescence to avoid eye re-adjustment to a dark environment.

Precautions against over-exposure to UV rays include using safety eye glasses with a Z87 rating and placing a specimen on a stand or other support for skin protection.

Results of Specimen Interaction with UV Radiation

Key to Abbreviations: **fl** (fluorescence); **phos** (phosphorescence).

Locality	SW 254 nm	MW 312 nm	LW 351 nm	LW 370 nm
Bisbee, AZ	fl: burnt orange with sky blue speckles; moderate intensity. phos: burnt orange, weak intensity w/25 second exposure, duration 1-2 second very localized.	fl: burnt orange, moderate intensity. phos: burnt orange, weak intensity w/25 second exposure; 4 second duration in a very localized area of specimen.	fl: burnt orange moderate intensity. phos: orange, low intensity, 25 second exposure w/4 second duration in a larger area of specimen than MW 312nm.	fl: burnt orange, bright/moderate intensity. phos: burnt orange moderate/low intensity, 25 second exposure; 4-5 second duration in larger area of specimen than MW 312nm.
Franklin mine	fl: orange/purple w/blue, moderate intensity. phos: peach, moderate intensity. 17 second duration with 25 second exposure.	fl: pinkish blue, moderate intensity. phos: peach, moderate bright intensity. 30+ second duration with 10 second exposure.	fl: orange + blue, moderate intensity. phos: transition from blue-violet to peach to orange moderate intensity. 30 second duration with 10 second exposure.	fl: orange + blue, moderate/bright intensity. phos: transition from blue-violet to peach to orange moderate intensity. 33 second duration with 10 second exposure.

Hasselhojden mine	fl: yellow-orange, mod/dim intensity. phos: yellow-orange moderate/bright intensity. 60+ second duration with 10 second exposure.	fl: yellow-orange, bright intensity. phos: yellow-orange, bright intensity. 60+ second duration with 10 second exposure.	fl: yellow-orange, bright intensity. phos: yellow-orange, bright intensity. 60+ second duration with 10 second exposure.	fl: yellow-orange, bright intensity. phos: yellow-orange, bright intensity. 60+ second duration with 10 second exposure.
Horn Silver mine	fl: burnt orange with yellow spots, moderate/low and low intensity, respectfully. phos: multi-colored (rust, orange, yellow, green) with moderate/low intensity. 12 second duration with 25 second exposure.	fl: burnt orange w/small yellow area, moderate bright intensity. phos: multi-colored similar to SW; distinct decline of intensity from bright to low. 22+ second duration with 25 second exposure.	fl: burnt orange with bright intensity coupled with moderate bright orange, as well as, green spots. phos: multi-colored, bright intensity. 47+ second duration with 25 second intensity.	fl: same/similar to LW 351nm. phos: multi-colored, bright intensity. 60+ second duration with 25 second intensity.
Raibl mine	fl: crimson color, low intensity. phos: indeterminate with 10 second exposure.	fl: crimson color, medium/low brightness. phos: indeterminate with 10 second exposure.	fl: burnt orange, moderate brightness. phos: indeterminate with 10 second exposure.	fl: similar to LW 351nm. phos: indeterminate with 10 second exposure.

Discussion

The longwave wavelengths produced the brightest fluorescence and phosphorescence as expected. This feature is well known among researchers and fluorescent mineral collectors and is well documented in publications that are readily available. The mid-wave radiation provided impressive results, but not as consistent as longwave light. The shortwave emission produced the least quality of luminescence.

The results were impressive in terms of chromatic response and duration of phosphorescence. The phosphorescent display exhibited by the Franklin mine and Horn Silver mine specimens were noteworthy with the development of colors displayed while phosphorescence progressed.

The Raibl mine specimen was atypical of the samples investigated because of the chromatic fluorescent response and the luminosity produced by the dolomite. This luminosity is characteristic of the responses attributed to organic activators associated with certain carbonate minerals. The luminescent effects of the dolomite interfered with the weaker effects of the sphalerite, which hindered assessment. Note: This specimen was subjected to 25 second exposure times of longwave (351nm) and (370nm) radiation to generate phosphorescence. However, the results were no more conclusive than with 10 second exposure times. Since a determination of luminosity could not be made, additional testing was not conducted.

Several types of activators in sphalerite can cause a variety of chromatic responses to ultraviolet radiation. Manganese, for example, causes orange fluorescence. Copper can generate yellow, orange and orange-red fluorescent responses; when coupled with aluminum, a green fluorescence and phosphorescence can occur. A blue response is attributed to silver and also copper.

Evidently, sphalerite exhibits a wide range of duration times regarding phosphorescence and a correlation between this characteristic and mineralogical processes is apparent.

This survey is a rudimentary study and since the results are based on a minimum number of samples, additional specimens are needed to better understand the luminescent characteristics of sphalerite.

Selected References

Robbins, Manuel. *The Collector's Book of Fluorescent Minerals*. 1983. Van Nostrand Reinhold Company, Inc., pp. 80-81.

Stoertz, George E. "The Further Side of Brightness, Part I: Phosphorescence of Minerals and Other Solids." *Journal of the Fluorescent Mineral Society*, 1992 Vol. 18, p. 29.

Robbins, Manuel. *Fluorescence, Gems and Minerals Under ultraviolet Light*. 1994. Geoscience Press, Inc., Phoenix, Arizona, pp. 55-61.

Verbeek, Earl R. Activators in Fluorescent Minerals, Part 2: Some Notable Fluorescent Minerals and Mineral Groups. *Ultraviolet Light and Fluorescent Minerals*. 1995. Thomas S. Warren, Publisher, pp. 178-179.

Stoertz, George E. "The Further Side of Brightness, Part II: Fluorescence of Minerals and Other Solids" *Journal of the Fluorescent Mineral Society*, 2000, Vol. 21, p. 40.

Mindat,(2018) reference search: Hasselhojden mine, Grythyttan, Hallefors, Varmland, Sweden.

Properties-Horn Silver Mines, Inc. (2017) <https://www.hornsilvermines.com>

Mindat,(2019) reference search: Raibl Mines, Cave del Predil Tarvisio, Udine Province, Friuli-Venezia Giulia, Italy.



Friends of Mineralogy Midwest Chapter
8th Annual Mineralogical Symposium
 Hosted by the Miami University Karl E. Limper Geology Museum

DATE: Saturday March 14, 2020

TIME: 9:00 AM – 5:00 PM

LOCATION: 152 Shideler Hall (Spring Street & Patterson Ave), Miami University, Oxford, OH

CONTACTS: Randy Marsh (vpprograms@fommidwest.org or 513-515-7890)

Ken Bladh (president@fommidwest.org or 937-390-1742)

STATEMENT OF PURPOSE: FM's objective is to promote, support, protect, and expand the collecting of mineral specimens, while furthering the recognition of the scientific, economic, and aesthetic value of minerals and mineral collecting. The purpose of the symposium is to bring together professional and amateur mineral enthusiasts to share information of common interest, to build a local mineralogical community and to provide students with an opportunity to share their work and receive public recognition for it.

DETAILED AGENDA:

9:00-9:30	FM Midwest Chapter Meeting (open to all)
9:30-10:30	<i>Dr. John Jaszczak</i> ¹ : Criminal Minerals
10:30-11:00	<i>Dr. Travis Olds</i> ² : Adventures for new minerals from Utah, Colorado, & the Czech Republic
11:00-11:30	<i>Dr. Claire McLeod</i> ³ : Extraterrestrial Mineralogy: Insights from 5 new Lunar Meteorites
11:30-1:00	Lunch Break Armstrong Student Center and Museum Viewing
1:00-1:30	<i>Dr. John Rakovan</i> ⁴ : Split Minerals
1:30-2:00	TBD
2:00-2:30	TBD
2:30-2:45	Break
2:45-4:45	Student Talks (20 min each)
4:45-5:00	Awards for Student Talks

¹ *Dr. John Jaszczak is Professor and Interim Chair, Department of Chemistry, Michigan Technical University.*

² *Dr. Travis Olds is the new curator of the mineral collection at the Carnegie Museum of Natural History.*

³ *Dr. Claire McLeod is an Assistant Professor of Petrology and Geochemistry at Miami University. Her research involves looking at the mineralogical make up of returned Apollo samples and lunar meteorites in order to evaluate the geological history of the Moon.*

⁴ *Dr. John Rakovan is a Professor of Mineralogy at Miami University and an executive editor of Rocks & Minerals.*



Friends of Mineralogy Midwest Chapter Field Trip Waiver/Hold Harmless Agreement

1.0 I, _____, desire to participate in Friends of Mineralogy Inc. Midwest Chapter (“FMMC”)

(please print full name of participant)

field trips/activities (“Activity”). I fully understand and appreciate the dangers, hazards and risks inherent during any Activity, in the transportation to and from the Activity, and in any independent research or activities I undertake as an adjunct to the Activity, which dangers include but are not limited to serious and mortal injuries and property damage.

2.0 Knowing the dangers, hazards, and risks of such Activity and research, and in consideration of being permitted to participate in the Activity and research, on behalf of myself, my family, heirs, assigns, my estate and anyone claiming through me, release waive, forever discharge and covenant not to sue FMMC, it’s officers, directors, members, agents or third parties (hereafter called the “Releases”) connected with the FMMC Activity of any and all claims, loss, injury, damage, demands, actions, causes of action, costs, and expense of every nature, known or unknown for damage to personal property, personal injury, death, as well as any emotional or psychological harm, or damages or loss of reputation, employment, contract, property rights and due process.

I further agree to assume all the risks and responsibilities known or unknown surrounding my participation in the Activity, including transportation to or from, or any independent research or activities undertaken as an adjunct thereto. I understand the activities have inherent risks and I understand those risks and assume responsibility to protect myself from those risks and acknowledge that FMMC cannot foresee all risks and hazards.

3.0 I understand and agree that Releases do not have medical personnel available at the location of the Activity. I understand and agree that Releases are granted permission to authorize emergency medical treatment if necessary, and that such action by Releases shall be subject to the terms of this agreement. I understand and agree that Releases assume no responsibility for any injury or damage which might arise out of or in connection with such authorized emergency medical treatment.



4.0 In signing this Release, I acknowledge and represent that I have fully informed myself of the content of the foregoing waiver of liability and hold harmless agreement by reading it before I sign it, and I understand that I sign this document as my own free act and deed; no oral representations, statements, or inducements, apart from the foregoing written statement have been made. I understand that the corporation (FMMC) does not require me to participate in this Activity, but I want to do so, despite the possible dangers and risks and despite this Release. I further state that I am at least eighteen (18) years of age, and fully competent to sign this Agreement – and that I execute this Release for full, adequate, and complete consideration fully intending to be bound by the same. I further state that there are no health-related reasons or problems which preclude or restrict my participation in the Activity, and that I have adequate health insurance to provide and pay for any medical costs that may be attendant as a result of injury to me.

5.0 I further agree that this Release is in effect in perpetuity once executed, unless revoked in writing and shall be construed in accordance with the laws of the state in which FMMC is incorporated, Ohio. If any term of this provision of this Release shall be held illegal, unenforceable, or in conflict with any law governing this Release, the validity of the remaining portions shall not be affected thereby.

IN WITNESS WHEREOF, I have executed this Release this ____ day of the month of _____, 20 ____.

Participant Signature: _____

Address: _____, _____, _____, _____
Street City State Zip Code

Phone (with area code): _____ **email:** _____

Emergency Contact: _____ **Phone (with area code):** _____

Witness Signature (must be at least 18 years old): _____

FRIENDS OF MINERALOGY, INC.

Midwest Chapter APPLICATION FOR MEMBERSHIP MEMBER DATA SHEET

Please fill in this application and mail it along with your dues to the address listed at the bottom.

Name _____

Last First Middle Initial

Address _____

Street City or Town

State Zip/Postal Code _____

Telephone Number _____ (Home) _____ (Office/cell)

E-mail address _____

Would you be willing to serve as an officer or committee member/chair? _____

Would you be willing to serve in another volunteer capacity? _____

How did you find out about Friends of Mineralogy? _____

I affirm that I support the purposes* of Friends of Mineralogy:

Signature _____ Date _____

Friends of Mineralogy, Inc. is composed of the members of 7 local chapters, plus national members not affiliated with a chapter. **Prospective and renewing Midwest Chapter members should send this completed application and \$20.00/year dues to the address below:**

Our Chapter is funded by membership fees, fundraising efforts and additional contributions. Please consider an additional contribution to help support us in achieving our Chapter Mission. We will email you a receipt for tax reporting purposes.

Additional donations:	Annual Symposium	\$ _____
	General Fund	\$ _____
	Total (including Dues)	\$ _____

*

1. To promote interest in and knowledge of mineralogy.
2. To advance mineralogical education.
3. To protect and preserve mineral specimens and promote conservation of mineral localities.
4. To further cooperation between amateur and professional and encourage collection of minerals for educational value.
5. To support publications about mineralogy and about the programs of kindred organizations.

Jeff Spencer, Treasurer

Friends of Mineralogy, Midwest Chapter

4948 Beechwood Rd., Cincinnati, Ohio 45244



2020 Officers

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Vice President Programs – Vacant

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Chapter Website:

www.fommidwest.org

National Website:

www.friendsofmineralogy.org

On the Cover –

Franklin Mine Specimen – Calvin Harris -4"x2.75"x2.25".

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Our purpose is to organize and promote interest in and knowledge of mineralogy; to advance mineralogical education; to protect and preserve mineral specimens and promote conservation of mineral localities; to further cooperation between amateur and professional and encourage collection of minerals for educational value; and to support publications about mineralogy and about the programs of kindred organizations.

