

MWF News

Midwest Federation
of Mineralogical and Geological Societies

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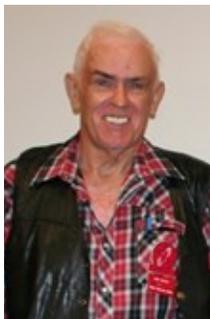


PRESIDENT'S MESSAGE

John Donker, MWF President

Spring is here! The ice and snow, we hope, is done for the season. Many clubs are having their spring shows, auctions, and sales. Spring shows are a great time to pick up new and different materials that dealers didn't have last year.

With spring breaks, many clubs are planning field trips. It's a way to get out into the field with other rockhounds to find new and different material, and a way to get to know your fellow club members. Spring is also a time when many clubs have potlucks and give out scholarships to further education in the earth sciences.



The spring meeting of the MWF Executive Committee and State Directors will be April 11th, sponsored by Indian Mounds Gem & Mineral Club at its spring show April 9th to 11th at Rogers Plaza Town Center in Wyoming, Michigan.

Have safe travels, and I look forward to seeing you in Michigan!

COME TO THE SEPTEMBER CONVENTION!

Sherlynn Everly, Convention Coordinator
Livingston Gem & Mineral Society (MI)

Hello from the Livingston Gem & Mineral Society in snowy (today) Michigan! We are putting the final touches on our plans to host the 2020 Midwest Federation Convention here on September 18, 19 and 20, 2020. Held in conjunction with our 47th Annual Rockhound's Dream Show, the convention is a great time to rub elbows with fellow lapidarians and gem lovers from the 11 States and 115 clubs that make up the MWF.

We urge every club to send a delegate or two to the convention. If you've never attended, you will be amazed at the resources and connections the Federation has to offer its members. And there's no better opportunity to bring your club's concerns and issues to the attention of a group with in-depth knowledge of our hobby and art.

The schedule is simple: Friday night meet & greet in our incredible Lapidary Shop and behind the scenes at the show. Saturday morning is the State

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MWF DVDs CAN BE OK PDQ

Bob Powers, MWF Program Chair

A growing number of DVDs are available in the MWF Program Library. These DVDs are an available yet underutilized source of education and entertaining programs. Every club in the MWF could benefit by taking advantage of the available DVDs. Please see the MWF website for the current list of programs.

Clubs and individuals view these DVDs in one of two ways: either they play them on a personal computer (desktop or laptop), or on a DVD or Blu-Ray player. Those played on a computer can also use a projector system to show them on a much larger screen.

Before I send out any program, I verify that it can be played on my own home equipment, which includes a Windows 8 Laptop, a Windows 10 Desktop and a Samsung Blu-Ray DVD player.

Playing DVDs on a computer can be problematic. Versions of the Microsoft Operating System prior to Windows 10 included a media player. When Windows 10 was released, it did not include a media player, and Microsoft directed the user to download Windows 10 Media Player for \$100.

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COME TO THE CONVENTION, CONTINUED

(Continued from page 1)

Directors' meeting, followed by the MWF Executive Committee meeting, lunch with convention delegates and the Executive Committee, and the Council of Delegates meeting. The show and the meetings will be held at the Hartland Community Schools Education Center, 9525 E. Highland Road in Howell, Michigan. The MWF Awards Banquet will be Saturday evening at Block Brewery, 1140 S. Michigan Avenue in Howell. Hotels will also be in the city of Howell.

Our Rock and Mineral Show will be open from 10 a.m. to 6 p.m. on Saturday and from 10 a.m. to 4 p.m. on Sunday. MWF will have a table on both days, with a Silent Auction being held on Sunday. All details, schedules and registration materials will be available at www.amfed.org/mwf.



Lake Lansing Park South in Haslett, Michigan. Photo from lansing.org.

I have to take a Pure Michigan moment and invite to you spend a little extra time visiting our Great Lakes State. For you road-trippers, consider a route through the fabulous Upper Peninsula or along one of our rock-filled shorelines. Petoskey stones, pudding stones, Lake Superior agates and Leland blues are just the beginning of the minerals and gems you'll find here. Throw in the splendiferous color of autumn and you're in for a never-forget vacation.

As the MWF Convention Coordinator, I'm happy to answer any questions or point you in the right direction. My email address is everly55@gmail.com, and my phone number is 810-965-5899. Hope to see you in September!

MWF NAMES GEORGE AND ANNA PERNICANO AS 2020 SCHOLARSHIP HONOREES

Marge Collins, Chair
Scholarship Committee

The MWF Selection Committee has voted **George and Anna Pernicano** to be the 2020 American Federation of Mineralogical Societies' Scholarship Foundation Honorees for the Midwest Federation. The couple was nominated by Livingston Gem & Mineral Society of Hartland, Michigan, host club of the 2020 MWF Convention, in appreciation of their generosity and leadership.

Over the past 20 years, the Pernicanos have been the type of members every club dreams of. They have shared their knowledge of lapidary and wirework not only with club members but also others through club outreach events.



MWF DVDs CAN BE OK, CONTINUED

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More recent updates to Windows 10 do seem to include a Media Player for free, but it was not worth the price. Yes, I mean it's not worth "FREE." Don't use it. Most recently Power Media Player from Dell has been showing up on my Windows 10 Desktop, but it won't play DVDs. As nearly as I can tell, it is really only an advertisement to buy software that will allow DVDs to be played. Don't buy it.

A great alternative is the FREE program VLC Media Player from VideoLan.org. It works great, and did I mention that it's free? If you plan to play DVDs on your computer, please download this software. You will not be disappointed.

After raising their family, George and Anna began annual snowbird migrations to Mesa, Arizona. There they discovered a lapidary club, and got hooked. It wasn't long before George was the Shop Chair and Anna was wire-wrapping his beautifully polished treasures.

They were determined to find a lapidary club near their home in South Lyon, Michigan. Soon they were directed to Livingston Gem & Mineral Society. Over the years they have continued teaching at LG&MS workshops, and have been thoroughly involved in club meetings and other events. George and Anna are outstanding representatives of the club!

As the 2020 MWF Scholarship Honorees, the Pernicanos will select two students working on an advanced Earth Science degree. Each student will receive a \$4,000 scholarship grant, and both will be invited to attend our Awards Banquet in September, perhaps making a brief presentation about their earth science interests. More details will be published as they are available.

You can nominate as the MWF 2021 Scholarship Honoree an outstanding individual or couple your club wants to recognize for their involvement and dedication, whether they are amateurs or professionals. Details are outlined on the MWF website (www.amfed.org/mwf) and in the MWF Directory Green Pages.

DEADLINE CALENDAR

MWF Executive Committee Meeting, sponsored by Indian Mounds Gem & Mineral Club in conjunction with the club's annual show, will be **April 11th** in Wyoming, Michigan. For more information, contact Kreigh Tomaszewski, kreigh@gmail.com.

Rockhound of the Year Awards may be submitted at any time to Steve Shimatzki, sjs132@gmail.com.

MWF Annual Convention, sponsored, with the club's annual show, by Livingston Gem & Mineral Club, will be held **Sept. 18-20** in Howell, Michigan. See the article on page 1 for more information, or contact Sherlynn Everly, everly55@gmail.com.

INTERESTING LUMINOSITY OBSERVATIONS PROVIDED BY FLUORITE FROM WHITE ROCK QUARRY

Calvin Harris, South Suburban
Earth Science Club (Illinois)

Introduction

Fluorite specimens from White Rock Quarry, Clay Center, Ottawa County, Ohio are particularly interesting to fluorescent mineral collectors because of the strong luminescent effects attributed to hydrocarbon inclusions. These inclusions develop when certain hydrocarbon substances integrate fluorite during formation of this mineral. This results in various degrees of brown coloration and light absorption, depending on the concentration of the inclusions.

This paper describes observations that highlight an inconsistency with higher concentration of hydrocarbon inclusion, and the anticipated increase in fluorescent intensity and phosphorescent duration. This inconsistency may indicate that another activator is the cause of fluorescence and phosphorescence.

Locality Description

The White Rock Quarry was developed in Clay Center, which is located in the Findlay Arch district in northeastern Ohio. This district consists of the Lockport dolomite and Greenfield dolomite formations. The quarry produces cubic fluorite crystals, indicating that this species formed when low temperature hydrothermal fluids infiltrated openings within the host rock. The White Rock Quarry is known for other fluorescent mineral species, including sphalerite and possibly calcite and celestine.

Specimen Descriptions

The specimens used for observing the effects of ultraviolet radiation are part of my study collection of fluorescent minerals and were acquired for educational value. The specimens are identified as ch2008141fl (hereinafter referred to as "ch2008") and ch2007160fl (hereinafter referred to as "ch2007"). They are distinctive from each other by the relative concentration of hydrocarbons, which is readily apparent under daylight conditions.

Many fluorite samples exhibit progressive degrees in concentration of hydrocarbon inclusions, where the greatest density lies within the central area of a crystal. Specimen ch2008 is an example. This

specimen is a partially developed fluorite cube associated with non-fluorescing celestine. The fluorite has a color reminiscent of amber.



Specimen ch2008 by daylight. Photo by Calvin Harris.

The upper region consists of layers denoting an orderly, successive deposition of hydrocarbon inclusions. Coloration, which is in proportion to the concentration of inclusions, is relatively low in this part of the specimen. The lower regions have a high concentration of hydrocarbon inclusions, giving substantial color saturation. Exposure to ultraviolet light in the upper area of this crystal provides a brighter fluorescent response with longer duration of phosphorescence than areas with increased concentration of inclusions. The specimen dimensions are $1\frac{3}{4}'' \times 1\frac{5}{8}'' \times 2''$.

Other fluorite specimens may consist of dark brown crystals that are completely opaque. One such example is specimen ch2007. This Clay County specimen was likely collected from White Rock

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Specimen ch2007 by daylight. Photo by Calvin Harris.

INTERESTING LUMINOSITY OBSERVATIONS PROVIDED BY FLUORITE, CONTINUED

(Continued from page 4)

Quarry, but that could not be confirmed. The fluorite crystals are associated with non-fluorescent celestine. This assembly is perched on a light gray dolostone matrix.

Most of the fluorite crystals in specimen ch2007 exhibit fluorescence and phosphorescence with dark, muddy tan coloration. However, some crystals adjacent to the matrix exhibit fluorescence and phosphorescence that approximates the upper area of the White Rock Quarry sample. Also, parts of the matrix display a similar luminescent effect. The fluorite crystals are cubic and have an iridescent luster under daylight conditions. The fluorite crystals are about $\frac{5}{8}$ " on edge, while the celestine crystals range between $\frac{3}{8}$ "- $\frac{5}{8}$ ". Overall, the specimen's dimensions are $4'' \times 2 \frac{1}{8}'' \times 2 \frac{1}{8}''$.

Test Procedures

During preliminary observations, it was determined that mid-wave radiation offered the most prominent luminescent result compared to shortwave and longwave wavelengths. A mid-wave ultraviolet light unit manufactured by UV Systems, Inc., was used for evaluating luminosity. The ultraviolet light source was handheld 1-2 inches from the specimen to generate phosphorescence, and 3-4 inches from the specimen to observe fluorescence. A 10-second exposure time was sufficient to evaluate phosphorescence. Evaluating phosphorescence preceded fluorescence to avoid needless eye sensitivity adjustment. The matrix of specimen ch2007 was also evaluated because the effects induced by ultraviolet radiation were similar to sample ch2008.

Effects of Mid-Wave (312nm) Ultraviolet Radiation

Specimen ch2008

Fluorescence: Cream w/lime-green tint near outer edge. Light tan in upper and middle areas. Upper area, bright intensity, lower areas bright/moderate intensity.

Phosphorescence: Greenish-white near outer edge, bright intensity. Greenish-tan central and upper area, moderate-bright intensity. 25 second duration with 10 second exposure.



Specimen ch2008 under mid-wave UV light. Photo by Calvin Harris.

Specimen ch2007

Fluorescence: Crystals were moderate-bright, muddy, dark tan. The matrix is dolostone speckled with fluorite: Fluorite exhibited a bright cream w/lime-green tint, and dolostone gray with cream specks.

Phosphorescence: Crystals were moderate bright tan, 17 seconds' duration. The fluorite in the matrix gave bright cream with a lime-green tint of 23 seconds' duration; the dolostone in the matrix similar color with diminished intensity, 23 seconds' duration.



Specimen ch2007 under mid-wave UV light. Photo by Calvin Harris.

Discussion

Under mid-wave ultraviolet light, the upper area of specimen ch2008 exhibited the brightest fluorescence and the greatest duration of phosphorescence, where the least amount of hydrocarbon inclusion was present. This feature is interesting because it appears that there is no correlation between the amount of hydrocarbon inclusion and the luminescent intensity and duration.

The dark brown coloration of the fluorite crystals in specimen ch2007 is attributed to the high density of hydrocarbon material at the surface. The mid

(Continued on page 7)



UPCOMING EVENTS

Date and Time	Organization	Place	Contact
March 28-29 Sat 9-5, Sun 9-4	50 th annual show of Badger Lapidary & Geological Society	Craig Center, County Fairgrounds, 1301 Craig Avenue, Janesville, WI	Laurie Trocke, glowyrocks@gmail.com
April 4 Sat, 10-3	Rock River Valley Gem and Mineral Society open house	North Suburban Library, 6340 N. 2 nd St., Loves Park, IL	Duane Cushing, tcdc78@comcast.net
April 4-5 Sat 10-6, Sun 11-5	Columbus Rock and Mineral Society	Northland Performing Arts Center, 4411 Tamarack Blvd., Columbus, OH	Craig Kramer, show-info@ColumbusRockAndMineralSociety.org
April 4-5 Sat 10-5, Sun 10-4	Fulton County Rockhounds	Donaldson Building, Wallace Park, 250 S. Avenue D, Canton, IL	George Coursey, courseyfarms@gmail.com
April 4-5 Sat 9-6, Sun 10-5	Lincoln Gem & Mineral Club	Lancaster Event Center, 4100 N. 84 th Street, Lincoln, NE	Jayne Beer, jbeer60070@aol.com
April 4-5 Sat 9-5, Sun 10-4	Neville Public Museum Geology Club	Neville Public Museum, 210 Museum Place, Green Bay, WI	Randy Phillips, bay45@hotmail.com
April 4-5 Sat 9-5, Sun 11-4	River Valley Rockhounds	Webster County Fairgrounds, 22770 Old Highway 169, Fort Dodge, IA	Jim Baumer, jbaum@frontiernet.net
April 4-5 Sat 10-6, Sun 10-5	Southern Illinois Earth Science Club	City of Marion Pavilion, 1602 Sioux Drive, Marion, IL	Michael Chomofalsky, chomofalsky@att.net
April 9-11 Thurs & Fri 9:30-9, Sat 9:30-7	Indian Mounds Rock and Mineral Club	Rogers Plaza Town Center, 972 28 th Street SW, Wyoming, MI	Kreigh Tomaszewski, 616-243-5851
April 18-19 Sat 10-6, Sun 10-4	Rockhounds of Central & Southern Illinois	Golden Fox Brewery, 2874 N. Denneen Street, Decatur, IL	Rita Winter, ritasacfp@yahoo.com
April 25-26 Sat 10-6, Sun 10-5	Akron Mineral Society	Emidio's Party Center, 48 E. Bath Road, Cuyahoga Falls, OH	Sandy Shorter, Gemboree@outlook.com

*May Issue Submission Deadline
Is April 8th!*

UPCOMING EVENTS

Date and Time	Organization	Place	Contact
April 25-26 Sat 9-5, Sun 10-4	Chippewa Valley Gem & Mineral Society	Bldg. E, Eau Claire Expo Center, Lorch Avenue entrance, Eau Claire, WI	Paul Tubbs, bizpam1@gmail.com
April 25-26 Sat 10-6, Sun 10-4	Miami County Gem & Mineral Club	Duke Lundgard Bldg., County Fairgrounds, County Road 25-A, Troy, OH	Dewey Buck, Dewey.Buck@pcmg.com
April 25-26 Sat 10-6, Sun 10-5	Summit Lapidary Club	Emidio & Sons Expo Center, 48 E. Bath Road, Cuyahoga Falls, OH	Guy Kotch, Gemboree.chairman@gmail.com
April 25-26 Sat 10-9, Sun noon-6	Tri-County Rocks and Minerals Society	Town Center, 4101 E. Wilder Road, Bay City, MI	Renee Simmons, simmonsironman@yahoo.com
April 26 Sun, 11-5	Black Hawk Gem and Mineral Society	Waterloo Center for the Arts, 225 Commercial Street, Waterloo, IA	David Malm, davidmalm@cfu.net
May 2-3 Sat 10-6, Sun 11-5	Cincinnati Mineral Society	Sharonville Convention Center, 11355 Chester Road, Sharonville, OH	Terry Huizing, tehuizing@fuse.net
May 2-3 Sat 10-5, Sun 10-4	Heart of Wisconsin Gem & Mineral Society	Fieldhouse, Marshfield High School, 1401 E. Becker Road, Marshfield, WI	Cynthia Kelman, kelman@tznet.com
May 8-10 Fri noon-7, Sat 9-5, Sun 10-4	Central Missouri Rock and Lapidary Club	Knights of Columbus Hall, 2525 N. Stadium Blvd., Columbia, MO	Mary Wozny, lmwoz@msn.com
May 9-10 Sat 9-5, Sun 10-4	Cuyuna Rock, Gem & Mineral Society	Curling Club arena, Brainerd Fairgrounds, 2000 SE 13 th Street, Brainerd, MN	Sharon Smith, sharon@agatesrock.com

INTERESTING LUMINOSITY OBSERVATIONS PROVIDED BY FLUORITE, CONTINUED

(Continued from page 5)

-wave ultraviolet radiation caused a muddy, dark tan luminescent effect. However, certain crystals situated along the matrix responded vividly. This response was also noted in the matrix, which is gray in daylight and devoid of the coloration caused by hydrocarbon inclusions. The fluorescence and phosphorescence of the fluorite adjacent to the matrix, as well as this substrate, are similar to luminescence observed in the upper areas of ch2008.

Hydrocarbon inclusions are presumed to be the cause of luminosity in fluorite from White Rock Quarry, Clay Center, Ohio. However, areas of the specimens where the luminosity was strongest had minimal coloration caused by the presence of inclusions. It suggests that other factors may cause the luminosity.

Selected Bibliography

Carlson, Ernst A. "Ohio Mineral Locality Index: Findlay Arch and Serpent Mound Districts." *Rocks & Minerals* Vol.65, No. 6, Nov./Dec. 1990, pp. 512-540.

Vasichko, Joseph W. "Fluorite in the Findlay Arch Mineral District: Ohio, Michigan and Indiana." *Rocks & Minerals* Vol.93, No. 2, Mar./Apr. 2018, pp. 110-133.

Mindat (2019) reference search: Clay Center, Ottawa Co., Ohio, USA.

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IF YOU'RE A BEGINNING TUMBLER, THESE TIPS WILL HELP

Nick Smith
From the February 2020 Strata Data
Newsletter of Three Rivers Gem and
Mineral Society (IN)

Here are some tips for anyone wanting to try
rock tumbling.

1. Use one type of rock or rocks of the same
hardness. Not all rocks are the same hardness. The
Moh's Scale of hardness is a 1-10 (softest to hardest)
scale for hardness. Rocks with hardnesses 5-7 work
best. I tumble mostly quartz, agates, petrified wood and
jasper. You can purchase a book on rocks and minerals
to help with this.

2. Be sure to clean your rocks and barrel
thoroughly between each step. If different grits get
mixed into your rocks, this will make them unable to
properly shape and polish.

I use a toothbrush and water to scrub each rock
to make sure grit is removed from the tiny crevices
some rocks have. For the barrel, I soak it in a bucket of
warm water and use a washcloth to clean it.

3. Run your tumbler continuously for the time
needed. Turning off your tumbler will only prolong the
days needed to finish each step.

4. A very important note: Do NOT dump the
grit solution down your drain. It will gunk up your
drain and ruin your pipes.

5. Most importantly. . . PATIENCE! If you're
like me, you want things to happen immediately. The
best results in tumbling come when you let the tumbler
and grit do what they need to do.



*Tumbling progress
from rough to
polished. Photo(s)
from the Feb. 2020
Strata Data.*