



THE MOUNTAIN GEM

Gem & Mineral Society of Franklin, North Carolina

October 2019 Newsletter



Franklin Gem and Mineral Society

Club Officers and Board of Directors

President: Jane Morgan, (828-342-8703)
 Past President: Al Pribble, (828-342-3119)
 Vice President: Arlon Eldridge, (828-369-5271)
 Secretary: Susan Fritz, (828-524-4936)
 Treasurer: Lake Holland, (828-369-5421)
 Assistant Treasurer: Kathi Walbridge, (828-349-9615)
 Museum Manager: Duane Haskell, (828-349-5123)
 Director (2020): Larry Ellert, (828-349-0774)
 Director (2020): Tom Parker, (828-342-3619)
 Director (2019): Diane Mason, (706-379-1718)
 Director (2019): Tom Sterrett, (828-349-3774)

Committees

Membership: Tom Parker and Diane Mason
 Museum Curator: Larry Ellert, (828-349-0774)
 Curator Emeritus: Fred Plesner, (828-349-4224)
 Museum Gift Shop: Anamay Rossomando (828-349-2807), Vicki Knisley (828-371-4954), & Diane Mason
 Museum Workshop: Virginia Bennis (631-830-5403)
 Publicity: George Fritz, (828-524-4936)
 Field Trip Coordinator: Marsha Harmon, (828 369-7262)
 Program Coordinator: Kathi Walbridge
 Calendar: Jay Mooney, (678-488-0620)
 Gemboree: Kathy Green, (941-387-4397)
 Education/Tours: Marsha Harmon, (828 369-7262)
 Asst Education/Tours: Ron Rossomando (828-349-2807)
 Newsletter Editor: Stacy Walbridge [fgmseditor@gmail.com]

The Club is a member of the American Federation of Mineralogical Societies and the Southeast Federation of the Mineralogical Societies.



The Gem and Mineral Society of Franklin, North Carolina, is a 501 (c)(3) organization and donations may be tax deductible. Please remember us when planning your estate.

UPCOMING EVENTS

MONTHLY MEETING - October 24, 6:30 pm,
 Speaker: Jennifer Love, Macon County's STEM (Science, Technology, Engineering, Math) coordinator, **First Christian Church, 156 Belleview Park Rd, Franklin, NC 28734.**

PUMPKINFEST, October 19, 2019: The Gem & Mineral Club will have several outside events during this year's Pumpkinfest. There will be geode cutting and the mineral sandbox for kids and an outside sales table. At 9:00 am we will need help setting up the tent for the outside sales table along with help manning the table. Geode cutting and the kid's sandbox will be running so help will be needed throughout the day for those events as well as assistance with teardown at 4:00 pm.

LEAK LOOKERS GEMBOREE, October 25 to 27, 2019: In conjunction with the Macon County Chamber of Commerce our fall Gemboree will be held at the Carpenter Community Center. Help will be needed for:

Setup: Thursday 10/24 at 8:00 sharp
 Hosting, Cabbing, Faceting, Wire Wrap
 Security: Friday & Saturday, 7 to 10 AM
 and 6 to 7 pm, Sunday - 7 to 10 am.
 Teardown: Sunday at 4:00 pm (we can never have too many helpers)

RADIO PROMOTION - This Saturday, October 19th, a pre-recorded interview with Susan Fritz, Marsha Harmon, and Stacy Walbridge will be aired on 104.9 FM/1050 AM WFSC radio. The interview was conducted by Gordon Mercer and is a good promotion for the Leaf Lookers Gemboree, the Museum, and the Society.

Club Website: <http://www.fgmm.org>

Club Facebook Page: <https://www.facebook.com/franklingems>

Club Newsletter: fgmseditor@gmail.com,

Club Contact E-mail: franklingemsociety@gmail.com

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Franklin Gem and Mineral Society

Minutes: September 26, 2019

Susan Fritz

Photographs by George Fritz

President Jane Morgan called the meeting to order on Thursday, September 26, 2019 at 6:30 p.m. at the John C. Carpenter Community Building.

President – Jane Morgan thanked Cindy Pease for the lovely table flowers. Thanks also to Anamay Rossomando and John Hayes for assisting with set-up tonight and thank you to Nancy McShane who coordinated obtaining the pizza for tonight's dinner.

Minutes – Jane Morgan asked for any corrections, deletions or additions to the July 2019 minutes. There being none, a motion was made by Tom Sterrett and seconded by Diane Mason that the minutes be accepted as printed in the newsletter. Voted and passed.

Treasurer – Kathi Walbridge reported that we were in the plus column for the month of August.

Membership – Tom Parker reported 47 members and 2 guests present this evening. He has collected approximately \$1,000 in annual dues thus far. Diane Mason thanked everyone for their cooperation in filling out the new membership applications and stated volunteering has increased.

Museum Manager – Duane Haskell reported work continues on dismantling and repair of the fountain, looking for leaks. He thanked Tom Sterrett for volunteering his time and expertise.

Curator – Larry Ellert stated he and Mark Laing have completed the inventory on the spare cell and are now working on the vault. Once finished, stock can be rotated.

Curator Emeritus – Fred Plesner stated one of his many volunteer duties is being on the Awards Committee. An award for Appreciation was presented to Al Pribble.

He also mentioned a radio program that is prerecorded on 10/17 will be broadcast on 1050 AM Saturday, 10/19, when Stacy Walbridge, Marsha Harmon and Susan Fritz will be interviewed by Gordon Mercer.

Gift Shop – Anamay Rossomando reminded us of Pumpkin Fest on Saturday 10/19. Volunteers are sorely needed on this day as the museum gets very busy. If you are volunteering, you are encouraged (not mandatory) to wear a Halloween costume.

Newsletter Editor – Stacy Walbridge stated the newsletter deadline is Thursday, 10/17. He is looking to receive articles from members that would be of interest and appropriate for inclusion in the newsletter.

Field Trips – Marsha Harmon reported a field trip scheduled to Graves Mountain on 10/4, 10/5 and 10/06. She is attempting to schedule local trips for the month of November.



Fred Plesner presenting Al Pribble with a Certificate of Appreciation

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Franklin Gem and Mineral Society Minutes (Continued)

Education – Marsha Harmon reported that a group of 100 students from Temple Christian are coming for a museum tour on 10/17. She wished to thank all who have served as museum guides and assisted with tours.

Gem Show – Tom Parker reported in Kathy Green’s absence. The gem show will be October 25, 26 and 27. Please sign up to volunteer for set-up, hosting, demonstrations and/or take-down. Set-up will be Thursday, 10/24, at 8 a.m. sharp.

Scholarships – Al Pribble stated there are two teachers from two different schools interested in a mini-grant. Their inquiries were initiated by Jennifer Love, Macon County’s STEM (Science, Technology, Engineering, Math) coordinator, who will be our speaker at next month’s General meeting.

NEW BUSINESS:

Door prize winning tickets were drawn and prizes distributed.

Installation of Officers – In the absence of County Commissioner Ronnie Beale, Al Pribble presided over the installation of new officers and Directors in his stead. Those installed were: President – Jane Morgan; Vice President – Arlon Eldridge; Secretary – Susan Fritz; Treasurer – Lake Holland; Assistant Treasurer – Kathi Walbridge; Director – Tom Parker; Director – Larry Ellert.



(l. to r.) Susan Fritz, Lake Holland, Arlon Eldridge, Jane Morgan,
Larry Ellert, Kathi Walbridge, and Tom Parker.

The business meeting was adjourned and members enjoyed pizza. Delicious side dishes and desserts were brought by members.

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FIELD TRIPS Marsha Harmon

Summerville, GA Sep 22

Four club members attended the Dixie Mineral Council Field trip to a small, family owned quarry in Summerville, GA on Sunday, September 22. Nancy McShane, Gary Galbrecht, Kathi and Stacy Walbridge searched the quarry for colorful lace banded agate. With plentiful material close at hand all participants left with buckets of the material that will be processed for lapidary use or specimen displays.



Samples of collected material by Nancy McShane
Photograph by Nancy McShane



Smaller Summerville Samples

Upcoming Trips

On Saturday, November 9, a trip to Brasstown, NC is scheduled to hunt for Staurolites. This will be an easy, no hiking trip that should last about 4 hours which include travel time. Carpool will be available and equipment to borrow if needed. Sign up in the Museum and/or call Marsha with questions.

Saturday, November 23, 2019, 9:00 a.m. to 4:00 p.m., Due West, SC

The Johnson Creek Farm is a relatively new site that is not far from Diamond Hill Mine. There are different areas in which to dig. There is one area that has epidote. Another pit has smoky quartz and amethyst, and there is an area that contains beryl. You can dig in the pit where the veins are exposed or go through the tailing piles left from the excavator. Fee is \$25.00 per person with an option to camp out at the facility on Friday night with an additional fee of \$25.00. The gate will be open and check in for camping will be at 3:00. Contact Marsha Harmon for payment instructions if you want to camp overnight

NOTES FROM THE CLASSROOM

Cabochon Class Notice

Due to the Holidays and a heavy show schedule, I will NOT be teaching a cabochon class in November or December. I do, however, plan to teach again in January (weather permitting). Please go ahead and sign up and I will be in contact.
Thanks.....Jerry Mason

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JEWELRY BENCH TIPS

TAPERED REAMERS

A tool you don't see often these days is a tapered reamer. They're particularly useful for making an irregular hole round or for enlarging a hole to an exact diameter. For example, the small set in the yellow pouch is for holes in the range of 0.3mm to 2.5mm. They are great for sizing a tube to fit a hinge pin. Other times when I'm drilling a hole for riveting sheet metal and can't find the exact size drill, I simply drill the holes with a slightly smaller bit and enlarge them with a reamer until the wire just fits.



For larger hole sizes in sheet metal up to 14 ga, I really like the reamer with the black handle. It makes quick work of sizing holes from about 3mm to 12mm. You can find them in well-equipped hardware stores.

You may never use the large diameter reamers, but when sawing out some rings from 4mm thick sheet, I found they worked well for rounding and sizing the hole.



Work Smarter With Brad's "How To" Jewelry Books
[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

EDUCATION/TOURS

Marsha Harmon

Over 100 4th grade students and their teachers from Fairview Elementary School in Sylva toured the museum on Thursday, October 17. Lending a hand to coordinator Marsha Harmon were members Jane Morgan, Al Pribble, Paul Thomas, Ron Bishoff, Mark Laing, John Hayes, Roberta and Leonard Pipitone. Several opportunities are coming up to help with education and tours in the museum. Our main goal in this Rock and Mineral Club is the education of our that community and all it touches. Please help as you can, as time and energy is all is required.



Marsha Harmon with the volunteers - THANK YOU

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Al Pribble explaining how rocks are formed to several students from Fairview Elementary School.

A thank you goes out to: Anamay, Jane, Fred, John, Cindy and Paul who did a great job with a tour group from Union Academy on October 4.

Next month two tours are already scheduled and volunteers will be needed. Please consider a couple hours of your time as you are needed. Call Marsha Harmon if you are interested.

MUSEUM NOTES



Duane Haskell supervising Tom Sterrett

Tom Sterrett and Duane Haskell have been working hard getting the museum fountain running again. Members with LARGE yard rocks are asked to

donate a rock to the fountain. Large rocks of color would also be welcomed. Our Thanks to Arlon of Cowee Mt. Ruby mine for donating many rocks for this project.

ANTS ARE ROCKHOUNDS TOO!

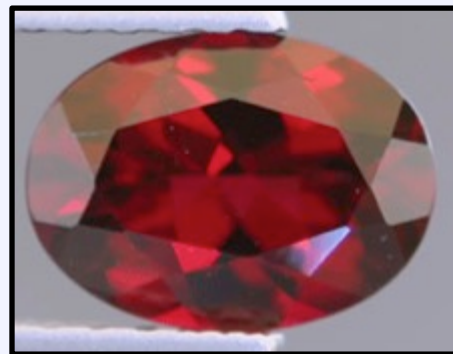
Susan Fritz

Few of us like crawling insects, but I take my hat off to Arizona ants! On a Navajo reservation in Arizona ants will remove dirt



and stones when building or repairing their ant hills (as they do everywhere). However, in this area some of these "stones" that are excavated by the ants turn out to be pyrope garnets!

This Navajo reservation is strictly off limits to non-tribal collectors and no mining of these gems is allowed. As one can figure out, most of these beautiful ruby red garnets are small given the fact that ants bring them to the surface. However, they



are stunningly beautiful. The garnets are collected by the Navajo and sold for the gem trade. Most of the garnets are tumbled, drilled and

used as beads but some of them are clear and big enough to be faceted. In addition to these ruby red garnets, small quantities of rhodolite and spessartine garnets have also been found. I am lucky enough to have acquired a few of these beautiful faceted stones.

Ant Hill garnets have a hardness of 7.25, a specific gravity of 3.8 and a refractive index of 1.72. Other trade names include Arizona Ruby and Chrome Pyrope.

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The Colorful World of Fluorescence

by Bob Fendrich

Among mineral collectors fluorescence usually comes down to illuminating specimens with invisible ultraviolet light to produce (often striking colored patterns of) emitted visible light.

Some early investigations of fluorescence by Cambridge Professor George Stokes were first reported in the *"Philosophical Transactions of the Royal Society"* in 1852. Stokes studied the blue glow that appeared to emanate from quinine water in sunlight.

He found that when he used a prism to disperse sunlight into a spectrum a blue glow was produced when the quinine water was placed just beyond the violet edge of the spectrum. He correctly deduced that the spectrum contained a band of invisible rays that extended beyond violet and the quinine water was somehow converting these invisible rays into visible light.

Stokes wrote:

It was certainly a curious sight to see the tube instantaneously lighted up when plunged into the invisible rays: it was literally darkness visible. Altogether the phenomenon had something of an unearthly appearance.

G. G. Stokes' famous experiment



- 1852, George Gabriel Stokes publishes *"On the change of Refrangibility of Light"* where he described the light from quinine sulfate as "...under certain incidences of the light, a beautiful celestial blue colour."
- He uses "dispersion reflection" to describe the phenomenon



(ret. Prof. David Jameson (Univ. of Hawaii) keynote at HORIBA Fluorofest, Cambridge, MA, 2015)

Stokes initial investigation of fluorescence.

Picture from the Horiba Scientific 'Fundamentals of Fluorescence' YouTube presentation

Based on his observations Stokes derived a general principle, now known as 'Stokes Law,' which states that the wavelength of the emitted light is always longer than the wavelength of the exciting light. This shift in

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wavelength is now termed the 'Stokes Shift.' In his paper Stokes also first coined the term *'fluorescence.'* He notes that a similar blue glow could be observed in some English fluorite (fluor-spar) and provided a comment in a footnote:

“I am almost inclined to coin a term and call the appearance fluorescence from ‘fluor-spar, as the analogous term ‘opalescence’ is derived from the name of a mineral.”

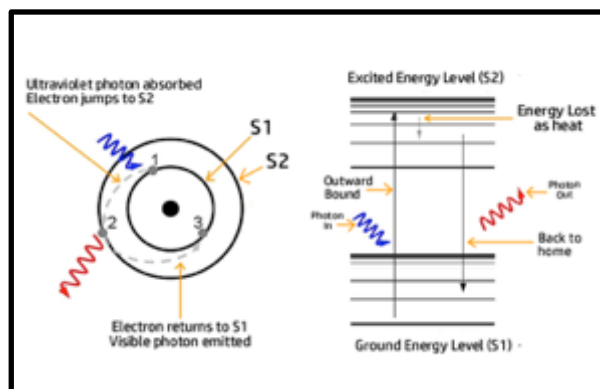
We now understand that the 'daylight fluorescence' Stokes was observing was produced by the ultraviolet in sunlight. Only a small number of fluorites in which the fluorescence is exceedingly bright exhibit detectable daylight fluorescence, but it can be observed in fluorites from the *Rogerly Mine*, a small English mine operated in recent years solely for specimens. Rogerly fluorites form attractive crystal cubes that are green under indoor lighting but due to their daylight fluorescence exhibit a pronounced shift toward blue in sunlight.



A Rogerly fluorite in artificial light (left) and sunlight (right).

Photograph by Bob Fendrich

The mechanism underlying fluorescence is complex, but here is a *very* simplified version. When exposed to ultraviolet light, energy (as photons) is absorbed from this light by electrons in the atoms of the fluorescing material. This energy causes the electrons to jump to a higher energy orbit. The electrons are not stable in this higher orbit and rapidly return to their ground state (normal orbit), emitting photons (light) as they do so. However, because some energy is lost by the electrons as heat before they return to their ground the photons produced by this return are less energetic than the initial photons – so the light emitted has a longer (and therefore visible) wavelength than the exciting ultraviolet.



The mechanism of fluorescence

Adapted from an illustration provided by Mythealias on Wikimedia commons.

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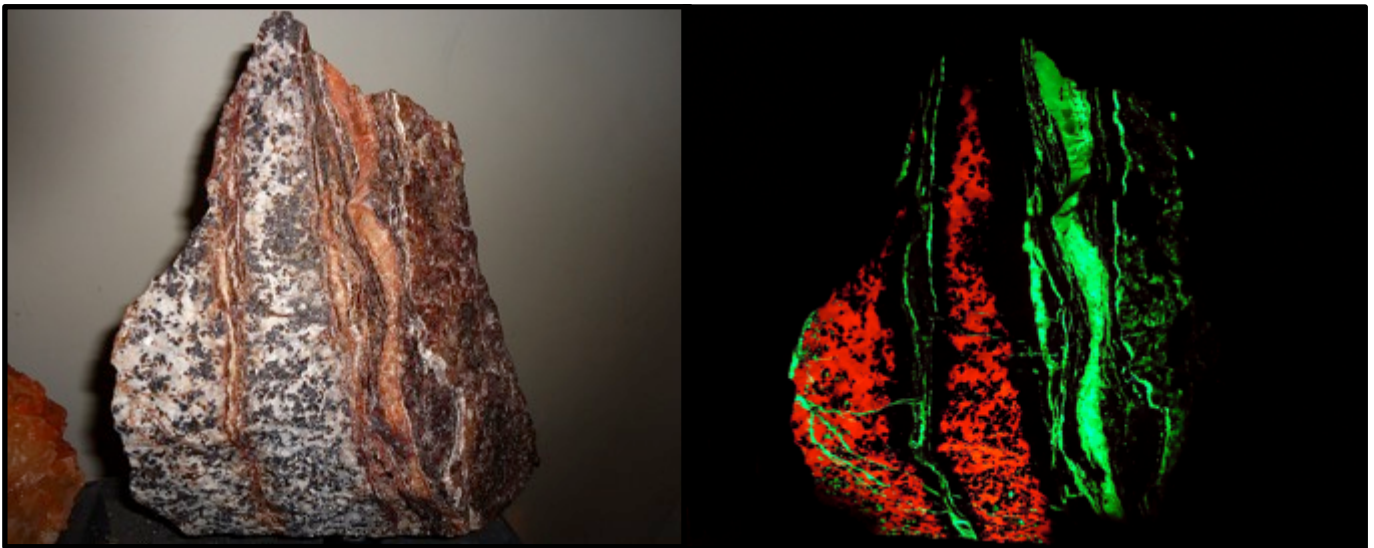


For fluorescence to occur a number of conditions have to be met. Energy carried by photons has to be absorbed, then released again as photons with just the right Stokes shift to produce visible light.

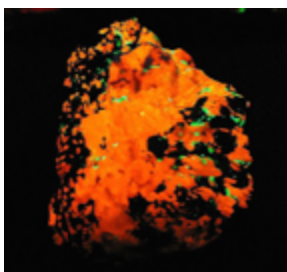
Visible fluorescence has only been reported in about 15% of minerals, and when it does occur it can often be attributed to the presence of certain impurities that serve as "*activators*." Tungsten, lead, manganese, uranium, chromium and rare earth elements often serve as activators. The green fluorescence that is widespread in agates and hyalite opals is all produced by a Uranium (UO_2 ion group) activator. The activator for the blue fluorescence in English fluorite is the rare earth Europium.

The Franklin, New Jersey, zinc mines (and nearby Sterling Hill Mine in Ogdensburg, NJ) are now closed, but have generally been regarded as the world's most prolific source of exotic minerals, with 357 known minerals, 28 unique to these localities. An often dramatic fluorescence is exhibited by over 90 of these minerals from due to the presence of a potent synergistic combination of manganese and lead activators. Franklin was officially designated the "Fluorescent Mineral Capital of the World" by the New Jersey State Assembly in 1968.

Photos of some classic Franklin fluorescent mineral combinations are presented below. These minerals include fluorescent calcite, willemite, hardystonite, clinohedrite, wollastonite, barite, esperite, turnaurite, sphalerite, hydrozincite and margarosonite. Almost all of these minerals respond primarily to "Shortwave" (254 nm) ultraviolet light.



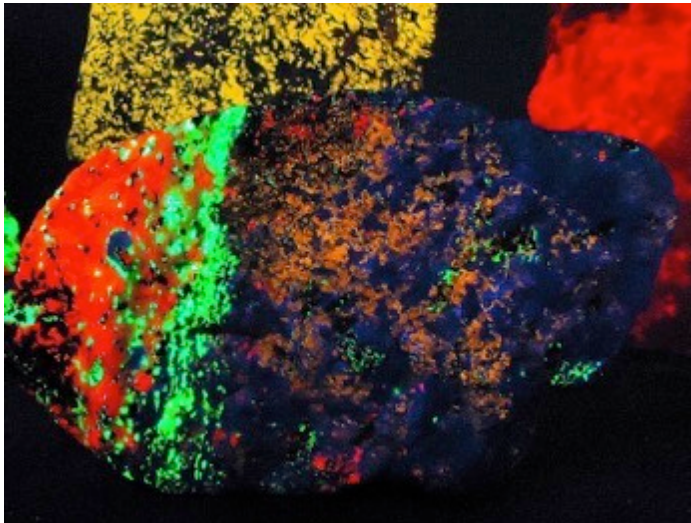
The best known Franklin/Sterling Hill combination is a mix of brilliant red fluorescing calcite and green fluorescing willemite. This is a calcite-willemite specimen from the Sterling Hill mine. It stands about 10" high.



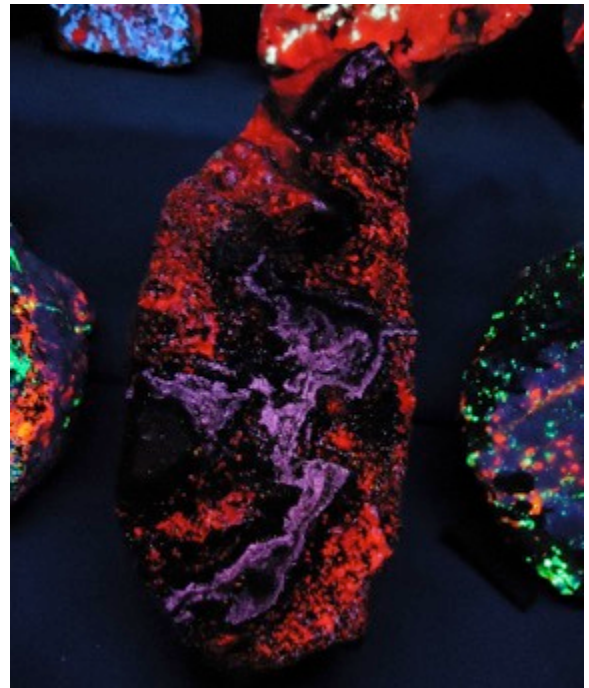
A deep orange fluorescing Franklin "1st-find" wollastonite with a little green fluorescing willemite. Found in 1944, only a few dozen of these wollastonite specimens are known. They are much sought after by Franklin collectors. This small specimen is about 2" across.

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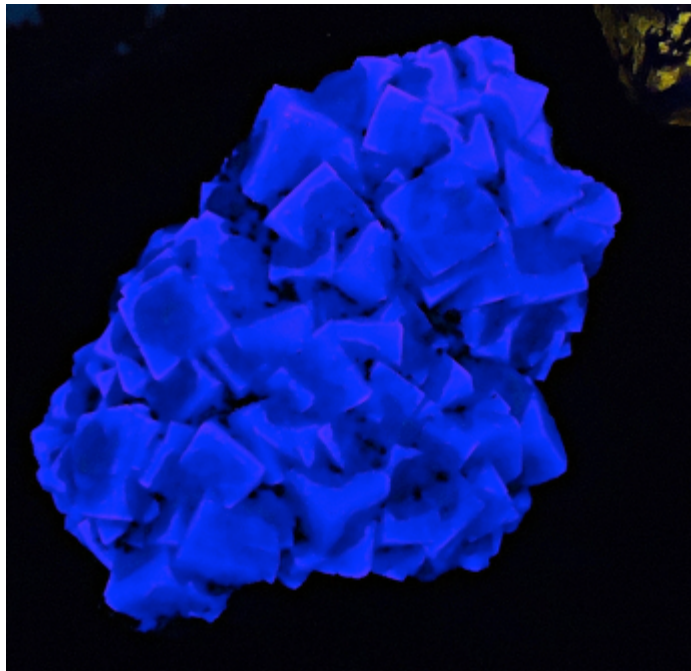
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A classic Franklin 4 color fluorescent combination, with blue hardystonite, red calcite, green willemite, and orange clinohedrite. This piece is about 7" across.



Pretty fluorescent combinations do occur in places other than Franklin. This specimen with violet fluorescing johnbaumite in red fluorescing calcite was collected by Bob Fendrich at the Jacobsburg mine dump in Nordmark Sweden. It stands 7" high.



Most fluorescent minerals respond best to shortwave (UVC) ultraviolet but some, like this 5" English fluorite, fluoresce quite brightly under long wave (UVA) ultraviolet.

Ultraviolet covers a large swath of the electromagnetic spectrum and is generally divided into three bands; UVA, UVB, and UVC. UVA, which is also termed 'long wave' ultraviolet, is the band directly adjacent to visible light. UVA is generally regarded as extending from 315 to 400 nanometers. This is the type of ultraviolet produced by the "black-light" lamps used to illuminate "day-glow" posters. The ultraviolet LED flashlights that are now widely available all produce UVA. Among these, the 365 nm 'Convoy 2' is an excellent choice as a handheld lamp.

UVB or "mid-wave" ultraviolet refers to a band with wavelengths running from about 280 to 315 nanometers. These are the rays in sunlight that

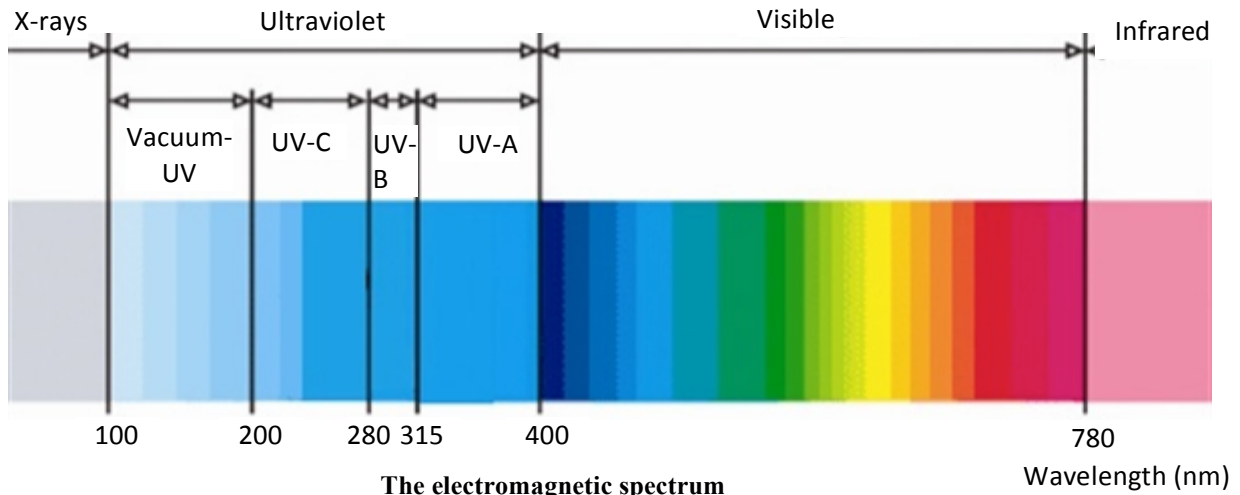
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produce sunburn. Only a relatively small group of somewhat obsessive fluorescent mineral collectors make use of UVB lamps.

UVC or "short-wave" ultraviolet runs from about 200 to around 280 nanometers. This band of ultraviolet works best on about 80% of fluorescent minerals, and produces most of the striking color effects. If you start getting into fluorescent minerals, you'll soon realize you need to have a UVC lamp. All of the UVC lamps used by fluorescent mineral collectors are mercury vapor lamps which produce UVC centered at 254 nm. Fortunately, mercury vapor bulbs are widely available since they are used for germicidal applications. Unfortunately, they also produce a large amount of pale blue visible light. To properly see and appreciate mineral fluorescence you need a UVC lamp with a filter which passes UVC but blocks most visible light. These filters make UVC lamps rather expensive. Note that UVC can be quite irritating to the mucus membranes around the eyes so UVC lamps need to be handled with a bit of respect.



Entry level under \$100 battery powered UVC lamps currently available include the small 4 watt Versalume made by *Raytech* and a similar 4 watt handheld unit made by *UVP*. They work but are really too small to be of much use as field collecting lamps. A similarly priced but more powerful lamp made by *UV Tools* seems promising. The 6 watt plug-in UVG-54 made by *UVP* is a better choice: despite its limited power it has a relatively large filter and was the standard collector's handheld lamp for many years. However, to use it in the field you will need a DC to AC inverter and battery pack. Newer competing 9 watt lamps made by *Way-Too-Cool* also perform quite well, though recently there has been uncertainty regarding the long-term future of this company. When you're seriously hooked you will want to consider the Superbright III made by *UV Systems*: It's the Rolls-Royce of field lamps and used by all the current crop of fluorescent mineral fanatics, but it will set you back about \$500.

Whatever your lamp choice, if you are interested in fluorescent minerals you should consider joining the *Fluorescent Mineral Society*. It's very hobbyist oriented. The Northeast Chapter holds an annual meeting around the end of November in Ogdensburg NJ, and will provide you with an opportunity to buy a terrific assortment of specimens directly from collectors, and talk with a lot of (admittedly sometimes rather weird) other fluorescent mineral hobbyists. Also considering attending the annual Franklin NJ Gem and Mineral shows (there's one in the spring and one in the fall) and the 1-day *Ultraviolation* show in Fairless Hills PA late in October. These are definite go-to places if you're trying to assemble a fluorescent mineral collection.

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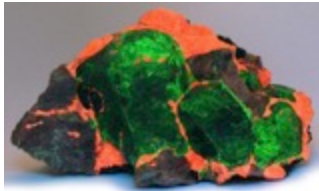
Finally, check out the 'NaturesRainbows' website hosted by Mark Cole. Mark is a very talented guy who is working hard to build a "fluorescent mineral supersite."



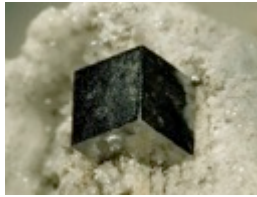
Bob Fendrich is on the Board of Directors of the Fluorescent Mineral Society and a member of the of the Burlington Gem and Mineral Club and UV Nomads club.

Which one Doesn't Belong?

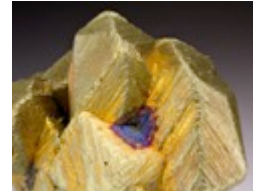
In each set of four words, cross out the word that does not relate to the others. You may want to use a mineral or fossil identification guide. See the answers at the bottom of the page for the deleted words.



1. Asaphida
Ptychopariida
Agnostida
Redlichida



2. Replacement
Carbonization
Culturing
Permineralization



3. Grossular
Hematite
Rutile
Corundum

4. Scheelite
Fluorite
Halite
Sylvite

5. Wulfenite
Chalcopyrite
Hornblende
Scheelite

6. Beryl
Galena
Talc
Babingtonite

7. Magnetite
Labradorite
Microcline
Turquoise

8. Carnotite
Schorl
Uranite
Autunite

9. Magnetite
Columbite
Franklinite
Beryl

10. Talc
Carnotite
Bixbyite
Adularia

11. Marl
Travertine
Gypsum
Fluorite

12. Triclinic
Isometric
Dimensional
Cubic

1) Redlichida is a trilobite that has not been found in the Ordovician period. 2) Culturing is not a process of fossilization. 3) Grossular is not a member of the Oxide or Hydroxide mineral species. 4) Scheelite is not a Halide. 5) Hornblende does not have a Tetragonal crystal form. 6) Galena is not a New England State mineral. 7) Magnetite does not have a Triclinic crystal form. 8) Schorl is not radioactive. 9) Beryl is not magnetic. 10) Bixbyite does not have a Monoclinic crystal form. 11) Fluorite is not formed by sedimentation. 12) Dimensional is not a crystal structure category.

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2019 Meeting/Event Schedule

November 14th - Tom Parker on Montana Sapphires
December 14th - End of Year Banquet/Rock Bingo

**November Newsletter Deadline is
Monday, November 4, 2019**

UPCOMING SHOWS

25-27 October 2019: Franklin, NC
29th Annual Leaf Lookers Gemboree
Show Hours: Friday & Saturday 10am - 6pm, Sunday
10am-4pm
Robert C. Carpenter Community Building
1288 Georgia Road, Franklin NC 28734
Admission: \$2 for adults, children 12 & under free

Expo Center East at South Florida Fairgrounds (9067
Southern Boulevard)

w Hours: Saturday 9am - 6pm, Sunday 10am-5pm
Adults/Seniors 1 day \$9 or 2 day pass \$14
Children under 12 are free

9-10 November 2019: Melbourne, FL
6th Annual Parade of Gems - Gem & Jewelry Show
Hosted by: Canaveral Mineral & Gem Society
Melbourne Auditorium (625 East Hibiscus Avenue,
Melbourne, Florida)
Show Hours: Saturday & Sunday 10 am - 5 pm,
Admission: \$5, children under 12 free with adult

14-15 December 2019: Franklin, TN
39th Annual Earth Treasures Show
Organized by: Mid-Tennessee Gem & Mineral Society
Williamson County Ag Expo Park (4215 Long Lane,
Franklin, TN)
Show Hours: Saturday 9 am - 6pm, Sunday 10am-5pm
Admission: Adults \$5 or 2 day pass \$7, Students (18
and under) \$1, Under 12 free with an Adult, Scout
Youth in uniform are free.

23-24 November 2019: Columbia, SC
52nd Annual Gem, Mineral, & Jewelry Show
Organized by: Columbia Gem & Mineral Society
Jamil Temple
(206 Jamil Road, Exit 106A off I-26)
Show Hours: Friday & Saturday 10 am - 6pm, Sunday
12pm-5pm
Admission: \$5 or \$10 for 3 day pass, children 16 and
under free with adult, military and dependents are free

6-8 December 2019: Montgomery, AL
Montgomery Gem, Mineral & Jewelry Show
Garrett Coliseum 1555 Federal Drive, Montgomery,
AL Adults \$2.00 daily or \$3.00 for a 3 day weekend
pass. 18 and under free with student ID and one paid
adult ticket

23-24 November 2019: West Palm Beach, FL
**53rd Annual Gem, Mineral, Jewelry, Fossil & Bead
Show**
Organized by: Gem & Mineral Society of the Palm
Beaches

14-15 December 2019: Franklin, Tennessee
39th Annual Earth Treasures Show
Organized by: Mid-Tennessee Gem & Mineral Society
Williamson County Ag Expo Park (4215 Long Lane,
Franklin) Admission: \$5 (\$7 for a 2-Day pass),
Children under 12 and Scouts in uniform - FREE

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The Next Meeting (Note the change in location)

The next meeting will be held at 6:30 PM on October 24th
at the First Christian Church, 156 Belleview Park Rd, Franklin, NC 28734.

Jennifer Love, Macon County's STEM (Science, Technology, Engineering, Math) coordinator will provide an overview of STEM and how our mini-grants have helped.

FGMS Board meets the Tuesday before the regular meeting at **6:30** at the Museum

Franklin Gem and Mineral Museum

25 Phillips Street, Franklin, NC 28734



Phone: 828-369-7831

In the Old Jail House

FREE ADMISSION

May 1 – October 31

Monday Thru Saturday: 12:00 PM – 4:00 PM

November 1 – April 30

Saturdays: 12:00 PM – 4:00 PM

Open Year Round For Tours

And Special Requests