



Bulletin of the Mineralogical Society of Southern California

Volume 93 Number 11 - November, 2020

The 983rd meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

A ZOOM Meeting

November 13th, 2020 at 7:30 P.M.

Program: Minerals Under Pressure Presented by Abby Kavner

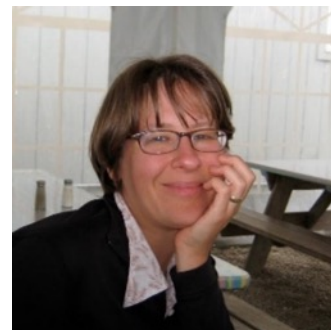
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Remember: If you change your email or street address, you must let the MSSC Editor and Membership Chair know or we cannot guarantee receipt of future Bulletins

About the Program: Minerals Under Pressure Presented by Abby Kavner. Professor | UCLA Department of Earth, Planetary and Space Sciences

Abby Kavner is a professor of Earth, planetary and space sciences at UCLA and an expert on the behavior of the Earth's interior and the interiors of planets. Kavner's research has focused on studying rocks and minerals at high pressures and temperatures to understand the thermal and chemical evolution of the Earth's interior.



How to Participate in MSSC ZOOM meetings:

Program Chair, Rudy Lopez, will send an all call email each month to our members about the meeting.

non members:

If you want to participate in our ZOOM meetings, please check out the information in the MSSC website/Bulletin www.mineralsocal.org, send an email to programs@mineralsocal.org and Rudy will make sure you are contacted.

From the Editor:

Boy, does time fly when we are all in quarantine? It's already November. MSSC Election time and almost dues are due time. (Oh Yea, National election too!)

Do check out the list of MSSC office nomination in the box on page 5. It's still not too late to nominate yourself if you are interested in any of these positions. The election will be during the November 13th ZOOM meeting.

Your 2021 Membership form is also included in this Bulletin so you can get your 2021 membership dues paid sooner rather than later.

If you are able to attend, enjoy the upcoming meeting and program. Linda Elsnau

FROM THE PRESIDENT: Interesting Minerals, A to Z. Round 2, installment 8, the letter "H": by George Rossman




Hibonite, $\text{CaAl}_{12}\text{O}_{19}$

Hibonite is a rare mineral originally found in high-grade metamorphic rocks in Madagascar. The original samples were found in an alluvial deposit at Esiva, Fort Dauphin region, Madagascar, and later found hosted in a metamorphosed limestone that contained a lot of calcic plagioclase that was associated with corundum, spinel, and thorianite. It was discovered and recognized as a new mineral over 60 years ago and first published by Curien et al. in 1956.


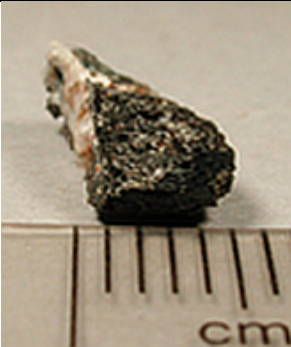
Curien H, Guillemin C, Orcel J, Sternberg M (1956) La hibonite, nouvelle espèce minérale. Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences 242, 2845-2847

The name is for Paul Hibon, a French prospector who discovered the mineral in 1953.

Hibonite can occur as hexagonal prisms flattened parallel to (0001) up to 4 cm. in size (**Figures 1-3**). Hibonite is relatively hard: hardness: 7-8. The color is brownish-black to black but when in thin fragments, can be reddish-brown. The color comes from its combined iron and rare-earth content. The Madagascar material may contain over 3% by weight rare-earths. It is usually weakly radioactive due to hundreds of ppm of thorium.

		
Figure 1. Hibonite from Amboasary Sud, Anosy, Madagascar. Photo Credit: Rob Lavinsky	Figure 2. Hibonite from Amboasary Sud, Anosy, Madagascar. Photo Credit: Rob Lavinsky	Figure 3. Hibonite from Esiva, Anosy, Madagascar. Photo Credit: Kelly Nash, Creative Commons on Mindat.org

.More commonly, it is found in the host rock as irregular chunks of black crystalline material (**Figures 4,5**).

	
Figure 4. Hibonite from Esiva, Madagascar Photo Credit: Marc Garcia	Figure 5. Hibonite from Tulear Province, Madagascar Photo Credit: Mark Garcia

Do not confuse hibonite with hibbenite, a former name for hopeite, $\text{Zn}_3(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}$ (Phillips, 1916).

Phillips, A. H. (1916) New zinc phosphates from Salmo, British Columbia. American Journal of Science 42, 275-8.

Hibonite forms a solid solution series with a mineral named hibonite-(Fe). Hibonite is the calcium aluminum oxide, $\text{CaAl}_{12}\text{O}_{19}$, and hibonite-(Fe) is the iron analogue where iron replaces the calcium, $\text{FeAl}_{12}\text{O}_{19}$. It was discovered in the Allende Meteorite associated with hercynite, ilmenite, spinel, perovskite and hibonite (Ma, 2010). It is very tiny. It is best seen with a scanning electron microscope (**Figure 6**).

Ma C (2010) Hibonite-(Fe), $(\text{Fe},\text{Mg})\text{Al}_{12}\text{O}_{19}$, a new alteration mineral from the Allende meteorite. American Mineralogist 95, 188–191.

The person who discovered this new mineral species, Chi Ma, by the way, works at a small research university in Pasadena, CA, where he is the Director of the Analytical Facility. Hibonite-(Fe) was the eighth new mineral species he discovered (part of the more than 40 new, currently-published species he has discovered, so far).

Hibonite minerals are some that have recently had their “ideal” chemical formulas changed by the International Mineralogical Association (Miyawaki et al, 2019).

Miyawaki R, Hatert F, Pasero M, Mills S J (2019) IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) Newsletter 50. New minerals and nomenclature modifications approved in 2019. Mineralogical Magazine 83, 615-620

The original formula for hibonite was $(\text{Ca,Ce})(\text{Al,Ti,Mg})_{12}\text{O}_{19}$; now it is $\text{CaAl}_{12}\text{O}_{19}$.

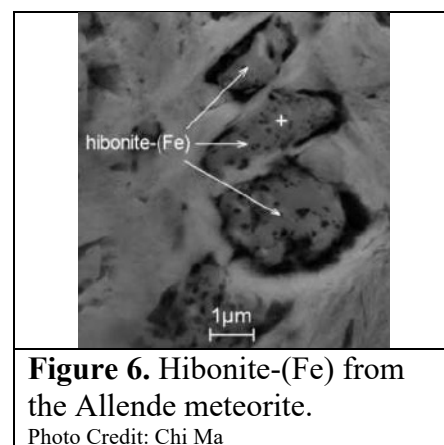


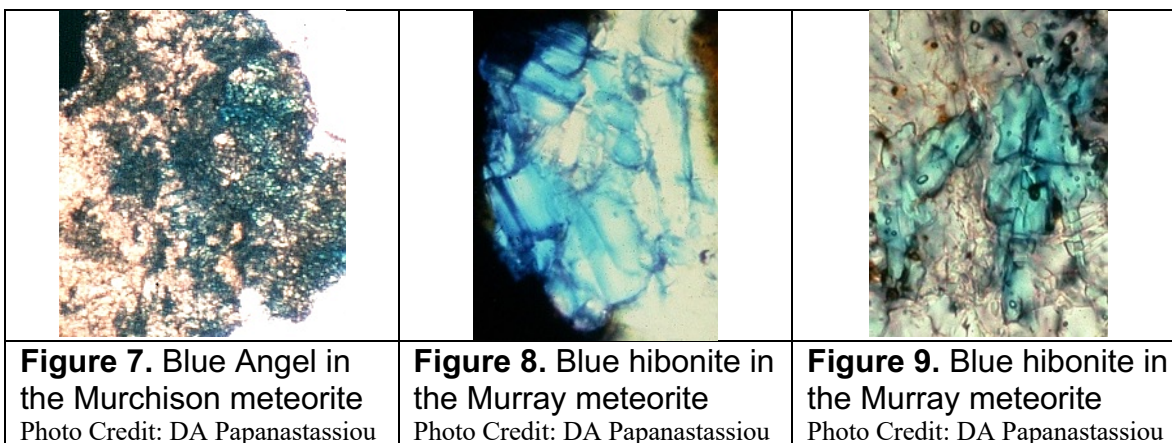
Figure 6. Hibonite-(Fe) from the Allende meteorite.
Photo Credit: Chi Ma

The original formula for hibonite-(Fe) was (Fe,Mg)Al₁₂O₁₉; now it is FeAl₁₂O₁₉.

Why the change? When the authors of the original discoveries first published the formulae, they included all the major elements in the mineral as they discovered it. But we define a mineral based on the dominant cation in each site. So, the IMA decided to simply state only the major cations in the formula as the ideal formula of the species. To be more specific, there is no certainty that the next locality where hibonite is found will have either cerium or magnesium as part of its composition. But, it will have calcium and aluminum, by definition.

Hibonite is found in meteorites. In particular, in some very primitive (early formed) meteorites, grains of hibonite that predate the formation of our sun are found (presolar grains). Hibonite is also found in some chondritic meteorites where it commonly occurs in the calcium-aluminum-rich inclusions known as CAIs. Likewise, hibonite-(Fe) was also found in the Allende meteorite as an alteration phase.

Hibonite from some meteorites has equilibrated with a reducing gas of a composition found in the formation of the solar system. In meteoritic hibonite, under such highly reducing conditions, much of the Ti⁴⁺ was reduced to Ti³⁺. In such cases, both Ti³⁺ and Ti⁴⁺ are present in the hibonite crystals.



This gives rise to the Ti³⁺ - Ti⁴⁺ interactions that are found in some meteoritic minerals. In these cases, the energy of the red portion of visible light can cause an electron from the Ti³⁺ to jump over to the Ti⁴⁺ in a process called intervalence charge transfer. The result is that the red wavelengths are absorbed resulting in the remaining wavelengths causing a blue color. An example of the blue color caused by this interaction is the color of the fine-grained, titanium-containing hibonite in an inclusion known as the 'Blue Angel' in the Murchison meteorite (**Figure 7**). This mineral absorbs red light but allows blue light to pass. Other, even better examples include the blue hibonite in the Murray meteorite (**Figures 8,9**) and the blue hibonite-bearing inclusions in the Vigarano meteorite.

Titanium in the reduced 3+ oxidation state is extremely rare in terrestrial minerals but more commonly found in extraterrestrial minerals. I guess we can say, such minerals are really out of this world.

MSSC ZOOM General Meeting Minutes, October 9, 2020

At 7:34 p.m., the **982nd Membership Meeting** of the Mineralogical Society of Southern California (MSSC) was called to order by President Dr. Rossman, Ph.D. It is our 5th ZOOM *conference meeting* due to the ongoing Coronavirus (COVID-19) pandemic. Welcome!

Message from the Chair:

Dr. Rossman stated that there are administrative items to be addressed at this meeting:

- A) Regular Business - Approval of Minutes;
- B) COVID-19 Liability Release Waiver form;
- C) Nominations of Officers and Directors;
- D) Field Trip – Red Cloud Mine and
- E) Other announcements.

A) Regular Business

Minutes: Dr. Rossman directed our attention to the Minutes of the last membership meeting, September 11, 2020 as published in the October 2020 *Bulletin* and asked for a motion to approve them. The **motion to approve** the Minutes was made by M. Chorazewicz and seconded by R. Lopez. Rossman called for any corrections, additions or objections and hearing none, called for the vote. The **vote was unanimous in favor to approve the Minutes per the motion.**

B) COVID-19 Form: A new MSSC form, displayed on screen, was introduced to the members and guests. Dr. Rossman requested the Board to review it and he asked Angie and Marek to speak about the form. Angie Guzman explained it is in compliance with CDC guidelines regarding the COVID-19 virus and in-person event(s) the society may host. Marek Chorazewicz adds that he must sign a similar form when he goes into his office building. As for field trips, he states that the form will be required and completed prior to commencement of the event. Dr. Rossman asked the Board to contact him if there are any comments or questions; MSSC will begin using the COVID-19 Liability Release Waiver form.

C) Nominations for Officers (A. Guzman): Guzman officially opened nominations of Officers (2021) and two Director (2021-2022) seats in accordance with MSSC By-Laws: *“Nominations for Officers and Directors shall be made at the October and November meetings. Officers shall be elected by majority vote of a quorum of the membership at the regular November meeting.”* Members may nominate a member in good standing, nominees will please accept or decline at the time nominated and nominations do not require a second. [Incumbent is listed in brackets].

2021 MSSC Officer Nominees

Nominations for President [Dr. George Rossman]	1) Dr. George Rossman – accept
Nominations for Vice President [Ahni Dodge]	1) Ahni Dodge – accept
Nominations for Treasurer [Jim Kusely]	1) Carolyn Seitz – accept
Nominations for Secretary [Angie Guzman]	1) Angie Guzman – accept
Nomination for CFMS Director [Angie Guzman]	1) Angie Guzman – accept
Nomination for Director 2021-2022 [Leslie Ogg]	1) Leslie Ogg – accept
Nomination for Director 2021-2022 [Dr. Bob Housley]	1) Dr. Bob Housley (not present to accept or decline)

There were no other nominations although there was a call for each seat listed. Some discussion followed regarding Treasurer Kusely's position and, Director Housley possible vacancy. Nominations were declared closed until the November 13, 2020 meeting when MSSC will again open nominations after which the election will take place.

D) Field Trip Report (M Chorazewicz):

Marek states that the October 24, 2020 field trip to Red Cloud Mine is a go. People will meet up at 8 a.m. on Saturday. GPS location and directions are on the website. Kindly check the website or *Bulletin* for information and updates regarding field trips.

E) Other announcements:

Rudy Lopez welcomed the San Diego Mineral Society, joining us this evening. Also, Rudy announced that Fallbrook will have their Fall Festival on Sunday, October 11th.

Angie Guzman announced she will be reviewing the MSSC' By-Laws and Operating Rules and Regulations and is looking for volunteers to assist. The proposed changes will be presented to the Board and the General Membership for approval.

Program: Rudy Lopez introduced speaker, Karin Rice from the La Brea Tar Pits. Rudy says that Karin is a big hit at the Natural History Museum's Nature Fest, showing a photo of Karin in a bear costume she wears at the events. Scary!! Ms. Rice is currently "Preparator" for the Tar Pits, Project 23. Her educational background is geology with industrial experience in environmental and engineering geology, and paleontological resource

mitigation. At the Tar Pits, she is responsible for excavating fossils, training volunteers and students and sharing her expertise with the public.

Ms. Rice begins her presentation, “Fossils in the Los Angeles Basin: An embarrassment of riches.” She says you don’t have to go to those faraway places like Montana, Wyoming or South Dakota, or exotic places like Mongolia to find fossils such as plants (Cretaceous) marine mammals and dinosaur (Miocene to Pleistocene) to Ice Age megafauna and countless marine invertebrates. These, all of them, can be found within a few hours of downtown L.A.!

Karin tells us when she was a young girl back in the day, her Mom, who had “Hunting for Fossils” a guidebook for finding and collecting fossils in the U.S, tells Karin and her siblings that one of the places to find fossils is nearby, in Topanga Canyon. Out they went armed with digging tools they could muster, to search the “...sandstone and siltstone for the moderately well-preserved invertebrate marine fauna with a diversity of gastropods and pelecypods.” What fun it must have been, led by their Mom, to find mollusk and bi-valve fossils! And, although this location is now closed, hear tell, some people still venture there in search of fossils, but don’t tell anyone.

Karin shows a map photo of a sampling of fossil locations in the greater L. A. Basin. “X” (crossbones) marks the spots on her map: San Clemente to the south to Moorpark and Oxnard to the northwest to Pasadena in the north and many places in between including San Pedro, Palos Verdes, Chino Hills, Santa Ana, Irvine, San Joaquin Hills, others and, of course, Los Angeles.

It’s great to know there are protections for the fossils we live amongst. Those protections include the Antiquities Act (1906), the National Environmental Policy Act (NEPA, 1969), the Federal Land Policy and Management Act (1976), the California Environmental Quality Act (CEQA, 1970) and Paleontological Resources Preservation Act (PRPA, 2009). CEQA requires California state and local agencies “to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.” PRPA requires that coordinated policies and standards be developed that apply to fossils on federal public lands. These acts came about, in part, because of the vast land developments (such as in Orange County) and the need to protect these ancient fossils. In fact, when Karin was working for a mitigation company, she was sent to construction sites to save the fossils before they were damaged by heavy equipment.

Karin tells us about fossils she personally found in the L.A. Basin (Miocene to Pleistocene). Her finds include: whales in San Pedro, Palos Verdes, downtown L.A., San Clemente and Irvine; crab and beach rock with shark skull encased in it in Long Beach; mammoth and mastodon in Simi Valley; marine bivalves in Santa Monica Mountains and Saber Tooth cats in the tar pits. What a lot of people don’t understand, she says, is that there is a huge quantity and variety of fossils over this vast area and, across time. A mastodon found by her classmate, Julia Frazier, Karin tells us, was excavated, mounted and put on display at the Natural History Museum of Los Angeles County. How amazing is that?

Her collecting takes her to Orange County (OC) because it is so rich in fossils. Using topographical maps, she points out areas to us. For instance, in Irvine (Late Cretaceous), at the Williams Formation, there are abundant plant fossils. Karin shows photos of wonderful ammonite fossils she found. At the Capistrano Formation (Miocene-Pliocene), whale bones and teeth are unearthed just below the surface. And, at the Monterey Formation (Miocene), a huge, petrified log was found and loaded on to a truck bed; other petrified wood, shark teeth and perfect fish fossils (lantern, pipe and others) were also found.

Marine terrace coral and crab show up along the way, a horse, mastodon bones and tusk (Pleistocene); other marine invertebrates, ammonites, bivalves, gastropods and echinoderms appear in the Cretaceous Holtz Shale Member of the Ladd Formation also in OC. And, speaking of marine fossil, fish scales, fish bones, whale skull, whale ear bone (bulla), whale vertebra were all found in San Pedro and Palos Verdes. She talks about trace fossils in the Puente Formation at Dodger Stadium and burrow fossils at Lunada Bay, Palos Verdes. Not to be outdone, Karin says another fossil area is in our own backyard, the Arroyo in Pasadena.

At completion of her presentation, Karin fields questions about the Arroyo, Silverado Canyon, Cabrillo Beach, Simi Valley, collecting in national parks (no), national monuments (no) and roadside shale collecting. Someone

asks if they find a fossil would she be willing to identify it? “Yes”, she says. Lastly, Karin says this, “Amateur collectors are big contributors to paleontology.”

Thanks, Karin Rice, fascinating work and wonderful photos of your collection. You kept us all right there with you. Come again!

It’s impossible to write each detail Karin presented, but if you want to get all the information from our next presenter, **sign on for the ZOOM Membership Meeting to be held on November 13, 2020.** And, don’t forget, *we will open nominations and have elections of Officers and Directors.*

Dr. Rossman thanked Caltech for allowing this meeting to take place via use of their ZOOM licensing. We are grateful for their generosity.

The meeting adjourned at 8:36 p.m.

Respectfully submitted, Angie Guzman, MSSC Secretary

List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates:	ZOOM December 11, 2020	Renee Newman: Exotic Gems via
	ZOOM January, 2021	Denise Nelson: TBA
	ZOOM February 12, 2021	Tony Kamph: The Journey from an Unknown to a New Mineral.
	ZOOM March, 2021	John Rakovan: New insights into the structure and formation of wire silver and gold.
Board Meeting	January 17, 2021	Via ZOOM
Field Trip	TBA	TBA

Note: Dates and programs shown above are subject to change. Check your bulletins to confirm final information each month.

MSSC Board Meeting – 11 Oct 2020 – ZOOM conference - 1:00 pm

Who was attending:

Board Members:

George Rossman - Y Ahni Dodge - Y(late) Jim Kusely - N Angela Guzman - N Ann Meister - Y
Bob Housley - N Leslie Ogg - Y Rudy Lopez - Y Pat Caplette - Y Cheryl Lopez - Y

Committee Chairs – welcome to attend:

Linda Elsnau Alan Wilkins Laura Davis Marek Chorazewicz - Y

Items for action at MSSC board meeting

a) Approval of the June 14 MSSC Board Meeting minutes in the July 2020, bulletin. 1) Ahni -> 2) Leslie

b) Action needed regarding Board of Directors members whose terms will expire:

- 2019-2020 Bob Housely would be happy to give up his seat on the Board if someone else would like the chance.
- GRR – ASK if he will stay on
- 2019-2020 Leslie Ogg WILL STAY ON FOR 2 MORE YEARS

REPORTS AND ITEMS FOR DISCUSSION

1) Comments and questions from the President – [Rossman]

Discussion of the ZOOM format for meetings

Our expansion to other societies: Others viewing our things: San Diego - Fallbrook? - CA Federation - Pasadena Lapidary Soc -- Cal State Fullerton, - Searchers,

The attendance to date --- going up

Observe: several sign up and do not attend

----- Put a slide at end of our meetings about joining MSSC **

Are there things that would improve the meetings or presentations?

--- Put in the bulletin a link to ZOOM instructions or with all details in the bulletin...

- 2) Treasurer's Report on the finances of the Society & discussions – [Angie – written comments provided]
- Action on the previous suggestions
 - We immediately stop booking paid speakers on a 1 per month basis. ii) Save \$ by offering the speaker's normal rate unless unusual circumstance apply.
 - Office expenses. - no report
 - We are up-to-date on MSSC related forms and bank reconcilements although Jim did not give Angie our checkbook balance.
 - Status of Jim, our current treasurer
 - Jim had by-pass surgery Sept 24th at St Joe's in Burbank. He was sent to a rehab center but, due to personal situation, went home to heal. He is in a lot of pain and is tended to by home health care profession and is being monitored by his doctor.
 - He says he will be back as Treasurer but is unsure about 2021 term.
 - Status of PayPal for membership Renewal [Cheryl]..... need more information for website Addition to the website [Leslie]
 - ASK Angie if she will want to do it Or another person to do this? Does Angie want to stay as our Treasurer ??????

3) Pacific Micro Mineral Conference Report – [Wilkins/Housley]

We can NOT make any plans concerning a 2021 micro mineral conference until the pandemic is under control (RH).

4) Membership Chair's report on current membership – [C Lopez] 91 members now

- Has ZOOM helped? 46 single 33 family Honors 5 Life 7
- International outreach
- Is this something for the bulletin?

5) Society Field Trips - [Marek] 10 folks interested in the trip ½ to 2d mine Roads OK

Status of the Red Cloud Mine and North Geronimo Mine, AZ, trip: Oct 24

Angie get info on liability for sickness

6) Federation Director's report – [Angie – written comments provided]

As with MSSC, COVID-19 has prevented normal events and meetings for CFSM. However, there will be a ZOOM Director meeting on November 14, 2020, which I will “attend”.

7) Program Chair's report – [Rudy] Booked until August 2021

8) Webmaster's Report - [Ogg] A slide presentation was given

9) Bulletin Report – [Linda]

- Courtesy bulletins being sent a few
- Mail requests - have not increased
- Has ZOOM format changed the work load? No (Editor's reply)

10) Secretary Remarks (Angie Guzman)

By-Laws and Operating Rules need to be reviewed and updated. I have looked preliminarily at these documents and will lead a “sub-committee” for the review.

11) Next Meeting Date : Sunday: **January 17**

With Knowledge Comes Appreciation !

Ride Share Listing

Can You Provide A Ride?

Would You Like Company On The Drive To Meetings?

We have heard from several of our members that they would like to ride-share with someone to the meetings. We will list the names, general location and either a phone number or an email address of anyone who would like to connect for a ride-share. If you would like to catch a ride or would like company for the trip, let me know at msscbulletin@earthlink.net and I'll put the information in this section of the bulletin. After that, any final arrangements made are up to you. Also, If you make a connection that works for you, let me know so that I can remove your information from the bulletin. The Editor

Looking for	Who	Where	Contact at
A ride	Richard Stamberg	North Orange County, near Cal State Fullerton	<i>No meetings due to COVID</i>

OTHER FREE THINGS TO DO...by Ann Meister

SPECIAL EVENT from UCLA Meteorite Scientists: Exploring Your Universe 2020 on Sunday, **November 1** at 12:00 noon. Location: <https://hopin.to/events/eyu>

This is a FREE event for visitors of all ages and scientific backgrounds. Exploring Your Universe was founded in 2009 by graduate students in UCLA's Astronomy department, and is now organized by volunteer graduate students representing several UCLA departments. As the largest science outreach event on campus, this event is made possible by volunteers from student groups, departments, and faculty across all science disciplines. This year there will be no physical event held on UCLA's campus. We will be going VIRTUAL! We have built a virtual platform specially for this event in order to curate an immersive experience that includes a combination of interactive booths, demonstrations, live speakers, and Q&A panels. Copy and paste the link in your browser to reach the registration page so that you can join us anywhere in the world on Nov. 1st! The UCLA Meteorite Collection is hosting a booth with EYU which includes live lectures from 12-5 p.m. including a Q&A with Meteorite Scientists from 4-5 p.m. on November 1st.

The Watson Lectures are back via Zoom! The lecture is on Wednesday, **November 11**, from 5 to 6 PM Zoom online with a live audience Q&A at the end. At 8 PM the recorded lecture (without Q&A) will be posted on Caltech's YouTube channel <https://www.youtube.com/user/caltech>. You must register in advance for the Zoom event link at <https://www.caltech.edu/campus-life-events/master-calendar/watson-lecture-2020-11>. The speaker is Alireza Marandi, Assistant Professor of Electrical Engineering and Applied Physics, Division of Engineering and Applied Science at Caltech. The title of the presentation is, **"The Power of Nonlinearities: Unlocking Opportunities for Sensing and Computing with Light."** As the information age evolves, we are faced with new challenges in how to capture and process information. Nonlinearity, which leads to functions such as logic operations and frequency conversion, is a critical part of addressing these challenges. Many of today's information technologies simply would not be possible without nonlinear circuitry and integrated silicon-based transistors. In his lecture, Alireza Marandi will describe how he and his research group are exploring scientific frontiers in nonlinear photonics, from ultrafast optics to laser spectroscopy and more, using state-of-the-art laser systems, micro and nano fabrication tools and techniques, unconventional materials, and numerical and theoretical techniques. He will also discuss the applications of those explorations to some of our most daunting modern-day inquiries in computing and sensing, including the creation of universal breath-analysis devices. For online stuff at Caltech go to <http://events.caltech.edu/>

The Von Kármán Lecture is on Thursday, **November 12** at 7:00 PM. The event is live on Ustream.

<http://www.ustream.tv/nasajpl2> Check online for changes and other viewing options.

https://www.jpl.nasa.gov/events/lectures_archive.php?year=2020&month=11 The speaker is Rob Manning, Systems Engineer/Engineering Fellow, JPL. The title of the presentation is **"How Failure Helps Us Succeed: The Agony & Inspiration of Defeat."** There are lessons in defeat. This month's show will discuss several

notable failures in the course of JPL's history of exploration and the incredibly valuable lessons from them. Did you know the loss of a Mars spacecraft led to a new system that lets us never lose contact during critical maneuvers? Or that a failed spacecraft antenna helped make better mobile phones? Space is hard — join us to hear how JPL turns setbacks into motivation.

MSSC Advertisement Policy:			
Mineral-related ads are allowable in the MSSC bulletin. Below is the price per month			
	Business Card	\$5.00	
	1/3 page	\$10.00	
	1/2 page	\$20.00	
	Full Page	\$35.00	
In addition, any advertiser who purchases 12 months of space in advance will receive a discount of 12 months for the price of 10 months. The copy for the ads should be mailed to the editor at bulletin@mineralsocal.org and the payment should be sent to the MSSC Treasurer 1855 Idlewood Road, Glendale, CA 91202			

Calendar of Events:

Only local area shows are listed here. Other CFMS Club shows can be found at: <http://www.cfmsinc.org/>

Due to COVID-19 many clubs have cancelled or changed their show dates. CFMS updates this list if clubs notify them. If you have any questions, please reach out to the contact listed to make sure the show is still taking place.

2020 Shows

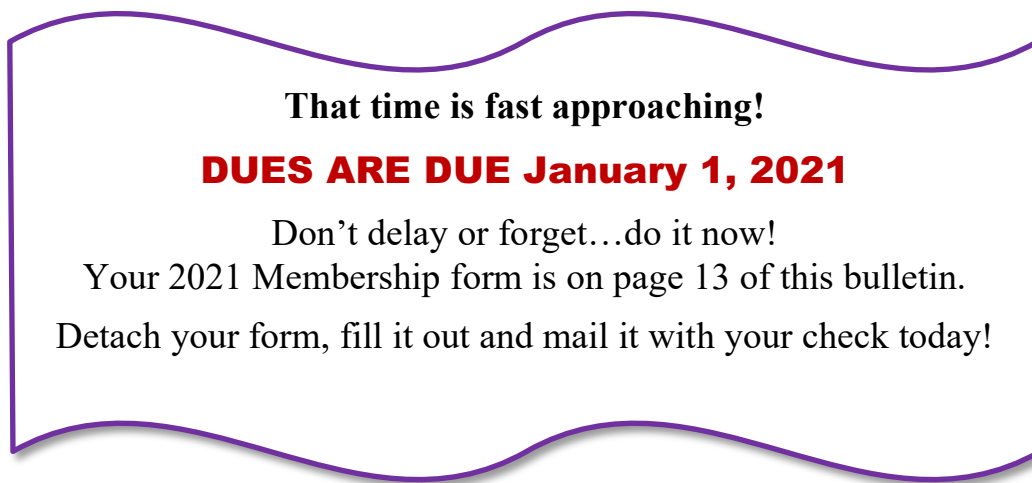
November 21-22; ANAHEIM CANCELLED!!!

March 13-14, Arcadia CA

Pasadena Lapidary Society
 “Inspiration Unearth”, 62nd Annual Tournament of Gems
 Arcadia Masonic Center, 50 W. Duarte Rd.
 Hours: 10-5 Daily
 Website: pasadenalapidary.org

2021 Shows

March 6 – Ventura, CA CANCELLED!!!



WOW! No Tucson Show in 2021 !

In 1955, the Tucson Gem and Mineral Society (TGMS) put on the first Tucson Gem and Mineral Show® in a grade-school cafeteria. From such humble beginnings sprang what is now collectively called the Tucson Gem, Mineral & Fossil Showcase, which occupies over 50 venues around town from mid-January through mid-February. [In case you've missed it in all the hoopla surrounding the commercial shows, our Show, the *Main Show*, takes place in the Tucson Convention Center.] The Tucson Showcase is by far the world's largest gathering of gem, mineral, fossil, meteorite and related earth science collectors, dealers and museum scientists. The Arizona Department of Tourism estimates it annually brings about \$130 million dollars to the Tucson economy making it our biggest tourism-related event. TGMS takes parental pride in the economic/commercial juggernaut the Showcase has become, but we remain a local, volunteer-based, non-profit, Earth-Science education-focused group open to all comers. [Please visit www.tgms.org for more info.]

Our Show is TGMS's annual gift to Tucson...it is the only show *by and for* Tucsonans and we are extremely grateful for the support we have always received from our community. We hoped and planned for the best during these difficult days of COVID-19 but find events have conspired to force us to the painful decision to take 2021 off and focus on bringing things back at a higher level in 2022! As members of the Tucson community, we feel we should explain the reasoning behind this decision while emphasizing our full support for the remainder of the 2021 Tucson Showcase in whatever form it takes.

Most importantly, TGMS does not want to be responsible for a single COVID-19 fatality or serious illness. Our Show is run by volunteers and many of us are in high-risk demographics...as are many of our participants and attendees. Consulting closely with the Pima County Health Department, the Mayor and City Manager's offices and the good folks who run the TCC, it is clear that applying the mandated COVID-19 protocols to reduce risk would mean drastically restricted attendance and curtailment of many of our programs.

Second, our Show is much different from the rest of the Showcase. We are *the public show* with a unique combination of exhibits, school children visits, educational programs, scientific networking and family outreach. We annually create a world-class museum that magically disappears forever after just four days. Our equally enthralling "gift shop" includes a cadre of superb retail gem, mineral, fossil, meteorite, book and jewelry dealers, who complement the exhibits. This unique combination sets the TGMS Show apart from all the other shows in town.

Third, we expect that our Show dazzles everyone with displays of exquisite minerals, gems, jewelry and fossils brought by the worldwide Mineral and Gem Community. Restrictive COVID-19 travel policies mean many of our major domestic, and most of our international museum exhibitors and friends either won't or can't travel here. This effectively eliminates both our exhibits and educational programs.

COVID-19 related risks clearly make it impossible for TGMS to put on anything more than a shadow of our accustomed vibrant event. So, we've decided that it makes more sense to conserve our resources and apply them towards a *Blockbuster 2022 Tucson Gem and Mineral Show®*. ***We promise to pull out all the stops to bring you an unparalleled group of eye-popping fluorescent mineral exhibits, colorful minerals and gems from around the world, and some special surprises to shake everyone out of their post-Covid lethargy!!! See you in 2022!***

Les Presmyk: TGMS President

Peter Megaw: TGMS Show Co-Chair

Richard Gottfried: TGMS Show Co-Chair

Patricia McClain: Executive Manager

Editor's Note: The above information applies only to the Tucson Show that is held in the Tucson Convention Center. There is no mention of any of the surrounding shows or events

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About the Mineralogical Society of Southern California

Organized in 1931, the Mineralogical Society of Southern California, Inc. is the oldest mineralogical society in the western United States. The MSSC is a member of the California Federation of Mineralogical Societies, and is dedicated to the dissemination of general knowledge of the mineralogical and related earth sciences through the study of mineral specimens. The MSSC is a scientific non-profit organization that actively supports the geology department at Pasadena City College, Pasadena, California. Support is also given to the Los Angeles and San Bernardino County Museums of Natural History. The Bulletin of the Mineralogical Society of Southern California is the official publication of the Mineralogical Society of Southern California, Inc. The MSSC meetings are usually held the second Friday of each month, January, February and August excepted, at 7:30 p.m. in Building E, Room 220, Pasadena City College, 1570 E Colorado Boulevard, Pasadena, California. The annual Installation Banquet is held in January, and the annual Picnic and Swap Meeting is held in August. Due to PCC holidays, meetings may vary. Check the Society website for details.

The Society also sponsors the annual Pacific Micro mount Symposium held at the Fallbrook Mineral Museum during the last weekend of January.

Annual Membership dues for the MSSC are \$20.00 for an individual membership, \$30.00 for a family membership. Bulletins are delivered by email, there is an additional annual \$20.00 fee if you prefer paper bulletins mailed to your address. The Society's contact information:

Mineralogical Society of Southern California

1855 Idlewood Rd.,

Glendale, CA 91202-1053

E-mail: treasurer@mineralsocal.org

Website: www.mineralsocal.org **The Mineralogical Society of California, Inc.**

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Revised 10/2020

MSSC Bulletin Editor
3630 Encinal Ave.
Glendale, CA 91214-2415

To:



**Happy
Thanksgiving !**

*With Knowledge Comes
Appreciation*

***Your MSSC
Bulletin Is
Here!***