Bulletin of the Mineralogical Society of Southern California

Volume 97 Number 11 –November, 2024

The 1,032nd meeting of the Mineralogical Society of Southern California

With Knowledge Comes Appreciation

A ZOOM Meeting

November 8 , 2024, at 7:30 P.M.

Program: **" Mineral Luminescence: Examples from The G. Waychunas Collection."**
Presented by

In this Issue:

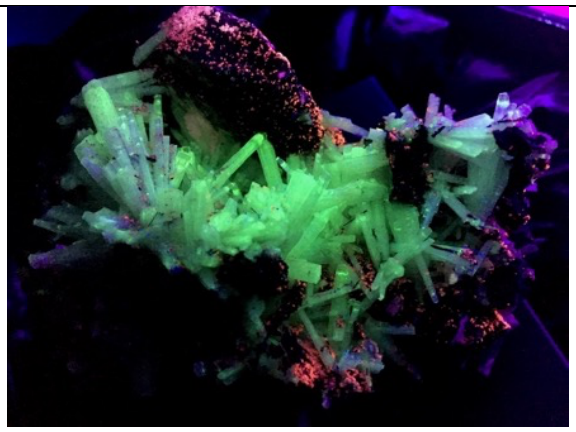
TITLE	*Page*
Program: **"Mineral Luminescence: Examples from The G. Waychunas Collection": Presented by Glenn Waychunas**	**2**
From the Editor: Linda Elsnau	**2**
From Our President: Angela Guzman	**3**
Minutes of the October 11, 2024, ZOOM Meeting	**5**
Minutes of the October 27, 2024, MSSC ZOOM Board Meeting	**8**
List of Upcoming MSSC Events	**10**
MSSC AT PREHISTORIC Orange County Rudy Lopez	**10**
Other Free Things to Do...by Ann Meister	**12**
Calendar of Events	**13**
15 Minerals Named for MSSC Members	**13**
2024 Officers	**15**
About MSSC	**15**

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

Program*:* Mineral Luminescence: Examples from The G Waychunas Collection. Presented by Glenn Waychunas

Of the more than 3000 specimens I have in my luminescent mineral collection, I will show photos of some of the most interesting and colorful, including a few personally collected in Sweden, Namibia and Australia. Then I will very briefly review how luminescent mechanisms operate, including delayed luminescence (phosphorescence, thermoluminescence, afterglow). After this, I will examine two minerals that show interesting diversity in luminescence: fluorite and apatite. Fluorite often luminesces bright blue, but we will see that other emission is possible, sometimes showing interesting zonation. With apatite many luminescence colors are often seen, sometimes with several in the same specimen, and with complex zonation. Sometimes different colors can be excited by different UV wavelengths. I will conclude by answering questions about luminescence, collecting luminescent minerals, and UV light sources.

Glenn Waychunas is a visiting scientist at Caltech (Division of Geological and Planetary Sciences) and a scientific associate at Lawrence Berkeley National Laboratory. He received his Ph.D. in 1979 from UCLA. His research work has focused on sorption of ions on mineral interfaces, along with near surface aqueous solution and solid structure. He has also made contributions to nanoscience, geochemistry, non-linear spectroscopy, x-ray spectroscopy and luminescence spectroscopy. Most recently, with George Rossman, he has been characterizing activators in minerals with poorly understood luminescence.



Naturalite, Mt. St. Hilaire

Calcite, Sweden

Photos by G. Waychunas

How to Join our ZOOM Meetings

MSSC members are automatically included in the invite list each month.

For non MSSC Members who want to join this meeting. You must respond to our Programs chair, Carolyn Seitz speakers@mineralsocal.org. no later than the Thursday prior to the next scheduled meeting. Please include "*current month* ZOOM Meeting" in the subject line of your response. This response date will allow time for us to send you the information needed to participate in the ZOOM meeting.

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From the Editor: Linda Elsnau.

Wow, it looks like we have a really inteesting program for November. If you have never seen what fluorescent lights do to many minerals, you are in for a real treat!

This is the month we elect MSSC's officers for 2025. If you are considering stepping up to take on a role in the governing body, now is the time to speak up. Also join the ZOOM meeting so you can cast your vote.

From Our President, Angie Guzman

DO YOUR PART – VOTE!

Photo: PublicDomainPictures.net

√ **Nov 5th** General Election

√ **Nov 8th** MSSC Officers and Directors Election

THANK YOU FOR YOUR SERVICE!


Photo: Clean Public Domain by Doodlebug

VETERANS DAY
November 12, 2024

♦♦♦

Question: What is the largest gem in the world? (See answer at the END)

♦♦♦

Goldschmidtite

Goldschmidtite is found as inclusions in diamonds. This mineral is a valid, approved member of the perovskite supergroup. It was approved by the International Mineralogical Association (IMA) in 2018 (published 2019) and its IMA-CNMNC symbol is **Gsc**[1]. The mineral was named for Victor Moritz Goldschmidt, one of the founders of modern geochemistry.

It's ideal chemical formula, $(K,REE,Sr)(Nb,Cr)O_3$ – it is mostly composed of potassium, niobium and oxygen. It was discovered by a team from University of Alberta, Canada and a study of the find was published in September 2019 American Mineralogist. One of the co-authors of the study, Ph.D. student Nicole Meyer, stated, *"The work that goes into finding a new mineral is not done by one person,"* she said. *"It has been an interdisciplinary collaboration with a mineralogist, Andrew Locock, crystallographers from Northwestern University, my advisors, Thomas and Graham, and technicians."* [2]

Ms. Meyer says that the mantle is usually dominated by magnesium and iron. However, goldschmidtite has an unusual chemical signature for a mineral from the mantle. According to National Geographic, the Earth's mantle is about 2,900 km (1,802 mi) thick making it most difficult for scientists to study the lowermost portions of it. In the upper mantle, intense heat and pressure transform carbon deposits into sparkling diamonds. Rocks trap other mantle minerals in their structures and can be pushed up to the planet's surface by underground volcanic eruptions. Scientists, by analysing the diamond's mineral inclusion (s), can understand the chemical processes that occur far beneath the Earth's crust.

As mentioned earlier, goldschmidtite contains potassium and niobim in high concentrations and, rare earth elements such as lanthanum and cerium. *"For potassium and niobium to constitute a major portion of this mineral, it must have formed under exceptional processes that concentrated these unusual elements"*, stated

Meyer in an article written by Katie Willis (Univ of Alberta) and published September 2019 on SciTechDaily, an on-line media.

The dodecahedron (12 sided) diamond in which the mineral inclusion of goldschmidtite was discovered, came from the Koffiefontein Mine in South Africa, at the Kaapvaal craton area. The Kaapvaal craton is well known for diamond bearing kimberlites which are igneous rocks that form at considerable depths and are rapidly brought to the surface during eruptions - usually through natural vertical "pipes". Due to their deep origin, kimberlites often carry diamonds and mantle fragments called xenoliths[3].

Shining diamonds sparkle in the dark igneous rock that line the pipe. Some of the diamonds themselves contain tiny bits of minerals from hundreds of miles beneath the Earth's surface. Within one of these sparkling diamond stones, the dark green opaque mineral, goldschmidtite, was waiting to be discovered. It is estimated to have been forged about 170 km (105 mi) underground.

In all fairness, an article describing this unique find was published by several periodicals including on-line magazines or sites, most prominent of which was American Minerologist. Each on-line site presented the same information and most featured the same photo of a diamond possibly without the inclusion of goldschmidtite. However one other article, on Live Science actually displayed Nicole Meyer's photo of goldschmidtite in 2019. I was unable to find if any of the on-line periodicals received permission to post the photo plus not seeing American Mineralogist's permission, I decided NOT to print the photo without permission. Here instead is the query you can input in your browser to see goldschmidtite: (https://www.lpi.usra.edu/planetary_news/2019/10/03/meet-goldschmidtite-a-new-mineral-found-in-diamond-from-earths-mantle/#gsc.tab=0) Planetary News contains the photo of goldschmidtite.

To my knowledge, there have been no new articles posted or published about this unique mineral.

NOTE: Nicole Meyer's study team: Nicole A. Meyer; Michelle D. Wenz; James P.S. Walsh; Steven D. Jacobsen; Andrew J. Locock; Jeffrey W. Harris.

References in addition to American Mineralogist and National Geographic:
[1] Mindat; [2] SciTechDaily; [3] LiveScience.com

♦♦♦

At this writing, the Los Angeles Dodgers® had won the playoffs and were headed to the World Series for the bi-coastal baseball classic against the New York Yankees! Here's the schedule:

Photo: A.Guzman

Oct 25 Game 1 at Dodgers / DODGERS 1-0
Oct 26 Game 2 at Dodgers / DODGERS 2-0

Oct 28 Game 3 at Yankees / DODGERS 3-0
Oct 29 Game 4 at Yankees / YANKEES 3-1

If needed:

Oct 30 Game 5 at Yankees

Nov 1 Game 6 at Dodgers
Nov 2 Game 7 at Dodgers

♦♦♦

National Monument Proposals

I want to remind you that mineral collecting sites are in danger of becoming smaller by the acre! At our last membership meeting, I mentioned that two (2) new Southern California national monument proposals are in the works: Chuckwalla and Kw'tsan (Sattitla). Both of these areas are east of Salton Sea and the Chocolate Mountains and west of the Colorado River. They affect three (3) SoCal counties: Riverside, San Bernardino and Imperial and combined, they cover an area of **over a million acres** of land – collecting land, field trip land

and out-in-the field hands-on outdoor educational classrooms! And it's in the works now while Mojave Trails still is not resolved! By the way, the BLM will be looking for more public comment on Mojave Trails. As it turns out, that will be our last ditch effort to turn the tide in our favor – to keep those lands open for collecting. Otherwise, we must wait 25 years before we will be able to try again.

Ever thought you'd be an activist for the thing you've taken for granted all these years? NOW is the time to letter write, e-mail and/or call your US House Representatives, US Senators AND your CA Representatives and Senators. Ask them to oppose the **US 118th Congress' SB-4132 (Chuckwalla National Monument Proposa**l) and, ***in California, SJR-17 (Kw'tsan (Sattitla) National Monument Proposal)***. Please review the template communication on our website or feel free to write one yourself. Whichever, it is important for you ACT NOW.

If these two proposals pass, and if Mojave Trails National Monument Proposal passes, too, we will **lose over 2,600,000 acres of land - lost to "recreational collecting, field education and rockhounding"[I will call "collecting"] for the next 25 years**. Why 25 years? Because that's when our next window of opportunity will open to try to gain the lands back for "collecting" in these National Mounment areas.

If you have any questions, please feel free to contact me at **president@mineralsocal.org** or **Gregor Losson**, who is a MSSC member and has been an active participant, on the side of collecting, for the Mojave Trails National Monument proposal since 2006! He can be reached via e-mail at **eczlosson@yaoo.com .**

Thank you,in advance, for your efforts! You and they are greatly appreciated.

♦♦♦

We have many things to be thankful for: our health, good family and friends, good food, a great country and a lot of other wonderful and fortunate things we enjoy. In that spirit, I hope you are free from struggle and strife. I wish you all a very Happy Thanksgiving!

♦♦♦

Answer: A baseball diamond!

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MINUTES of the October 11, 2024, MSSC ZOOM Meeting

Welcome

President Guzman called the meeting to order at 7:30 pm; there were 25 members & guests present. She welcomed all and said this is the 1,031st Membership Meeting of the Mineralogical Society of Southern California and our 53rd ZOOM meeting. She asked any guests to introduce themselves. Hearing no guest's response, she opened the officer and director nominations. She stated that per MSSC By-Laws and Operating Rules and Regulations that the nominations were open for Officers (1-year term) and Directors (2-year term).

President- David L nominated Angie to continue as president, she did not accept.
Vice President- Angie G nominated the current VP Renee to continue; she accepted.
Secretary-Carolyn nominated current secretary Leslie to continue; she accepted.
Treasurer- Current treasurer Carolyn S nominated Pat S; Pat was not present to accept or decline.
CFMS Director- Carolyn nominated Angie to continue in this position; she accepted.

Director #1 Current director Simona is stepping down, Carolyn nominated Rudy L; he accepted.
Director #2 David L agreed to continue in this position.
Director #3 Carolyn said she would be willing to take this position if Pat S accepts the treasurer nomination.
President Guzman declared the nominations closed until the next meeting on 11-8-24.

PROGRAM

Angie turned the program over to Leslie O, who introduced the speaker, Scott Braley.
The topic of Scott's talk was Collecting Radioactive minerals. He began his talk by mentioning that he has been working in the field of radiation safety for 25 years. He will talk about how minerals become radioactive, show examples, and talk about safe handling and keeping them. Minerals are radioactive if they incorporate a

radioactive isotope in some way; most radioactive isotopes do not last long enough to form minerals we can collect. The possible ways a mineral can become radioactive:

1. the mineral formula can include a long-lasting radioactive element (e.g., Uraninite has the formula UO_2)
2. a radioactive atom can substitute into an otherwise non-radioactive mineral (common with rare earth minerals, for example Monazite- (Ce, La, Nd, Th) PO_4 -can also contain U)
3. minerals can also be radioactive if traces of radioactive material (frequently UO_2) are mixed in with the solution as the minerals form - in this case it's not formally a substitution, just an impurity - this occurs frequently with quartz, for example. Only a few isotopes last long enough for mineral formation
1. uranium (U) and Thorium (Th) each have several isotopes with very long half-lives - sufficient to form minerals (e.g., ^{238}U has a half-life of 4.5 billion years)
2. potassium (K) has a long-lived isotope (1.25-billion-year half-life) that makes up about 0.01% of natural potassium and is incorporated into potassium minerals like feldspar (and potassium-rich foods, like bananas).
3. Others can exist in other minerals in small amounts, but don't technically form their own distinct minerals. Ex. radium barite.

One example of substitution is columbite-tantalite, a mineral that contains the rare earth element Niobium (Nb): thorium or uranium can substitute for niobium. Depending on exactly how you count (depth in Earth's crust), Thorium is the 38th most common element in the earth's crust, sitting at around 12 ppm; Uranium is about 50th, at 2.4 ppm. Both elements are always radioactive. Radionuclides get in elements just like any other minerals. Some of the important processes for U and Th minerals:

- Hydrothermal processes (ex. in pegmatites). Water heated in the mantle is forced through fissures.
- Dissolution and transport, especially common for uranium oxide. Water is moving through rock (e.g., sandstone, roll-front)
- Any normal mineral formation process - volcanic, placer, pegmatites, vein deposits, etc. Important Localities for radioactive minerals: Economically important areas don't necessarily produce attractive minerals.

Some major economically important localities include (there are many more!):

- Shinkolobwe-Kasolo (Democratic Republic of the Congo)
- Oklo (Gabon) – so much radiation it acted like a natural nuclear reactor!
- Port Radium (Canada)
- Colorado Plateau (AZ, NM, CO, UT - USA)
- Many sites in the Czech Republic/SE Germany
- Margabal (France)
- Ranger, Olympic Dam (Australia)

Next, he explained what radioactivity does to crystals. There are two major effects on crystal structure. First, radiation can damage the crystal structure itself, and secondly enough decays can change chemical properties (e.g., the U decay series ends up at lead).There is also damage to surrounding material: radiation breaks chemical bonds.

Radiation particles (a, ß) end up as helium nuclei and free electrons trapped in the crystal structure, respectively. He showed an example of a radiation damaged euxenite which had a glassy, brittle structure. He also showed quartz from Maine with radiation burns around uraninite crystals in the quartz.

Scott talked briefly about thorium minerals. There aren't many Th minerals (36); Th has only one common oxidation state (+4). Most are silicates and phosphates. In his opinion: most thorium minerals are ugly, but there are a few exceptions. The example he showed was thorite from Ontario which was an unremarkable brown lump: and then a lovely green thorite crystal, very small at less than .5mm! He showed a friends black thorianite twin (>4mm). Uranium on the other hand forms many different minerals (289) - most are silicates and phosphates. The oxidation states +3, +4, +6 are common in uranium minerals. Colors black, brown, green, and yellow are most common, but they can also be orange, tan, and white. In minerals, UO_2 is the most common

"unit". Many are ugly - black or brown lumps (betafite), and yellow crusts (andersonite and tyuyamunite). He showed a yellow and green crust of bayleyite and rabbittite. And then, the not ugly uranium minerals! He showed us: yellow rosettes of tyuyamunite, a pretty, dark green glassy crystal of torbernite, and the more opaque green crystals of metatorbernite (dehydrated torbernite). Next were slodowskite (yellow needles) and cuproslodowskite (green needles); also, boltwoodite (yellow) and tiny orange crystals of kasolite. Ulrichite from Australia forms bright green needle sprays and autunite blades of yellow. He showed the pure uranium oxide mineral uraninite (black) and uranophane which is white. And many more! The combination of oxidation states plus the normal crystal structure (formula) leads to many colors. Many uranium minerals fluoresce under long or shortwave ultraviolet light. In some cases, when uranium is incorporated into another mineral, it causes it to become fluorescent; this is common in agates and hyalite opals, for example. He showed a saleeite (yellow), under longwave UV it glowed green. Pale green metatorbernite glows turquoise under longwave UV.

Scott talked about collecting and storing radioactive minerals safely. He said the radiation from most specimens is quite low and not very hazardous. A few tips: don't eat the rocks, wash your hands (the heavy metals present are more dangerous than the radioactivity), and don't breathe the dust. Radon is a byproduct of uranium and thorium decay. He said don't seal the specimens in tightly closed or sealed containers. Keep things ventilated to prevent radon build up. Don't keep any specimens in your pocket. In a drawer, cabinet, or display case is OK. He keeps a "hot" specimen at his school in a well-ventilated box. A Geiger counter reading of >2mr/hr. is safe. Most radiation is alpha particles with some beta, gammas are the most dangerous but are uncommon. Scott concluded with a few more beautiful radioactive mineral specimens. Thanks Scott, it was a beautiful, interesting, and useful presentation. A Q&A followed.

MSSC Business Meeting

Approved Mineral Species Update

President Guzman updated the membership on the current number of approved mineral species. According to the International Mineralogical Association (IMA) there are 6,079 approved mineral species as of September 2024. There has been no change posted on the IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) since their (September 2024) Newsletter No.80, published August 15, 2024.

Business:

The president said we have two sets of minutes to approve, they are (a) August 9, 2024, membership meeting minutes as published in the August 2024 Bulletin and (b) the abbreviated membership meeting at our picnic on August 24, 2024, as published in the September 2024 Bulletin. She asked for motions to approve both meeting minutes together. The motion was made by Tony K and seconded by Marek C. She asked for any additions, corrections or any discussion. Hearing none, she asked members to unmute for a voice vote. The motion to approve the stated membership minutes carried.

Announcements and Reports

1. Field Trips (Marek C.): Trip to Acton Saturday, 10/19; see web site for details.
2. Education/Outreach (Rudy L.): Orange County Parks event tomorrow, Saturday, 10/12.
3. Installation Banquet* (Rudy L.): We are planning for the 2025 installation banquet at Pinocchio's in Pasadena for January. We need to have at least 30 people prepaid/no refunds. The banquet will be discussed at the next board meeting on October 27.
4. National Monument Proposals (Angie G.): Please send your e-mails opposing the new National Monument proposals. This is another attempt to decrease our collecting and rockhounding areas – this time by over 1 million acres. Note: Chuckwalla National Monument proposal includes Hauser Geode Beds and other important sites. As with the Mojave Trails National Monument proposal (still no resolution), MSSC needs to show support for mineral collecting, mineral field education and rockhounding. She said, refer to my e-mail to all members sent on 10/4/24. Still not sure or don't know what to write? Open MSSC's website www.mineralsocal.org for a template E-Mail letter opposing proposals of Chuckwalla and Kw'tsan National Monuments and declaring MSSC's support for mineral collecting, mineral education and rockhounding in the proposed over 1 million acres!

5. MSSC Board Meeting (Angie G.): Quarterly meeting will be held Sunday, October 27th at 1 pm via ZOOM. Guests are welcome! If you would like to attend, please let Carolyn know.
6. Gregor Losson mentioned personnel changes in the MTNM. The comment period will be coming up.

Last Words:

Our next membership meeting will be held November 8th via ZOOM, at which nominations will again be opened for all officer and (3) director seats. Once nominations are closed, the election of officers and directors will be held.

Adjournment: President Guzman thanked everyone for attending the meeting. She adjourned the meeting at 8:40 pm.

* We need donation items for the Silent Auction at the banquet! Please contact Rudy for further information.

Respectfully submitted, Leslie Ogg, MSSC Secretary

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MSSC ZOOM Board Meeting Minutes for October 27, 2024

President Angela Guzman called the meeting to order at 1:03 pm. Members present: Angie G., Renee K., Leslie O., Carolyn S., George R., Ahni D., Rudy L.

Absent were: Pat C., Simona C., Pat S., David L., Linda E., Bob H., Marek C., Al W., Ann M., Laura D.

ANNOUNCEMENT: Angie said "if no one steps up to volunteer as President, I will accept the nomination for one more year. I will not, however, accept another term after 2025. It is time to share the wealth, give another member the opportunity to preside and tend to duties of the position. FYI, I have spoken with others, asked and was declined. I will continue to speak with others about this position before the next Membership meeting on November 8, 2024."

2. Business

a) Approval of the June 30, 2024, Board Meeting Minutes as published in the August 2024 Bulletin.
A motion to approve was made by: George R. and seconded by Ahni D. President Guzman asked for any corrections, additions or discussion. Hearing none she called for a voice vote: the minutes were approved.

b) Updates/Discussion: 2025 Installation Banquet and Silent Auction: Chair Rudy L-
The venue would be Pinocchio's Restaurant in Pasadena. It will be on January 18, 2025. Rudy will send out menu choices to board members. We don't have any silent auction donations yet. We won't have a speaker; we will have one at the regular January 10, 2025, ZOOM meeting.
Members and guests must pay in advance. Renee suggested a soft deadline of the December 13 meeting, followed by the final deadline on December 20th. We must put down a $300 nonrefundable deposit and have at least 25 people paid in advance. Cost would be $44; attendees can send a check to Carolyn or pay via PayPal ($2.00 extra).

c) Nominations and Elections (November Membership Meeting):

Nominated and accepted at October Membership Meeting:

Vice President	Renee K
Secretary	Leslie O
CFMS Dir	Angie G
Board #1	Rudy L
Board #2	David L

Nominated – reserve right to not yet accept or decline:

President	Angie G

Nominated - not present to accept or decline:

Treasurer	Carolyn S
Board #3	Pat S

3. Officer Reports
   a) President (Angie G) – She will be at the CFMS Convention on November 8th in Visalia and will run the meeting from there.
   b) Vice President (Renee K)- Renee agreed we need more members involved in running the club. She is willing to do outreach to colleges, she needs to know what to include on a recruitment flyer or poster. Angie said we would be taking membership up under new business.
   c) Treasurer (Carolyn S) – reviewed the financials for the year. All insurance and CFMS payments have depleted our account; memberships will be coming in soon. Angie said the CFMS membership fees will go from $9.00 to $10.00.
   d) Secretary's Report (Leslie O)- Mentioned that the ZOOM AI summaries of the meetings are not very useful, only the To-do list is worth using.

   Director Remarks
   Pat C (2024-2025) -excused absent
   Ahni D (2024-2025)- no remarks
   Simona C (2023-2024) -excused absent
   David L (2023-2024) -excused absent
   Patrick S (2023-2024) -excused absent

5. Committee Reports/Comments/Issues
   a) Bulletin Editor (Linda E): Linda enjoys receiving contributions for the Bulletin; currently there are only five snail mail bulletins.
   b) Field Trips (Marek C): absent. Last weekend 10/19/24 was trip to the Acton area; this weekend to Inyo for a SCFM trip; A trip is in the planning stages for last weekend before Thanksgiving.
   c) Membership (Linda E): Linda says two new members joined from the October field trip. Total membership is 90.
   d) PMC (Al W, Bob H) not present, no report.
   e) Programs/Education (Rudy L) Prehistoric OC; Rudy and Angie passed out lots of minerals (NOT ROCKS). We are invited to participate next year.
   f) Speakers (Carolyn S) We had a request from Brian Swoboda, he wants us to publish the video of his talk. We will need a signed release for all pictures. His talk will be history of the Stewart Mine, and he will show all his own pictures. We will have to limit questions during the meeting and remove any Q & A to prevent members from being in the video. We will have to get a signed release for participants. Angie asked Carolyn to check with Brian because he does a lot of online broadcasting.
   g) Webmaster (Leslie O) gave a brief review of web statistics. The management of the Instagram and Facebook accounts will revert to Leslie due to Simona stepping back from club duties. Angie mentioned the template on the web site for writing to legislators to oppose the national monuments.
   h) Past President (George R) -listed the 15 minerals named after members of the society past and present. Angie asked George to talk about this at our next meeting, he agreed.
   i) Historian (Ann M) not present

6. New Business:
   (Angie) National Monuments – Chuckwalla and Kw'tsan are the newest proposed at over 1 million acres are threat to and in danger of being closed off for collecting. Mojave Trails NM is still unresolved, and BLM will look for more public comment soon. IMPORTANT, once proposals have ink on paper and they are approved, we will NOT be able to try to reverse the designation(s) for 25 years from the date of approval ("statute of limitation" per Gregor Losson).

   (Angie) We need to do <u>aggressive outreach</u> to try to increase our membership. For example:
   (1) postcards left at rock shops/bookstores/conferences/Tucson, etc. wherever we're allowed.
   (2) visit other club's membership meetings to talk up MSSC and stir up interest in minerals and leave postcards. Visit schools and leave a postcard.
   Angie said she is looking at having a brainstorming session via ZOOM or in-person. Discussion.

We decided meet at Hof's Hut to brainstorm the postcard and a flyer to use in outreach. A committee will meet on November 16 at 11:30 am. George reminded us that lots of younger people don't need a society; they use Mindat and other sites online. Carolyn said she had the same response in Denver. Renee said we need to offer members more. Maybe document the members that have minerals named after them. She asked where are our archives located? Angie said the physical records are held by Ann M. and David L. has some that he was going through. Renee suggested starting a Google Drive to use as a club archive to place current digital club documents for the board to have access.

7. Next Board Meeting: Sunday January 12, 2025, at 1:00 pm.

8. Adjournment: President Guzman adjourned the meeting 2:43 at pm.

Minutes respectfully submitted by Leslie O., MSSC Secretary

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List of Upcoming MSSC Events : Mark your Calender!

Event	Date	Comments / Scheduled Program (if known)
Meeting Dates:	**ZOOM** December 13, 2024	Nathalie Brandes - From Gold to Lead
	ZOOM January 10, 2025	TBA
	ZOOM February 14, 2025	Chris Stefano: TBA
	ZOOM March , 2025	TBA
Board Meeting	ZOOM January 12, 2025	Via ZOOM
Annual Banquet,	January 18, 2025	Silent Auction donations are requested
Field Trip	**TBA**	Watch The Mssc Website For Upcoming Announcement

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

The Ride Share Listing is being temporarily discontinued until such time as MSSC starts holding in-person meetings again.

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MSSC AT PREHISTORIC Orange County Rudy Lopez

MSSC attended the annual Prehistoric OC at Clark Park Regional Park on Saturday, October 12th. Angie Guzman and Rudy Lopez represented MSSC and had their hands full handing out mineral bags and educating kids on the minerals they received. There were about 25 exhibitors at the event: some included exploding volcanoes, snakes and a walk to a fossil mountain. We were busy during the entire event and didn't have time to take picture of the other Exhibitors.

Angie

Rudy

Theme of the day: **THEY'RE NOT ROCKS -THEY'RE MINERALS!**

Rudy wore his: THEY'RE NOT ROCKS- THEY'RE MINERALS! T-shirt to the event and let everyone know that we were handing out bags of minerals. Angie & Rudy handed out over 400 bags of minerals to kids of all ages; the bags contained quartz crystals, shark teeth, fossils and mixed minerals.
We made sure to take pictures of as many kids as possible with their new treasures.

Angie & Friend Display Identifying Minerals

Bert did come to help, but another club needed him more. OC park has already reached out to me about attending next year and I said YES!! I want to thank Sarah Hoemke from OC Parks for all her help. I also want to thank Hillary Johns for her donation of minerals that I have been tumbling for our events. Her donation of mixed minerals was a big hit.
Again thank you Hillary! THANK YOU, ANGIE!!!!

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OTHER FREE THINGS TO DO...by Ann Meister

The **Watson Lecture** is on **November 20** at 7:30 PM at Caltech's Beckman Auditorium. The speaker is **Katerina Chatziioannou**, assistant professor of physics and William H. Hurt Scholar, Caltech. The title is, **"Matter vs. Gravity: Listening to Colliding Black Holes and Neutron Stars with Gravitational Waves**." Our universe is shaped by the struggle of forces between matter and the attraction of gravity that brings matter together. In the case of neutron stars, matter puts up the ultimate defense, as gravity crushes matter down to densities that exceed those of atomic nuclei. Such neutron stars pack more mass than our Sun, down to a size no bigger than Los Angeles. At even further extremes, gravity will lead to the total demise of matter, collapsing everything into a black hole. Yet, at the same time, gravity also provides the means to study such extreme objects as neutron stars and black holes: gravitational waves, "ripples" in space-time that are emitted when neutron stars and black holes collide while traveling at a fraction of the speed of light. Katerina Chatziioannou will describe how researchers track collisions of neutron stars and black holes with gravitational waves, and what we are learning about the universe's most extreme objects. Enjoy pre-lecture activities starting at 6 PM. Find past Watson Lectures on Caltech's YouTube channel.

The **Von Kármán Lecture** is on Thursday, **November ??** at 5:00 PM. Available live on YouTube at NASA Jet Propulsion Laboratory - YouTube. Date, speaker, and topic were not available at time of publication. Check website for information and past lectures Lecture Series (nasa.gov). The October 2024 lecture is available on YouTube. The subject, **"Lasers in Space! How NASA's New Technology Could Revolutionize Deep Space Comms"** may be of interest to MSSC members.

The **UCLA Meteorite Gallery** is open to the public weekdays from 9 am to 4 pm and on Sundays from 1 to 4 pm when it is staffed with volunteer docents. Admission is always free. The monthly lectures seem to have been discontinued but the gallery is well worth exploring. Visit the website and check on events, videos, and other neat things including resources for teachers, Go to https://meteorites.ucla.edu

The Huntington Library is offering a program on "**Our National Parks, Past and Present: A Conversation,"** on **December 2** at 6 PM at the Education and Visitor Center, Rothenberg Hall. The event is free with reservation. (Our National Parks, Past and Present: A Conversation | The Huntington) The Huntington and Huntington-USC Institute on California and the West presents a program focused on the history and present-day opportunities and challenges in the ongoing preservation of natural land in the form of national parks and monuments. How are the goals of the conservation movement and government agencies different now than they were in the late 19th century? How can we continue to improve our interactions with the landscapes that surround us? The newly expanded San Gabriel Mountains National Monument, located in Los Angeles' backyard, builds on the history established at Yellowstone and Yosemite, but it differs from those parks. In particular, ideas about pristine "wilderness" and Indigenous land rights have evolved in the past 150 years. Together we will consider what that evolution means for the 21st century. This program derives from the exhibition "Storm Cloud: Picturing the Origins of our Climate Crisis," which traces the rise of environmental awareness throughout the long nineteenth century. The show focuses on the work of British and American writers and artists who helped garner public and government support for conservation, including the establishment of the earliest national parks in the U.S. Join a conversation with Rep. Judy Chu, who has long worked on the San Gabriel Mountains designation; Kimberly Morales Johnson (Gabrieleno/Tongva), Tribal Secretary of the San Gabriel Band of Mission Indians; and Megan Kate Nelson, historian and author of Saving Yellowstone: Exploration and

Preservation in Reconstruction America. The discussion will be moderated by Josh Garrett-Davis, The Huntington's H. Russell Smith Foundation Curator of Western American History.

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Calendar of Events:

Only S. CA shows are listed here. Other CFMS Club shows can be found at: http://www.cfmsinc.org/

2024

November 2-3, 2024 – San Diego, CA
San Diego Mineral & Gem Society
Liberty Station Conference Center, 2600 Laning Road, San Diego, CA 92106
Hours: Sat 10 AM – 6 PM, Sun 10 AM – 4 PM
Admission & Parking: Free (Service Animals Only)
Website: https://bit.ly/gemdiego2024

November 2-3, 2024 – Ridgecrest, CA
Indian Wells Gem and Mineral Society
68th Annual Gem and Mineral Show
Desert Empire Fairgrounds, 520 S. Richmond Rd., Ridgecrest, CA 93555
Hours: 9 AM – 5 PM Both Days
Field trip to Rainbow Ledge Agate Claim on Sunday November 3rd at 10 AM
miglogonzal@hotmail.com

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One-third page	$10.00
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15 MINERALS NAMED FOR MSSC MEMBERS

Al Wilkins -	Alwilkinsite-(Y) IMA 2015-097 Mineralogical Magazine 81 (2017), 895	$Y(UO_2)_3(SO_4)_2O(OH)_3(H_2O)_7{\cdot}7H_2O$ USA
Juanita Curtis –	Juanitaite IMA 1999-022 Mineralogical Record 31 (2000), 301	$(Cu,Ca,Fe)_{10}Bi(AsO_4)_4(OH)_{11}{\cdot}2H_2O$ USA

William Wise –	Billwiseite	$Sb^{3+}_5Nb_3WO_{18}$
	IMA 2010-053	Pakistan
	Canadian Mineralogist 50 (2012), 805	
Bob Housley -	Housleyite	$Pb_6CuTe_4O_{18}(OH)_2$
	IMA 2009-024	USA
	American Mineralogist 95 (2010), 1337	
Rock Currier –	Currierite	$Na_4Ca_3MgAl_4(AsO_3OH)_{12}\cdot 9H_2O$
	IMA 2016-030	Chile
	Mineralogical Magazine 81 (2017), 1141	
Fred Devito -	Devitoite	$Ba_6Fe^{2+}_7Fe^{3+}_2(Si_4O_{12})_2(PO_4)_2(CO3)O_2(OH)_4$
	IMA 2009-010	USA
	Canadian Mineralogist 48 (2010), 29	
Tony Kampf -	Kampfite	$Ba_{12}(Si_{11}Al_5)O_{31}(CO_3)_8Cl_5$
	IMA 2000-003	USA
	Canadian Mineralogist 39 (2001), 1053	
Wendell Wilson	Wendwilsonite	$Ca_2Mg(AsO_4)_2\cdot 2H_2O$
	IMA 1985-047	Morocco
	American Mineralogist 72, 217-221	
George Rossman -	Rossmanite	$\square(Al_2Li)Al_6(Si_6O_{18})(BO_3)_3(OH)_3(OH)$
	IMA 1996-018	Czech Republic
	American Mineralogist 83 (1998), 896	
	Alumino-oxy-rossmanite	$\square Al_3Al_6(Si_5AlO_{18})(BO_3)_3(OH)_3O$
	IMA 2020-008b	Austria
	European Journal of Mineralogy 32 (2020), 645	
	Fluor-rossmanite	$\square Al_3Al_6(Si_5AlO_{18})(BO_3)_3(OH)_3O$
	IMA-2023-111	Russia
	Mineralogical Magazine on-line preprint	

FORMER MEMBERS

Alfredo Petrov	Alfredopetrovite	$Al_2(Se^{4+}O_3)_3\cdot 6H_2O$
	IMA 2015-026	Bolivia
	European Journal of Mineralogy 28	
Dick Thomssen	Dickthomssenite	$MgV_2O_6\cdot 7H_2O$
	IMA 2000-047	USA
	Canadian Mineralogist 39 (2001), 1691	
	Pseudodickthomssenite	$Mg(VO_3)_2\cdot 8H_2O$
	IMA 2021-027	USA
	European Journal of Mineralogy 33 (2021), 47	
Paul Desautels -	Desautelsite	$Mg_6Mn^{3+}_2(CO_3)(OH)_{16}\cdot 4H_2O$
	IMA 1978-016	USA
	American Mineralogist 64 (1979), 127	

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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. We are a scientific non-profit organization that actively supports those endeavors through public outreach, field study and related programs. 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. However, due to current health considerations, MSSC meetings are conducted via ZOOM conferencing until further notice**.** The annual Installation Banquet occurs in January, and the annual potluck Picnic and Swap Meeting are in August. Check the Society website for details.

The Society also sponsors the annual Pacific Micro-mineral Conference, currently held at the Fallbrook Mineral Museum during the last weekend of January.

Annual Membership dues for the MSSC are $30.00 for an individual membership, $40.00 for a family membership. Bulletins are sent by email, there is an additional annual fee if you prefer paper bulletins mailed to your address. The Society's contact information:

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

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To:

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