



# Snoopy Gems

Volume 51 Number 4 April 2025  
Mississippi Gulf Coast Gem &  
Mineral Society Inc.



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MGCGMS Established in 1974

## President's Message

Dear Members,

April showers brings forth May flowers...and weeds too. That reminds me that I must get to work on those weeds in my garden. Haha

For the April workshop, John will bring out the club's testing equipment — so bring gemstones or silver or gold for testing. While our equipment is not totally definitive, it is a good indicator of composition. We can't offer appraisals but we have fun learning.

Also, I can't wait to make the beautiful necklace Vicki has planned for the workshop! See you on Saturday.

Liz Platt

MGCGMS President

<http://www.mgcgms.org>

## Workshops:

Our Wednesday classes from 11-4:00 in our room at the Mary C. All members are welcome!

**Saturday Workshop: April 12th @10am Vicki Reynolds** will be teaching wire and bead necklace class. Kits will be available from \$5 to \$15

### Materials:

8 to 35 Beads of your choice  
14 Ga wire  
21 Ga wire  
Clasp



### Tools:

flush cutters, needle nose, flat nose, round nose, hammer & anvil.

**Wednesday workshop open to the public 4/16/25: Stephanie Hatcher** will be teaching a beaded necklace. Kits will be available.



John Guglik will be available to test stones and metals.

Machines: Members of our tool committee will be available to help with cutting and capping gemstones. As always, we will have the club machines available for metal & gemstone testing, gemstone cutting, and capping. There is a \$3 tool maintenance fee to use the machines.

PO Box 857 Ocean Spring, MS 39566



# Meeting Minutes

## GULF COAST GEM & MINERAL SOCIETY

### March 2024 Minutes



**Meeting called to order:** 1pm by Liz Platt, President.

**Meeting Minutes:** Minutes from the March meeting were distributed and reviewed. Motion to accept the minutes made by Barbi Beatty, second by Harvey Marcum. Minutes were approved.

**Treasurer:** Barbi gave the treasurer's report with totals for accounts and show proceeds. Motion to accept by Vicki Reynolds, second by John Guglik. Report was approved.

#### Committee Reports

**Sunshine:** No report.

**Membership:** One new member came to the meeting, Helen.

**Library, Closet, Inventory:** No report.

**Equipment:** No report.

**Communication:** No report.

**Newsletter:** The newsletter was distributed at the meeting.

**Facebook:** No report.

**Show:** The annual show will permanently move to the fourth weekend in September at the Ocean Springs Civic Center. A group went out to look at the new space. We can fit all the vendors originally scheduled to be there (22 currently). After calculating the math for the venue, security, etc. we came up with \$90 per table.

**Scholarship:** The scholarship was awarded after last month's meeting and Peter will be attending the workshop in William Holland.

**Workshops:** Vicki and Barbi conducted a class today for wire wrapping a cabochon. Every third Wednesday will be a class open to the public. The remaining Wednesdays of the month will be working meetings for members. Still looking for volunteers for the Saturday classes.

**New Business:** Singing River Art Association is having a show on March 28th. For entry information, contact Vicki Reynolds. Our show, during the Ocean Springs Spring Fair, will be on Saturday March 22nd. The table fee is \$50. Tables are both inside and outside. Inside will have tables provided. You will have to provide your own table etc. for an outside space.

**Old Business:** None discussed

**Gem of the Month:** Information on Aquamarine included in Snoopy Gems.

**Motion to Adjourn:** 1:50 pm motion made to adjourn by Vicki Reynolds, second by Belinda Marcum, motion carried.

**Door Prizes:** Drawings held for door prizes.

**Report By:** Secretary Stephanie Hatcher



# Happy

## March

# Birthday

Liz Giamalva Pinky Rodriguez Jane Cook

## Diamond

APRIL  
BIRTHSTONE



### DIAMONDS

April's Birthstone

By: John Wright, RPG

Diamond in the rough

Birthstone: April

Family: Native Carbon



Note: Graphite is the same with a different type bonding.

Crystal System: Isometric (octahedral or cubic form)

Birefringence: 0.044 (Highest for colorless minerals)

Refractive Indices: n2.417 – n2.42

Density: 3.62 g/cm3

Hardness: 10

Cleavage: Easy – parallel to octahedral faces.

Color: Usually pale yellow or colorless, but can be brown, blue, green, orange, red, and black

April's birthstone is the diamond and its name comes from the Greek "adamas" meaning "invincible" alluding to its exceptional hardness and resistance to abrasion. Diamond is the "King of Gems" and sets the standard by which all gemstones are rated. It symbolizes purity, strength, and longevity, is the token of everlasting love, the undisputed worldwide gemstone preference for engagements, and the symbol of the 75th wedding anniversary.



Diamond, composed of carbon, is the hardest natural substance in the world. It is the only “10” on the MOHs’ scale (Mineral Order of Hardness scale) and depending on the methods of measurement used, is anywhere from 10 to 150 times harder than corundum which is the only mineral with a hardness of rating of 9 on the MOHs’ scale.

Scientists believe that diamonds may be up to 3 billion years old having formed more than 300 miles (200 km) below the surface in the bowels of the earth under extreme (probably more appropriately - unimaginable) heat and pressure. Here the diamond crystals remain until some unique geologic event or set of circumstances occur, which allows the special host-matrix, usually kimberlite and less often lamproite, containing these very desirable little gemstones, find passageways to the surface normally in the form of volcanic pipes. This is where (with a lot of luck) we get our greedy little hands on diamonds and the work/fun begins.



Another unique property of diamonds is its extremely high thermal conductivity, higher than any other known mineral. It is four times greater than copper, its closest competitor. I understand they have survived intact with absolutely no damage being heated to over two thousand degrees and then very quickly submerged in liquid nitrogen. It could very well be true, but I just don’t believe that I want to try that method of testing one and I certainly don’t encourage anyone else to try it.



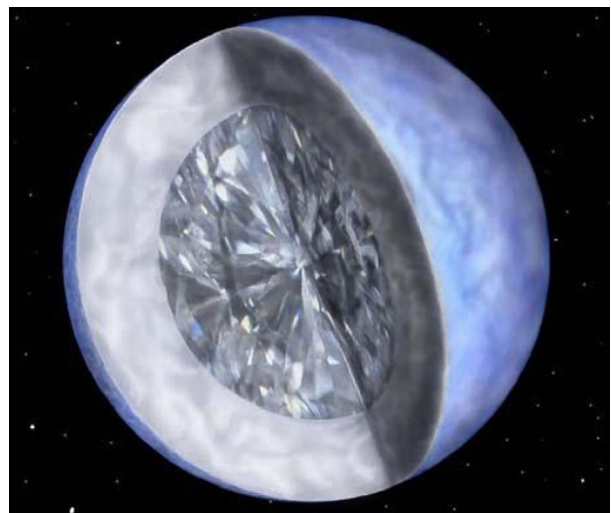
Diamonds are also highly resistant to the corrosiveness of acids and alkaline. This coupled with their hardness and thermal conductivity give them the chemical and physical properties required for superior cutting ability that is required by our modern day industry.

It may surprise you to learn that the majority of the world’s production of natural diamonds, about 75 – 80 % are used for industrial purposes. Only about 15% end up being used for jewelry. The other 5 – 10 % are used in research, for displays, the medical profession for precision surgical blades and drill bits (dental mostly), and by craftsmen for cutting diamonds and other gem stones. I guess that waste would also fall in this category.

Diamonds were first mined in India. Today they are mined on every continent except Europe. They have been found in all but six of the states in the U.S. Mississippi is one of the six. Maybe we should start panning the Mississippi river since it drains such a large area of the country. Currently, the most productive mines are found in Australia, Canada, Russia, Angola, South Africa, and Brazil

## COVERING SPACE FROM EARTH TO THE EDGE OF THE UNIVERSE

### Lucy in the Sky is a Diamond



A diamond weighing 10 billion trillion trillion carats is at the heart of a dead white dwarf star nicknamed Lucy in this conception by an artist at the Harvard-Smithsonian

Center for Astrophysics

The largest diamond ever found is not on Earth, but faraway across the galaxy. It’s the burned out corpse of a star named BPM 37093 only about 50 lightyears away from Earth in the region of the sky we refer to as the constellation Centaurus. The white dwarf star is a chunk of crystallized carbon that weighs 5 million trillion trillion pounds. That would equal a diamond of 10 billion trillion trillion carats.

**Lucy.** After it was discovered in 2004, astronomers nicknamed the space diamond Lucy after the Beatles song *Lucy In The Sky With Diamonds*. Lucy, also known as BPM 37093 and V\*886 Cen, is the 886th variable star in the constellation Centaurus.

**Star of Africa.** By comparison, the largest such precious stones on Earth are Star of Africa. The Golden Jubilee Diamond was found in 1985 and is in Thailand's Royal Palace as part of the crown jewels. The Great Star of Africa was found in 1905 and is in the Tower of London as part of the Crown Jewels of England.

**White dwarf:** A white dwarf is the hot cinder left behind when a star uses up its nuclear fuel and dies. It is made mostly of carbon and oxygen, and surrounded by a thin layer of hydrogen and helium gases. The Sun's diameter is 870,000 miles (1.4 million km). Lucy is tiny at a mere 2,500 miles (4,000 km) diameter. The Sun is 109 times the diameter of Earth. Lucy is only about 2/3rds the size of Earth. That's tiny for a star. However, Lucy's mass is about the same as our Sun. That's a lot of weight in a tiny ball. While Lucy is a dead star now, it used to shine like our Sun. Lucy is very dim now, shining with only 1/2000th of the Sun's visual brightness. the 545-carat Golden Jubilee Diamond and the 530-carat Great

**What is Lucy?** Lucy is the most massive pulsating white dwarf currently known. Like other white dwarfs, it is made mostly of carbon and oxygen created by the past thermonuclear fusion of helium nuclei. Lucy has a very thin atmosphere of hydrogen and helium. The atmosphere of our Sun is mostly hydrogen and helium.

Astronomers say that, similarly, our Sun will deplete its nuclear fuel and die in another five billion years, and then become a white dwarf like Lucy. Then, about two billion years after that, the cinder Sun will be a similar diamond. OTHER DYING STARS »

**How do they know?** Astronomers had suspected since the 1960s that the interiors of white dwarfs would be crystallized and Lucy seems to confirm that. In its death throes, the core of a star like Lucy or our own Sun becomes exposed and slowly cools down over time. Such a star begins to pulsate when the core surface temperature drops to about 12,000 degrees.

By comparison, the Sun's core temperature now is about 27,000,000°F (15,000,000°C). Its surface temperature is about 11,000°F (6,000°C).

Lucy pulsates like a giant gong. Its internal pulsations are something like seismic waves inside Earth. Astronomers measured the pulsations to figure out Lucy's carbon interior was solidified (crystallized). Astronomers measured the pulsations hidden in Lucy's interior in the same way geologists use seismographs to measure earthquakes inside Earth.

**Where to look.** Lucy is not visible from Earth with the unaided eye. It must be viewed with a telescope and is best seen from Earth's Southern Hemisphere during March-June. dwarfs, Lucy probably is composed

## Lightyear

Lucy is about 50 lightyears away from Earth. A lightyear is the distance light travels through space in one year. One lightyear is about 5.87 trillion miles or 9.46 trillion kilometers.

[www.spacetoday.org/.../Stars/.../LucyDiamondStarWhiteDwarf.html](http://www.spacetoday.org/.../Stars/.../LucyDiamondStarWhiteDwarf.html)

## Essential Gemstone Testing Equipment: Tools for Accurate Identification

Gemstone identification is a crucial aspect of gemology, ensuring that stones are accurately classified and valued. Advanced testing equipment allows gemologists to analyze a stone's optical and physical properties, distinguishing natural gems from synthetics and imitations. This article explores key gemstone testing tools, including refractometers, polariscopes, and dichroscopes, and how they help determine properties like refractive index (RI), birefringence, and pleochroism—all critical in gemstone analysis.

### 1. Refractometer: Measuring Refractive Index (RI)



A refractometer is one of the most fundamental tools in gemology, used to measure a gemstone's refractive index (RI)—a key optical property that indicates how light bends as it enters the stone. Since each gemstone has a unique RI, this measurement helps in identification.

### How It Works

A drop of refractive index liquid is placed on the refractometer's glass surface.

The gemstone is placed on top, allowing light to pass through it.

The instrument displays the RI value on a scale, which is then compared with reference charts.

### **Key Features & Benefits**

Distinguishes between gems with similar appearances (e.g., quartz vs. topaz).

Detects birefringence in doubly refractive stones like tourmaline. Portable and easy to use, making it ideal for both lab and fieldwork.

### **Limitations**

Cannot measure gems with very high RIs (e.g., diamond, which exceeds the standard RI scale).

Requires a well-polished surface for accurate results.

## **2. Polariscopes: Identifying Optical Properties**



A polariscope helps determine whether a gemstone is singly refractive (SR) or doubly refractive (DR) by analyzing how light behaves when it passes through the stone under polarized light.

### **How It Works**

The gemstone is placed between two polarizing filters.

By rotating the stone, gemologists observe changes in brightness and color.

### **Key Features & Benefits**

Detects birefringence, distinguishing between SR and DR stones.

Identifies synthetic stones, as some lab-grown gems exhibit anomalous birefringence.

Helps detect internal stress and strain patterns in gems like quartz.

### **Limitations**

Requires careful observation and experience.

Cannot identify gems solely based on this test; must be used with other instruments.

## **3. Dichroscope: Analyzing Pleochroism**



A dichroscope is a small, handheld device used to detect pleochroism—the ability of certain gemstones to show different colors when viewed from different angles. This property is common in stones like tourmaline, tanzanite, and iolite.

### **How It Works**

The gemstone is viewed through the dichroscope.

It splits the light entering the stone into two distinct colors, showing pleochroic effects.

### **Key Features & Benefits**

Identifies pleochroic gemstones quickly and effectively.

Distinguishes between similar-looking stones (e.g., ruby vs. red spinel—ruby is pleochroic, while spinel is not).

Portable and inexpensive, making it a useful tool for field gemology.

### **Limitations**

Cannot provide a definitive identification alone. Works best on transparent to translucent stones.

### **Conclusion**

Using tools like refractometers, polariscopes, and dichroscopes, gemologists can analyze a gemstone's refractive index, birefringence, and pleochroism—all essential properties for identification. While no single tool provides complete certainty, combining multiple tests allows for a more accurate and reliable gemstone evaluation. Whether in a laboratory or the field, these instruments remain indispensable in the world of gemology.

Selecting the right gemstone testing equipment is essential for accurate identification and analysis. Below are some recommended models of refractometers, polariscopes, and dichroscopes, each offering unique features to suit various needs and budgets.

Article: by Barbi Beatty

## Upcoming Shows

### **Middle Tennessee Rockhounds**

Saturday, April 5  
Elevate50 Hendersonville 197 Imperial Blvd  
Hendersonville, TN  
notes  
10th Annual Gem, Mineral, & Fossil Festival  
April 5, 2025 9:00 AM - 4:00 PM CST  
Free Admission and Parking  
Rocks, Minerals, Fossils, Slabs, Rough, & Gem  
Vendors  
Education & Demonstrations

Link(s):  
<https://rockhound.org/swap/default.htm>

### **Wekiva Gem & Mineral Society**

Saturday, April 12  
1937 Lakeville Road Apopka Fl 32703  
notes  
"Circle Up Swap Meet" April 12, 2025 9:00 am to  
3:00 pm  
Rock clubs and individuals are invited to set up and  
buy, sell and swap anything LAPIDARY related.  
Everything from slabs, rough, specimens, polished  
stones, finished cabochons, handmade jewelry to  
tools and lapidary equipment can be swapped or  
sold.

Limited to 50 spaces. Outdoors in the circle under  
the trees  
\$40 per 12'x20'space  
You bring your tables, tent and chairs. No electricity  
provided.  
Rain or shine event

For more information contact Nancy Allman, 407-  
739-0051 or email [faceittoday@gmail.com](mailto:faceittoday@gmail.com)

### **Central Florida Mineral & Gem Society**

April 26 – 27, 2025  
Florida National Guard Armory, 2809 S. Fern Creek  
Ave., Orlando 32806

Saturday April 26, 2025 show time is 9AM - 5PM  
Sunday April 27, 2025 Show Time 9AM - 4PM  
Admission fee: Ages 16 and up is \$6.00  
Kids 6-15 \$3.00

### **Cobb County Gem and Mineral Society**

Saturday, April 26  
516 West Atlanta Street, Marietta, GA 30060  
notes  
Annual Spring Rock Show and Swap. Free event!  
10am to 4pm Saturday April 26th rain or shine. We  
will have outside dealers and demos in our lapidary  
shop.

Link(s):  
[www.ccgms.org](http://www.ccgms.org)

### **Tennessee Valley Rock and Mineral Society**

May 3 – 4, 2025  
Chester Frost pavilion , Chester Frost county park,  
Hixson Tn 37343

Free admission and parking. Event is at Chester Frost  
Pavilion on an island. 3-4 may 2025, 10a-4p eastern  
each day.

### **Georgia Mineral Society**

May 9 – 11, 2025  
Cobb Civic Center, 548 South Marietta Pkwy SE,  
Marietta, GA 30060  
notes  
Friday May 9, 10 am to 6 pm, Saturday May 10, 10  
am to 6 pm, Sunday May 11, 10 am to 5 pm. Free  
admission. Over 30 dealers.  
Link(s):  
[www.gamineral.org](http://www.gamineral.org)

### **Harrison County Gem and Mineral Society, Inc.**

May 17 – 18, 2025  
Joppa Shriner Center, 13280 Shriners Blvd., Biloxi,  
MS

Saturday 9-5 and Sunday 9-4, Central Time Zone,  
Admission \$6.00, \$1.00 Discount Coupon on  
Website and Facebook. Children under 12 free/with  
paying adult. 20 plus vendors, Kids' Corner, Exhibits,  
Demonstrations, Educational Resources, Available  
for Purchase: Fossils Gemstones, Jewelry Supplies  
and More.

Link(s):  
[WWW.HCGMS.ORG/FACEBOOK](http://WWW.HCGMS.ORG/FACEBOOK)





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**AFFILIATIONS**

The Southeast Federation of Mineralogical Societies, Inc.  
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Annual dues are:  
 \$20 Individual  
 \$30 (2) Members in same house hold  
 \$6 Junior

**2025 Workshop/Meeting  
 Dates**

January 11 Mary C. 9:30-4:00  
 February 8 Mary C. 9:30-4:00  
 March 8 Mary C. 9:30-4:00  
**April 12 Mary C. 9:30-4:00**  
 May 10 Mary C. 9:30-4:00  
 June 14 Mary C. 9:30-4:00  
 July 12 Mary C. 9:30-4:00  
 August 9 Mary C. 9:30-4:00  
 September 26 After Vendor Dinner  
 October 11 Mary C. 9:30-4:00  
 November 8 Mary C. 9:30-4:00  
 December 14 Christmas Party Mary C.  
 11:00am-3:30pm

**Dates subject to change.**  
**Be sure to check each month!**  
 The September meeting is the Friday evening of the gem show after the dinner for the dealers at the Ocean Springs Civic Center Building.  
 December will be our Christmas Party and Installation of Officers

**April 2025**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

# Snoopy Gems

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<http://www.mgCGMS.org>



The Mississippi Gulf Coast Gem & Mineral Society is a Non-profit Organization Dedicated to Education, Science, and the Lapidary Arts and Crafts

Snoopy Gems MCGMS  
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