

*Sponsored by  
Tucson Gem and Mineral Society*

## 2024 TGMS Micromount Symposium

Friday, February 9, 2024



Dr. Arthur Roe

### **West Meeting Room – 102/103:**

9:30 am - 6:00 pm (102/103)      **Arthur Roe Memorial Micromount Symposium**

9:30 am - 10:00 am (102/103)      **Welcome**

10:00 am - 11:30 am (102/103)      **Symposium Talks:**

10:00 am - 10:45 am (102/103)      **"Volcanic Fumarole Minerals in Japan"**  
By Alfredo Petrov

10:45 am - 11:30 am (102/103)      **"Mosaic and Split Crystals"**  
By John Rakovan

11:30 am - 12:15 pm (102/103)      **"Granite Pegmatites of the Northeast USA"**  
By Dr. Vandall King



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# 2024 TUCSON GEM AND MINERAL SHOW®

Friday, February 9, 2024

10:00AM – 10:45AM in the West Meeting Room: 102/103

## "Volcanic Fumarole Minerals in Japan " By Alfredo Petrov

**BIO:** Alfredo is a geologist, originally from England, who has studied and worked in Ethiopia, Lebanon, California, Bolivia, Japan, and other places. He currently splits his time between homes in Tucson and Catalonia and is a passionate hunter of microminerals and geological oddities.

**TOPIC:** "Japanese Volcanic Fumaroles:" Fun field collecting, lots of beautiful micros and exotic chemistry. (Combined with some culture, geography and geology, and practical tips for collecting in fumaroles.)



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10:45AM – 11:30AM in the West Meeting Room: 102/103

## "Mosaic and Split Crystals " By John Rakovan

**BIO:** Dr. John Rakovan is the State Mineralogist and senior museum curator at the New Mexico Bureau of Geology and Mineral Resources. He has been an executive editor of and regular contributor to *Rocks & Minerals* magazine since 2001 and was a professor of mineralogy at Miami University for 25 years. John has broad research interests including crystal growth, structural and morphologic crystallography, and mineral deposit formation. He has been a mineral collector for more than forty years with particular interests in apatite, layer silicates, and specimens with interesting mineralogical characteristics, like mosaic and split crystals.



**TOPIC:** Mosaic offset of crystal lattices has been invoked for decades to help explain the characteristics of X-ray diffraction peaks. Such mosaicity is thought to occur on the <100nm scale. Macromosaic structures result in crystals with easily visible habit modifications. A textbook example is the bowtie habit so common to stilbite. Many other beautiful examples exist among minerals and this talk will explore both the structural and morphologic characteristics of macromosaic crystals often referred to as "split" crystals.



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11:30AM – 12:15 PM in the West Meeting Room: 102/103

**"Granite Pegmatites of the Northeast USA "**

**By Dr. Vandall King**

**BIO:** Dr. King has been a mineral collector since 1959 and has degrees from the University of Maine and from the State University of New York in Geology and Mineralogy. He has written or co-authored 24 mineralogical and geological books. His started his career as mineralogist for Ward's Natural Science Inc. is still engaged in occasional mineralogical consulting while "retired." See extended biography at <https://www.mindat.org/user-1370.html>



**TOPIC:** Dr. King has degrees in science about granite pegmatites and has studied pegmatites in 23 US states as well as in Canada.



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