



The Geological Society of America Mineralogy, Geochemistry, Petrology, and Volcanology Division

https://community.geosociety.org/mgpvdivision/home

FROM THE MGPV CHAIR



We are delighted to finally be joining *Elements*, and excited to be part of the growing and increasingly interlinked network of international societies focused on mineralogy and geochemistry. As the Mineralogy, Geochemistry, Petrology, and Volcanology (MGPV) Division of the Geological Society of America (GSA), we have a wide range of shared interests with the *Elements* community and welcome the opportunities for engagement and collaboration that this new affiliation will bring.

Many of you may be familiar already with MGPV from participation in the annual GSA Connects meetings, where our Division has been active for the past 15 years, sponsoring and promoting technical sessions in the areas of mineralogy and geochemistry. Our interests encompass diverse areas of mineralogy and geochemistry, spanning a wide disciplinary range from basic to applied science, surficial to deep Earth systems, and terrestrial to Solar System–wide materials and processes. In addition to promoting scientific sessions in these areas, MGPV is highly dedicated to supporting students and early career scientists, providing opportunities for community building, career-development, research funding, travel grants, and other awards. We look forward to growing our student and international communities, and hope that many of you will choose to engage with us in the near future.

Elisabeth Widom, MGPV Division Chair



Cross-sectional illustration of the observed seismicity and predicted mineralogy in the SW Japan subduction zone.

to the Earth's interior increases the amount of talc and carbonate with depth, facilitating the mechanical weakening of the plate boundary and the transition from a seismogenic to a stable sliding zone (FIG. 2).

The amount of carbon stored in seafloor sediments is closely linked to the Earth's surface environment, including atmospheric CO_2 concentrations and climate. This study suggests that long-term changes in the Earth's surface environment and the characteristics of seafloor sediments around the world have an impact on the occurrence of earthquakes and the mechanical properties of plate boundaries in the Earth's interior.

MGPV (Helpful neumonic: MaGnesium PeroVskite)

The Mineralogy, Petrology, Volcanology, and Geochemistry (MGPV) Division is one of 22 scientific divisions of the Geological Society of America. It was founded in 2009 with a mission to promote the study, teaching, and research of Earth's materials, chemical cycles, processes, and resources—critical areas for sustainable resource management, hazard mitigation, and exploration of Earth and other planets. The Division achieves these goals by organizing and sponsoring sessions at both national and regional meetings. Additionally, it supports the field through initiatives such as the Distinguished Geological Career Award (DGCA), Early Geological Career Award (EGCA), student research and travel grants, exhibits, and joint receptions with its Adhering Societies.

The MGPV Division currently has 1,894 members, including 870 students and 208 early-career professionals. Ninety-two percent of MGPV members reside in North America. It is governed by a board consisting of five elected officers, three student representatives, and representatives from each of the Adhering Societies: Clay Minerals Society, Geochemical Society, Mineralogical Association of Canada, Mineralogical Society of America, Mineralogical Society of Great Britain & Ireland, and the International Association of Geochemistry.

In 2024, MGPV and its Adhering Societies organized or endorsed 84 half-day technical sessions (27 of which were poster sessions) at the Annual Meeting in Anaheim, CA. During this event, J. Michael Rhodes of the University of Massachusetts (USA) and Chris Yakymchuk of the University of Waterloo (Canada) were honored as the 2024 Distinguished Geological Career Award (DGCA) and Early Career Geological Award (ECGA) recipients, respectively. Additionally, the MGPV Division funded 41 exceptional student research projects, awarding a total of \$102,500 from the Lipman, Carmichael, Hollister, and MGPV Funds. It also supported 10 student travel grants, totaling \$5,000, thanks to generous donations and endowments.

Looking ahead to the 2025 GSA Annual Meeting in San Antonio, TX (October 19–22), MGPV will host award sessions recognizing the upcoming DGCA and ECGA awardees, Anita Grunder of Oregon State University and Madison Myers of Montana State University, along with student award recipients. MGPV's student representatives will be organizing the third annual MGPV student sessions.

For more information about the MGPV Division's current and past activities, visit the division's website (https://community.geosociety. org/mgpvdivision/home), where you can explore newsletters, annual reports, and details on awards and grants. MGPV also uses social media as a tool for outreach and communication: LinkedIn and Slack. For any inquiries, please use the "Contact Us" section on the site.

REFERENCES

- Clift PD (2017) A revised budget for Cenozoic sedimentary carbon subduction. Reviews of Geophysics, 55: 97-125, doi: 10.1002/2016RG000531
- Hirauchi KI, den Hartog SAM, Spiers CJ (2013) Weakening of the slab-mantle wedge interface induced by metasomatic growth of talc. Geology 41: 75-78, doi: 10.1130/G33552.1
- Okamoto A and 5 coauthors (2021) Rupture of wet mantle wedge by self-promoting carbonation. Communications Earth & Environment 2: 1-10, doi: 10.1038/ s43247-021-00224-5
- Okamoto A, Oyanagi R (2023) Si-versus Mg-metasomatism at the crustmantle interface: insights from

experiments, natural observations and geochemical modeling. Progress in Earth and Planetary Science 10: 39, doi: 10.1186/s40645-023-00568-w

- Oyanagi R, Uno M, Okamoto A (2023) Metasomatism at a metapelite–ultramafic rock contact at the subduction interface: insights into mass transfer and fluid flow at the mantle wedge corner. Contributions to Mineralogy and Petrology 178: 27, doi: 10.1007/ s00410-023-02011-1
- Oyanagi R, Okamoto A (2024) Subducted carbon weakens the forearc mantle wedge in a warm subduction zone. Nature Communications 15: 7159, doi: 10.1038/ s41467-024-51476-6