

2023 TPG: Tectonics-Petrology-Geochronology Zoom Seminar Series

February 1 to March 1; Wednesdays; 12:05 to 1:00 pm US Pacific Standard Time

Organized by Stanford. On Zoom. Open to all geoscientists everywhere.

Stanford has run its TPG seminar series for the last 32 years and it will meet on Zoom in early 2023.

We have five great talks lined up and hope you'll attend any that may interest you. Informal seminar, not for credit.

Please forward this announcement to interested persons.

Version 1
13 Jan. 2023

Speakers

Feb. 1: **Thomas Benson**, Lithium Americas Corporation
"The geology and origin of the sedimentary-type lithium resource in the McDermitt Caldera, Nevada and Oregon: the largest known lithium deposit in the world"

Benson, T.R., M.A. Coble, J.J. Rytuba, and G.A. Mahood, 2017, Lithium enrichment in rhyolite magmas of intracontinental calderas leads to Li deposits in caldera basins. *Nature Communications*, v. 8, 270, 9 pp. <https://www.nature.com/articles/s41467-017-00234-y>
<http://www.tombenson.rocks>

Feb. 8: **Maryjo Brounce**, University of California, Riverside
"Redox variations in Mauna Kea and Reunion lavas, and heterogeneity in the oxygen fugacity of mantle plumes"

Brounce, M., E. Stolper, and J. Eiler, 2022, The mantle source of basalts from Reunion Island is not more oxidized than MORB source mantle. *Contributions to Mineralogy and Petrology*, v. 177, 18 pp. <https://link.springer.com/article/10.1007/s00410-021-01870-w>
<https://sites.google.com/prod/ucr.edu/brounce/home>

Feb. 15: **Marty Grove**, Stanford University
"Advances in detrital K-feldspar coupled $^{40}\text{Ar}/^{39}\text{Ar}$ thermochronology and Pb isotopic geochemistry"

Shulaker, D.Z., M. Grove, J.K. Hourigan, N. Van Buer, G. Sharman, K. Howard, J. Miller, and A.P. Barth, 2019, Detrital K-feldspar Pb isotopic evaluation of extraregional sediment transported through an Eocene tectonic breach of southern California's Cretaceous batholith. *Earth and Planetary Science Letters*, v. 508, p. 4-17. <https://www.sciencedirect.com/science/article/abs/pii/S0012821X1830699X>
<https://noblegas.stanford.edu>

Background: *Pars pro Toto* by Alicja Kwade.

<https://news.stanford.edu/2021/04/21/alicia-kwade-site-specific-installation-stanford-science-engineering-quad-suggests-alternate-realities/>

Feb. 22: **Emily Chin**, Scripps Institution of Oceanography
"The peridotite deformation cycle in cratons and the deep impact of subduction"

Chin, E.J., B. Chilson-Parks, Y. Boneh, G. Hirth, A.E. Saal, B.C. Hearn, and E.H. Hauri, 2021. The peridotite deformation cycle in cratons and the deep impact of subduction. *Tectonophysics*, v. 817, p. 229029, 22pp. <https://www.sciencedirect.com/science/article/abs/pii/S0040195121003115>
<https://emilyjchin.squarespace.com>

March 1: **Paul Hoffman**, University of Victoria
"Cryogenian Snowball Earth: rocks, models and biomes"

Hoffman, P.F. & 25 coauthors, 2017, Snowball Earth climate dynamics and Cryogenian geology-geobiology. *Science Advances* 3: e1600983, 43 pp. <https://www.science.org/doi/10.1126/sciadv.1600983>
<https://scholar.google.ca/citations?user=aiTNRrcAAAAJ&hl=en> www.snowballearth.org

Registration optional but highly recommended:

- To register, please email tdumitru@stanford.edu (Trevor Dumitru) using subject line "TPG Reg". The only information we need is your email address. We'll email you updates, weekly reminders, changes, etc. **If you were registered in 2022, you don't need to re-register.**
 - We may not read emails with subject line "TPG Reg," so please send questions, etc. using subject line "TPG Questions".
 - Our Zoom limit is 500 people. In the unlikely event a meeting exceeds 500 and you can't join, please email us so we'll know (but we won't be able to help for that talk).
 - Dates and time: Once a week, Wednesdays, 12:05 to 1:00 pm US Pacific Standard Time. Some people log in as early as 11:45 am to catch up with colleagues. Discussions may continue until about 1:20 pm. 12:05 pm PST is 21:05 Wed. Central European Time.
 - Talk level: Advanced; directed mainly toward graduate students, post-docs, faculty, and geoscientists with interests in TPG.
- **Zoom link**** <https://stanford.zoom.us/j/98437700929?pwd=QUM3R284RHpneFZXN2VqNldlMCtRUT09>
Zoom meeting ID: 984 3770 0929; password: 313758. We expect, but are not positive, that all talks will use the same link. Any updates to talks or links are probably in the most recent email that you received and/or are posted here:
<https://tectonics.stanford.edu/links/>