

Department Colloquium Series Spring 2022

Monday, April 25 @ 12pm (noon time) & Zoom* Geo Mus 102 (Haller Hall) – A boxed lunch will be served

Terry Plank Arthur D. Storke Memorial Professor, Geochemistry

"At the Speed of Volcanic Eruptions"

Abstract: What happens under volcanoes in the months leading up to eruption? How does a magmatic system prepare for an eruption? And why are some eruptions more explosive than others? Crystal clocks are providing some answers to these questions. Chemical zonation preserved inside crystals and their inclusions are some of the fastest clocks in geology. These timescales of chemical diffusion operate over minutes to years prior to eruption. This talk will examine new constraints n eruption run-up, forecasting and dynamics.

Short Bio: Dr. Plank is a geochemist recognized for her work on element recycling at subduction zones, and the role of volatiles in magma generation, ascent, and eruption. Dr. Plank graduated with a degree in Earth Science from Dartmouth College, where she was later awarded an honorary doctorate. She received a PhD from Columbia University in 1993 and completed a postdoctoral fellowship at Cornell University before taking faculty positions at the University of Kansas, Boston University and, since 2008, Columbia University. She has served the science community with founding roles in the NSF MARGINS and SZ4D Initiatives, aimed at coordinating plate boundary science and study of volcano hazards. In addition to the National Academy of Sciences, Plank is also a member of the American Academy of Arts and Sciences and was a MacArthur Foundation Fellow from 2013- 2017.

*Zoom link:<u>https://harvard.zoom.us/j/98884783575?pwd=ais5ek9MaGRQYy9ScEh3Zm5YdTRwQT09</u>

