

Tectonics & magmatism

- Petrology of *Mauna Loa volcano*, Hawaiian Islands. To understand ocean island magma genesis, this unique collection of thin-sections needs petrography and mineral analysis. This is an opportunity to integrate an eruptive sequence of basalts within the overall magmatic development of mantle plume evolution! Mineral analysis will be performed on our new SEM.
- Early Paleozoic deformation history of the Taimyr Peninsula, Arctic Siberia. Utilize structural analysis to evaluate large-scale tectonics. Construct cross-sections and use computer generated stereonet to unfold and rotate structural data, in order to determine the deformational history of these rocks. This project will provide a valuable contribution to the large scale research program on the geological evolution of circum-Arctic terranes.
- Intrusive and high-grade rocks of Uweinat, southwestern Egypt. This collection of granitoid rocks and their high-grade gneissic host-rocks provides an opportunity to investigate the age and chemical diversity associated with a very remote and little studied region at the corner of Lybia, Sudan, and Egypt. This study will involve using the XRF and/or the laser ICPMS and provides a chance to make a unique contribution for a region about which little is known.

These are just a few ideas. If you are interested in this type of work, contact me (vicky.pease@geo.su.se).