Geochemical data-driven investigations of mountain building: the Deep Lithosphere Dataset, Leslie Hsu, Kerstin Lehnert, Tiffany Rivera, Karin Block, Celine Chan, CIDER 2011 Summer Program Poster Session, Dynamics of Mountain Building, June 19-July 22, 2011, UC Berkeley, California, USA.

The ever-growing quantity of mantle xenolith geochemical data presents both an opportunity and a challenge to related scientific investigations as it becomes more and more difficult to compile a comprehensive background dataset with all of the relevant measurements and documentation. The Deep Lithosphere data set contains mantle peridotite xenolith geochemistry, petrology, and model pressures and temperatures, suitable for providing geologic and geochemical context essential for testing geophysical models. The search application provides access to an integrated dataset allowing researchers to create customized subsets of data with which they can quickly test hypotheses and verify results. Data may be discovered by geographical area, tectonic setting, rock type, rock and mineral analyses, sample, or publication. We present the current holdings of the Deep Lithosphere Dataset in and around orogenic belts as a means of inviting input and contributions from the community as we continue growing the dataset in a direction that will serve research needs.

The Deep Lithosphere Dataset is part of a collection of synthesis databases, repositories, and tools built by IEDA, the Integrated Earth Data Applications group (www.iedadata.org<http://www.iedadata.org/> ). IEDA's goals are to preserve and facilitate the re-use of Ocean, Earth, and Polar science data, and to enable new discoveries and research opportunities within and across scientific disciplines.