

Session title:

Gemstones from the deep: A Celebration of the career of George E. Harlow

Conveners:

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Session scope:

Earth processes continuously form thousands of minerals; however, relatively a few numbers of them fall into the precious and gemstones categories. Gemstones are highly prized for their rarity and immense beauty, but their values are not limited to their monetary worth. Some gemstones such as jadeite jades, ruby corundums, and diamonds, have fascinated all geological sciences realms, from mineralogy to tectonics. Diamond is the best mantle gemstone to decipher the volatile global cycle and the oxidation state of the deep mantle. Jadeitite jade marks the location of exhumed paleo subduction zones and provides geochemical properties of H₂O-rich slab-derived aqueous fluid responsible for the mantle wedge serpentinization. Ruby, the rarer corundum, exclusively forms during continental collision and is brought to the surface by deep erosion of thick orogenic belts.

This session is largely a celebration of George Harlow's outstanding career and contributions. It aims to attract the latest data and concepts regarding any natural gemstones and gemstone-related earth processes. We encourage contributions from the broad field of mineralogy, petrology, geochemistry, tectonics, and geoarchaeology, ranging from local to global scale to reflect George's multidisciplinary research contributions in mineralogy and solid-earth processes. We also welcome contributions exploring new directions with novel or interdisciplinary techniques regarding related topics.

Keynote speakers (confirmed):

Barbara Dutrow (LSU)

George Harlow (AMNH)

Samuel Angiboust (ENS Lyon)

Potential contributors (whom we will invite):

Vlad Shatsky, Roberto Compagnoni, Tadao Nishiyama, Alberto Vitale Brovarone,

Horst Marshall, Philippe Agard, Olivier Vidal, Matthias Konrad-Schmolke, Ralf Halama