



proEXPLO 2023

COURSE

EPITHERMAL ORE DEPOSITS, AND TRANSITION TO THE PORPHYRY ENVIRONMENT: FORMATION, AND EXPLORATION

THURS 11TH AND FRI 12TH MAY 2023

FROM 9:00 TO 17:00 HOURS

IIMP VENUE



Abstract

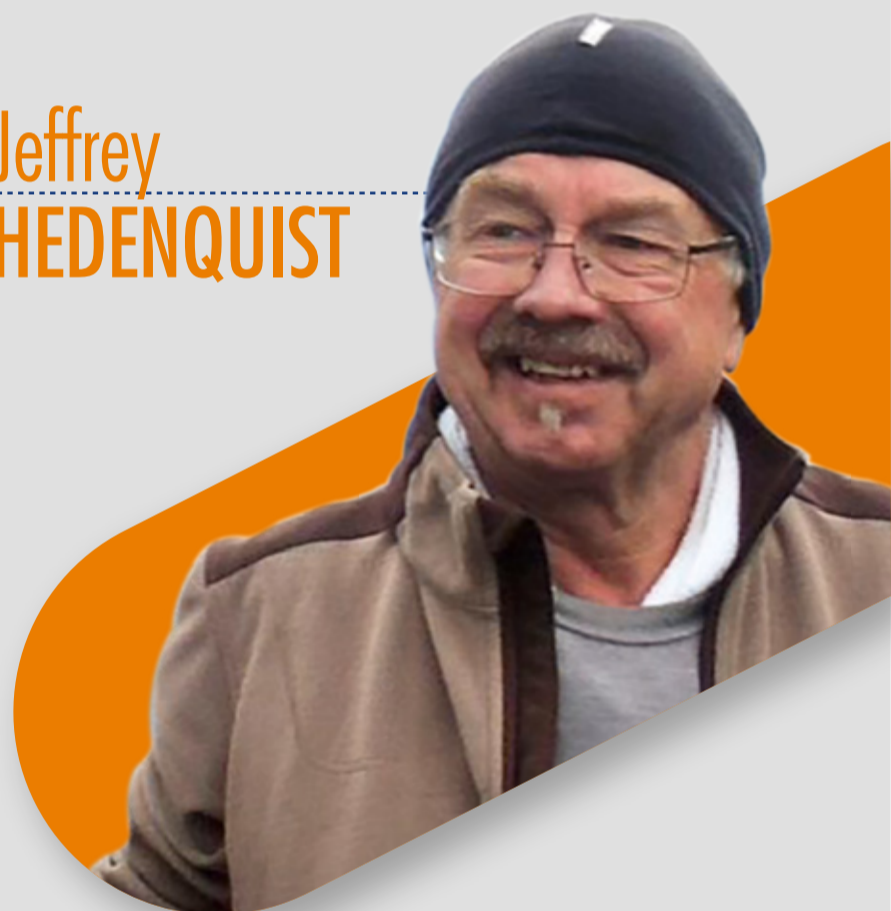
Most epithermal ore deposits form in shallow (<1 km depth) magmatic-hydrothermal systems in frontal volcanic arcs, commonly with transition to deeper (~1.5-3 km) intrusion-hosted ore deposits of the porphyry system. Alteration and subsequent precious and/or base-metal mineralization at both epithermal and porphyry depths are related to the spatial and temporal evolution of the same hydrothermal system. Alteration mineralogy and assemblages are critical to assess epithermal and porphyry prospects: to determine erosion level (from paleosurface through the epithermal environment to the tops of porphyry deposits); to correctly interpret geochemical and geophysical anomalies; and to estimate location, proximal or distal, relative to a potential ore deposit.

Epithermal deposits also form in extensional settings, including back arcs, with somewhat different mineralogy and metal characteristics, but with hydrothermal processes similar to those in frontal arcs. Information from active hydrothermal systems, including fluid compositions, flow paths, and mineralogy, is useful when applied to exploring their extinct equivalents. This course stresses mineralogical interpretation coupled with exploration guidelines.

Instructors

Jeffrey Hedenquist is an independent advisor to the mineral industry and governmental groups on exploration for and assessment of hydrothermal gold and copper projects; he has worked for ~120 companies in over 40 countries, including field and classroom training. Prior to 1999 he spent 10 years each with government institutes of New Zealand and Japan, working on geothermal energy development and volcanic discharges; during this time he also studied the formation of epithermal and porphyry deposits. Dr. Hedenquist is also adjunct professor at the University of Ottawa.

Jeffrey HEDENQUIST



Antonio Arribas teaches at the Department of Earth, Environmental and Resource Sciences of the University of Texas at El Paso, where he is the inaugural holder of the Kenneth F. and Patricia Clark Distinguished Chair. Previously he taught at Akita University (Japan) and worked for two decades with the mineral exploration industry, including Vice President Geoscience (BHP), Senior Manager Geosciences (Newmont), and Exploration Manager South America (Placer Dome). Antonio conducts research in geology and geochemistry of mineral deposits, and is also interested in the history and teaching of economic geology and exploration. His education includes the University of Salamanca, Spain (BSc, MSc) and University of Michigan (PhD).

Antonio ARRIBAS



Costs

CATEGORIES	RATES US\$ INC. IGV	
	Until 16.03.2023	From 17.03.2023
Non-Associates	700	750
Associates	600	650
Students	280	330
Teachers	330	380

- The IIMP Active Member must be up to date with their 2023 dues.
- The student and the teacher must present their respective university transcripts.
- * Includes digital certificate.

13TH INTERNATIONAL CONGRESS OF PROSPECTORS AND EXPLORERS

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8 - 10 May, 2023

Venue: Lima Convention Center

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