

JEOCHEMISTRY SESSION

Elif Varol, Ezgi Ulusoy, Fatma Gülmez Yıldırım

Geochemistry is fundamental to the understanding of the origin, evolution, and processes of the Earth. It is concerned with the chemical composition of Earth materials, the distribution and behavior of elements and isotopes, and their interactions in a variety of geological settings. Geochemistry is a broad subject that includes magmatic, metamorphic, and sedimentary systems; the formation of mineral and ore deposits; rock-fluid interactions; and biological, environmental, and climatic processes. It provides important clues to the geological history of Earth and the processes that continue to shape our planet.

The main theme of the 79th Geological Congress of Türkiye, "Geosciences in Addressing Global Challenges: Earth–Society–Future," invites you to reflect on how geochemical knowledge can contribute to the understanding of current societal and environmental issues. The key fields of geochemical impact are exploration and sustainable use of natural resources and critical raw materials, protection of water and soil quality, identification of contaminant sources and transport pathways, and reconstruction of climate change using geochemical records.

The Geochemistry Session aims to provide a forum for scientific collaboration that facilitates the discussion of fundamental research on the composition and processes of the Earth with applied geochemical research, particularly that which addresses societal and environmental problems. Researchers are invited to submit original contributions to fundamental and applied geochemistry in the form of oral and poster presentations at the Congress, to be held 12-16 April 2027. We welcome submissions on various questions, including but not limited to the following:

Main topics:

- Geochemistry of magmatic, metamorphic, and sedimentary rocks
- Mineral chemistry and crystal geochemistry
- Trace element geochemistry, stable and radiogenic isotope geochemistry, isotope systematics, and geochronology
- Geochemistry of ore deposits, hydrothermal systems, ore-forming processes, and critical and strategic raw materials
- Water–rock interactions and hydrogeochemistry
- Environmental geochemistry and the geochemical behavior of contaminants
- Exploration and prospecting geochemistry
- Biogeochemistry and organic geochemistry
- Cosmochemistry and planetary geochemistry
- Geochemical records of climate change and paleoenvironmental processes
- Experimental and theoretical geochemistry and geochemical modeling
- Analytical geochemistry, advanced analytical techniques, method development, and geochemical data analysis