

GEMOLOGY SESSION CHAIRS

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The 79th Geological Congress of Turkey, to be held from April 12–16, 2027, at the MTA Cultural Center under the main theme "Geosciences in Solving Global Problems: Earth–Society–Future," will also feature a session on "Gemology."

Guided by the principle that "understanding the Earth is not enough; we must integrate the knowledge we generate about it into how we envision the future of our societies," we must recognize that gemstones are natural heritage artifacts—repositories of the Earth's geological history spanning millions of years—and, consequently, produce significant scientific data regarding them. Beyond merely understanding the composition of these minerals, it is essential to establish a regulatory framework that includes the development of eco-friendly extraction technologies, ensures the equitable distribution of resources, and sets ethical standards that protect the rights of local communities. In our country, the perception of gemstones is largely shaped by traditional or religious customs, their role as economic investments, or their use for purported healing properties; scientific awareness, by contrast, remains in its early stages. Although Turkey possesses a rich potential for gemstones, the current mining legislation contains gaps and areas that require reform. Therefore, this legislation needs to be updated—drawing upon the examples of developed nations, incorporating the latest scientific data, and accounting for the specific conditions within our own country.

This session aims to provide a holistic approach to addressing global challenges in gemology—ranging from the preservation of natural gemstones as geological heritage and the promotion of fair trade, to advanced analytical identification techniques and the development of synthetic or alternative material technologies. Furthermore, the gemology session seeks to foster an interdisciplinary dialogue by bringing together geoscientists, gemologists, mining engineers, environmental scientists, and representatives from the jewelry and mining sectors.

Session Topics in Gemology:

1. Formation and Geology of Gemstones
2. Challenges in Gemology, Legislation, and Certification
3. Turkey's Gemstone Potential and Ongoing Research
4. A Scientific Perspective on the Concept of "Healing Stones"
5. Advanced Analytical Identification Techniques
6. Synthetic, Imitation, and Treated Gemstones
7. Conservation of Gemstones as Geological Heritage

Each gemstone carries a unique story—whether from a geological, cultural, or gemological perspective. To explore this journey and share these narratives, we invite those of you working with gemstones to participate in the "Gemology" session at the 79th Geological Congress of Turkey. We welcome you to present your research through either an oral or a poster presentation. Your participation will enrich this session and give it greater significance. Best regards…