

INDUSTRIAL RAW MATERIALS AND NATURAL BUILDING MATERIALS

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Industrial raw materials and natural building materials play an important role in meeting society's fundamental needs for housing, infrastructure, industrial production, and environmental technologies. Growing demand for raw materials, climate change, and environmental impacts make the sustainable utilization of these resources essential. Held within the 79th Geological Congress of Türkiye under the main theme "Geosciences for Addressing Global Challenges: Earth–Society–Future," this session will explore the relationship between geological resources and societal needs within the framework of responsible mining and sustainable development.

The session covers research on non-metallic industrial minerals, aggregates, and natural stones. Key topics include geological formation, mineralogical-petrographic and geochemical characterization, resource and quarry geology, economic potential, quality, durability, physicomechanical properties, and beneficiation and processing technologies. Advanced analytical methods and opportunities for high value-added applications will also be discussed.

The session will further address the utilization of mining and processing wastes as secondary raw materials, the circular economy, resource and energy efficiency, and the development of innovative composites and mineral-based materials. Bringing together research from Türkiye and around the world, the session aims to strengthen links between scientific knowledge and industrial applications, promote international collaboration, and contribute to resource management that considers the needs of future generations.