

Thematic Session 08

Sepiolite, palygorskite and bentonite: geology, properties and applications

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Special clays formed by 2:1 clay minerals (e.g. bentonite, sepiolite and palygorskite) are materials with outstanding properties (e.g. sorptive and rheological), which make them exceptional from an industrial and technological point of view because of their large number of applications, including their use as nanomaterials. These clays are made up of clay minerals that form rare deposits (sepiolite) or not very abundant ones (palygorskite, smectites), which properly treated acquire a high added value and therefore economic significance. This session focuses, on geological aspects that include: description of the deposits, mineralogy, geochemistry, usefulness in palaeo-environmental reconstructions and genesis of these special clays. Also included are the technological processes used to enhance certain properties and also their industrial, environmental and health-related applications. All contributions within this broad spectrum are welcome.

Keywords: Geology and geochemistry of special clay deposits. Smectites. Sepiolite and palygorskite. Genetic pathways. Properties. Applications.

Potential Journals: Applied Clay Science, Clays and Clay Minerals, Clay Minerals, Sedimentary Geology, Chemical Geology.

