Special Issue

Characterisation of Mudrocks: Textures and Mineralogy

Message from the Guest Editor

Mudrocks are a volumetrically important part of many sedimentary basins, both in the present day and across geological time. Although often considered to be somewhat simple, or even of little research interest, recent research has indicated that mudrocks are highly heterogeneous in terms of texture and mineralogy at the micron to decimetre scale. Mudrocks are economically significant as seals for oil, gas, water, CO2 and H storage, as source rocks for unconventional oil and gas plays and an important engineering material in their own right. Characterisation of mudrocks in terms of texture and mineralogy is, therefore, important in determining variation in porosity, permeability and structural rigidity as well as the environment of deposition and diagenetic history. Techniques used in characterising mudrocks include, amongst others, scanning electron microscopy (SEM), transmission electron microscopy (TEM), X-Ray tomography (XRT), neutron microscopy/diffraction, X-Ray fluorescence (XRF) and X-Ray diffraction (XRD).

Guest Editor

Dr. Jim Buckman

Institute of GeoEnergy Engineering, School of Energy Geoscience Infrastructure and Society, Heriot-Watt University, Riccarton, Edinburgh, Scotland EH14 4AS, UK

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Minerals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
minerals@mdpi.com

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Message from the Editor-in-Chief

Minerals welcomes submissions that report basic and applied research in mineralogy. Research areas of traditional interest are mineral deposits, mining, mineral processing and environmental mineralogy. The journal footprint also includes novel uses of elemental and isotopic analyses of minerals for petrology, geochronology and thermochronology, thermobarometry, ore genesis and sedimentary provenance. Contributions are encouraged in emerging research areas such as applications of quantitative mineralogy to the oil and gas, manufacturing, forensic science, climate change, geohazard and health sectors.

Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky
Bayerisches Geoinstitut, University Bayreuth, D-95440 Bayreuth, Germany

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