

Special Issue

Application of Deep Learning and Computer Vision in Petrographic Images Analysis

Message from the Guest Editor

Artificial intelligence and computer vision are becoming indispensable components of our everyday life. This is also particularly true in the case of scientific research, where the application of their achievements not only supports work automation but also creates opportunities for discoveries not possible before.

One such scientific field where computer vision and in particular deep learning is being more and more present is in the analysis of petrographic images. Mineral identification, segmentation, and autonomous interpretation of the thin section petrographic images are only a few examples of many potentials (and nowadays ongoing) applications. Therefore, in this Special Issue, we aim to include original and recent work or reviews in the form of methodologies, technologies, or applications of computer vision and that demonstrate a particular focus on deep learning in petrography. We welcome manuscripts relating, but not limited to, the following areas: artificial intelligence, computer vision, deep learning, object detection, image segmentation, petrographic images analysis, maceral images analysis, and microscopic images of mineral matter analysis.

Guest Editor

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About the Journal

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.

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