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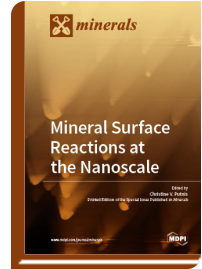
## **Mineral Surface Reactions at the Nanoscale**

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Reactions at mineral surfaces are central to all geochemical processes. As minerals comprise the rocks of the Earth, the processes occurring at the mineral–aqueous fluid interface control the evolution of the rocks and hence the structure of the crust of the Earth during processes such as metamorphism, metasomatism, and weathering. In recent years focus has been concentrated on mineral surface reactions made possible through the development of advanced analytical methods such as atomic force microscopy (AFM), advanced electron microscopies (SEM and TEM), phase shift interferometry, confocal Raman spectroscopy, and advanced synchrotron-based applications, to enable mineral surfaces to be imaged and analyzed at the nanoscale. Experiments are increasingly complemented by molecular simulations to confirm or predict the results of these studies. This has enabled new and exciting possibilities to elucidate the mechanisms that govern mineral–fluid reactions.

In this Special Issue, “Mineral Surface Reactions at the Nanoscale”, we present 12 contributions that highlight the role and importance of mineral surfaces in varying fields of research.



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