



## Geochemical Self-Organization

Peter J. Ortoleva

**Series :** [Oxford Monographs on Geology and Geophysics, 23](#)

This monograph offers an interdisciplinary approach to the analysis of geological systems which become spatially organized through the mediation of chemical processes. The treatment is based on a mathematical approach. The intended readership includes researchers and advanced undergraduate and graduate students in all branches of geology as well as scientists and mathematicians concerned with nonlinear dynamics, numerical analysis, self-organization, nonlinear waves and dynamics, and phase transition phenomena. The work could also serve as a basis for a special topics course in mathematics, chemistry or physics.

**Readership :** Advanced undergraduates and graduate students and researchers in geology

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- "Chaos is one form of non-linear behaviour that is beginning to make its presence felt in the geological literature. However, this book is about self-organization--non-linear behaviour that may be just as disturbing to traditional views about how geological objects acquire their shapes and compositions .... This is an interesting and unconventional contribution. Sections could be read with profit particularly by sedimentologists, structural geologists, metamorphic petrologists and geochemists of all stamps. I would recommend that a copy reside in your institutional library." --*Journal of Petrology*
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