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Elements

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The Mineral–Water Interface

CHRISTINE V. PUTNIS and ENCARNACIÓN RUIZ-AGUDO, Guest Editors

Where Minerals React with the Environment

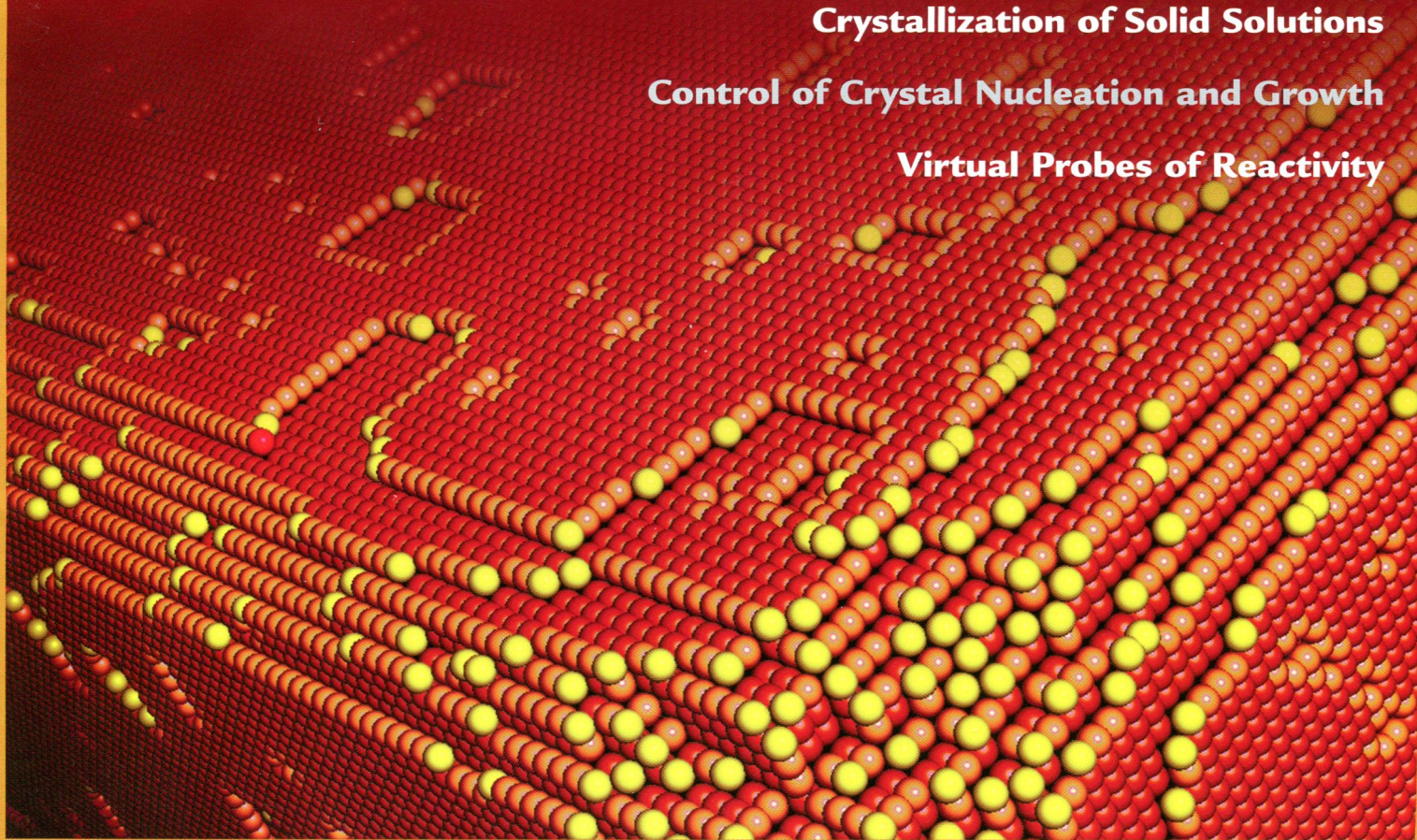
Crystal Dissolution Kinetics

From Atoms to Minerals

**Environmental Remediation by
Crystallization of Solid Solutions**

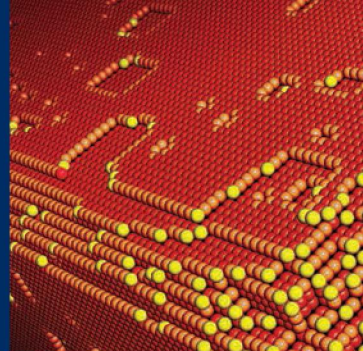
Control of Crystal Nucleation and Growth

Virtual Probes of Reactivity



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Guest Editors: **Christine V. Putnis and Encarnación Ruiz-Agudo**



The Mineral–Water Interface: Where Minerals React with the Environment

Christine V. Putnis and Encarnación Ruiz-Agudo



A Stochastic Treatment of Crystal Dissolution Kinetics

Andreas Lüttge, Rolf S. Arvidson, and Cornelius Fischer



How Ions and Molecules Organize to Form Crystals

Henry H. Teng



Environmental Remediation by Crystallization of Solid Solutions

Manuel Prieto, José Manuel Astilleros, and Lurdes Fernández-Díaz



Control of Crystal Nucleation and Growth by Additives

Carlos Rodríguez-Navarro and Liane G. Benning



Virtual Probes of Mineral–Water Interfaces: The More Flops, the Better!

Andrew G. Stack, Julian D. Gale, and Paolo Raiteri

ABOUT THE COVER: Model simulation of a dissolving crystal surface showing the detail of a corner and monolayer dissolution pits (see page 185). Dissolution begins preferentially at these mineral surface sites and is a process continually occurring at the surface of the Earth where aqueous fluids are abundantly available.

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