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**Reactive Transport Modeling** 

Guest Editors: Kate Maher and K. Ulrich Mayer

Tracking Diverse Minerals, Hungry **Organisms**, and **Dangerous Contaminants Using Reactive Transport Models** 

Kate Maher and K. Ulrich Mayer

A three-dimensional rendering of a hillslope (using a colorized LiDAR point cloud) combined with a reactive transport model simulation of oxygenated water infiltrating through heterogeneous regolith. The oxygen distribution is controlled by biological consumption, inorganic redox reactions, and regolith porosity/permeability. The color scale reflects the log of the aqueous oxygen concentrations (yellow = high; blue = low). ILLUSTRATION BY KATE MAHER, ULI MAYER AND DANA CHADWICK



### **Using Reactive Transport Models to Quantify and Predict Groundwater Quality** Henning Prommer, Jing Sun, and Benjamin D. Kocar



The Role of Reactive Transport Modeling in Geologic **Carbon Storage** 

Anna L. Harrison, Benjamin M. Tutolo, and Donald J. DePaolo



Reactive Transport Modeling: A Key Performance Assessment Tool for the Geologic Disposal of Nuclear Waste

Laurent De Windt and Nicolas F. Spycher



## **Reactive Transport Models of Weathering**

Yves Goddéris, Jacques Schott, and Susan L. Brantley



# **Reactive Transport of Stable Isotopes**

Jennifer L. Druhan and Matthew J. Winnick



# **Reactive Transport Modeling of Microbial Dynamics**

Christof Meile and Timothy D. Scheibe

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