

Modeling Chemical Systems Using Cellular Automata

[DOWNLOAD HERE](#)

Preface.- Modeling Nature: TheSystem. States of the System. Models in Chemistry.- Cellular Automata: What are Cellular Automata. The Grid and the Cells. The Rules. Running a Simulation. The Output. Putting it all Together. Applications.- Water as a System: Experimental Design. The Movement Rules. The Attributes Recorded. Other Liquids. Applications.- Solution Systems: The Rules. Applications.- Dynamic Aqueous Systems: Oil-Water Demixing. Micelle Formation. Crystal Formation. Percolation.- Water Surface Effects: Water-Surface Encounters. Chromatography. Membrane Permeability.- First Order Chemical Kinetics: Exponential Decay. First Order Equilibrium. Series Reactions. Parallel Reactions. Kinetic and Thermodynamic Reaction Control.- Second Order Chemical Kinetics: Second Order Models.- Additional Applications in Chemical Kinetics: Enzyme Kinetics. Liquid-Vapor Equilibrium.- Use of the CASim Program: The System and Program. Organization of the CA Program. Setting up a Simulation.- Index. EAN/ISBN : 9781402036903 Publisher(s): Springer Netherlands Discussed keywords: Theoretische Chemie Format: ePub/PDF Author(s): Kier, Lemont B. - Seybold, Paul G. - Cheng, Chao-Kun

[DOWNLOAD HERE](#)

Similar manuals:

[Modeling Chemical Systems Using Cellular Automata](#)