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4.4.3 Evanescent-wave Sensing; 4.4.4 Fluorescence Detection
4.5 Electrochemical Sensors
4.6 References; 5 Simulations in Microfluidics; 5.1 Physical Aspects and Design; 5.2 Choosing Software and Hardware; 5.2.1 CFD-ACE+Version 6.6; 5.2.2 CoventorWare™ Version 2001.3; 5.2.3 Hardware; 5.2.4 The Core Elements of Typical CFD Software; 5.2.5 Pre-processors; 5.2.6 Solvers; 5.2.7 Post-processors; 5.3 Important Numerical Settings; 5.3.1 Boundary Conditions; 5.3.2 Solver Settings; 5.4 Errors and Uncertainties; 5.5 Interpretation and Evaluation of Simulations; 5.6 Example Simulations; 5.6.1 Fully-developed Flow in a Circular Capillary
5.6.2 Movement of a Chemical Plug by Electroosmotic Flow in a Detection Cell
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8.1 Hot Embossing

Sommario/riassunto

Written on a non-specialist level by an interdisciplinary team of chemists, biologists and engineers from one of Europe's leading centres for microsystem research, the Danish Mikroelektronik Centret (MIC), this is a concise practical introduction to the subject. As such, the book is the first to focus on analytical applications, providing life and analytical scientists, biotechnologists and pharmacologists with an understanding of the principles behind the design and manufacture of chemical and biochemical microsystems. The text is backed by a chapter devoted to troubleshooting as well as a g
