

# Contents in Brief

<b>Preface</b>	<b>v</b>
<b>Acknowledgments</b>	<b>vii</b>
<b>1 Chemical Transport in Electrolyte Media</b>	<b>1</b>
<b>2 Electric Fields and Flows in Electrolyte Media</b>	<b>33</b>
<b>3 Electrochemical Coupling and Transport</b>	<b>71</b>
<b>4 Electrical Interaction Forces: From Intramolecular to Macroscopic</b>	<b>139</b>
<b>5 Newtonian Fluid Mechanics</b>	<b>173</b>
<b>6 Electrokinetics: MEMS, NEMS, and Nanoporous Biological Tissues</b>	<b>203</b>
<b>7 Rheology of Biological Tissues and Polymeric Biomaterials</b>	<b>239</b>
<b>Appendix A Integral Theorems</b>	<b>287</b>
<b>Appendix B Differential Operators in Various Coordinate Systems</b>	<b>291</b>
<b>Appendix C Vector Identities</b>	<b>299</b>
<b>Appendix D System of Units</b>	<b>301</b>
<b>Appendix E Physical Constants</b>	<b>303</b>
<b>Index</b>	<b>305</b>