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Nota di contenuto	1. Introduction -- 2. Basics: Theory -- 3. Basics: Methods -- 4. Automated Electrophysiology -- 5. Ion-selective Channels -- 6. Theory of Excitability -- 7. Carrier-mediated Transport -- 8. Example of Application of Electrophysiology -- Appendix -- Index.
Sommario/riassunto	This textbook presents a broad overview of topics concerning cellular electrophysiology – covering topics ranging from bioelectric phenomena recognized as far back as ancient Egypt to popular topics on the dangers of electrosmog. Without sacrificing scientific precision, this clear and concise work presents on the one hand the different methods and applications, on the other hand the biophysical fundamentals of ion-channel and carrier proteins. Numerous and carefully selected illustrations and diagrams supplement the text, while questions at the end of each chapter allow readers to test their understanding. Each section also includes references to relevant original literature for further reading. The book offers a valuable resource for students of biology, chemistry and physics with a special interest in biophysics.