Handbook of Bioelectronics

This wide-ranging summary of bioelectronics provides the state-of-the-art in electronics integrated and interfaced with biological systems in one single book. It is a perfect reference for those involved in developing future distributed diagnostic devices, from smart bio-phones that will monitor our health status to new electronic devices serving our bodies and embedded in our clothes or under our skin.

All chapters are written by pioneers and authorities in the key branches of bioelectronics and provide examples of real-world applications and step-by-step design details. Through expert guidance, you will learn how to design complex circuits whilst cutting design time and cost, and avoiding mistakes, misunderstandings, and pitfalls. An exhaustive set of recently developed devices is also covered, providing the implementation details and inspiration for innovative new solutions and devices. This all-inclusive reference is ideal for researchers in electronics, bio/nanotechnology, and applied physics, as well as circuit and system-level designers in industry.

Sandro Carrara is a Faculty member (MER) at EPFL in Lausanne, Switzerland. He is former Professor of Optical and Microelectronics Biosensors in the Department of Electrical Engineering and Biophysics at the University of Genoa, Italy. He is Founder and Editor-in-Chief of the journal *BioNanoScience*, Topical Editor of the *IEEE Sensors Journal*, and Associate Editor of *IEEE Transactions on Biomedical Circuits and Systems*.

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"This book, edited by outstanding scientists, will be a great addition to any library, as it provides a valuable source of information regarding bioelectronics-related topics. The topics provided are relevant and timely, and of broad interest for students as well as seasoned scientists."

Ali Khademhosseini, Harvard Medical School

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Directly Interfacing Electronics and Biological Systems

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CMOS Emerging Technologies Research, Inc.

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