DESCRIPTION

Here the renowned editor Evgeny Katz has chosen contributions that cover a wide range of examples and issues in implantable bioelectronics, resulting in an excellent overview of the topic. The various implants described include biosensoric and prosthetic devices, as well as neural and brain implants, while ethical issues, suitable materials, biocompatibility, and energy-harvesting devices are also discussed.

A must-have for both newcomers and established researchers in this interdisciplinary field that connects scientists from chemistry, material science, biology, medicine, and electrical engineering.

From the content:

* Magnetically-Functionalized Cells: Fabrication, Characterization and Biomedical Applications

* Neural Interfaces: From Human Nerves to Electronics

* Cyborgs - The Neuro-Tech Version

* Implantable CMOS Imaging Devices

* Implanted Wireless Biotelemetry

* Improving the Biocompatibility of Implantable Bioelectronics Devices
* Enzymatic Fuel Cells: From Design to Implantation in Mammals

* Brain Computer Interfaces: Ethical and Policy Considerations

and many more.

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**ABOUT THE AUTHOR**

Evgeny Katz received his Ph.D. in Chemistry from the Frumkin Institute of Electrochemistry (Moscow) in 1983. He was a senior researcher at the Institute of Photosynthesis (Pushchino), Russian Academy of Sciences (1983-1991), a Humboldt fellow at the Technische Universität München (Germany) (1992-1993), and a research associate professor at the Hebrew University of Jerusalem (1993-2006). Since 2006 he is Milton Kerker Chaired Professor at the Department of Chemistry and Biomolecular Science, Clarkson University, NY (USA). He has (co)authored over 360 papers in the areas of biocomputing, bioelectronics, biosensors and biofuel cells. Thomson Reuters included him in the list of the world’s top 100 chemists over the past 10 years as ranked by the impact of their published research. Professor Katz was also included in the list of top cited chemists prepared by the Royal Society of Chemistry with the worldwide rank 378 based on his Hirsch-index, which is currently 72.

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