



Powering Biomedical Devices

Edward Romero



From exoskeletons to neural implants, biomedical devices are no less than life-changing. Compact and constant power sources are necessary to keep these devices running efficiently. Edward Romero's *Powering Biomedical Devices* reviews the background, current technologies, and possible future developments of these power sources, examining not only the types of biomedical power sources available (macro, mini, MEMS, and nano), but also what they power (such as prostheses, insulin pumps, and muscular and neural stimulators), and how they work (covering batteries, biofluids, kinetic and thermal energy, and telemetry). The book also looks at challenges such as energy generation efficiency, energy density, rectification, and energy storage and management. A final section on future trends rounds out the book. By briefly examining these key aspects, this book gives its readers a valuable overview of biomedical devices power sources.

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