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Nota di contenuto	1.Lithium-ion Battery Materials in Practice -- 2.Optimizing Lithium-ion Battery Materials -- 3.Nanomaterials in Lithium-ion Cells -- 4. Predicting Materials' Performance -- 5.Predicting Lithium-ion Cells' Failure -- 6.Lithium-ion Cells Engineering for High-end Applications -- 7.Lithium-ion Cells in Hybrid Systems -- 8.The Competing Technologies Landscape.
Sommario/riassunto	Gaining public attention due, in part, to their potential application as energy storage devices in cars, Lithium-ion batteries have encountered widespread demand, however, the understanding of lithium-ion technology has often lagged behind production. This book defines the most commonly encountered challenges from the perspective of a high-end lithium-ion manufacturer with two decades of experience with lithium-ion batteries and over six decades of experience with

batteries of other chemistries. Authors with years of experience in the applied science and engineering of lithium-ion batteries gather to share their view on where lithium-ion technology stands now, what are the main challenges, and their possible solutions. The book contains real-life examples of how a subtle change in cell components can have a considerable effect on cell’s performance. Examples are supported with approachable basic science commentaries. Providing a unique combination of practical know-how with an in-depth perspective, this book will appeal to graduate students, young faculty members, or others interested in the current research and development trends in lithium-ion technology.