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Sommario/riassunto	Lithium ion batteries (LIBs) are efficient storage systems for portable electronic devices, electrical power grids, and electrified transportation due to their high-energy density and low maintenance requirements. After their launch into the market in 1990s, they immediately became the dominant technology for portable systems. The development of LiBs for electric drive vehicles has been, in contrast, rather incremental. There are several critical issues, such as an energy density, system safety, cost, and environmental impact of the battery production processes, that remain challenges in the automotive field. In order to strengthen the LiB’s competitiveness and affordability in vehicle technology, the necessity of game-changer batteries is urgent. Recently, a novel approach going beyond Li batteries has become rapidly established. Several new chemistries have been proposed, leading to better performances in terms of energy density, long-life storage capability, safety, and sustainability. However, several challenges, such as a thorough understanding of mechanisms, cell design, long-term durability, and safety issues, have not yet been fully addressed. This book collects some recent developments and emerging trends in the field of “post-lithium” batteries, covering both fundamental and applied aspects of next-generation batteries