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| Sommario/riassunto | This book describes in detail the reported synthesis methods of inorganic perovskite semiconductors, including nanocrystal, films, and single crystals. Then, the promising properties of inorganic perovskite semiconductors, such as high luminescent efficiencies, strong absorption, and excellent stability, are discussed and summarized. Owing to the attracted performance of inorganic perovskite |

semiconductors above, their potential applications in solid-state lighting and visible light communication, laser devices, solar cells, detectors, as well as electronic devices, are reviewed in this book. Apart from the conventional inorganic lead halide perovskites, lead-free metal halide perovskites are described and discussed. Finally, it also covers the recent challenges and perspectives of the inorganic perovskite semiconductors. This book is intended for undergraduate and graduate students who are interested in inorganic perovskites, researchers investigating novel inorganic perovskite, and engineers who working on the optimization of inorganic-perovskite-based devices.