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Nota di contenuto	Present Status and Prospect of Mxene Research -- Synthesis and Fabrication Techniques of Mxene Surface Characterization Techniques of Mxene Films and Powders -- Surface Functionalization Strategies of Mxene: A critical Overview of its Improved Physical, Chemical, and Electrochemical Properties -- Mxene-based Advanced Materials: Mechanical and Catalytic Properties and their Key Applications -- Mxene: Antiviral and antibacterial properties -- Mxene and its Derivatives for Energy Storage Applications Recent Progress in Mxene Research for the Sensor and Environmental Application -- Mxene and Its Modification for Supercapacitor application.
Sommario/riassunto	This book highlights the significant advancements in surface

engineering techniques applied to Mxene materials. Mxenes, a class of two-dimensional transition metal carbides and nitrides, have gained immense attention due to their exceptional properties and potential applications in various fields. This book provides a comprehensive overview of the different surface engineering strategies employed to modify the surface properties of Mxenes, including functionalization, doping, and hybridization with an impact of these techniques on enhancing the physical, chemical, and electrochemical performance, catalytic activity, and mechanical properties of these materials. The book also highlights the challenges and future prospects for advancements in surface engineering of Mxenes, such as scalability, stability, and long-term performance. This book serves as a valuable resource for researchers and scientists interested in exploring the potential of Mxenes for advanced applications in energy storage, sensors, supercapacitors, perovskite solar cells, and Biomedical engineering.