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Nota di contenuto	Chapter 1. A Historical Review of Theoretical Boron Allotropes in Various Dimensions -- Chapter 2. Borophenes: insights and predictions from computational analyses -- Chapter 3. Synthesis of Borophene -- Chapter 4. Electronic Structure of Borophene -- Chapter 5. Chemically Modified Borophene -- Chapter 6. Physical and Chemical Properties of Boron Solids.
Sommario/riassunto	This book addresses the development, properties, and applications of atomic-layered boron, or, borophene. The authors explain how borophene was predicted and created before investigating the properties that make it a desirable and useful material. The material is extremely thin and possesses exotic quantum states of new Dirac physics. Applications in superconductivity, plasmonics, and industrial chemical catalysis are examined, along with an examination of the material’s unique hydrogen boride and boron nitride forms. Given the varied potential uses for the new-developed borophene, this timely book will be useful to researchers in academia and industry. Discusses a new class of two-dimensional materials, borophene, made of well-known boron atoms Describes potential applications and innovations in electronics, plasmonics, catalysis or superconductivity Examines the historical background and development of borophene.