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## Sommario/riassunto

This edited book covers a wide range of novel scientific and engineering aspects of diamond films produced from chemical vapor deposition. It focuses on the most recent developments and achievements in this rapidly growing field from scientists and engineers across the domains of chemistry, biology, medicine, physics, and semiconductor engineering. The latest volume of this consistently wellcited book brings an updated, systematic review of the latest developments in diamond research and application. Featuring contributed chapters from a mix of highly-active international researchers, this new edition presents recent research focusing on topics such as diamond for thermal management in high-power electronics, diamond MOSFETs, water treatment, application of machine learning for nanodiamonds, theoretical aspects of diamond growth, current trends in emerging diamond technologies, and the growth of doped single-crystal diamond. This book is especially appealing to interdisciplinary researchers and industry professionals working on advanced diamond devices and applications, as well as theoretical and computational methods for predicting and designing new diamond materials.