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	Nota di contenuto	Part I Advanced Nanomaterials -- 1 Tuning the Electronic, Optical, and Transport Properties of Phosphorene -- 2 Detection of CBRN Agents through Nanocomposite Based Photonic Crystal Sensors -- 3 Impurity Ordering Effects on Graphene Electron Properties -- 4 Multiferroics for Detection of Magnetic and Electric Fields -- 5 Many-Fermion Wave Functions: Structure and Examples -- 6 Factors and Lattice Reactions Governing Phase Transformations in Beta Phase Alloys -- 7 Quantum-Chemical Calculations of Pure and Phosphorous Doped Ultra-Small Silicon Nanocrystals -- 8 Theoretical Aspects of Nanosensors for Radiation Hazards Detecting -- Part II Nanosensors -- 9 Chemoelectrical Gas Sensors of Metal Oxides with and Without Metal Catalysts -- 10 Ion Track Etching Revisited: Inuence of Aging on Parameters of Irradiated Polymers as Required for Advanced Devices --

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| Sommario/riassunto | This book is devoted to advanced materials and perspective sensors, which is one of the most important problems in nanotechnology and security. This book is useful for researchers, scientist and graduate students in the fields of solid state physics, nanotechnology and security. |