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Nota di contenuto	From the Contents: Advanced Optoelectronics -- III-V Nanowires for Optoelectronic Applications -- Advances in Optoelectronic Approaches for Wideband and Programmable Processing of Ultrafast Signals -- From Order to Chaos and back: a High-Level Coupling Approach for Cryptography of Transmitted Data.
Sommario/riassunto	This book presents a collection of extended contributions on the physics and application of optoelectronic materials and metamaterials. The book is divided into three parts, respectively covering materials, metamaterials and optoelectronic devices. Individual chapters cover topics including phonon-polariton interaction, semiconductor and nonlinear organic materials, metallic, dielectric and gyrotropic metamaterials, singular optics, parity-time symmetry, nonlinear plasmonics, microstructured optical fibers, passive nonlinear shaping of ultrashort pulses, and pulse-preserving supercontinuum generation. The book contains both experimental and

theoretical studies, and each contribution is a self-contained exposition of a particular topic, featuring an extensive reference list. The book will be a useful resource for graduate and postgraduate students, researchers and engineers involved in optoelectronics/photronics, quantum electronics, optics, and adjacent areas of science and technology.

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