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Titolo	Metamaterial-Based Optical and Radio Frequency Sensing [[electronic resource] /] / by Jun Luo, Dong Wei, Xinyu Zhang
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ISBN	981-9929-65-2
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Descrizione fisica	1 online resource (244 pages)
Collana	Advances in Optics and Optoelectronics, , 2731-6017
Disciplina	780
Soggetti	Optoelectronic devices Metamaterials Submillimeter waves Optical materials Optoelectronic Devices Terahertz Optics Optical Materials
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Ideas of Optical Frequency-RF Signal Detection -- Fundamentals of Terahertz Detectors -- Metamaterial Detection Methods -- Numerical Simulation of Metamaterials -- 5 Design and Fabrication of Metamaterial Devices -- Modeling of Infrared Long-Wave Detection for Metamaterials -- Metamaterial Signal Sensing Based on Continuous Terahertz Waves -- Signal Sensing of Electrically Controlled Metamaterials Based on Terahertz Time-Domain Spectra (THz-TDS) -- Induction and Detection of Optical Frequency Infrared -- Induction and Detection of RF Millimeter Wave Signals -- Subwavelength Stealth Technology of Metamaterials -- Optical Frequency-RF Integrated Detection Architecture Based on Metamaterials -- References.
Sommario/riassunto	This book highlights the fundamentals and practical methods of metamaterials-based optical and radio frequency sensing. Combined with engineering practices, the book illustrates in detail wide frequency electromagnetic signal cloaking and the detection behavior of metasurfaces, including the structure of metasurfaces, electric-controlled behaviors, layout design and fabrication methods, and

related experiment results. This book is expected to inspire the research and development of new optical and radio frequency detectors. It is suitable for researchers and engineers working on semiconductor devices, applied optics, and wide frequency signal detection. It is also a good reference for students in these areas.

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