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Nota di contenuto	Smart Optics; Committees; Preface; Table of Contents; CHAPTER 1 - SMART OPTICAL MATERIALS; Realization of Photochromic-Polymeric Films for Optical Applications; Thermo-Optical Properties of Nd0.3Sm0.7NiO3 Ceramic; (Sm1-x,Cax)MnO3 Ceramics with Tunable Emissivity; Symmetrical Electrochromic and Electroemissive Devices from Semi-Interpenetrating Polymer Networks; Electrochromic Nickel Oxide-Based Thin Films Deposited by Chemical Bath; WO3 Thin Films Active in the IR Region; Proton-Induced Multiple Changes of the Absorption and Fluorescence Spectra of Amino-Aza-Oligo(Phenylenevinylene)s Origin of the Difference in Phase Transition Behavior between TwoType of All-Organic Radical Liquid CrystalsGlass Microspherical Lasers; Structural and Spectroscopic Assessment of Er3+-Activated SiO2-HfO2 Glass Ceramics Planar Waveguides; Rhodamine 6G Encapsuled Mesoporous Silica Channels; Optical and Structural Characterization of Erbium-Doped Ion-Implanted Tellurite Glasses for Active Integrated Optical Devices; Low Dimensional Composite Nanomaterials: Theory and Applications; Quantum-Dot/Dendrimer Based Functional Nanotubes for Sensitive Detection of DNA Hybridization Negative Refraction in Photonic CrystalsProperties of Nanostructured

Resonant Leaky-Mode Photonic Devices; Developing Single-Mode Tellurite Glass Holey Fiber for Infrared Nonlinear Applications; Fabrication and Characterization of Silica Opals ; Low Frequency Coherent Raman Scattering of Spherical Acoustical Vibrations of Three-Dimensional Self-Organized Germanium Nanocrystals; Raman Scattering on the l=2 Spheroidal Mode of Spherical Nanoparticles; CHAPTER 2 - PASSIVE, ACTIVE AND ADAPTIVE OPTICAL DEVICES & SYSTEMS; Fiber Bragg Grating Sensors and Sensor Arrays
Enabling Devices Using MicroElectroMechanical System (MEMS) Technology for Optical NetworkingCharacterization of Brightness of Electroluminescent Device Using Powder Phosphor Composite with ZnO or TiO2; Interferometric Quantum Sensors; Characterization of Brightness of ZnS Electroluminescent Device with Dielectric Materials of SOG or TEOS ; Highly Accurate Computer Modeling of Light Propagation in Inhomogeneous, Anisotropic Medium for the Acousto-Optical Phenomenon
Experimental and Theoretical Examination of the Phase Transfer from the Acoustic to Optical Waves during Strong Anisotropic Bragg Diffraction in Acousto-Optic DevicesPhotomasks for Semiconductor Lithography: From Simple Shadow Casters to Complex 3D Scattering Objects; New Magnetron Sputtered Stainless Steel Nitride Cermet Solar Absorbing Coatings; CHAPTER 3 - ONGOING APPLICATIONS AND PERSPECTIVES; The Smart Bridge of the Future; Nanostructured Sol-Gel Coatings for Optical Applications; Smart Windows; Fiber Bragg Grating Sensors - Advancements and Industrial Applications ; Keywords Index Authors Index

Sommario/riassunto

This work consists of 33 peer-reviewed papers. Altogether, they offer a gamut of timely information on ""Smart Optics"". The papers are conveniently arranged under the headings: chapter 1 - Smart optical materials; chapter 2 - Passive, active and adaptive optical devices & systems; chapter 3 - Ongoing applications and perspectives. This special volume has also been published online in the series, ""Advances in Science and Technology"" Vol. 55.