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Altri autori (Persone)	BorisenkoV. E (Viktor Evgenevich) GaponenkoS. V <1958-> (Sergey V.) GurinV. S
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Nota di contenuto	CONTENTS; Foreword; PHYSICS OF NANOSTRUCTURES; Discovery and understanding of nanoworld in the XX-th century: main achievements in the mirror of the Nobel Prizes; Self-assembled InGaAs quantum dot superlattices; Multiexciton dynamics of GaAs single quantum dots Photoreflectance Investigations of low dimensional semiconductor structures Thermoelectric properties of chaotic quantum dots; Polarons in quantum wells; Self-assembling SiGe dots: nucleation and growth Stress and strain distributions in Ge dots on Si(001) by molecular dynamics simulation Light emission from semiconducting silicide nanostructures in silicon; Physics of multiwalled carbon nanotubes ;

Ultra thin C60-based films: molecular arrangement and electronic states
On a possibility of the Mott transition in a quantum dot ensemble
Screening of extra point charge in a few particle coulomb system; A superlattice with resonant states in a unit cell: the band structure and electron transitions
Dispersion of guided plasmon-polaritons in a planar Bragg microresonator with two-dimensional electron system Optical properties of fractal Cantor-like multilayer nanostructures ; I-V curves of short intentionally disordered superlattices in vertical direction
Phonon-plasmon interaction in tunneling GaAs/AlAs superlattices: experiment and calculations

Sommario/riassunto

The book contains impressive results obtained in the XX-th century and discussion of next challenges of the XXI-st century in understanding of the nanoworld. The main sections of the book are: (1) Physics of Nanostructures, (2) Chemistry of Nanostructures, (3) Nanotechnology, (4) nanostructure Based Devices. Contents: Physics of Nanostructures: Polarons in Quantum Wells (A I Bibik et al.) Screening of Extra Point Charge in a Few Particle Coulomb System (N A Poklonski et al.) Electric Field Effect on Absorption Spectra of an