Ալբերտ Ավետիսի Կիրակոսյան

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Ֆիզիկայի ինստիտուտ
Կոնդենսացված վիճակի ֆիզիկայի ամբիոն
Պրոֆեսոր

Լեզուների իմացություն

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Magneto-Optical Properties of Electron Gas in a Chain of Planar Quantum Rings: Effect of Screening on the Signature of Quantum Phase Interference
Armen Harutyunyan, Vram Mughnetsyan, Albert Kirakosyan, Vidar Gudmundsson

Annalen der Physik 2025 2400337

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Effect of two-dimensional non-local screening on characteristics of transition metal dichalcogenide monolayers
Vram Mughnetsyan, Aram Manaselyan, Ashot Movsisyan, Albert Kirakosyan

Semiconductor Science and Technology 2024 045016

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Planar quantum dots: Theoretical approaches
Aram Manaselyan, Vram Mughnetsyan, Albert Kirakosyan

Encyclopedia of Condensed Matter Physics (Second Edition) 2024 297-307

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Quasi-One-Dimensional Fröhlich Polaron Characteristics in ZnO Nanowires under the External Fields [Характеристики квазиодномерного фрёлиховского полярона в нанопроволоках ZnO во внешних полях]
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Hofstadter-like spectrum and magnetization of artificial graphene constructed with cylindrical and elliptical quantum dots
Maryam Mansoury, Vram Mughnetsyan, Aram Manaselyan, Albert Kirakosyan, Vidar Gudmundsson,

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Physics Letters A 2023 129115

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Simultaneous effects of the confinement of polar optical phonons and spin-orbit coupling on the free carrier absorption of a nanowire

A.L. Vartanian, T.K. Ghukasyan, A.L. Asatryan, K.A. Vardanyan, A.A. Kirakosyan

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Signature of miniband nodes in magneto-optical properties of one-dimensional superlattice of planar quantum rings

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Electron–hole interaction in cylindrical quantum dots

Vram Mughnetsyan, Ashot Movsisyan, Albert Kirakosyan

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Electronic and Magnetic Properties of Laser Dressed Quantum Dot and Ring with Rashba Spin-Orbit Coupling

Vram Mughnetsyan, Aram Manaselyan, Manuk Barseghyan, Albert Kirakosyan, Laura M. Perez,

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Polaronic effects on the electron Raman scattering in a spherical anisotropic quantum dot

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Vram Mughnetsyan, Ara Atayan, Albert Kirakosyan, Vigen Aziz-Aghchegala

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Effective tuning of isotropic and anisotropic properties of quantum dots and rings by external fields

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Influence of image charge effect on the binding energy of hydrogen-like donor impurity in a near-surface quantum well under transverse electric field
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Vram Mughnetsyan, Albert Kirakosyan

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Effect of the impurity on the Aharonov-Bohm oscillations and the intraband absorption in GaAs/ Ga1− xAlxAs quantum ring under intense THz laser field
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Vram Mughnetsyan, Aram Manaselyan, Manuk Barseghyan, Albert Kirakosyan, David Laroze

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Modeling of anisotropic properties of double quantum rings by the terahertz laser field
Henrikh M. Baghramyan, Manuk G. Barseghyan, Albert A. Kirakosyan, Judith H. Ojeda, Jean Bragard,

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Effect of interdiffusion and external magnetic field on electronic states and light absorption in Gaussian-shaped double quantum ring
V.L. Aziz Aghchegala, V.N. Mughnetsyan, A.A. Kirakosyan

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Energy loss rate of hot electrons due to polar-optical phonon modes in a semiconductor nanowire under transverse electric field
A. Stepanyan, A. Asatryan, M. Yeranosyan, K. Vardanyan, A. Kirakosyan, A. Vartanian

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EFFECTS OF ELECTRIC FIELD AND IMAGE CHARGES ON THE IMPURITY-RELATED OPTICAL ABSORPTION COEFFICIENTS IN A SPHERICAL QUANTUM DOT
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Influence of lateralel ectric field on intraband optical absorption in concentric double quantum rings
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The influence of electric field on the quasi-confined and interface polaron basic parameters in a wurtzite nitride quantum wire.

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Effect of image charges on the impurity-bound polaronic states in colloidal quantum dots embedded in different organic matrices.
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Spin-orbit interaction enhanced polaron effect in wurtzite semiconductor quantum well.
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Spin Relaxation in the Presence of Spin-Orbit Interactions in Single Electron Quantum Dots Embedded in a Suspended Phonon Cavity
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Effect of Rashba and Dresselhaus spin-orbit interactions on the polaron properties in wurtzite semiconductor quantum dot in the presence of external fields.
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Confined acoustic phonon-mediated spin relaxation in a two-dimensional quantum dot in the presence of perpendicular magnetic field.
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Dilatational and flexural acoustic-phonon mediated spin relaxation in a two-dimensional quantum dot in the presence of perpendicular magnetic field.
Arshak Vartanian, Karen Vardanyan, Armen Stepanyan, Albert Kirakosyan

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Electric field effect on hot-electron energy-loss rate via LA-phonon scattering in a cylindrical quantum wire.
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Confined and interface polar optical phonon-limited electron mobility in quantum wires in the presence of perpendicular electric field.
K. Vardanyan, Y. Brsoyan, A. Vartanian, A. Kirakosyan

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Influence of Phonon Confinement on Optical Phonon-Mediated Carrier Capture into CdSe/ZnS/H2O Quantum Dots
Vartanian A, Vardanyan K, Kirakosyan A

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Quasi-one-dimensional Fröhlich polaron with spin-orbit Rashba and Dresselhaus couplings
Karen Vardanyan, Arshak Vartanian, Albert Kirakosyan

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The influence of the transverse electric field on the hot electron energy loss rate via polar-optical phonons in nanowires
A.Asatryan, A.Stepanyan, M.Yeranosyan, A.Kirakosyan, A.Vartanian

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Wurtzite-nitride quantum wires under electric and magnetic fields: Polaron basic parameters
A.L. Asatryan, L.A. Vardanyan, A.A. Kirakosyan, A.L. Vartanian

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Phonon-Assested Optical Absorption for Nanowires with Spin-Orbit Coupling
Ghukasyan T. K., Asatryan A.L., Vardanyan K.A., Kirakosyan A.A., Vartanian A.L.

Գիտաժողովի նյութ

Magneto-Optical Properties of Artificial Graphene Constructed of Cylindrical and Elliptical Quantum Dots
YEGANYAN Lilit, MUGHNETSYAN Vram, MANSOURY Maryam, KIRAKOSYAN Albert, GUDMUNDSSON Vidar

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