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Знание языков

English Русский

Публикации

Статья

Exciton-optical phonon coupling in non-spherical quantum dots: A resonant Raman study of InP/ZnSe nanocrystals

A.L. Vartanian, A.L. Asatryan, A.H. Movsisyan, L.A. Vardanyan, N. Del Fatti, F. Valle'e

Computational Materials Science 2025 113394/11

Статья

Coherent Control of a Shallow Impurity Quantum States in Graphene Monolayer by Bichromatic Phase Modulated Laser Pulses: Influence of Relaxation Processes [Когерентное управление квантовыми состояниями мелкой примеси в монослое графена с помощью фазомодули]

A.A. Avetisyan, A.P. Djotyan, G.P. Djotyan, A.L.Vartanian, A.L. Asatryan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2025 42-49

Статья

Comparative study on polaronic quantum confinement effects in wurtzite ZnO and GaN nanowires under external fields

Anna Asatryan, Arshak Vartanian, Serob Hayrapetyan, Tigran Ghukasyan, Artak Avetisyan, Ya-Hong Xie

Results in Physics 2025 108535

Статья

Quasi-One-Dimensional Fröhlich Polaron Characteristics in ZnO Nanowires under the External Fields [Характеристики квазиодномерного фрелиховского полярона в нанопроволоках ZnO во внешних полях]

A. Asatryan, A. Movsisyan, L. Vardanyan, S. Hayrapetyan, A. Kirakosyan

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

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

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External electric and magnetic field effects on the polaron in a wurtzite nitride nanowire embedded in a nonpolar matrix

Anna L. Asatryan, Ashot H. Movsisyan, Arshak L. Vartanian

EUROPEAN PHYSICAL JOURNAL B 2021 id 70/8

Образовательный Руководство

Պինդ մարմնի ֆիզիկայի լաբորատոր աշխատանքներ. մաս 2

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Effect of spin-orbit coupling on the hot-electron energy relaxation in nanowires

A. L. Vartanian, A. L. Asatryan, A. G. Stepanyan, K. A. Vardanyan, A. A. Kirakosyan

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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

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

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Статья

Influence of image charges on the impurity-related optical properties of near-surface quantum wells under a transverse electric field

A.L. Vartanian, A.L. Asatryan, L.A. Vardanyan

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Polaron and dielectric mismatch effects on impurity-related optical absorption and refractive index changes in a spherical quantum dot

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Impurity-Bound Polaronic States in ZnSe Quantum Dots Under Electric Field: Image Charge Effect

A. Vartanian, A. Asatryan, L. Vardanyan

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Energy loss rate of hot electrons due to polar-optical phonon modes in a semiconductor nanowire under transverse electric field

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EFFECTS OF ELECTRIC FIELD AND IMAGE CHARGES ON THE IMPURITY-RELATED OPTICAL ABSORPTION COEFFICIENTS IN A SPHERICAL QUANTUM DOT

A.L. Vartanian, A.L. Asatryan, A.A. Kirakosyan, A.A. Mkhitarian, S.S. Avetisyan

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Статья

Image Charge and Electric Field Effects on Hydrogen-like Impurity-bound Polaron Energies and Oscillator Strengths in a Quantum Dot

L.A. Vardanyan, A.L. Vartanian, A.L. Asatryan, A.A. Kirakosyan

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Electric field and image charge effects on impurity-bound polarons in a CdS colloidal quantum dot embedded in organic matrices

A.L. Asatryan, A.L. Vartanian, A.A. Kirakosyan, L.A. Vardanyan

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The influence of electric field on the interface polaron properties in a wurtzite nitride nanowire.

Anna L. Asatryan, Karen A. Vardanyan, Arshak L. Vartanian

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Polaronic effects due to quasi-confined optical phonons in wurtzite nitride nanowire in the presence of an electric field.

Karen A. Vardanyan, Anna L. Asatryan, Arshak L. Vartanian

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The influence of electric field on the quasi-confined and interface polaron basic parameters in a wurtzite nitride quantum wire.

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

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Ա.Ա. Կիրակոսյան, Ա.Լ. Վարդանյան, Ա.Լ. Վաստրյան

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Конференция

Effect of image charges on the impurity-bound polaronic states in colloidal quantum dots embedded in different organic matrices.

A.L. Vartanian, A.L. Asatryan, L.A. Vardanyan, A.A. Kirakosyan

Конференция

The influence of electric field on the quasi-confined and interface polaron basic parameters in a wurtzite nitride quantum wire.

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

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Impurity-bound polaronic states under an external electric field in quantum dots: Image charge effect.

Lyudvig Vardanyan, Arshak Vartanian, Anna Asatryan

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Electric field effect on hot-electron energy-loss rate via LA-phonon scattering in a cylindrical quantum wire.

A. Stepanyan, L. Vardanyan, A. Asatryan, A. Vartanian, A. Kirakosyan

Конференция

Rashba and Dresselhaus spin-orbit coupling effects on the electronic structure of quantum wires under the influence of in-plane magnetic field.

V. Arzumanyan, K. Vardanyan, A. Asatryan, A. Vartanian

Конференция

Influence of image charge effect on impurity-related optical absorption coefficient in a spherical quantum dot.

A. Mkhitarian, L. Vardanyan, A. Asatryan, A. Vartanian

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Image charge effect on oscillator strength and intradonor absorption spectra under external electric field in quantum dots.

Arshak Vartanian, Anna Asatryan, Lyudvig Vardanyan

Конференция

Impurity-Bound Polaronic States in ZnSe Quantum Dots under Electric Field: Image Charge Effect

A. Asatryan, L. Vardanyan, A. Vartanian

Конференция

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

Конференция

Wurtzite-nitride quantum wires under electric and magnetic fields: Polaron basic parameters

A.L. Asatryan, L.A. Vardanyan, A.A. Kirakosyan, A.L. Vartanian

Электронный материал

Պինդ մարմնի ֆիզիկայի լաբորատոր աշխատանքներ

Արթուր Կիրակոսյան, Արշակ Վարդանյան, Աննա Ասատրյան, Արամ Մանասեյան,

Գառնիկ Վերմիշյան

Конференция

Exciton-Phonon Interaction in Elliptically Shaped Core-Shell Quantum Dots: Resonant Raman Scattering

Asatryan A.L., Vardanyan L.A., Vartanian A.L.

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Phonon-Assisted Optical Absorption for Nanowires with Spin-Orbit Coupling

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

Конференция

First-order Raman spectra induced by the Fröhlich excitation-lattice interaction in a non-spherical core/shell nanocrystals

Anna Asatryan, Ashot Movsisyan, Siranush Avetisyan, Tatevik Hayriyan, Arshak Vartanian

Конференция

Exciton Resonant Raman Scattering in Colloidal Quantum Dots: The Role of the Fröhlich-Type Interaction

A. Asatryan, A. Movsisyan, L. Vardanyan, A. Vartanian
