

Publications

Article

The Use of Biosilica to Increase the Compressive Strength of Cement Mortar: The Effect of the Mixing Method

Nelli G. Muradyan, Avetik A. Arzumanyan, Marine A. Kalantaryan, Yeghiazar V. Vardanyan,
Mkrtich Yerosyan, Malgorzata Ulewicz, David Laroze, Manuk G. Barseghyan
MATERIALS 2023 5516

Article

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,
David Laroze
Springer Proceedings in Physics (Optics and Its Applications) 2022 145-154

Article

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

Manuk G. Barseghyan, Aram Manaselyan, Albert A. Kirakosyan, Laura M. Perez, David Laroze
Physica E: Low-dimensional Systems and Nanostructures 2020 113807(1-7)

Article

Effect of the impurity on the Aharonov-Bohm oscillations and the intraband absorption in GaAs/ Ga_{1-x}Al_xAs quantum ring under intense THz laser field

M.G. Barseghyan, V.N. Mughnetsyan, L.M. Perez, A.A. Kirakosyan, D. Laroze
Physica E: Low-dimensional Systems and Nanostructures 2019 91-97

Article

Size or shape - What matters most at the nanoscale?

I. Popescu, M. Hristache, S.-S. Ciobanu, M.G. Barseghyan, J.A. Vinasco, A.L. Morales, A. Radu, C.A. Duque
Computational Materials Science 2019 13-22

Article

Intersubband optical properties of a laser-dressed asymmetric triple quantum well nanostructure

F. Urgan, M.E. Mora-Ramos, M.G. Barseghyan, L.M. Pérez, D. Laroze
Physica E: Low-dimensional Systems and Nanostructures 2019 113647(1-6)

Article

Rashba splitting of Dirac points and symmetry breaking in strained artificial graphene

Vram Mughnetsyan, Aram Manaselyan, Manuk Barseghyan, Albert Kirakosyan, David Laroze
Physical Review B 2019 195132(1-8)

Article

Controllable continuous evolution of electronic states in a single quantum ring

Tapash Chakraborty, Aram Manaselyan, Manuk Barseghyan, David Laroze

Physical Review B 2018 041304(R),(1-5)

<https://journals.aps.org/prb/>

Article

Effective tuning of electron charge and spin distribution in a dot-ring nanostructure at the ZnO interface

Tapash Chakraborty, Aram Manaselyan, Manuk Barseghyan

Physica E: Low-dimensional Systems and Nanostructures 2018 63-66

<https://www.journals.elsevier.com/physica-e-low-dimensional-systems-and-nanostr...>

Article

Modeling of anisotropic properties of double quantum rings by the terahertz laser field

Henrikh M. Baghrmalyan, Manuk G. Barseghyan, Albert A. Kirakosyan, Judith H. Ojeda, Jean Bragard,

David Laroze

Scientific Reports 2018 6145(1-10)

Article

Electronic, Magnetic and Optical Properties of Quantum Rings in Novel Systems

Tapash Chakraborty, Aram Kh. Manaselyan, Manuk G. Barseghyan

Physics of Quantum Rings 2018 283-326

Article

Intense Terahertz Radiation Effect on Electronic and Intraband Optical Properties of Semiconductor Quantum Rings

H.M. Baghrmalyan, M.G. Barseghyan, A.A. Kirakosyan, D. Laroze

Physics of Quantum Rings 2018 411-445

Article

Laser driven intraband optical transitions in two-dimensional quantum dots and quantum rings

M.G. Barseghyan, A.A. Kirakosyan, D. Laroze

Optics Communications 2017 571-576

<http://www.journals.elsevier.com/optics-communications>

Article

Irregular Aharonov-Bohm effect for interacting electrons in a ZnO quantum ring

Tapash Chakraborty, Aram Manaselyan, Manuk Barseghyan

JOURNAL OF PHYSICS-CONDENSED MATTER 2017 075605 1-5

<http://iopscience.iop.org/journal/0953-8984>

Article

Interaction-driven distinctive electronic states of artificial atoms at the ZnO interface

Tapash Chakraborty, Aram Manaselyan, Manuk Barseghyan

JOURNAL OF PHYSICS-CONDENSED MATTER 2017 215301 (5pp)

<http://iopscience.iop.org/journal/0953-8984>

Article

LASER DRIVEN IMPURITY STATES IN TWO DIMENSIONAL CONCENTRIC DOUBLE QUANTUM RINGS

M. G. BARSEGHYAN

Proceedings of the YSU A. Physical and Mathematical Sciences 2017 89-92

<http://www.y-su.am/science/en/journals>

Article

Molecular spectrum of laterally coupled quantum rings under intense terahertz radiation

Henrikh M. Baghranyan, Manuk G. Barseghyan, David Laroze

Scientific Reports 2017 10485-1-10

<https://www.nature.com/srep/>

Article

Influence of lateral electric field on intraband optical absorption in concentric double quantum rings

H.M. Baghranyan, M.G.Barseghyan, D.Laroze, A.A.Kirakosyan

Physica E: Low-dimensional Systems and Nanostructures 2016 81-89

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Article

Impurity-modulated Aharonov-Bohm oscillations and intraband optical absorption in quantum dot-ring nanostructures

M.G. Barseghyan, A.Kh.Manaselyan, D.Laroze, A.A.Kirakosyan

Physica E: Low-dimensional Systems and Nanostructures 2016 31-36

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Article

Intraband optical absorption in a single quantum ring: Hydrostatic pressure and intense laser field effects

M.G. Barseghyan

Optics Communications 2016 41-44

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Laser driven impurity states in two-dimensional quantum dots and quantum rings

D. Laroze, M.G. Barseghyan, A. Radu, A.A. Kirakosyan

Physica B: Condensed Matter 2016 1-4

<http://www.journals.elsevier.com/physica-b-condensed-matter>

Article

Donor impurity-related intraband optical absorption in a single quantum ring: Hydrostatic pressure and intense laser field effects

M.G. Barseghyan

European Physical Journal Plus 2016 1-7

<http://www.springer.com/physics/applied+%26+technical+physics/journal/13360>

Article

Energy levels and far-infrared optical absorption of impurity doped semiconductor nanorings: Intense laser and electric fields effects

M.G. Barseghyan

Chemical Physics 2016 1-4

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Article

Impurity-related intraband absorption in coupled quantum dot-ring structure under lateral electric field

M.G. Barseghyan, H.M. Baghramyan, D. Laroze, J. Bragard, A.A. Kirakosyan

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