

## Ֆիզիկայի գիտահետազոտական ինստիտուտ

Պինդ մարմնի ֆիզիկայի լաբորատորիա

Ավագ գիտական աշխատող

## 📖 Հրատարակումներ

Հոդված

### **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 Yeranosyan, Malgorzata Ulewicz, David Laroze, Manuk G. Barseghyan

MATERIALS 2023 5516

Հոդված

### **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

Հոդված

### **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)

Հոդված

### **Effect of the impurity on the Aharonov-Bohm oscillations and the intraband absorption in GaAs/ Ga<sub>1-x</sub>Al<sub>x</sub>As 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

Հոդված

### **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

Հոդված

### **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)

Հոդված

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

Vram Mughnetsyan, Aram Manaselyan, Manuk Barseghyan, Albert Kirakosyan, David Laroze

Հոդված

**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/>

---

Հոդված

**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...>

---

Հոդված

**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,

David Laroze

Scientific Reports 2018 6145(1-10)

---

Հոդված

**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

---

Հոդված

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

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

Physics of Quantum Rings 2018 411-445

---

Հոդված

**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>

---

Հոդված

**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>

---

Հոդված

**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>

---

Հոդված

**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>

---

Հոդված

**Molecular spectrum of laterally coupled quantum rings under intense terahertz radiation**

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

Scientific Reports 2017 10485-1-10

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

---

Հոդված

**Influence of lateralel ectric field on intraband optical absorption in concentric double quantum rings**

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

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

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

---

Հոդված

**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

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

---

Հոդված

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

M.G. Barseghyan

Optics Communications 2016 41-44

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

---

Հոդված

**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>

---

Հոդված

**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>

---

Հոդված

**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

<https://www.journals.elsevier.com/chemical-physics>

---

Հոդված

**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

Physica E: Low-dimensional Systems and Nanostructures 2015 421-425

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

---