

## Ֆիզիկայի գիտահետազոտական ինստիտուտ

Պիևո մարմնի ֆիզիկայի լաբորատորիա

Ավագ գիտական աշխատող

## Publications

Հոդված

### Formation of zinc oxide composites of doxycycline with high antibacterial activity based on DC-magnetron deposition of ZnO nanoscale particles on the drug surface

Ashkhen L. Zatikyan, Armen I. Martiryan, Emma R. Arakelova, Ashot M. Khachatryan, Anait A. Mirzoian, Susanna L. Grigoryan, Rafayel E. Muradyan, Hrachik R. Stepanyan, Stepan G. Grigoryan,

Mkrtich A. Yeranossyan

Applied Physics A: Materials Science and Processing 2024 152

Հոդված

### E-beam induced micropattern generation and amorphization of L-cysteine-functionalized graphene oxide nano-composites

Y. Melikyan, H. Gharagulyan, A. Vasil'ev, V. Hayrapetyan, M. Zhezhu, A. Simonyan, D.A. Ghazaryan, M.S. Torosyan, A. kharatyan, J. Michalicka, M. Yeranossyan

Colloids and Interface Science Communications 2024 100766-7

Հոդված

### Effect of Silica Fume Concentration and Water-Cement Ratio on the Compressive Strength of Cement-Based Mortars

Maria M. Badalyan, Nelli G. Muradyan, Roza S. Shainova, Avetik A. Arzumanyan, Marine A. Kalantaryan, Rafayel R. Sukiasyan, Mkrtich Yeranossyan, David Laroze, Yeghiazar V. Vardanyan, Manuk G. Barseghyan

Buildings 2024 757

Հոդված

### Improving the electro-optical properties of MoS<sub>2</sub>/rGO hybrid nanocomposites using liquid crystals

A. Vasil'ev, Y. Melikyan, M. Zhezhu, V. Hayrapetyan, M.S. Torosyan, D.A. Ghazaryan, M. Yeranossyan,

H. Gharagulyan

Materials Research Bulletin 2024 113036

Հոդված

### Broadband THz metasurface bandpass filter/antireflection coating based on metalized Si cylindrical rings

Karen Simonyan, Hermine Gharagulyan, Henrik Parsamyan, Ashot Khachatryan, Mkrtich Yeranossyan

Semiconductor Science and Technology 2024 095012

Հոդված

### Essential L-Amino Acid-Functionalized Graphene Oxide for Liquid Crystalline Phase Formation

H. Gharagulyan, Y. Melikyan, V. Hayrapetyan, Kh. Kirakosyan, D.A. Ghazaryan, M. Yeranossyan

Materials Science and Engineering: B 2023 116564

Հոդված

**Նանոտեխնոլոգիաներն արմատապես փոխում են երկրների ռազմավարական առաջնահերթությունները**

Մկրտիչ Երանոսյան

Գիտության աշխարհում 2023 34-41

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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

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Հոդված

**Antibacterial activity of royal jelly-mediated green synthesized silver nanoparticles**

Susanna Gevorgyan, Robin Schubert, Mkrtich Yeranosyan, Lilit Gabrielyan, Armen Trchounian,

Kristina Lorenzen, Karen Trchounian

AMB Express 2021 51

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Հոդված

**Zinc Oxide Composites of Doxorubicin in the Form of Coating, Composite Films and Gels with a High Antitumor Activity and Low Toxicity**

Emma R. Arakelova, Stepan G. Grigoryan, Ashot M. Khachatryan, Anahit A. Mirzoian, Zoya M. Farmazyan,

Susanna L. Grigoryan, Mkrtich A. Yeranosyan, Flora G. Arsenyan, Rafayel E. Muradyan,

Hrachik V. Gasparyan

Electronic Journal of Natural Sciences of NAS RA 2019 61-73

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Հոդված

**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

Physica B: Condensed Matter 2018 340-346

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Հոդված

**Energy-loss rate of hot electrons due to confined acoustic phonon modes in a semiconductor quantum wire under transverse electric field.**

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

Physica B: Condensed Matter 2017 102-107

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

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Հոդված

**Influence of spin-orbit interactions on the polaron properties in wurtzite semiconductor quantum well**

Mkrtich A. Yeranosyan, Arshak L. Vartanian, Karen A. Vardanyan

Physica E: Low-dimensional Systems and Nanostructures 2016 330-335

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

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Հոդված

**Phonon confinement effect on the polaron states in a double quantum ring structure in the presence of electric and magnetic fields**

Mkrtich A. Yeranosyan, Arshak L. Vartanian, Abbas Shahbandari, Albert A. Kirakosyan

Physica B: Condensed Matter 2015 365-370

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

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*Գիտաժողովի նյութ*

**Spin-orbit interaction enhanced polaron effect in wurtzite semiconductor quantum well.**

M.A. Yeranosyan, K.A. Vardanyan, A.L. Vartanian, A.A. Kirakosyan

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*Գիտաժողովի նյութ*

**Effect of Rashba and Dresselhaus spin-orbit interactions on the polaron properties in wurtzite semiconductor quantum dot in the presence of external fields.**

M.A. Yeranosyan, K.A. Vardanyan, A.L. Vartanian, A.A. Kirakosyan

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*Գիտաժողովի նյութ*

**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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*Գիտաժողովի նյութ*

**Investigation of Antibacterial Properties of Green Synthesized Silver Nanoparticles**

S. Gevorgyan, M. Yeranosyan, R. Schubert, A. Trchounian

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*Գիտաժողովի նյութ*

**Filtering of terahertz radiation by a metasurface structure**

Simonyan Karen, Parsamyan Henrik, Gharagalyan Hermine, Khachatryan Ashot, Yeranosyan Mkrtich

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*Գիտաժողովի նյութ*

**Stability Controlling of L-arginine- and L-nitroarginine-Functionalized Graphene Oxide**

Yeghvard MELIKYAN, Alexey VASIL'EV, Marina ZHEZHU, Elen MNATSAKANYAN, Deren PETROSYAN,

Mkrtich YERANOSYAN, Ruben APREYAN, Hermine GHARAGULYAN

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*Գիտաժողովի նյութ*

**Royal Jelly in the Development of Nano-strategies against Pathogenic Bacteria**

S. Gevorgyan, M. Yeranosyan, R. Schubert, A. Trchounian

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