

Research Institute of Physics

Laboratory of Solid State Physics

Senior researcher

Publications

Article

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,

Mkrtych A. Yeranosyan

Applied Physics A: Materials Science and Processing 2024 152

Article

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. Yeranosyan

Colloids and Interface Science Communications 2024 100766-7

Article

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, Mkrtych Yeranosyan, David Laroze, Yeghiazar V. Vardanyan, Manuk G. Barseghyan Buildings 2024 757

Article

Improving the electro-optical properties of MoS₂/rGO hybrid nanocomposites using liquid crystals

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

Materials Research Bulletin 2024 113036

Article

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

Karen Simonyan, Hermine Gharagulyan, Henrik Parsamyan, Ashot Khachatryan, Mkrtych Yeranosyan Semiconductor Science and Technology 2024 095012

Article

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

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

Materials Science and Engineering: B 2023 116564

Article

**Նաևստեխնոլոգիաներն արմատապես փոխում են երկրների ռազմավարական
առաջնահերթությունները**

Մկրտիչ Երանոսյան

Գիտության աշխարհում 2023 34-41

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 Yeranosyan, Małgorzata Ulewicz, David Laroze, Manuk G. Barseghyan

MATERIALS 2023 5516

Article

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

Article

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

Article

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

Article

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>

Article

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...>

Article

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>

Conference

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

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

Conference

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

Conference

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

Conference

Investigation of Antibacterial Properties of Green Synthesized Silver Nanoparticles

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

Conference

Filtering of terahertz radiation by a metasurface structure

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

Conference

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

Conference

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

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