

Publications

Article

Novel observation of SEIRA and SERS in aluminum-doped ZnO-BSA protein corona complexes

Astghik S. Tsokolakyan, Vardan A. Hayrapetyan, Heriqnaz V. Asatryan, Avetis S. Simonyan,

Alexandr Dejneka, Mkrtich A. Yeranossyan

Optical Materials 2026 118036

<https://www.sciencedirect.com/science/article/pii/S0925346726001965?via%3Dihub>

Article

Urea Detection in Phosphate Buffer and Artificial Urine: A Simplified Kinetic Model of a pH-Sensitive EISCAP Urea Biosensor

Karen Simonyan, Astghik Tsokolakyan, Vahe Buniatyan, Artem Badasyan, Mkrtich Yeranossyan

Sensors 2025 6596

Article

l-Carrageenan Manganese Oxide Bionanocomposites as a Promising Solution to Agricultural Challenges

Spartak S Khutsishvili, Nino Gagelidze, Astghik S Tsokolakyan, Mkrtich A Yeranossayn, Eteri Tkesheliadze,

Vardan A Sargsyan, Darejan Dughashvili, Natela Dzebisashvili, Keso Aronia, Archil Benashvili,

Dali Dzanashvili, Irine Gurgenidze, Grigor Tatishvili, Paula Fraga-García

MATERIALS 2025 495

Article

PEGylated Albumin-Based Drug Carriers for the Treatment of Experimental Stroke

Nazeli Zaqaryan, Rita Khallouf, Arpi Manukyan, Vahe Atoyan, Astghik Tsokolakyan,

Mkrtich A Yeranossyan, Samvel G Chailyan, Kristine E Danielyan

The Open Biotechnology Journal 2025 e18740707379038

Article

Effect of Pyrolysis Temperature on the Performance of Malt Biochar in Cement Mortars

Roza Shainova, Nelli Muradyan, Avetik Arzumanyan, Marine Kalantaryan, Rafayel Sukiasyan,

Mkrtich Yeranossyan, Yeghvard Melikyan, Avetis Simonyan, David Laroze, Elisabetta Zendri,

Manuk Barseghyan

Mathematics MDPI 2025 5105

Article

Proline-rich peptide-linked albumin particles in an experimental oxidative brain damage model

Kristine Edgar Danielyan, Nazeli Zaqaryan, Rita Khallouf, Maria Kojoyan, Kristine Tspnetsyan,

Arpi Manukyan, Astghik Tsokolakyan, Mkrtich Alexan Yeranossyan, Samvel G. Chailyan

Bioactive Compounds in Health and Disease - Online ISSN 2574-0334 Print ISSN 2769-2426 2025 527-544

Article

Urea Biosensor Based on a Field-Effect Capacitor Modified With a Stacked Weak Polyelectrolyte/Enzyme Bilayer

Astghik S. Tsokolakyan, Vardan A. Hayrapetyan, Derenik K. Petrosyan, Melanie Welden, Heiko Iken, Michael J. Schöning, Mkrtich A. Yeranosyan, Arshak Poghossian
Electrochemical Science Advances 2025 e70013

Article

Impact of Rashba Spin-Orbit Interaction on Electron Mobility in GaN Nanowires due to Scattering by Acoustic Phonons [Влияние спин-орбитального взаимодействия Рашбы на подвижность электронов в нанопроволоках GaN при рассеянии на акустических фононах]

A. Vartanian, A. Asatryan, M. Yeranosyan, A. Stepanyan, G. Khachatryan, S. Hayrapetyan, Y.-H. Xie
Journal of Contemporary Physics (Armenian Academy of Sciences) 2025 418–422
<https://link.springer.com/article/10.1134/S1068337226700167>

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

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. Yeranosyan
Applied Physics A 2024 152

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, Mkrtich 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, Mkrtich Yeranosyan
Semiconductor Science and Technology 2024 095012

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

2024 48 - 48

<https://ambra.pwr.edu.pl/>

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

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

Article

Նանոտեխնոլոգիաներն արմատապես փոխում են երկրների ռազմավարական առաջնահերթությունները

Մկրտիչ Երանոսյան

Գիտության աշխարհում 2023 34-41

Conference

Filtering of terahertz radiation by a metasurface structure

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

2023 48 - 48

<http://www.docriga.lv/doc/history>

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

Conference

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

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

2020 1-1

<https://asm.org/Events/ASM-Microbe-Online/Home>

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

Conference

Investigation of Antibacterial Properties of Green Synthesized Silver Nanoparticles

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

2019 59-61

<https://anam2019.org/index.php>

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

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

2018 EI-P-3

http://www.irphe.am/?q=irphe_2018

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

2015 45-47

<http://www.dom-events.org/>

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

2015 110-110

<http://edison19.usal.es/>
