herminegharagulyan@ysu.am

Институт физики
Кафедра оптики и фотоники
Ассистент

Институт физики
Кафедра оптики и фотоники
Ассистент

Публикации

Статья

Polyvinylpyrrolidone planarized liquid crystalline 1T-WS2/rGO hybrid nanocomposites-based humidity sensing platform

A. Vasil’ev, M. Zhezhu, S. Gyozalyan, L. Avanesyan, Y. Grigoryan, A.A. Kuzanyan, A.A. Hovhannisyan, Mohamed Aly Saad Aly, D.A. Ghazaryan, H. Gharagulyan

Journal of Science Advanced Materials and Devices 2026 101115

https://www.sciencedirect.com/science/article/pii/S2468217926000201

Статья

Enhancement of mechanical properties of graphene oxide fibers via liquid crystalline phase formation and flake size optimization

M. Zhezhu, G. Baghdasaryan, G. Gevorgyan, S. Gyozalyan, Y. Grigoryan, K. Margaryan, H. Gharagulyan

Materials Letters 2026 140242

https://www.sciencedirect.com/science/article/pii/S0167577X26002016

Статья

Perovskite nanocubes confined in Mesoporous Metal Organic Framework Facilitates Photocatalytic CO2 Reduction

Nwaji Njemuwa, Boka Fikadu Banti, Magdalena Osial, Hermine Gharagulyan, Amrita Jain, Jaebeom Lee, Michael Giersig

Microporous and Mesoporous Materials 2026 114191

https://doi.org/10.1016/j.micromeso.2026.114191

Конференция

Liquid Crystalline 2D Hybrid Nanomaterials for Sensing Applications

Hermine Gharagulyan

2026 53 - 54

https://indico.cern.ch/event/1631801/

Статья

Dual effect of L-Cysteine on the reorientation and relaxation of Fe3O4-decorated graphene oxide liquid crystals

M. Zhezhu, Y. Melikyan, V. Hayrapetyan, A. Vasil'ev, H. Gharagulyan

Heliyon 2025 e43010

Статья

L-cysteine polymorph coatings for THz sensing metasurfaces

M. Zhezhu, A. Vasil'ev, H. Parsamyan, T. Abrahamyan, G. Baghdasaryan, S. Gyozalyan, D. Ghazaryan,

H. Gharagulyan

Results in Physics 2025 108351

Статья

Chemical vapor deposition synthesis of (GeTe)n(Sb2Te3) gradient crystalline films as promising planar heterostructures

M. Zhezhu, A. Vasil'ev, M. Yapryntsev, E. Ghalumyan, D.A. Ghazaryan, H. Gharagulyan

Materials Science in Semiconductor Processing 2025 109863

Статья

Revisiting THz absorption in GO and rGO liquid crystalline films

A. Vasil’ev, M. Zhezhu, H. Parsamyan, G. Baghdasaryan, M. Sargsyan, D.A. Ghazaryan, H. Gharagulyan

Optics & Laser Technology 2025 113628

Конференция

Liquid Crystalline Nanosystems for Advanced Optoelectronics

Hermine Gharagulyan, Alexey Vasil’ev, Marina Zhezhu, Sara Gyozalyan, L. Avanesyan, V. Mehrabyan

2025 34-35

https://indico.cern.ch/event/1521708/attachments/3024352/5515286/BA-2025-New%20...

Конференция

ELECTRON-BEAM DRIVEN MICROPATTERNING OF L-CYSTEINEFUNCTIONALIZED CHALCOGENIDES

Sara Gyozalyan, L Avanesyan, V Mehrabyan, M Zhezhu, A Vasil'ev, H Gharagulyan

2025 29 - 29

https://crgconferences.com/functionalmaterials/

Конференция

AMINO ACID-CONTROLLED MAGNETIC ALIGNMENT OF FE3 O4 - ENRICHED GOLC

Lilit Avanesyan, S Gyozalyan, V Mehrabyan, M Zhezhu, A Vasil'ev, H Gharagulyan

2025 19 - 19

https://crgconferences.com/functionalmaterials/

Конференция

TERAHERTZ RESPONCE OF GRAPHENE-LIKE STRUCTURES

L. Avanesyan, A. Vasil'ev, M. Zhezhu, H. Parsamyan, G. Baghdasaryan, M. Sargsyan, D. A. Ghazaryan,

H. Gharagulyan

2025 24 - 24

https://crgconferences.com/functionalmaterials/

Конференция

Liquid Crystalline Nanosystems: Research Directions, Methods, and Achievements

Hermine Gharagulyan, Alexey Vasil'ev, Marina Zhezhu, Adrine Sahakyan, Olgert Dallakyan,

Sara Gyozalyan, Lilit Avanesyan, Valentina Mehrabyan

2025 82-82

https://indico.cern.ch/event/1548886/

Конференция

Ge–Sb–Te Gradient Crystalline Films for Potential Optical Filtering

Marina Zhezhu, Alexey Vasil'ev, Maxim Yaprintsev, Davit Ghazaryan, Hermine Gharagulyan

2025 68-69

https://indico.cern.ch/event/1548886/

Конференция

Resonances Induced by Structural Asymmetry in the THz Domain and Their Applications
Sara Gyozalyan, Marina Zhezhu, Alexey Vasil'ev, Henrik Parsamyan, Tigran Abrahamyan,

Gayane Baghdasaryan, Davit A. Ghazaryan, Hermine Gharagulyan

2025 85-86

https://indico.cern.ch/event/1548886/

Конференция

Optical Properties of Chitosan-Functionalized Graphene Oxide
Valentina Mehrabyan, Gayane Baghdasaryan, Adrine Sahakyan, Marina Zhezhu, Alexey Vasil'ev,

Hermine Gharagulyan

2025 93-93

https://indico.cern.ch/event/1548886/

Конференция

Terahertz Response of Liquid Crystalline GO and rGO Thin Films
Lilit Avanesyan, Alexey Vasil'ev, Marina Zhezhu, Henrik Parsamyan, Gayane Baghdasaryan,

Maksim Sargsyan, Davit A. Ghazaryan, Hermine Gharagulyan

2025 43-44

https://indico.cern.ch/event/1548886/

Статья

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

Статья

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

Статья

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

Конференция

Manipulating Optical Features of MoS2-decorated rGO Nanosystems
Hermine Gharagulyan, A. Vasil'ev, M. Zhezhu, Y. Melikyan

2024 39 - 39

https://www.nanoqiqo.eu/nanoqiqo/

Конференция

Studying Graphene Oxide Stability Depending on Particle Sizes
Yeghvard Melikyan, A. Vasil'ev, M. Zhezhu, H. Gharagulyan

2024 50 - 50

https://www.nanoqiqo.eu/nanoqiqo/

Конференция

Comparison of the Electro-Optical Properties of MoS2/rGO Heterostructures Fabricated via CVD and Soft Chemistry Methods
Marina Zhezhu, A. Vasil'ev, Y. Melikyan, H. Gharagulyan

2024 59 - 59

https://www.nanoqiqo.eu/nanoqiqo/

Конференция

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/

Конференция

Functionalized Graphene Oxide Liquid Crystalline Systems Under External Fields
Hermine Gharagulyan, Alexey Vasil’ev, Marina Zhezhu, Gayane Baghdasaryan, Yeghvard Melikyan

2024 56-57

https://indico.cern.ch/event/1400449/overview

Конференция

Synthesis, Characterization and Liquid Crystalline Phase Formation of MoS2
Sara Gyozalyan, Yeva Melikyan, Marina Zhezhu, Alexey Vasil’ev, Hermine Gharagulyan

2024 105 - 106

https://indico.cern.ch/event/1400449/overview

Статья

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

Статья

Strong light absorption and absorption absence in photonic crystals with helical structure in an external static magnetic field
A. H. Gevorgyan, N. A. Vanyushkin, I. M. Efimov, A. O. Kamenev, S. S. Golik, H. Gharagulyan,

T. M. Sarukhanyan, Malek G. Daher, K. B. Oganesyan

Journal of the Optical Society of America B 2023 1986-1993

Конференция

Controlling Possibilities of Functionalized Graphene Oxide Liquid Crystalline Microdroplets
Gharagulyan Hermine, Melikyan Yeghvard, Vasilev Alexey, Hayrapetyan Vardan, Khachatryan Ashot,

Apreyan Ruben, Yeranosyan Mkrtich

2023 24 - 24

http://www.docriga.lv/

Конференция

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

Статья

Magnetically Induced Transparency in Media with Helical Dichroic Structure
Mushegh S. Rafayelyan, Gvidon K. Matinyan, Hermine Gharagulyan, Tatevik M. Sarukhanyan,

Meruzhan Z. Hautyunyan, Ilya M. Efimov, Nikolay A. Vanyushkin, Sergey S. Golik, Ashot H. Gevorgyan

MATERIALS 2021 2172

Статья

Multimode Robust Lasing in a Dye-Doped Polymer Layer Embedded in a Wedge-Shaped Cholesteric
Tatevik M. Sarukhanyan, Hermine Gharagulyan, Mushegh S. Rafayelyan, Sergey S. Golik,

Ashot H. Gevorgyan, Roman B. Alaverdyan

Molecules 2021 6089

Конференция

Lasing polarization peculiarities in cholesterics separated by dye-doped polymeric layer
T.M. Sarukhanyan, H. Gharagulyan, A.H. Gevorgyan, R.B. Alaverdyan

2021 30-31

https://www.magnuswebinars.com/optics-virtual/speakers/september-2020

Конференция

The role of the geometric phase in cholesteric with a defect layer toward multimodal robust lasing
T.M. Sarukhanyan, M.S. Rafayelyan, H. Gharagulyan, R.B. Alaverdyan, S.S. Golik, A.H. Gevorgyan

2021 46 - 46

https://ipr.sci.am/pl/conferences/archive.html

Статья

Lasing peculiarities in cholesteric multilayer structure with dye-doped polymer film depending on the concentration of laser dye and pumping energy
T. M. Sarukhanyan, H. S. Gharagulyan, M. L. Sargsyan, H. Grigoryan, R. S. Hakobyan, A. H. Gevorgyan,

R. B. Alaverdyan

Molecular Crystals and Liquid Crystals 2020 15-25

Статья

Spectral Peculiarities of Multilayer Cholesteric Wedge-Cell System with Dye-Doped Polymer Layer
H. Gharagulyan, T. M. Sarukhanyan, A.V. Ninoyan, A. H. Gevorgyan, R. B. Alaverdyan

Optics and Spectroscopy 2020 1644-1648

Конференция

Light energy accumulation by cholesteric liquid crystal layer at oblique incidence

M.S. Rafayelyan, H. Gharagulyan, T. M. Sarukhanyan, A.H. Gevorgyan, R.B. Alaverdyan

2019 125

http://www.aclc2019.cn/about.aspx?FId=n1:1:1

Конференция

Lasing in three-layer cholesteric-dye-doped polymer-cholesteric sandwich cell
T.M. Sarukhanyan, H. Gharagulyan, R.B. Alaverdyan, A.H. Gevorgyan

2019 32 - 32

https://ipr.sci.am/pl/conferences/archive.html

Конференция

Optical Properties of Polymer-Dispersed Cholesteric Liquid- Crystalline Wedge-Cell
H. Gharagulyan, R. B. Alaverdyan, A. H. Gevorgyan, Zh. V. Ninoyan, T. M. Sarukhanyan

2018 39

http://ipr.sci.am/lp/

Конференция

Lasing in Cholesteric-Polymer Wedge-Cell System
T. M. Sarukhanyan, R. B. Alaverdyan, A. H. Gevorgyan, H. Gharagulyan

2018 49-50

http://ipr.sci.am/lp/

Конференция

Nonreciprocal Transmission in Electro-Tunable Cholesterics
H. Gharagulyan, M. S. Rafayelyan, A. H. Gevorgyan, R. B. Alaverdyan

2017 51-51

http://ipr.sci.am/plugin.php?plugin=conferences&id=17

Конференция

Spatial evolution of light polarization in wedge-shaped cholesteric liquid crystal cell
R. Alaverdyan, L. Aslanyan, G. Gevorgyan, H. Gharagulyan, H. Hovakimyan, Zh. Ninoyan

2017 56 - 57

https://ipr.sci.am/pl/conferences/archive.html

Конференция

Asymmetric Transmission liquid-crystals of Two Cholesterics with Different Pitches and Chiralities
A.H. Gevorgyan, M.S.Rafayelyan, Zh.V.Ninoyan, Hermine Gharaguiyan, R.B.Alaverdjan

2016 72

http://www.rau.am/optics2016/

Статья

Diffusion in liquid crystals of two cholesterics with different pitches.
Ashot H. Gevorgyan, Roman B. Alaverdyan, Hermine Gharagulyan, Mushegh S. Rafayelyan,

Hayarpi Grigoryan

Journal of Nanophotonics 2015 093591(1-12)

https://spie.org/publications/journals/journal-of-nanophotonics

---

Конференция

Experimental and Theoretical Investigation of Polarization Plane Rotation of Light in

Nanoparticle-Enriched Chiral liquid-crystaliine Photonic Structures with an Anisotropic Defect Layer

A.H. Gevorgyan, H. Gharagulyan, M.S. Rafayelyan, R.B. Alaverdyan

2015 124-125

http://www.rau.am/optics2015/