

Research Institute of Physics

Ֆունդամենտալ և արհեստական բանականության լաբորատորիա
Senior researcher

Publications

Article

A Dynamic Analysis of Toron Formation in Chiral Nematic Liquid Crystals Using a Polarization Holographic Microscope

Tikhon V. Rezsov, Aleksey V. Chernykh, Tetiana Orlova, Nikolay V. Petrov

Polymers MDPI 2025 1849

Article

Polarization-controlled orbital angular momentum of light passing through a cholesteric spherulite

A. N. Shalev, A. A. Misura, A. O. Georgieva, A. V. Chernykh, N. V. Petrov, T. Orlova, I. S. Lobanov, E. V. Aksanova, V. M. Uzdin, A. D. Kiselev

Optics Letters 2025 4866-4869

Article

Rewritable Binary Recording of the Photon Spin State in Chiral Liquid Crystals

Nicolas Bruni, Charles Loussert, Mushegh Rafayelyan, Tetiana Orlova, Delphine Coursault,

Etienne Brasselet

Physical Review Letters 2025 223804

Article

Fine Tuning of the Rotational Speed of Light-Driven, Second-Generation Molecular Motors by Fluorine Substitution

Ivan Tambovtsev, Yorick L. A. Schmerwitz, Gianluca Levi, Darina D. Darmoroz, Pavel V. Nesterov, Tetiana Orlova, Hannes Jónsson

Journal of Physical Chemistry Letters 2025 4014 - 4020

Article

Microsecond-scale observation of phase transition and diffusion in 5CB liquid crystal at the molecular level

N. Kasapenko, T. Orlova, N. Kondratyuk

Journal of Chemical Physics 2025 154901

Article

Machine learning methods for liquid crystal research: phases, textures, defects and physical properties

Anastasiia Piven, Darina Darmoroz, Ekaterina Skorb, Tetiana Orlova

Soft Matter 2024 1380 - 1391

Article

Topological Learning for the Classification of Disorder: An Application to the Design of Metasurfaces

Tristan Madeleine, Nina Podoliak, Oleksandr Buchnev, Ingrid Membrillo Solis, Tetiana Orlova,

Article

Reactions of 5-(Trialkyl)silylpent-1-en-4-yn-3-ones with Hydrazines: Original Synthetic Routes to Luminescent Substances Containing Azole Motifs

Ivan S. Odin, Kareem V. Gordon, Radik N. Itakhunov, Dmitry M. Gusev, Sergey A. Sokov,

Anna V. Vologzhanina, Stanislav A. Grabovskiy, Ilya M. Sosnin, Anton I. Ukolov, Olga I. Orlova,

Vladimir A. Lazarenko, Pavel V. Dorovatovskii, Darina D. Darmoroz, Anastasiia O. Piven, Tetiana Orlova,

Alexander A. Golovanov

SYNTHESIS 2024 243-266
