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Language skills

English

Publications

Article
Phosphonic acid-functionalized g-C3N4 nanosheets for chromium (Cr6+) adsorption from aqueous solutions: Experimental insights and density functional theory calculations
Irina Piyanzina, Mohammad Khajavian, Dmitrii A. Tayurskii, Oleg V. Nedopekin, Vahid Vatanpour, Suzylawati Ismail
Inorganic Chemistry Communications 2025 113971

Article
First-principles design of GaN–VHC (H = Cl, Br; C = Se, Te) van der Waals heterostructures for advanced optoelectronic applications
Piyanzina Irina, Sheraz Ahmad, Shah Saleem Ullah, Haleem Ud Din, Cuong Q. Nguyen
RSC Advances 2025 13076-13085

Article
Magnetoelectric and spin-lattice effects in Fe/BaTiO3 heterostructure: non-collinear DFT calculations
Piyanzina I. I., Burganova R., Kamashev A. A., Mamin R. F.
Magnetic Resonance in Solids 2025 25203

Article
A DFT study on an 18-crown-6-like-N8 structure as a material for metal ion storage: stability and performance
Hayk Zakaryan, Irina I.Piyanzina, Sadegh Kaviani, Regina M. Burganova, Oleg V. Nedopekin
Sustainable Energy and Fuels 2025 5075-5084

Article
Realization of Mn6+NIR-II broadband emission in BaCrO4 and its nanolization via liquid-solid method
Irina I. Piyanzina, Linyun Zeng, Chunli Li, Wenjing Huang, Jiahui Zhang, Zafari Umar, Yuliya Bokshyts, Bekhzodjon Abdurahmonovich Abdurakhimov, Peican Chen, Xinguo Zhang
Ceramics International 2025 33045-33055

Article
DFT analysis of furan-based covalent organic framework as electrode materials for lithium and calcium ion batteries

Irina Piyanzina, Aigul Shamsieva, Alexander Evseev, Sadegh Kaviani, Oleg Nedopekin, Hayk Zakaryan

Computational and Theoretical Chemistry 2025 115445

Article

Design and strain engineering of stable 2D $TiSi_2N_4$ photocatalyst: first-principles insights into water splitting and visible-light absorption

Irina Piyanzina, Sheraz Ahmad, Haleem Ud Din

Computational and Theoretical Chemistry 2025 115415

Article

DFT investigation of magnetocrystalline anisotropy in Fe, Co, $Pd_{0.97}Co_{0.03}$ and $Pd_{0.97}Fe_{0.03}$ systems: from bulk to thin-films

Irina I. Piyanzina, Regina M. Burganova, Hayk Zakaryan, Zarina I. Minnegulova, Igor V. Yanilkin,

Amir I. Gumarov

European Physical Journal Plus 2025 949
