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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 TiSi₂N₄ 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
