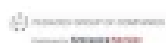




Volume 61, Issue 1

February 2025



21 articles in this issue

Hemosorbents: Materials, Structure, and Physical and Chemical Properties. Review

A. V. SedanovaN. V. KornienkoA. V. Lavrenov

PHYSICO-CHEMICAL PROCESSES AT THE INTERFACES | 17 July 2025 | Pages: 1 - 23



Adsorption of Lower Alkanes CH₄, C₂H₆, C₃H₈, and *n*-C₄N₁₀ and Their Mixtures on Highly Active Microporous Carbon Adsorbent

S. D. ArtamonovaA. A. PribylovA. V. Shkolin

PHYSICO-CHEMICAL PROCESSES AT THE INTERFACES | 17 July 2025 | Pages: 24 - 36



Sorption-Catalytic Increase of Rhodamine B Dye Destruction Efficiency in Barrier Discharge Plasma by Zeolite NaX and Diatomite Granules with TiO₂ Coating

M. F. ButmanN. L. OvchinnikovN. E. Gordina

PHYSICO-CHEMICAL PROCESSES AT THE INTERFACES | 17 July 2025 | Pages: 37 - 44



A Study of Adsorption Forms of 1,2,3-Benzotriazole on the Surface of Copper by the Methods of Raman Spectroscopy and DFT Modeling

D. V. BelovS.N. BelyaevD. B. Radishchev

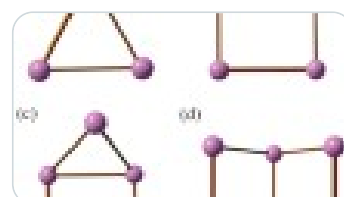
PHYSICO-CHEMICAL PROCESSES AT THE INTERFACES | 17 July 2025 | Pages: 45 - 76



Study of the Chemisorption and Sensing Performances of the Phenytoin Molecule onto the Ga_n (*n* = 3–6), Be₁₂O₁₂, and GaBe₁₁O₁₂ Clusters: DFT, DOS, ELF, QTAIM and Solvent Effects

Nedjoua CheghibAbdel-Ghani BoudjahemBelqays Bouressace

PHYSICO-CHEMICAL PROCESSES AT THE INTERFACES | 17 July 2025 | Pages: 77 - 90

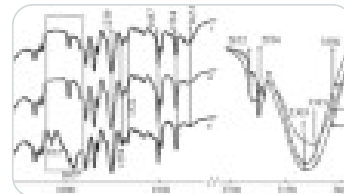


Changes in Structural Characteristics and Water State in Composite Polysulfone and Polyethersulfone Membranes

S. I. LazarevYu. M. GolovinI. V. Horohorina

NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 17 July 2025 |

Pages: 91 - 98



Synthesis of Bio-Based NP-GLIDE Coatings for Easy-to-Clean Applications

Utkarsha GwalwanshiHarshala KapadanePawan Meshram

NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 17 July 2025 |

Pages: 99 - 112



Fabrication and Glioblastoma Cell Interactions of Nanoporous Stainless Steel

Didem Mimioglu

NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 17 July 2025 |

Pages: 113 - 121

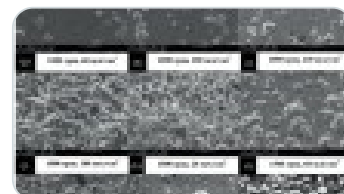


Investigation of the Cauliflower Morphology Formation in the Ni-TiO₂ Coating Produced by the Rotating Cathode Method

Ali HadipourMohammad Ebrahim Bahrololoom

NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 17 July 2025 |

Pages: 122 - 130



Unveiling the Corrosion, Thermogravimetric and Intermetallic Properties of High Performing, Cu₅₀A1₂₅Zn₅Sn₂₀ High Entropy Alloy

Ojo S. I. FayomiSamuel U. AyubaOlugbenga A. Omotosho

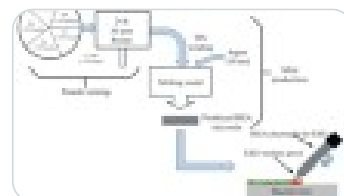
NEW SUBSTANCES, MATERIALS AND COATINGS | 17 July 2025 | Pages: 131 - 145



Investigation of Corrosion Behavior of High Entropy Alloy Coated Ductile Iron by Electro Spark Deposition (ESD) Method

Yusuf Kayali

NEW SUBSTANCES, MATERIALS AND COATINGS | 17 July 2025 | Pages: 146 - 160



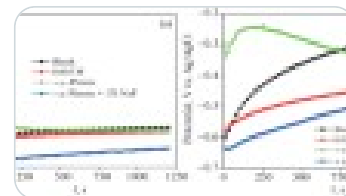


The Effect of α -Pinene and Fluoride against Corrosion on cp-Ti in Artificial Oral Solution: Experimental and DFT Study

Turan Yanardağ

PHYSICOCHEMICAL PROBLEMS OF MATERIALS PROTECTION | 17 July 2025 |

Pages: 224 - 236



Phase Equilibrium and Structure of Polyester Urethane Solutions in Multicomponent Solvents

T. A. Vorob'evaV. V. MatveevA. E. Chalykh

INVESTIGATION METHODS FOR PHYSICOCHEMICAL SYSTEMS | 17 July 2025 |

Pages: 237 - 242

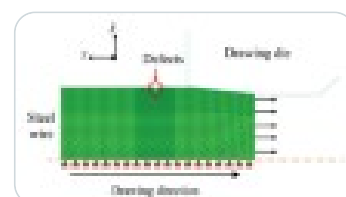


The Evolution of Surface Defects on High-Strength Cold Drawn Pearlite Steel Wire Based on Finite Element Method

Kang XiaolongBao SiqianLiu Chen

INVESTIGATION METHODS FOR PHYSICOCHEMICAL SYSTEMS | 17 July 2025 |

Pages: 243 - 254



Retraction Note: Dynamic Mechanical and Electrochemical Analysis of Newly Synthesized Polyurethane/CuO–NiO Mixed Metal Oxide Nanocomposite Coated Steel in 3.5% NaCl Solution

Joseph Raj Xavier

Retraction Note | 23 May 2025 | Pages: 255 - 255
