



Volume 61, Issue 4

August 2025

ISSN 1068-3623

22 articles in this issue

Thermodynamics of Sorption–Desorption Cycles of a Temperature-Controlled Conformal Methane Accumulator Loaded with a Compacted Carbon Adsorbent

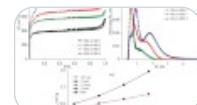


PHYSICOCHEMICAL PROCESSES AT THE INTERFACES | 14 January 2026 | Pages: 761 - 772

Development of Thermodynamic Assessment of the Rehbinder Effect for Two-Component Adsorption onto a Solid Surface with Consideration of Its Charge and Deformation

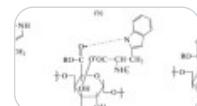
PHYSICOCHEMICAL PROCESSES AT THE INTERFACES | 14 January 2026 | Pages: 773 - 777

The Formation of Microporous Carbon Sorbents Using Mechanical and Thermochemical Activation for Efficient Separation of Natural and Manmade Gases



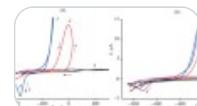
PHYSICOCHEMICAL PROCESSES AT THE INTERFACES | 14 January 2026 | Pages: 778 - 785

Sorption Activity of Pectin Modified with Aromatic Amino Acids in Relation to Manganese(II) Ions



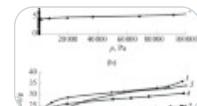
PHYSICOCHEMICAL PROCESSES AT THE INTERFACES | 14 January 2026 | Pages: 786 - 794

Influence of Monohydric Alcohols on the Formation of Self-Assembled Dodecanethiol Nanofilms from Aqueous Solutions on the Surface of Metal Electrodes



PHYSICOCHEMICAL PROCESSES AT THE INTERFACES | 14 January 2026 | Pages: 795 - 801

The Affinity Coefficient of the Dubinin–Radushkevich Equation for Neon Adsorption onto Activated Carbons at 27 K



PHYSICOCHEMICAL PROCESSES AT THE INTERFACES | 14 January 2026 | Pages: 802 - 807

Preparation and Electromagnetic Wave Absorption Property of Carbon Fiber Based YSPM Composites



NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 14 January 2026 | Pages: 808 - 819

Electrochemical Deposition and Properties of Composite Nickel Coatings Modified with $Ti_3C_2T_x$



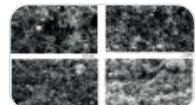
NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 14 January 2026 | Pages: 820 - 825

Electrochemical Local Alloying of the Surface of Titanium Alloys



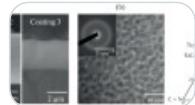
NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 14 January 2026 | Pages: 826 - 836

PtMoO₃/Carbon Nanotubes Anode Catalyst for Direct Ethanol Fuel Cell with an Alkaline Electrolyte



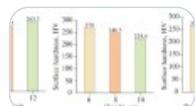
NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 14 January 2026 | Pages: 837 - 846

Tribological Properties of Ta–Si–C–N Coatings Obtained by Magnetron Sputtering



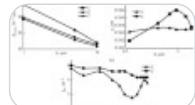
NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 14 January 2026 | Pages: 847 - 852

Surface Tissue Evolution and Effect on Tensile Properties of Q345R Steel under Ultrasonic Shot Peening



NANOSCALE AND NANOSTRUCTURED MATERIALS AND COATINGS | 14 January 2026 | Pages: 853 - 866

Physicochemical Mechanics of Surface Layers of an Antifriction Material Operating in a Surface-Active Lubricating Medium



NEW SUBSTANCES, MATERIALS, AND COATINGS | 14 January 2026 | Pages: 867 - 880

The Influence of the Process Conditions and Structure of Organic Additives on the Formation and Properties of Coatings in Electrochemical Nickel Plating

NEW SUBSTANCES, MATERIALS, AND COATINGS | 14 January 2026 | Pages: 881 - 902

On the Structure and Relaxation Behavior of Polyacrylate Films of Different Elasticity Deposited on a Thermosetting Polyimide Film



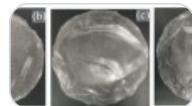
NEW SUBSTANCES, MATERIALS, AND COATINGS | 14 January 2026 | Pages: 903 - 912

On the Effect of Water on the Mechanical Properties of Dentin of Intact Human Teeth under Shear Testing



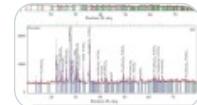
NEW SUBSTANCES, MATERIALS, AND COATINGS | 14 January 2026 | Pages: 913 - 918

Development of a Novel Composite Film from Cassava Starch (*Manihot esculenta*, Khaek Dam Cultivar), Polyvinyl Alcohol, and Citric Acid for the Prolongation of Banana (*Musa acuminata*) Shelf Life: A Case Study



NEW SUBSTANCES, MATERIALS, AND COATINGS | 14 January 2026 | Pages: 919 - 928

Enhanced Acid Resistance of High-Performance Self-Compacting Concrete with Supplementary Cementitious Materials: Experimental and Predictive Insights



NEW SUBSTANCES, MATERIALS, AND COATINGS | 14 January 2026 | Pages: 929 - 942

Microstructural, Oxidation and Hot-Corrosion Properties of Diffusion Coated Superalloys for Gas Turbine Applications



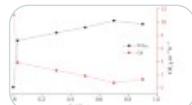
PHYSICOCHEMICAL PROBLEMS OF MATERIALS PROTECTION | 14 January 2026 | Pages: 943 - 961

Development of Nanolaminated Multilayer Ni–Co Alloy Coating of Better Corrosion Resistance



PHYSICOCHEMICAL PROBLEMS OF MATERIALS PROTECTION | 14 January 2026 | Pages: 962 - 973

Experimental Study and Adsorption Characteristics of *Lavandula angustifolia* Extract Powder as Corrosion Inhibitor for C45 in 1 M HCl Solution



PHYSICOCHEMICAL PROBLEMS OF MATERIALS PROTECTION | 14 January 2026 | Pages: 974 - 987

Retraction Note: Mass Transfer Processes in the Adsorption of Lead (Pb²⁺) by Apricot Stone Activated Carbon (ASAC): Isotherms Modeling and Thermodynamic Study

Retraction Note | 14 January 2026 | Pages: 988 - 988
