

ISSN 1070-3632

CODEN: RJGCEK

# RUSSIAN JOURNAL OF GENERAL CHEMISTRY

Editor-in-Chief  
Oleg G. Sinyashin

Pleiades  
Publishing Group  
Over **50** years  
in the service of  
science and education

<https://pleiades.online>  
<https://link.springer.com>



PLEIADES GROUP OF COMPANIES

Distributed by **SPRINGER NATURE**



Volume 95, Issue 12  
December 2025

ISSN 1066-3657  
CODEN RJGCDD

26 articles in this issue

### **Methods for the Vinylation of Alcohols (A Review)**

REVIEW PAPER | 12 January 2026 | Pages: 3663 - 3679

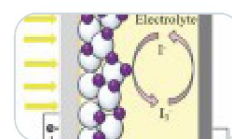
### **Modern Approaches to the Synthesis of Isoindoles with Various Hydrogenation States (A Review)**

REVIEW PAPER | 12 January 2026 | Pages: 3680 - 3707

### **Preparation Methods of D,L-Homocysteine-Thiolactone Hydrochloride and Its Enantiomers (A Review)**

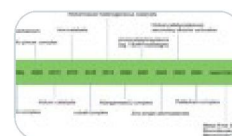
REVIEW PAPER | 12 January 2026 | Pages: 3708 - 3718

### **Recent Advances in Graphene and TiO<sub>2</sub>-Based Materials in Dye-Sensitized Solar Cells (A Review)**



REVIEW PAPER | 12 January 2026 | Pages: 3719 - 3731

### **Organic Catalyzed Alcohol Nitrogen Alkylation Reaction (A Review)**



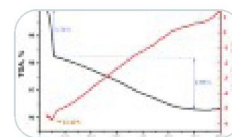
REVIEW PAPER | 12 January 2026 | Pages: 3732 - 3770

### **Construction of *N*-[5-(Trifluoromethyl)-1*H*-indazol-3-yl]acetamide Derivatives; Their Anticancer Activity and Molecular Docking Interactions**



RESEARCH PAPER | 12 January 2026 | Pages: 3771 - 3782

## Preparation of Nano-Carbon Gravel: Synergistic Effect of SDBS and NaBr



RESEARCH PAPER | 12 January 2026 | Pages: 3783 - 3791

## Ring-Opening Polymerization of Lactide in the Presence of Alkaline Earth Metal Complexes of a Redox-Active Ligand



RESEARCH PAPER | 19 December 2025 | Pages: 3792 - 3799

## Design and Synthesis of Novel Dihydronaphthalene-Based Triazole Scaffolds as Potential Antimicrobial Agents

RESEARCH PAPER | 12 January 2026 | Pages: 3800 - 3808

## Polydentate Adsorbent of Transition Metals Based on Hyperbranched Polyester Polyphthalate



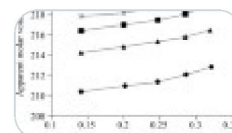
RESEARCH PAPER | 12 January 2026 | Pages: 3809 - 3819

## Fabrication and Optimization of CdS/MoS<sub>2</sub> Heterostructure Thin Films for Visible-Light Photocatalytic Applications



RESEARCH PAPER | 12 January 2026 | Pages: 3820 - 3831

## Effect of Trisodium Citrate on the Hydration Behavior of Aqueous-Venlafaxine Drug: Volumetric and Compressibility Studies



RESEARCH PAPER | 12 January 2026 | Pages: 3832 - 3838

## Study on the Properties of Resonance-Assisted Hydrogen Bonding in *ortho*-Hydroxy- $\alpha$ -methyldiaryl Schiff Bases



RESEARCH PAPER | 12 January 2026 | Pages: 3839 - 3851

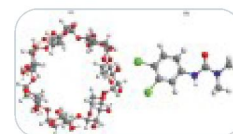
## **Computational and Experimental Insights into the Antibacterial and Antimicrobial Potential of Newly Synthesized Anthraquinone Derivatives**



RESEARCH PAPER | 12 January 2026 | Pages: 3852 - 3864

---

## **Advancing Molecular Encapsulation: A Computational and Molecular Dynamics Exploration of Diuron Inclusion in $\beta$ -Cyclodextrin**



RESEARCH PAPER | 12 January 2026 | Pages: 3865 - 3876

---

## **Cobalt-Based MOFs as an Efficient Sulfur Host for High-Performance Lithium-Sulfur Batteries**



RESEARCH PAPER | 12 January 2026 | Pages: 3877 - 3885

---

## **Design, Synthesis, and Antimicrobial Activity Evaluation of 5-(3/4-Hydroxybenzylidene)thiazolidine-2,4-dione Derivatives**

RESEARCH PAPER | 12 January 2026 | Pages: 3886 - 3902

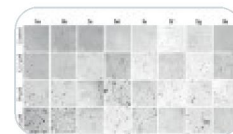
---

## **Reactions of *N*-Vinylpyrrolidone with Arenes under Superelectrophilic Activation Conditions**

RESEARCH PAPER | 12 January 2026 | Pages: 3903 - 3911

---

## **Synthesis of Substituted Potassium 3-(Thiophen-2-yl)amino-5-oxopenta-1,3-dien-2-olate Derivatives as New Low-Toxicity Sources of Potassium for Agricultural Crops**



RESEARCH PAPER | 12 January 2026 | Pages: 3912 - 3922

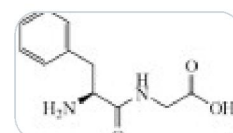
---

## **Synthesis of 3- and 3,6-Substituted Pyranocoumarins as Starting Structures Towards Compounds Having Neuroprotective Activity**

RESEARCH PAPER | 12 January 2026 | Pages: 3923 - 3935

---

## **Solid-State Synthesis and Self-Assembly of *cyclo*(Phe-Gly) Dipeptide**



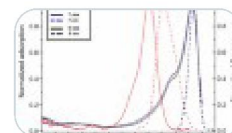
**Photoelectrochemical C–H Amination of Guaiacol**



RESEARCH PAPER | 12 January 2026 | Pages: 3947 - 3957

---

**Novel Pt(IV) Prodrug with Long-Wavelength Absorption in the NIR Range**



RESEARCH PAPER | 12 January 2026 | Pages: 3958 - 3966

---

**Investigation of Structural Features, Solution Behavior and Biological Activity of Magnesium Complex with 5-Hydroxy-4-oxo-4*H*-pyran-2,6-dicarboxylic Acid**



RESEARCH PAPER | 12 January 2026 | Pages: 3967 - 3982

---

**Reduction of 1-Hydroxyimidazole Derivatives Containing 4-Nitrophenyl Moiety**

RESEARCH PAPER | 12 January 2026 | Pages: 3983 - 3991

---

**Approaches to the Synthesis of Double Conjugates of PSMA Ligands with Monomethyl Auristatin E**

RESEARCH PAPER | 12 January 2026 | Pages: 3992 - 4000

---