

ISSN 1066-3622  
CODEN: RDIOEO

# RADIOCHEMISTRY

Editor-in-Chief  
Boris F. Myasoedov

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



PLEIADES GROUP OF COMPANIES

Distributed by **SPRINGER NATURE**

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



Volume 67, Issue 5

October 2025

ISSN 0033-8222  
ISSN 1061-024X

20 articles in this issue

---

**Yttrium-90: Application in Nuclear Medicine and Production in Radionuclide Generators**



OriginalPaper | 14 December 2025 | Pages: 575 - 589

---

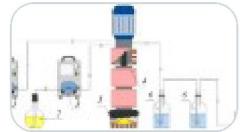
**Complexation of the  $[^{99}\text{Tc}(\text{CO})_3(\text{H}_2\text{O})_3]^+$  Ion with Phosphoric Acid Anions in Aqueous Solution: A  $^{99}\text{Tc}$  NMR Study**



OriginalPaper | 14 December 2025 | Pages: 590 - 599

---

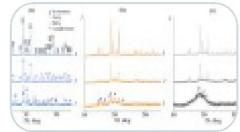
**The Impact of Uranium–Thorium Nitric Acid Solution Concentration on the Properties of Powders Produced by Thermochemical Denitration**



OriginalPaper | 14 December 2025 | Pages: 600 - 607

---

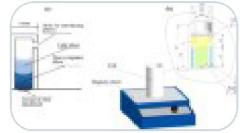
**Thermal and Hydrolytic Stability of Silicophosphate Matrices of Langbeinite Structure for Radioactive Waste Immobilization**



OriginalPaper | 14 December 2025 | Pages: 608 - 615

---

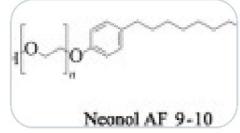
**A New Method for Studying the Extraction Kinetics with Monitoring of the Organic Phase Properties by Attenuated Total Reflection IR Spectroscopy**



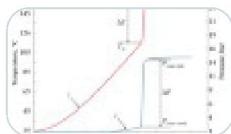
OriginalPaper | 14 December 2025 | Pages: 616 - 629

---

**Extraction of Radionuclides with Polyethylene Glycols and Crown Ethers in Liquefied Freon HFC-134A**

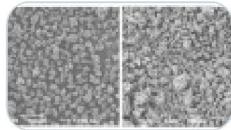


## **Justification of Explosion Safety Conditions in Evaporation of Nitric Acid Solutions Containing Various Reductants**



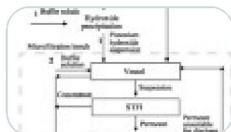
OriginalPaper | Open access | 14 December 2025 | Pages: 640 - 647

## **Sorption Equilibria of U(VI) Ions with Oxide–Graphene Composite $\text{TiO}_2\text{||C}$ and with $\text{TiO}_2$ in the Region of the Henry Law**



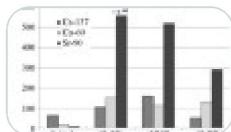
OriginalPaper | 14 December 2025 | Pages: 648 - 657

## **Development and Trials of a Technology for Plutonium Regeneration from Nitric Acid Process Solutions Using Tangential Flow Filtration**



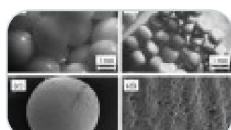
OriginalPaper | 14 December 2025 | Pages: 658 - 664

## **Use of Peelable Polymer Coatings for Decontamination of Metal Surfaces**



OriginalPaper | 14 December 2025 | Pages: 665 - 671

## **$^{32}\text{P}$ Carriers Based on Hydroxyapatite-Modified Alginate Beads**



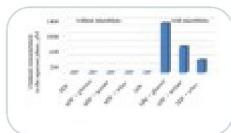
OriginalPaper | Open access | 14 December 2025 | Pages: 672 - 679

## **Radiosynthesis and Preclinical Evaluation of $[^{89}\text{Zr}]\text{Zr-3,4,3-LI(1,2-HOPO)-Durvalumab}$ for Immuno-PET**

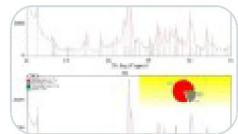


OriginalPaper | 14 December 2025 | Pages: 680 - 689

## **Stability of Uranium Dioxide in Solutions of Microbiota Isolated from Groundwater of a Radioactive Waste Disposal Site and in Substrates for Its Stimulation**



**Sorbents Based on Clinoptilolite and Bentonite for the Immobilization of  $^{137}\text{Cs}$ ,  $^{90}\text{Sr}$ , Uranium, and  $^{241}\text{Am}$  at Radioactive Waste Repositories**



OriginalPaper | 14 December 2025 | Pages: 698 - 707

**Georadiological Assessment and Radiological Hazard Mapping of Uranium-Enriched Formations in El Sheikh Soliman Area, Southwestern Sinai, Egypt**

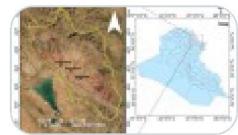


OriginalPaper | 14 December 2025 | Pages: 708 - 720

**Estimation of the Contribution of Chernobyl  $^{137}\text{Cs}$  to the Caspian Sea Pollution by  $^{137}\text{Cs}$  from Global Fallout**

OriginalPaper | 14 December 2025 | Pages: 721 - 726

**Quantitative Assessment of Alpha-Emitting Natural Radionuclides and Radiological Hazards in Soil from Pshdar Area, Iraq**



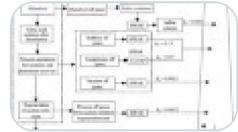
OriginalPaper | 14 December 2025 | Pages: 727 - 736

**Soft Zoobenthos of Special Industrial Reservoirs of the Mayak Production Association**



OriginalPaper | 14 December 2025 | Pages: 737 - 748

**Reconstruction of Parameters of Sources of Atmospheric  $^{129}\text{I}$  Emissions that Existed at the Mayak Production Association in 1975–2000**



OriginalPaper | 14 December 2025 | Pages: 749 - 762

**Evaluating the Parameters of the Source of Water Aerosol Generation from the V-2 Reservoir Water Area**



