

Contents

Vol. 51, No. 3, 2009

Simultaneous English language translation of the journal is available from Pleiades Publishing, Inc.
Distributed worldwide by Springer. *Radiochemistry* ISSN 1066-3622

Chemically Resistant Alloys for Immobilization of Radioactive Wastes <i>V. V. Ivanov, D. G. Kuznetsov, and I. B. Popov</i>	221
Interaction of Methanesulfonic Acid with Actinide Ions. The New Complexes HImid[Np(C ₂ O ₄)(CH ₃ SO ₃) ₃ (H ₂ O) ₂], [NpO ₂ (Terpy)(CH ₃ SO ₃)(H ₂ O)]·2H ₂ O, and [UO ₂ (CH ₃ SO ₃) ₂ (H ₂ O)] <i>G. B. Andreev, N. A. Budantseva, I. G. Tananaev, and B. F. Myasoedov</i>	225
Synthesis and Properties of Complexes of Np(V) and Pu(V) Benzoates with Phenanthroline <i>A. A. Bessonov, N. N. Krot, M. S. Grigor'ev, and V. I. Makarenkov</i>	231
Crystal and Molecular Structure of [TcCl(CO) ₅] and [TcBr(CO) ₅]. Correlations with the Reactivity and Electronic Structure <i>G. V. Sidorenko, V. V. Gurzhi, A. E. Miroslavov, O. V. Sizova, S. V. Krivovichev, A. A. Lumpov, and D. N. Suglov</i>	237
A Physicochemical Study of Alkaline-Earth Metal Carbonatouranylates <i>N. G. Chernorukov, A. V. Knyazev, E. V. Vlasova, and N. Yu. Kuznetsova</i>	244
Synthesis and Properties of Liquid Luminophores Based on the POCl ₃ –BiCl ₃ –MCl _x System <i>G. V. Tikhonov, D. V. Kabakov, and M. V. Zelenskaya</i>	250
Synthesis and Properties of Laser-Active Liquids POCl ₃ –SbCl ₅ – ²³⁵ UO ₂ ²⁺ –Nd ³⁺ <i>G. V. Tikhonov</i>	256
Mechanism of UO ₂ (NO ₃) ₂ ·6H ₂ O Decomposition under the Action of Microwave Radiation <i>S. A. Kulyukhin, A. N. Kamenskaya, and V. A. Lavrikov</i>	262
Extraction and Sorption Preconcentration of U(VI), Th(IV), and REE(III) from Nitric Acid Solutions Using Bis[2-(diphenylphosphinyl)phenoxyethyl]phosphinic Acid <i>A. N. Turanov, V. K. Karandashev, V. E. Baulin, and S. V. Nosenko</i>	269
Extraction Methods in Development of Gd-Loaded Liquid Organic Scintillators for Antineutrino Detection: 2. Scintillators Based on Solutions of Gadolinium 2-Methylvalerate <i>N. A. Danilov, Yu. S. Krylov, A. Yu. Tsivadze, I. R. Barabanov, L. B. Bezrukov, G. Ya. Novikova, E. A. Yanovich, L. I. Demina, C. Cattadori, and A. Di Vacri</i>	274
Sorbents for Treatment of Water Vapor–Air Flows to Remove Volatile Organic Compounds of Radioactive Iodine <i>S. A. Kulyukhin, N. A. Kononova, and I. A. Rumer</i>	283
Interaction of Aqueous UO ₂ ²⁺ Solutions with Sorbents Based on Modified Silica Gel Containing Cu, Ni, and Zn <i>M. P. Gorbacheva and S. A. Kulyukhin</i>	287
Sorption of Uranyl Ions on Phosphorylated Lignin <i>G. L. Bykov and B. G. Ershov</i>	292
Coprecipitation of Microamounts of Cesium with Precipitates of Transition Metal Ferrocyanides in Alkaline Solutions <i>V. V. Milyutin, S. V. Mikheev, V. M. Gelis, and O. A. Kononenko</i>	295
Sorption of Cesium on Ferrocyanide Sorbents from Highly Saline Solutions <i>V. V. Milyutin, S. V. Mikheev, V. M. Gelis, and E. A. Kozlitin</i>	298
Desorption of U(VI) from Montmorillonite with Aluminum and Iron Hydroxides Deposited on Its Surface <i>A. A. Bogolepov, S. A. Kobets, and G. N. Pshinko</i>	301

Interaction of Tritium Atoms with Solid Composite Targets: Amino Acids under Adsorbed Cetylamine Layers	
<i>M. G. Chernysheva, Z. A. Tyasto, and G. A. Badun</i>	308
Radioactivity Calculations for Production of ^{131}I by Neutron Irradiation of Tellurium Targets	
<i>M. Mostafa</i>	313
Analysis of Mineral Content of Some Medicinal Plants by NAA and AAS Techniques	
<i>R. S. Lokhande, P. U. Singare, M. L. Andhele, R. Acharya, A. G. C. Nair, and A. V. R. Reddy</i>	321
Recovery of Radioactive Cobalt from Aqueous EDTA Solutions Using Concentrated Ozone	
<i>A. F. Seliverstov, Yu. O. Lagunova, B. G. Ershov, V. M. Gelis, and A. G. Basiev</i>	326
