

Contents

Vol. 51, No. 1, 2009

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

Crystal Structure of Compounds $\text{CsA}^{\text{V}}\text{A}^{\text{VI}}\text{O}_6$ ($\text{A}^{\text{V}} = \text{Sb, Ta}$; $\text{A}^{\text{VI}} = \text{W, U}$) <i>A. V. Knyazev and N. Yu. Kuznetsova</i>	1
Kinetics of Decarbonylation of Pentacarbonyltechnetium Halides in Solution <i>A. E. Miroslavov, G. V. Sidorenko, A. A. Lumpov, V. A. Mikhalev, and D. N. Suglov</i>	5
Kinetics of Np(V) Transformation in Concentrated HNO_3 Solutions Containing Potassium Phosphotungstate $\text{K}_{10}\text{P}_2\text{W}_{17}\text{O}_{61}$ <i>A. A. Baranov, E. A. Erin, L. V. Nagaitseva, V. N. Momotov, and V. M. Chistyakov</i>	11
Refinement of Data on the Volatility of Octavalent Plutonium in the Form of Tetraoxide PuO_4 <i>V. P. Domanov and Yu. V. Lobanov</i>	14
Behavior of Polymeric Pu(IV) in Simulated Groundwater <i>T. I. Trofimov, Yu. M. Kulyako, S. A. Perevalov, S. E. Vinokurov, M. D. Samsonov, B. F. Myasoedov, Ai Fujiwara, and O. Tochiyama</i>	18
Recovery of Np(V), Pu(IV), and Am(III) by Solid-Phase Extraction with Supported <i>N</i> -Benzoylphenylhydroxylamine <i>E. V. Kuzovkina, G. I. Malofeeva, O. M. Petrukhin, A. P. Novikov, and B. Ya. Spivakov</i>	26
Synergistic Extraction of REE and TPE from HNO_3 Solutions with a Mixture of CCD and HDPB ZS (1 : 8) in a Polar Diluent <i>D. N. Shishkin, B. Ya. Galkin[†], and Yu. S. Fedorov</i>	30
Extractive Refining of Uranium Concentrates Using Urea Nitrate <i>Yu. V. Ostrovskii, G. M. Zabortsev, I. G. Chapaev, A. B. Aleksandrov, S. Yu. Saifutdinov, and A. L. Khlytin</i>	34
Effect of Radiation and Heating on Acid Products of Acetic Acid Radiolysis in Concentrated Nitrate Solution <i>D. I. Danilin, E. V. Zakharova, I. G. Tananaev, and G. F. Egorov[†]</i>	38
Cocrystallization of Microamounts of ^{137}Cs , ^{90}Sr , and ^{90}Y from Aqueous Solutions with the Solid Phase of Mixed Potassium Neodymium Ferrocyanide <i>S. A. Kulyukhin, M. P. Gorbacheva, E. P. Krasavina, and I. A. Rumer</i>	42
Simulations and Modeling of Radioactivity Buildup due to Corrosion Products in Ion Exchanger and Filters of a Typical PWR <i>M. Rafique, N. M. Mirza, and S. M. Mirza</i>	47
Radionuclide Sorption Diagnostics of Nanoagglomerates and Textures Based on Them <i>A. V. Severin, G. A. Badun, and Z. A. Tyasto</i>	55
Isolation of ^{58}Co , ^{54}Mn , and ^{86}Rb from ^{89}Sr Production Wastes <i>S. V. Kham'yanov, O. Yu. Kayurin, N. A. Nerozin, E. Ya. Smetanin, and V. V. Shapovalov</i>	59
Kinetic Features of Underground Uranium Leaching from Ores of Hydrogenous Uranium Deposits <i>A. L. Smirnov, V. N. Rychkov, A. B. Umanskii, E. A. Galyanina, and A. M. Klyushnikov</i>	61
Magnesium Potassium Phosphate Matrices for Immobilization of High-Level Liquid Wastes <i>S. E. Vinokurov, Yu. M. Kulyako, O. M. Slyunchev, S. I. Rovnyi, A. S. Wagh, M. D. Maloney, and B. F. Myasoedov</i>	65
Effect of Thermal Annealing on the Properties of Boron-Containing Basalt Systems Containing Radioactive Waste Components <i>D. G. Kuznetsov, V. V. Ivanov, I. B. Popov, and B. G. Ershov</i>	73

Sorption of U(VI) with Soil from the Region of Location of the Novi Khan Radioactive Waste Repository in Bulgaria	
<i>M. F. Filippov, O. D. Maslov, G. A. Bozhikov, Sh. Tserenpil, M. V. Gustova, and M. V. Milanov</i>	77
Aerobic Activation of Radiostrontium Leaching from Waterlogged Soils under Gleyzation Conditions	
<i>E. K. Legin, Yu. I. Trifonov, M. L. Khokhlov, D. N. Suglobov, and E. E. Legina</i>	80
Speciation of ^{226}Ra in Seabed Sediments Formed in Hydrothermal Cold Fluid Zones (Deryugin Deep, Sea of Okhotsk)	
<i>M. M. Domanov</i>	85
Effect of Fulvic Acids on Th(IV) Sorption on Montmorillonite	
<i>G. N. Pshinko, T. G. Timoshenko, and A. A. Bogolepov</i>	91
Simulation of U(VI) and Co(II) Sorption on Montmorillonite	
<i>A. A. Bogolepov</i>	96
Glauconite as Model Material for Examining Deactivation of Uranium-Containing Soils	
<i>G. N. Pshinko and A. A. Bogolepov</i>	104
To the 70th Birthday Anniversary of Corresponding Member of Russian Academy of Sciences Boris Grigor'evich Ershov	109
