

Contents

Vol. 40, No. 1, 1998

Simultaneous English language translation of the journal is available from МАИК Наука/Interperiodica Publishing (Russia).
Distributed worldwide by Plenum/Consultants Bureau. *Radiochemistry* ISSN 1066-3622

f Elements and the Periodicity of the Variations in Some Properties of Chemical Elements

S. A. Bartenev, G. S. Markov, V. N. Romanovskii, and N. N. Khramov **p. 1** [abstract](#)

Synthesis and Study of Binary Compounds of Actinides and Lanthanides. XXII. Intermetallic Compounds of Curium and Silicon

V. M. Radchenko, A. G. Seleznev, R. R. Droznik, and M. A. Ryabinin **p. 4** [abstract](#)

Specific Features of Absorption Spectra of Neptunium(IV) Complexes with Unsaturated Heteropoly Compounds

A. Yu. Garnov, N. N. Krot, and V. P. Perminov **p. 7** [abstract](#)

Probable Forms of Actinides in Alkali Solutions

V. P. Shilov **p. 11** [abstract](#)

Oxidation Kinetics of Neptunium(IV) and Plutonium(IV) with Hypochlorite in Alkaline Media

A. Yu. Garnov, A. B. Yusov, V. P. Shilov, and N. N. Krot **p. 17** [abstract](#)

Specificity of Hydrazine Reactivity toward Neptunium(V) in Alkali Solutions

A. V. Gelis, A. V. Garnov, and V. P. Shilov **p. 22** [abstract](#)

Mathematical Simulation of the Separation Process of Lanthanide(III) Concentrates of Variable Composition Using Countercurrent Extraction

A. K. Pyartman, A. E. Berinskii, and V. A. Keskinov **p. 25** [abstract](#)

Effect of Water Concentration in the Organic Phase on Constants of Extraction Equilibria in Lanthanide(III)-Water-Diisooctyl Methylphosphonate Systems

A. K. Pyartman, V. A. Keskinov, and A. E. Berinskii **p. 31** [abstract](#)

Extraction of Lanthanide(III) Nitrates with Trialkylmethylammonium Nitrate in Decane

A. K. Pyartman, S. V. Kovalev, V. A. Keskinov, and N. V. Khokhlova **p. 36** [abstract](#)

Extraction of Uranium(VI) and Thorium with Neutral Phosphoryl-containing Podands from Nitric Acid Solutions

A. N. Turanov, V. K. Karandashev, and V. E. Baulin **p. 39** [abstract](#)

Supercritical Fluid Extraction of Uranium and Transuranium and Rare-Earth Elements from Surfaces of Solids

A. A. Murzin, V. A. Babain, A. Yu. Shadrin, I. V. Smirnov, V. N. Romanovskii, and M. Z. Muradymov **p. 47** [abstract](#)

Sorption of Uranium from Seawater with Calcium Carbonate

A. V. Savenko **p. 52** [abstract](#)

Isolation of Gram Amounts of ^{147}Pm . I. Calculation of Optimal Chromatographic Separation Parameters

V. M. Gelis and G. B. Maslova **p. 55** [abstract](#)

Isolation of Gram Amounts of ^{147}Pm . II. Preparation of High-Quality Promethium by Displacement Complexing Chromatography

V. M. Gelis, G. B. Maslova, and E. A. Chuveleva **p. 59** [abstract](#)

Preparation of Gram Amounts of Americium by Displacement Complexing Chromatography. I. Separation of $^{241,243}\text{Am}$ and ^{244}Cm from Concentrate of Rare-Earth and Transplutonium Elements

O. V. Kharitonov, E. A. Chuveleva, V. M. Gelis, and L. A. Firsova **p. 64** [abstract](#)

Recovery of ^{50}Cr from Spent Neutrino Source

O. I. Andreev, R. A. Kuznetsov, and V. T. Filimonov **p. 68** [abstract](#)

Main Pathways of Tritium Labeling of Triazolobenzodiazepines

V. P. Shevchenko, I. Yu. Nagaev, A. V. Potapova, and N. F. Myasoedov **p. 74** [abstract](#)

Synthesis of Tritium-labeled Nitro Compounds

V. P. Shevchenko, I. Yu. Nagaev, and N. F. Myasoedov **p. 79** [abstract](#)

Tritium Labeling of Biologically Active Compounds Containing Aromatic and Heterocyclic Fragments

V. P. Shevchenko, I. Yu. Nagaev, and N. F. Myasoedov **p. 83** [abstract](#)

Isotope Exchange between Gaseous Tritium and Lipid-like Compounds Applied to Metallic Catalysts

V. P. Shevchenko, S. V. Faradzheva, I. Yu. Nagaev, and N. F. Myasoedov **p. 88** [abstract](#)

Automated Synthesis of [1-¹¹C]Pyruvic Acid and Comparative Study of Its Distribution in Tissues of Healthy Rats and Rats with Induced Total Hypoxia

M. V. Korsakov, D. A. Vasil'ev, O. F. Kuznetsova, R. A. Bulatov, and S. V. Shatik **p. 93** [abstract](#)

Professor V. P. Shvedov (On His 90th Birthday) **p. 100**
