

PU
780/Rn

VOLUME 301 • NUMBER 3 • SEPTEMBER

2 0 1 4

FOUNDED IN 1968

Journal of
RADIOANALYTICAL and
NUCLEAR CHEMISTRY

*An international journal dealing with all aspects
and applications of nuclear chemistry*



AKADÉMIAI KIADÓ

 Springer

WWW.AKADEMIAI.COM

Journal of Radioanalytical and Nuclear Chemistry

An International Journal Dealing with All Aspects and Applications of Nuclear Chemistry

Volume 301 · Number 3 · September 2014

A review of conventional explosives detection using active neutron interrogation

Z.D. Whetstone · K.J. Kearfott **629**

Neodymium and samarium recovery by magnetic nano-hydroxyapatite

C. Gok **641**

The daily radon dose in body organs caused by drinking milk and water

M. Mansour Bahmani · A.H. Moussavi · A. Vakili · M.R. Rezaie · H.R. Dehghan · E. Rezvan Nejad **653**

Trace and essential elements determination in baby formulas milk by INAA and k_0 -INAA techniques

L. Hamidatou · H. Slamene · T. Akhal · A. Boulegane **659**

Rare earth element (REE) in surface mangrove sediment by instrumental neutron activation analysis

K. Kumar · E. Saion · M.K. Halimah · Y. CK · M.S. Hamzah **667**

Preconcentration of trace environmental plutonium from iron oxide matrix using DIPEX® extractant

K.B. Lavelle · S. Glover · W.B. Connick · H. Spitz **677**

Structural interaction leading to volumetric changes in aqueous solutions of nitrates of rubidium, cesium, strontium, yttrium, and gallium at different temperatures

D. Dash · S. Kumar · C. Mallika · U. Kamachi Mudali **685**

Removal of uranium from aqueous solution by using activated palm kernel shell carbon: adsorption equilibrium and kinetics

Z. Yi · J. Yao · J. Xu · M. Chen · W. Li · H. Chen · F. Wang **695**

Spectrophotometric determination of microamounts of thorium with thorin in the presence of cetylpyridinium chloride as surfactant in perchloric acid

M.H. Khan · M. Hafeez · S.M.H. Bukhari · A. Ali **703**

Quantifying multiple trace elements in uranium ore concentrates: an interlaboratory comparison

S. Bürger · S.F. Boulyga · M.V. Peñkin · D. Bostick · S. Jovanovic · R. Lindvall · G. Rasmussen · L. Riciputi **711**

Synthesis and biological evaluation of novel technetium-99m-labeled HYNIC- β -glucose as a potential tumor imaging agent

L. Liu · M. Zhao · Z. Wang · Y. Qin · X. Wang **731**

Synthesis, characterization, and application of polystyrene adsorbents containing tri-*n*-butylphosphate for solid-phase extraction of uranium (VI) from aqueous nitrate solutions

M.G. Mahfouz · H.M. Killa · M.E. Sheta · A.H. Moustafa · A.A. Tolba **739**

Solvent extraction of Mo(V) and Mo(VI) from hydrochloric acid into Aliquat 336 chloroform solution

T. Yokokita · Y. Kasamatsu · K. Ooe · T. Yoshimura · N. Takahashi · Y. Komori · A. Shinohara **751**

^{222}Rn and ^{226}Ra activity concentrations in groundwaters of southern Poland: new data and selected genetic relations

T.A. Przylibski · J. Gorecka · A. Kula · L. Fijałkowska-Lichwa · K. Zagoźdżon · P. Zagoźdżon · W. Miśta · R. Nowakowski **757**

Characterization of long-term dose stability of *N*-isopropylacrylamide polymer gel dosimetry

Y.J. Chang · C.H. Chen · B.T. Hsieh **765**

Adsorption of uranium ions from aqueous solution by amine-group functionalized magnetic Fe_3O_4 nanoparticle

G.W. Peng · D.X. Ding · F.Z. Xiao · X.L. Wang · N. Hun · Y.D. Wang · Y.M. Dai · Z. Cao **781**

A novel Np–Pu separation procedure based on extraction with di-(chlorophenyl)-dithiophosphinic acid in nitric solution

L. Li · H. Dang · Q. Xu · W. Jiang · M. Li · J. Zhang **789**

Fabrication of uranium alloy fuel slug for sodium-cooled fast reactor by injection casting

J.H. Kim · H. Song · K.H. Kim · C.B. Lee **797**

Use of ultra-filtration in organic-rich groundwater for the physical separation of thorium

R.K. Singhal · H. Basu · M.V. Pimple · V. Manisha · M.K.T. Bassan · A.V.R. Reddy **805**

Study of Doppler broadening of gamma-ray spectra in 14-MeV neutron activation analysis

A. Barzilov · P.C. Womble **811**

Adsorption of U(VI) from aqueous solution by sulfonated ordered mesoporous carbon

Z.-B. Zhang · X.-F. Yu · X.-H. Cao · R. Hua · M. Li · Y.-H. Liu **821**

Synthesis and biological evaluation of novel 99m TcN-labeled bisnitroimidazole complexes containing monoamine-monoamide dithiol as potential tumor hypoxia markers

L. Mei · W. Sun · T. Chu **831**

Effect of *Toxoplasma gondii* infection on glucose metabolism in the brain of pregnant rats by $[^{18}\text{F}]$ FDG microPET imaging

F. Xu · M. Yang · Y. Xu · L. Wang · X. Meng · T. Xu · T. Zhang · M. Lu · H. Zhuge **839**

Radiolabeled novel peptide for imaging somatostatin-receptor expressing tumor: synthesis and radiobiological evaluation

K. De · A. Behera · I. Banerjee · B. Sarkar · S. Ganguly · M. Misra **847**

A resonance light scattering method for the determination of uranium based on a water-soluble salophen and oxalate

L. Chen · L. Liao · X. Shen · Y. He · C. Xu · X. Xiao · Y. Lin · C. Nie **863**

Gamma radiation protects fruit quality in tomato by inhibiting the production of reactive oxygen species (ROS) and ethylene

M. Kumar · S. Ahuja · A. Dahuja · R. Kumar · B. Singh **871**

Modeling of fixed-bed adsorption of Cs^+ and Sr^{2+} onto clay–iron oxide composite using artificial neural network and constant-pattern wave approach

A. Ararem · A. Bouzidi · B. Mohamedi · O. Bouras **881**

Adsorption of ^{137}Cs on titanate nanostructures

B. Filipowicz · M. Pruszyński · S. Krajewski · A. Bilewicz **889**

Investigation of the biosynthesis of acetyl-CoA and oxaloacetic acid from pyruvic acid and the quantitative evaluation of incorporated ^{13}C -labeled L-alanine in *Arthrobacter hyalinus*

K. Iida **897**

Plutonium: verification of comprehensive disproportionation equations

G.L. Silver **905**

Foreword

B.S. Tomar **909**

Further articles can be found at link.springer.com

Indexed/abstracted in *Analytical Abstracts; Chemical Abstracts; Chemistry Citation Index; Chemistry Database; Current Contents/Physical, Chemical and Earth Sciences; Excerpta Medica/EMBASE; INSPEC Information Services; Medical Documentation Service; Metals Abstracts/METADEX; Meteorological and Geoastrophysical Abstracts; Reaction Citation Index; Referativnyi Zhurnal; Science Citation Index; Science Citation Index Expanded (SciSearch); SCOPUS; The ISI Alerting Services*

Instructions for Authors for *J Radioanal Nucl Chem* are available at www.springer.com/10967