

Monday, 23 September 2013, Poster Session

- 23-FKP-01** **¹³⁷Cs Accumulation Enhanced by Potassium Starvation in *Lotus japonicus***
J. Furukawa¹, H. Noda², R. Sugita³, K. Tanoi³, T. M. Nakanishi³, S. Satoh¹
¹*Faculty of Life and Environmental Sciences, University of Tsukuba*, ²*Graduate School of Life and Environmental Sciences, University of Tsukuba*, ³*Graduate School of Agricultural and Life Sciences, The University of Tokyo*
- 23-FKP-02** **Decontamination of the Contaminated Water on Severe Nuclear Accidents by Titanium Oxide Adsorption**
Y. Takahatake¹, M. Nakamura¹, A. Shibata¹, K. Nomura¹, Y. Koma¹, Y. Nakajima¹
¹*Japan Atomic Energy Agency*
- 23-FKP-03** **Iodine-129 in the aquatic environment adjacent to a spent nuclear fuel reprocessing plant, Rokkasho, Japan**
S. Ueda¹, H. Kakiuchi¹, H. Hasegawa¹, N. Akata¹, H. Kawamura², S. Hisamatsu¹
¹*Department of Radioecology, Institute for Environmental Sciences*, ²*Kyushu Environmental Evaluation Association*
- 23-FKP-04** **Specific activity and time dependence of radionuclides in soils affected by the accident of the Fukushima Dai-ichi nuclear power plant (Part 2).**
T. Shimasaki¹, Y. Shiraiishi¹, O. Kawahara¹, K. Goto¹, M. Shimamoto¹, A. Kojima¹, S. Okada²
¹*Institute of Source Development and Analysis, Kumamoto University*, ²*Center for AIDS Research, Kumamoto University*
- 23-FKP-05** **Differences between year 2011 and 2012 in Cs-137 concentration in brown rice grown in Fukushima Prefecture**
S. Fujimura^{1,2}, Y. Sakuma¹, T. Yamauchi¹, K. Niitsuma¹, N. Sato³, M. Sato¹, T. Saito¹, K. Yoshioka¹
¹*Fukushima Agricultural Technology Centre*, ²*NARO Tohoku Agricultural Research Center*, ³*Inawashiro Town*
- 23-FKP-06** **Size-distribution of airborne radioactive particles from the Fukushima Accident**
H. Muramatsu¹, K. Kawasumi¹, T. Kondo¹, and K. Matsuo²
¹*Department of Chemistry, Faculty of Education, Shinshu University*, ²*Graduate School of Education, Shinshu University*
- 23-FKP-07** **Long-term effects of radionuclides originating from the Fukushima nuclear power plant accident in airborne particulate matters in Kawasaki**
K. Nakamachi¹, H. Matsuno¹, T. Honda¹, Y. Kikawada²
¹*Graduate School of Engineering, Tokyo City University*, ²*Faculty of Science and Technology, Sophia University*
- 23-FKP-08** **Measurement of Iodine-129 concentration in water samples in relation with Fukushima Daiichi Nuclear Power Plant accident**
H. Matsuzaki¹, H. Tokuyama¹, Y. Miyake¹, M. Honda², T. Yamagata³, Y. Muramatsu⁴
¹*Department of Nuclear Engineering and Management, School of Engineering, The University of Tokyo*, ²*Graduate School of Integrated Basic Sciences, Nihon University*, ³*College of Humanities and Sciences, Nihon University*, ⁴*Department of Chemistry, Gakushuin University*
- 23-FKP-09** **Observed radioactivities and activity ratios in aerosols from April 2011 at the Geological Survey of Japan, Tsukuba, Japan**
Y. KANAI¹
¹*Geological Survey of Japan, National Institute of Advanced Industrial and Technology*
- 23-FKP-10** **Chemical forms of radioactive Cs in soils originated from Fukushima Dai-ichi nuclear power plant accident, as studied by extraction experiments**
M. Hirose¹, Y. Kikawada¹, A. Tsukamoto², T. Oi¹, T. Honda², K. Hirose¹, H. Takahashi³
¹*Faculty of Science and Technology, Sophia University*, ²*Graduate School of Engineering, Tokyo City University*, ³*Graduate School of Engineering, Tohoku University*
- 23-FKP-11** **Thermal Oxidation of Cesium Loaded Prussian Blue as a Precaution for Exothermic Phase Change in Extreme Conditions**

D. Parajuli, H. Tanaka, A. Takahashi, T. Kawamoto
Nanosystem Research Institute, AIST

- 23-FKP-12** **Analysis of ^{134}Cs and ^{137}Cs distribution in soil of Fukushima prefecture and their specific adsorption on clay minerals**
A. Maekawa¹, N. Momoshima², S. Sugihara², R. Ohzawa¹, A. Nakama¹
¹ Graduate School of Sciences, Kyushu University, ² Radioisotope Center, Kyushu University
- 23-FKP-13** **Distribution of radionuclides in seabed sediments off Ibaraki coast after the Fukushima Daiichi Nuclear Power Plant accident**
M. Nagaoka¹, H. Yokoyama¹, H. Fujita¹, M. Nakano¹, H. Watanabe¹, S. Sumiya¹
¹Nuclear Fuel Cycle Engineering Laboratories, Japan Atomic Energy Agency
- 23-FKP-14** **Radiocesium Concentration Change in Tree Leaves Before and After Defoliation**
S. Uchida¹, K. Tagami
¹Office of Biospheric Assessments for Waste Disposal, National Institute of Radiological Sciences
- 23-FKP-15** **Distributions and Concentrations of Radionuclides in Giant Butterbur after the Fukushima Nuclear Power Plant Accident**
K. Tagami¹, S. Uchida¹
¹Office of Biospheric Assessment for Waste Disposal, National Institute of Radiological Sciences
- 23-FKP-16** **The Behavior of Cs Adsorption of Microcapsule Beads Nano-Prussian Blue**
A. Kitajima¹, K. Yoshino², M. Takasaki², H. Tanaka¹, T. Kawamoto¹
¹Nanosystem Research Institute, ²Kanto Chemical Company Inc.
- 23-FKP-17** **Transfer of Radiocesium from Soil to Cut Flowers**
Y. Suzuki^{1,2}, H. Munakata¹, Y. Yajima¹, Y. Tooyama³, H. Suzuki¹, H. Tsukada⁴, K. Inubushi²
¹Fukushima Agricultural Technology Centre, ² Graduate School of Horticulture, Chiba University, ³Ken-poku District Agriculture and Forestry Office, ⁴Fukushima University
- 23-FKP-18** **CLEVASOL, a novel radiation hard cation exchanger suitable for treatment of liquid radioactive waste with high salinity**
A. Yakushev¹, A. Türler², Z. Dvorakova³, K. von Bremen²
¹GSI Helmholtzzentrum für Schwerionenforschung GmbH, ²University of Bern, ³Neplachova 17, 37004 Ceske Budejovice
- 23-FKP-19** **Estimation of I-131/I-129 ratios and vertical distribution of radioiodine in soil collected from Fukushima Prefecture**
N. Inagawa¹, Y. Muramatsu¹, T. Ohno¹, T. Toyama¹, C. Satou², M. Outsuki³, T. Matsuzaki⁴
¹Gakushuin University, ²Fukushima Agricultural Technology Centre, ³Tohoku University, ⁴University of Tokyo
- 23-FKP-20** **Effects of soil types on the transfer of radiocesium to plant**
K. ODA¹, Y. MURAMATSU¹, T. OHNO¹, T. KOBAYASHI², S. FUJIMURA²
¹Gakushuin University, ²Fukushima Agricultural Technology Centre
- 23-FKP-21** **Temporal distribution of plutonium isotopes in marine sediments off Fukushima and Ibaraki after the Fukushima Dai-ichi Nuclear Power Plant accident**
W. Bu^{1,2}, J. Zheng^{*2}, T. Aono², S. Otsuka³, K. Tagami², Q. Guo¹, S. Uchida²
¹School of Physics, Peking University, ²National Institute of Radiological Sciences, ³Japan Atomic Energy Agency
- 23-FKP-22** **Evaluation of Iodine-129 mobility and deposition amount in the soil contaminated by the Fukushima Daiichi nuclear power plant accident**
M. Honda¹, H. Matsuzaki², T. Yamagata³, Y. (S.) Tuchiya², C. Nakano², Y. Matsushi⁴, Y. Maejima⁵, H. Nagai³
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- 23-FKP-23** **Vertical distribution of the Fukushima-derived radiocesium in the western North Pacific in January and February 2011**
Y. Kumamoto¹, A. Murata¹, T. Kawano¹, M. Aoyama²
¹ Japan Agency for Marine-Earth Science and Technology ² Meteorological Research Institute
- 23-FKP-24** **Effect of Application Timing of Potassium Fertilizer on Root Uptake of ¹³⁷Cs in Brown Rice**
T. Saito¹, K. Takahashi¹, T. Makino², H. Tsukada^{3,4}, M. Sato¹, K. Yoshioka¹
¹Fukushima Agricultural Technology Centre, ² National Institute for Agro-Environmental Sciences, ³ Institute for Environmental Sciences, ⁴ Fukushima University
- 23-FKP-25** **Low levels of ¹³⁴Cs and ¹³⁷Cs in bottom sediments along the Japanese Archipelago side of the Sea of Japan after the Fukushima Dai-ichi NPP accident**
M. Inoue^{1,*}, S. Ochiai¹, T. Murakami¹, S. Oikawa², M. Yamamoto¹, S. Nagao¹, Y. Hamajima¹, H. Kofuji¹, J. Misonoo²
¹Low Level Radioactivity Laboratory, Kanazawa University, ²Marine Ecology Research Institute
- 23-NCP-01** **The heavy-ion reactions ²³⁸U + ²³⁸U and ²³⁸U + ²⁴⁸Cm and actinide production close to the barrier revisited**
J.V. Kratz^{1a}, M. Schädel^{1b}, H.W. Gäggeler^{1c}
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- 23-NCP-02** **Mechanism of Mo-99 Adsorption and Tc-99m Elution from Zirconium-Based Material in Mo-99/Tc-99m Generator Column Using Neutron-Irradiated Natural Molybdenum**
R. Awaludin¹, A. H. Gunawan¹, H. Lubis¹, Sriyono¹, Herlina¹, A. Mutalib¹, A. Kimura², K. Tsuchiya², M. Tanase³, M. Ishihara²
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- 23-NCP-03** **Startup of a new gas-filled recoil separator GARIS-II**
D. Kaji¹, K. Morimoto¹, H. Haba¹, Y. Wakabayashi¹, Y. Kudou¹, M. Huang¹, S. Goto², M. Murakami², N. Goto², T. Koyama², N. Tamura², S. Tsuto², T. Sumita³, K. Tanaka³, M. Takeyama⁴, S. Yamaki⁵, K. Morita¹
¹ Nishina Center for Accelerator Based Science, RIKEN, ² Niigata University, ³ Tokyo University of Science, ⁴ Yamagata University, ⁵ Saitama University
- 23-NCP-04** **Purification of Scintillation Cocktails containing the alpha emitters americium and plutonium**
E. Löfström-Engdahl^{*}, G. Skarnemark, K. El Tayara, J. Eriksson, N. Halldin, J. Halleröd, M. Malmberg, J. Mattiasson Bjugren
Nuclear chemistry, Department of Chemical and Biological Engineering, Chalmers University of Technology
- 23-NCP-05** **Formation and stability of sulfides of the superheavy elements Cn and Fl**
N.M. Chiera^{1,2}, R. Eichler^{1,2*}, A. Türler^{1,2}
¹Department of Chemistry & Biochemistry, University of Berne, ²Laboratory for Radiochemistry and Environmental Chemistry, Paul Scherrer Institute
- 23-NCP-06** **Development of a Batch-Type Solid-Liquid Extraction Apparatus for Repetitive Extraction Experiment of Element 104,Rf**
Y. Kasamatsu¹, T. Yokokita¹, A. Kino¹, K. Nakamura¹, K. Toyomura¹, Y. Komori¹, N. Takahashi¹, H. Haba², J. Kanaya², M. Huang², Y. Kudou², T. Yoshimura³, A. Shinohara¹
¹Graduate School of Science, Osaka University, ²Nishina Center for Accelerator-Based Science, RIKEN, ³Radioisotope Research Center, Osaka University
- 23-NCP-07** **Coprecipitation of Zr, Hf and Th with Sm Hydroxide for Chemical Study of Rf**
K. Toyomura¹, Y. Kasamatsu¹, N. Shiohara¹, T. Yokokita¹, Y. Komori¹, K. Nakamura¹, N. Takahashi¹, T. Yoshimura², H. Haba³, Y. Kudou³, H. Kikunaga⁴, T. Ohtsuki⁴, K. Takamiya⁵, T. Mitsugashira⁶, and A. Shinohara¹
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- 23-NCP-08** Development of modified epoxy paint films to reduce the volatile iodine source term in the containments of LWRs during severe nuclear accidents
S. Tietze¹
¹PhD student, Severe Nuclear Accident Chemistry, Nuclear Chemistry Department, Department of Chemical and Biological Engineering, Chalmers University of Technology
- 23-NCP-09** New insights into the formation and stability of Molybdenum carbonyl compounds
I. Usoltsev^{1,2}, Wang Yang³, R. Eichler^{1,2}, A. Türler^{1,2}, Qin Zhi³
¹Department of Chemistry & Biochemistry, University of Berne, ²Laboratory for Radiochemistry and Environmental Chemistry, Paul Scherrer Institut, ³Institute of Modern Physics Lanzhou; Chinese Academy of Sciences
- 23-NCP-10** Adsorption behavior of super-heavy elements ($Z \geq 112$) on metal and inert surfaces
J. Anton¹, T. Jacob¹, V. Pershina²
¹Institut für Elektrochemie, Universität Ulm, ²Gesellschaft für Schwerionenforschung
- 23-ACP-01** Structural studies of the Eu(III) and U(VI) interactions with pentapeptides
A. Jeanson¹, J. Roques¹, S. Safi¹, E. Simoni¹, D. Aitken²
¹IPN Orsay UMR 8608 - Université Paris Sud, ²ICMMO - Université Paris Sud
- 23-ACP-02** Solubility of Amorphous UO₂ and NpO₂ in Nitrate Media Containing Platinum Catalyst
A. Kitamura¹, S. Shimoda²
¹Japan Atomic Energy Agency, ²Mitsubishi Materials Corporation
- 23-ACP-03** Apparent formation constants of actinide complexes with humic substances determined by solvent extraction
T. Sasaki¹, Y. M. Kulyako², K. Müller³, T. Kobayashi¹, M. Samsonov², B. F. Myasoedov²
¹Department of Nuclear Engineering, Kyoto University, ²V.I. Vernadsky Institute of Geochemistry and Analytical Chemistry, ³Helmholtz-Zentrum Dresden-Rossendorf e. V., Institute of Resource Ecology
- 23-ACP-04** The solubility of Np(IV) under alkaline and anoxic conditions
G. Källvenius¹, S. Allard², C. Ekberg²
¹AB SVAFO, SE-611 23 Nyköping, ²Chalmers University of Technology, Nuclear Chemistry
- 23-ACP-05** Separation of Am and Cm by Using TODGA and DOODA(C8) Adsorbents with Hydrophilic Ligand-Nitric Acid Solution
S. Usuda¹, K. Yamanishi¹, H. Mimura¹, Y. Sasaki², A. Kirishima³, N. Sato³, Y. Niibori¹
¹Department of Quantum Science and Energy Engineering, Graduate School of Engineering, Tohoku University, ²Research Group for Aqueous Separation Chemistry, Japan Atomic Energy Agency, ³Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
- 23-ACP-06** Growth of uranyl hydroxide nanowires and nanotubes with electrodeposition method
L. Wang, L.-Y. Yuan, Z.-F. Chai, W.-Q. Shi*
Key Laboratory of Nuclear Analysis Techniques, Institute of High Energy Physics, Chinese Academy of Sciences
- 23-ACP-07** Adsorption Behavior of Neptunium Ions on Pyridine Resin in Hydrochloric Acid Solutions
Y. Tachibana¹, Y. Tomobuchi¹, M. Inaki¹, Y. Yamazaki¹, T. Suzuki¹, T. Yamamura²
¹Department of Nuclear System Engineering, Nagaoka University of Technology, ²Institute of Material Research, Tohoku University
- 23-ACP-08** A method for ²³⁷Np determination with liquid scintillation counting in the experiment of neptunium sorption onto bentonite
L. Ping, L. Zhi, G. Zhijun, W. Wangsuo*
Radiochemistry Laboratory, School of Nuclear Science and Technology, Lanzhou University
- 23-ACP-09** Determination of Stability Constants for the Thorium Iminodiacetic acid Complexes
D. Rama Mohana Rao, R. M. Sawant, B. S. Tomar.
Radioanalytical Chemistry Division, Bhabha Atomic Research Centre

- 25-ACP-03** **Time-resolved laser fluorescence spectroscopy combined with parallel factor analysis: a robust speciation technique for UO_2^{2+}**
T. Saito¹, N. Aoyagi², T. Kimura²
¹Nuclear Professional School, School of Engineering, The University of Tokyo, ²Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency
- 23-ENP-01** **Determination of ^{55}Fe and $^{89,90}\text{Sr}$ in liquid samples using Sr and/or Pb resins for the mutual separation of Fe and Sr**
M. Nodilo, I. Milanović, Ž. Grahek
Division for marine and environmental research, Rudjer Bošković Institute
- 23-ENP-02** **Implementation of Dry Cow Dung Powder for Biosorption of $^{90}\text{Sr}(\text{II})$ from Simulated Radioactive Waste**
R. P. Khilnani, H. K. Bagla
Department of Nuclear and Radiochemistry, K. C. College
- 23-ENP-03** **Application of Simplified Desorption Method to Sorption Study: (1) Sorption of Americium (III) on Bentonite and Its Major Components**
N. Kozai¹, T. Ohnuki¹
¹Japan Atomic Energy Agency
- 23-ENP-04** **Effect of aging on availability of iodine in grassland soil collected in Rokkasho, Japan**
A. Takeda, H. Tsukada, Y. Takaku, S. Hisamatsu
Department of Radioecology, Institute for Environmental Sciences
- 23-ENP-05** **Study on ^{14}C spatial distribution around Qinshan nuclear power plant in China**
Z. Wang¹, D. Hu², Q. Guo¹
¹State Key Laboratory of Nuclear Physics and Technology, Peking University, ²Radiation Monitoring Technical Center of Ministry of Environmental Protection
- 23-ENP-06** **Atmospheric deposition of radionuclides (^7Be , ^{210}Pb , ^{134}Cs , and ^{40}K) during 2000–2012 at Rokkasho, Japan, and impact of the Fukushima Dai-ichi Nuclear Power Plant accident**
N. Akata¹, H. Hasegawa¹, H. Kawabata¹, H. Kakiuchi¹, Y. Chikuchi², N. Shima³, T. Suzuki⁴, S. Hisamatsu¹
¹Institute for Environmental Sciences, ²Aomori JGC PLANTECH, ³Fukushima University, ⁴Yamagata University
- 23-ENP-07** **Effect of Aging on Water Extractability of Radioactive Iodine and Cesium from Soil**
H. Tsukada, A. Takeda, S. Hisamatsu
Department of Radioecology, Institute for Environmental Sciences
- 23-ENP-08** **Background internal dose rates of earthworm and arthropod species in the forests of Aomori, Japan**
Y. Ohtsuka, Y. Takaku, S. Hisamatsu
Department of Radioecology, Institute for Environmental Sciences
- 23-ENP-09** **An EXAFS Study on the Effect of Natural Organic Matter and Mineralogy Composition on Cesium Mobility in Environment**
Q. Fan, M. Tanaka, Y. Takahashi
Department of Earth and Planetary Systems Science, Graduate School of Science, Hiroshima University
- 23-ENP-10** **Using Factorial Design to the Robustness Analysis of the Classic Sample Preparation Method for ^{90}Sr Determination in Tea Leaf**
C.-C. Liu^{1*}, W.-H. Tsai¹, M.-C. Horng¹, C.-C. Huang¹, Y.-W. Wu²
¹Radiation Monitoring Center, AEC, ²Department of Chemical Engineering, I-Shou University
- 23-ENP-11** **A simple method for dehydrogenase assay of soil microorganisms to evaluate the biospheric behavior of C-14 originated in transuranic waste**
K. Iwata, N. Ishii, K. Tagami, S. Uchida
Office of Biospheric Assessment for Waste Disposal, National Institute of Radiological Sciences
- 23-ENP-12** **Effect of humic acid on the sorption of selenium (VI) on ferric oxide hydrate**
N. Guo, Z. L. Niu, Y. L. Ye, R. Zhang, Z. J. Guo
School of nuclear science and technology, Lanzhou University

- 23-ENP-13** **Uranyl ions Adsorption to Na-GMZ and Interactions with FA Adsorption: experiments and modeling**
Y. Yuanlv, G. Zhijun*, W. Wangsuo
Radiochemistry Laboratory, School of Nuclear Science and Technology, Lanzhou University
- 23-ENP-14** **Foliar uptake and translocation of stable cesium and iodine by radish**
H. Hasegawa¹, H. Tsukada¹, H. Kawabata¹, Y. Takaku¹, S. Hisamatsu¹
¹*Institute for Environmental Sciences*
- 23-ENP-15** **The Rapid determination of radiostromtium from large amount of seawater (within 72hrs) for the Emergency situation**
H. Kim^{1*}, K.-H. Chung¹, H.-K. Park¹, J.-M. Lim¹, M.-J. Kang¹
¹*Environmental Radioactivity Assessment Team, Korea Atomic Energy Research Institute*
- 23-ENP-16** **Peak Tailing Correction in Measurement of ²²²Rn/²²⁰Rn Activity Concentration with a Spectrum Method**
L. Zhang¹, Q. Guo², R. Ma², L. Guo²
¹*Solid Dosimetric Detector and Method Laboratory, ²State Key Laboratory of Nuclear Physics and Technology, School of Physics, Peking University*
- 23-ENP-17** **Underwater Analysis of Sediment Chemistry using an Autonomous Platform**
J. Breen¹, P. de Souza^{1,2,3}, G. Timms³, R. Ollington¹
¹*School of Computing and Information Systems, University of Tasmania*
² *Vale Institute of Technology, ³ Intelligent Sensing and Systems Laboratory, ICT Centre, CSIRO,*
- 23-RPP-01** **Development of the in-line multiple elution cartridge-based radioisotope concentrator device for increasing ^{99m}Tc and ¹⁸⁸Re concentration of commercial radionuclide generator eluates**
Van S. Le ^{1,2*}; N. Morcos,¹ J. McBrayer¹, Z. Bogulski¹, C. Buttigieg¹, G. Phillips¹
¹*CYCLOPHARM Ltd, ²MEDISOTEC*
- 23-RPP-02** **Production and Preclinical Evaluation of Diagnostic and Therapeutic Radionuclides in Tumor-Bearing Mice: Recent Developments at Paul Scherrer Institute**
A. Türler^{1,2}, M. Behe³, M. Bunka^{1,2}, H. Dorrer^{1,2}, A. Hohn³, K. Johnston⁴, U. Köster⁵, C. Müller³, J. Reber³, R. Schibli³, N.T. van der Walt⁶, K. Zhernosekov^{1,2}
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- 23-RPP-03** **⁹⁹Mo production by ¹⁰⁰Mo(n,2n)⁹⁹Mo using accelerator neutrons**
N. Sato¹, M. Kawabata¹, Y. Nagai¹, K. Hashimoto¹, Y. Hatsukawa¹, H. Saeki¹, S. Motoishi¹, T. Kin², C. Konno³, K. Ochiai³, K. Takakura³, F. Minato⁴, O. Iwamoto⁴, N. Iwamoto⁴, S. Hashimoto⁴
¹*Nuclear Engineering Research Collaboration Center, Japan Atomic Energy Agency, ² Faculty of Engineering Sciences, Kyushu University, ³ Fusion Research and Development Directorate, Japan Atomic Energy Agency, ⁴ Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency*
- 23-RPP-04** **Production and Separation of ⁶⁴Cu and ⁶⁷Cu using 14 MeV Neutrons**
M. Kawabata¹, K. Hashimoto¹, H. Saeki¹, N. Sato¹, S. Motoishi¹, K. Takakura², C. Konno² and Y. Nagai¹
¹*Nuclear Engineering Research Collaboration Centre, ²Fusion Research and Development Directorate, ^{1,2}Japan Atomic Energy Agency*
- 23-RPP-05** **Novel radiochemical separation of arsenic from selenium for ⁷²Se/⁷²As generator.**
E. Chajduk¹, H. Polkowska-Motrenko¹, A. Bilewicz¹
¹*Institute of Nuclear Chemistry and Technology*
- 23-RPP-06** **Training Program of Synthesizing a Radiopharmaceutical in KAERI**
S. Yang¹, Y. H. Chung²
¹*Advanced Radiation Technology Institute, Korea Atomic Research Institute, ²Department of Chemistry, Hallym University*
- 23-RPP-07** **Synthesis of ⁶⁴Cu-Labeled MARSGL Peptide as an Imaging Probe for HER2/neu Overexpressing Tumors**
Y. Sugo, I. Sasaki, S. Watanabe, Y. Ohshima, N. S. Ishioka
Quantum Beam Science Directorate, Japan Atomic Energy Agency

- 23-RPP-08 Molybdenum Isotope Fractionation in Ion Exchange Reaction by using Anion Exchange Chromatography**
M. Inaki¹, Y. Tachibana¹, M. Nomura² T. Suzuki¹
¹Department of Nuclear System Safety Engineering, Nagaoka University of Technology, ²Reserch Laboratory for Nuclear Reactors, Tokyo Institute of Technology
- 23-APP-01 The Mechanism of Oxidized Multi-walled Carbon Nanotubes across Placental Barrier and Its Effects on Pregnancy**
Q. Wei¹, B. Juanjuan¹, W. Jing¹, L.Zhan², L. Peng¹, W. Wangsuo^{1*}
¹ Radiochemical Laboratory, Lanzhou University, ² Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou
- 23-APP-02 Prompt Gamma Test of a Large Volume Lanthanum Bromide Detector**
A. A. Naqvi^{1*}, M. A. Gondal¹, M. Raashid¹, Khateeb-ur-Rehman¹, M. Dastegeer¹
¹Department of Physics, King Fahd University of Petroleum and Minerals
- 23-APP-03 Radiation-Induced Reactions in D, L- α -Alanine Adsorbed in Solid Surfaces**
E. Aguilar, A. Negrón-Mendoza, C. Camargo
Instituto de Ciencias Nucleares, Universidad Nacional Autonoma de Mexico
- 23-APP-04 ³⁶Cl determination in steel radioactive waste**
F. Goutelard¹, P. Perret¹, C. Hamon¹, R. Brennetot¹, C. Andrieu²
¹Operator Support Analyses Laboratory, Atomic Energy Commission, CEA Saclay, DEN/DANS/DPC/SEARS/LASE, ²Electricité de France, EDF – CIDEN / Département Etudes - Division Déconstruction/Groupe Inventaire et Agréments
- 23-APP-05 Naturally Occurring Radioactive Materials(NORM) in Malaysian Oil Sludge Samples**
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¹Department of Physics, University of Al-Zaituna, Tarhruna, ²School of Chemical Sciences and Food Technology, Faculty of Science and Technology, Universiti Kebangsaan
- 23-APP-06 On the Use of ²³³U and ²³⁷Np as Radiotracers for Redox Potential Measurements**
S. Holgersson
Chalmers University of Technology, Department of Chemical and Biological Engineering, Nuclear Chemistry
- 23-APP-07 Analysis of ¹²⁹I/¹²⁷I ratios from underground fluids collected in Japan**
N. Okabe¹, Y. Muramatsu¹, M. Arai¹, H. Matsuzaki², M. Takahashi³, K. Kazahaya³
¹Gakushuin University, ²University of Tokyo, ³AIST
- 23-APP-08 Radiocarbon Dating of Ancient Japanese Calligraphy Sheets: Checks with Ancient Documents of Known Age and Its Application to Kohitsugire Calligraphies**
H. Oda¹, K. Ikeda², H.i Yasu³, S. Sakamoto⁴
¹Center for Chronological Research, Nagoya University, ²Faculty of Letters, Chuo University, ³Taga High School, ⁴Degital Archives Research Center, Ryukoku University
- 23-APP-09 μ -XRF study on Wiangkalong pottery**
K. Won-in¹, S. Tancharakorn², W. Tanthanuch², P. Dararutana³
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- 24-FKP-01** **Determination of short-lived ^{241}Pu in environmental samples by inductively coupled plasma mass spectrometry**
Jian Zheng*, Keiko Tagami, Shigeo Uchida
Office of Biospheric Assessment for Waste Disposal, National Institute of Radiological Sciences
- 24-FKP-02** **Numerical evaluation of Cs adsorption in PB column by extended Langmuir formula and one-dimensional adsorption model**
Hiroshi Ogawa, Akiko Kitajima, Hisashi Tanaka, and Tohru Kawamoto
Nanosystem Research Institute, Advanced Industrial Science and Technology (AIST), Tsukuba, 305-8568, Japan
- 24-FKP-03** **Secular distribution of radioactive concentration in the atmosphere at Fukushima, Hitachi and Marumori**
ZiJian Zhang¹, Shunsuke Kakitani¹, Kazuhiko Ninomiya¹, Naruto Takahashi¹, Yoshiaki Yamaguchi², Takashi Yoshimura², Kazuyuki Kita³, Akira Watanabe⁴, Atsushi Shinohara¹
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- 24-FKP-04** **Concentration of ^{137}Cs in atmospheric coarse and fine particles collected in Fukushima**
Kyo Kitayama¹, Hirofumi Tsukada¹, Kenji Ohse¹, Chika Suzuki¹, Akira Kanno¹, Kencho Kawatsu¹,
¹*Fukushima University Future Center for Regional Revitalization*
- 24-FKP-05** **Electrochemical cesium sorption under coexisting other ions using nanoparticle film of copper hexacyanoferrate**
Hisashi Tanaka¹, Rongzhi Chen¹, Miyuki Asai¹, Chikako Fukushima¹, Tohru Kawamoto¹, Manabu Ishizaki², Masato Kurihara^{1,2}, Makoto Arisaka³, Takuya Nankawa³ and Masayuki Watanabe³
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- 24-FKP-06** **Determination of ^{129}I in Fukushima soil samples by ICP-MS**
Takeshi Ohno¹, Yasuyuki Muramatsu¹, Hiroyuki Matsuzaki²
¹*Faculty of Science, Gakushuin University*, ²*School of Engineering, The University of Tokyo*
- 24-FKP-07** **Measurement of soil-to-crop transfer factor of tellurium for estimation of potential radiotellurium ingestion from crops**
Guosheng Yang, Keiko Tagami*, Jian Zheng, Shigeo Uchida
Office of Biospheric Assessment for Waste Disposal, National Institute of Radiological Sciences
- 24-FKP-08** **Retention of radiocesium incorporated in tree leaves contaminated by fallout of the radionuclides emitted from the Fukushima Daiichi Nuclear Power Plant**
Kazuya Tanaka¹, Hokuto Iwatani², Aya Sakaguchi², Yoshio Takahashi², Yuichi Onda³
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- 24-FKP-09** **Decontamination of radioactive cesium in the soil**
Makoto YANAGA, Ayumi OISHI
Department of Chemistry, Graduate School of Science, Shizuoka University
- 24-FKP-10** **Altitude distribution of radioactive cesium at Mt. Fuji due to Fukushima No.1 nuclear power plant accident.**
T. Saito¹, Y. Kurihara², Y. Koike², I. Tanihata³, M. Fujiwara³, H. Sakaguchi³, A. Shinohara⁴, H. Yamamoto⁵
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⁵*Department for the Administration of Safety and Hygiene, Osaka University*
- 24-FKP-11** **Isotope compositions of strontium in environmental samples in Fukushima Prefecture**
Y. Shibahara¹, S. Fukutani¹, T. Fujii¹, T. Kubota¹, M. Yoshikawa², T. Shibata², T. Ohta³, K. Takamiya¹, N. Sato¹, M. Tanigaki¹, Y. Kobayashi¹, R. Okumura¹, H. Yoshinaga¹, H. Yoshino¹, A. Uehara¹, S. Mizuno⁴, T.

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24-FKP-12 Distribution of radioactive caesium in the North Pacific one year and a half after the Fukushima Dai-ichi Nuclear Power Plant accident

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24-FKP-13 Image analysis for the study of radiocesium distribution in coniferous trees: two years after the Fukushima Daiichi Nuclear Power Plant accident

Haruka Minowa

Radioisotope Research Facility, The Tokyo Jikei University School of Medicine

24-FKP-14 Distribution of Iodine-129 in off Fukushima and the North Pacific one year and a half after the Fukushima Dai-ichi Nuclear Power Plant accident

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24-FKP-15 Agricultural implications for Fukushima nuclear accident

Tomoko M. Nakanishi

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24-FKP-16 Concentration of radiocesium in rice, vegetables, and fruits cultivated in evacuation area at Okuma town, Fukushima

Kenji Ohse¹, Kyo Kitayama¹, Seiich Suenaga², Kiyoyuki Matsumoto², Akira Kanno¹, Chika Suzuki¹, Kencho Kawatsu¹, Hirofumi Tsukada¹

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24-FKP-17 Isotopic U, Pu, Am and Cm signatures in environmental samples from the Fukushima Dai-ichi Nuclear Power Plant accident

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24-FKP-18 Influence of the Fukushima Daiichi nuclear disaster on the tritium concentration in the precipitation of Kanazawa city

Yoshimune Yamada¹, Kaeko Yasuie¹, Toshiyuki Kawabata², Akihiro Fujii², Hitoshi Kakimoto²

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24-FKP-19 Sediment transport processes in reservoir-catchment system inferred from sediment trap observation and fallout radionuclides

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24-FKP-20 Transfer of radiocesium to crops cultivated in Fukushima

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24-FKP-21 Dynamics of radiocesium in bamboo forests after the accident of Fukushima Daiichi nuclear power plant

Tsutomu Kanasashi, Mitsutoshi Umemura, Yuki Sugiura, Chisato Takenaka

Graduate School of Bioagricultural Sciences, Nagoya University, Japan

- 24-FKP-22** **Reaction behavior of uranium and zirconium oxides in oxidative and reductive conditions**
Nobuaki Sato, Kohei Fukuda and Akira Kirishima
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Japan
- 24-FKP-23** **Radiocesium in zooplankton in seawaters off Miyagi, Fukushima, and Ibaraki Prefectures**
H. Takata¹, M. Kusakabe², S. Oikawa¹
¹Central Laboratory, Marine Ecology Research Institute, ²Head Office, Marine Ecology Research Institute
- 24-FKP-24** **Plutonium isotopes and ²⁴¹Am in surface sediments off the coast of the Japanese islands after the Fukushima accident**
S. Oikawa¹, T. Watabe², H. Takata¹, J. Misonoo², M. Kusakabe²
¹Central Laboratory, Marine Ecology Research Institute, ²Head Office, Marine Ecology Research Institute
- 24-NEP-01** **A theoretical study of actinide and lanthanide extraction with carbamoylmethylphosphine oxide ligands**
Cong-Zhi Wang, Jian-Hui Lan, Yu-Liang Zhao, Zhi-Fang Chai, Wei-Qun Shi*
Nuclear Energy Nano-Chemistry Group, Key Laboratory of Nuclear Analytical Techniques and Key Laboratory For Biomedical Effects of Nanomaterials and Nanosafety, Institute of High Energy Physics, Chinese Academy of Sciences, China
- 24-NEP-02** **The role of microorganisms during the wet nuclear fuel storage in Slovak Republic**
Martin Pipiška¹, Lenka Tišáková², Miroslav Horník¹, Jozef Augustín¹
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- 24-NEP-03** **Single centrifugal contactor test of a proposed group actinide extraction process for partitioning and transmutation purposes**
Emma Aneheim^{1,2}, Christian Ekberg¹, Giuseppe Modolo³, Andreas Wilden³
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- 24-NEP-04** **Application of flow analytical methods for determination of radionuclides in cooling water and wastes from nuclear plants**
Anna Bojanowska-Czajka¹, Kamila Kołacińska¹, Marek Trojanowicz¹
¹Institut of Nuclear Chemistry and Technology, Poland
- 24-NEP-05** **Determination of low level ⁹⁹Tc in the primary coolant water by ICP-MS. Analysis of potential interferences**
Ewelina Chajduk¹, Sylwia Witman-Zajac¹, Halina Polkowska-Motrenko¹
¹Institute of Nuclear Chemistry and Technology, Poland
- 24-NCP-01** **Extraction of homologous elements of dubnium and seaborgium from HCl solution**
T. Yokokita¹, K. Nakamura¹, A. Kino¹, Y. Komori¹, K. Toyomura¹, Y. Kasamatsu¹, N. Takahashi¹, T. Yoshimura², K. Ooe³, Y. Kudou⁴, K. Takamiya⁵, A. Shinohara¹
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- 24-NCP-02** **Evaluation of stopping powers of superheavy ions in Al and U**
Y. H. Chung
Department of Chemistry, Hallym University, Korea
- 24-NCP-03** **Separation of tungsten from LEU fission-produced ⁹⁹Mo solution to improve technological performance in both the processes of ⁹⁹Mo and ^{99m}Tc generator production**
Van So Le¹, Cong Duc Nguyen²
¹Medisotec, NSW, Australia, ²ChoRay Hospital, HCM, Vietnam
- 24-NCP-04** **Effecting separation of fission products from the actinides by direct reaction with diketones**
Daniel B. Rego, Paul M. Forster, Kenneth R. Czerwinski
University of Nevada, Las Vegas

- 24-NCP-05 Muonic atom formation by muon transfer process in C₆H₆ / C₆H₁₂ + CCl₄ mixtures**
M. Inagaki¹, K. Fujihara¹, G. Yoshida¹, K. Ninomiya¹, Y. Kasamatsu¹, A. Shinohara¹, M. K. Kubo², W. Higemoto³, Y. Miyake⁴, T. Miura⁵
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³Advanced Science Research Center, Japan Atomic Energy Agency, ⁴Institute of Materials Structure Science,
High Energy Accelerator Research Organization (KEK), ⁵Radiation Science Center, High Energy Accelerator
Research Organization (KEK)
- 24-NCP-06 Research for fusion reaction mechanisms with deformed nuclei**
S. Ueno¹, K. Toda¹, A. Asano¹, N. Takahashi², Y. Kasamatsu², T. Yokokita², A. Yokoyama³,
¹Graduate School of Natural Science and Technology, Kanazawa Univ., ²Graduate School of Science, Osaka
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- 24-NCP-07 Extraction behavior of Nb and Ta in HF solutions with tributyl phosphate**
M. Murakami^{1,2}, S. Tsuto¹, K. Ooe¹, H. Haba², J. Kanaya², S. Goto¹, and H. Kudo¹
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Accelerator-Based Science, RIKEN, Japan
- 24-NCP-08 A modified method for synthesis of [γ -³²P] labeled adenosine triphosphate**
Wira Y Rahman^{1*}, Endang Sarmini¹, Herlina¹, Triyanto¹, Rien Ritawidya¹, Abdul Mutalib¹ and Santi
Nurbaiti²
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of Mathematics and Natural Sciences, Institut Teknologi Bandung, Indonesia
- 24-NCP-09 Production of ⁸⁸Nb and ¹⁷⁰Ta for chemical studies of element 105 Db using the GARIS gas-jet system**
M. Huang,¹ M. Asai,² H. Haba,¹ D. Kaji,¹ J. Kanaya,¹ Y. Kasamatsu,³ H. Kikunaga,⁴ Y. Kikutani,³ Y. Komori,³
H. Kudo,⁵ Y. Kudou,¹ K. Morimoto,¹ K. Morita,¹ M. Murakami,⁵ K. Nakamura,³ K. Ozeki,¹ R. Sakai,¹ A.
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School of Science, Osaka University, ⁴Research Center for Electron Photon Science, Tohoku University,
⁵Department of Chemistry, Niigata University
- 24-NCP-10 Half-life measurement of ⁷Be in several materials**
T. Ohtsuki
Research Center for Electron Photon Science, Tohoku University, Japan
- 24-ENP-01 Verification of anticlockwise gyre in the semi-closed water area of Lake Nakaumi, southwest Japan, by using
²²⁴Ra/²²⁸Ra activity ratios**
Ritsuo Nomura^{1,*}, Mutsuo Inoue², Hisaki Kofuji³ and Shota Ikeda¹
¹Foraminiferal Laboratory, Faculty of Education, Shimane University, Japan, ²Institute of Nature and
Environmental Technology, Kanazawa University, Japan, ³Mutsu Marine Laboratory, Japan Marine Science
Foundation
- 24-ENP-02 Effect of hydroxylated fullerene on U(VI) adsorption onto oxidized multi-walled carbon nanotubes**
Jing Wang¹, Zhan Li², Peng Liu¹, Wei Qi¹, Juanjuan Bi¹, Wangsuo Wu^{1*}
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of Modern Physics, Chinese Academy of Sciences, China
- 24-ENP-03 Corrosion of copper in water and colloid formation under intense radiation field**
Kotaro Bessho¹, Yuichi Oki², Naoya Akimune³, Hiroshi Matsumura¹, Kazuyoshi Masumoto¹, Shun Sekimoto²,
Naoyuki Osada⁴, Norikazu Kinoshita⁵, Hideaki Monjushiro¹, Seiichi Shibata²
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Institute, Kyoto University (KURRI), ³Graduate School of Engineering, Kyoto University, ⁴Graduate School of
Engineering, Tohoku University, ⁵Institute of Technology, Shimizu Corporation
- 24-ENP-04 Study on Unattached Fraction of Radon Progeny and its Environmental Influence Factors**
Lu Guo¹, Lei Zhang², Qiuju Guo¹
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Detector and Method Laboratory, China

- 24-ENP-05 Preliminary study on measuring radon progeny concentration using alpha/beta spectroscopic method**
Abdumomin Kadir¹, Lei Zhang², Qiuju Guo¹, and Juncheng Liang³
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- 24-ENP-06 The measurement comparability of ¹³⁴Cs and ¹³⁷Cs in foodstuff samples in Japan - result of inter-laboratory experiment for certification of certified reference material**
Tsutomu Miura¹, Yoshitaka Minai², Shoji Hirai³, Hiroshi Iwamoto⁴, Chushiro Yonezawa⁵, Yoshinobu Uematsu⁶, Akira Okada⁷, Masami Shibukawa⁸, Koichi Chiba¹, Kiyoshi Kitamura⁹, Takahiro Yamada¹⁰, Kazutoshi Kakita¹¹, Isao Kojima¹¹, ¹National Metrology Institute of Japan, AIST, ²Musashi University, ³Tokyo City University, ⁴Environmental Technology Service Co, Ltd., ⁵Japan Institute of International Affairs, ⁶Japan Accreditation Board, ⁷TERM, ⁸Saitama University, ⁹Japan Chemical Analysis Center, ¹⁰Japan Radioisotope Association, ¹¹The Japan Society for Analytical Chemistry
- 24-ENP-07 Synthesis and Characterization of Volatile Technetium Compound**
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- 24-ENP-08 Time variation of concentrations of radioactive cesium-134, 137 and iodine-129 in the Ohori River, Chiba Prefecture, Japan**
Nao Shibayama¹, Keisuke Sueki², Kimikazu Sasa^{2,3}, Yukihiko Satou¹, Tsutomu Takahashi³, Masumi Matsumura³, Hiroyuki Matsuzaki⁴, Michio Murakami⁵, Rey Yamashita⁶, Mahua Saha⁶, Hideshige Takada⁶, Yukio Koibuchi⁷, Soulichan Lamxay⁷, Taikan Oki⁸
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- 24-ENP-09 Ra isotopes in Na-Cl type groundwater in Japan**
Junpei Tomita^{1,a}, Takahiro Takada¹, Seiya Nagao¹, Masayoshi Yamamoto¹
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- 24-ENP-10 A new method to estimate ²¹⁰Po/²¹⁰Pb activity ratio in atmospheric aerosol by alpha spectrometry**
N. Momoshima¹, S. Nishio², K. Hibino², S. Sugihara¹
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- 24-ENP-11 Sedimentary environment inferred from sedimentation rates by ²¹⁰Pb and ¹³⁷Cs and their inventories in Mutsu Bay, Japan**
Kazuhito Hamataka¹, Seiya Nagao¹, Michio Kato², Isao Kudo³, Masayoshi Yamamoto¹
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- 24-ENP-12 Distribution of radiocarbon in Japanese agricultural soils**
Nobuyoshi Ishii, Keiko Tagami, Shigeo Uchida
Office of Biospheric Assessment for Waste Disposal, National Institute of Radiological Sciences
- 24-ENP-13 Lateral distributions of ²²⁸Th/²²⁸Ra and ²²⁸Ra/²²⁶Ra ratios in surface waters of the Sea of Japan and their physical implications**
Y. Furusawa¹, M. Inoue¹, S. Nagao¹, M. Yamamoto¹, Y. Hamajima¹, H. Kofuji¹, K. Yoshida¹, Y. Nakano¹, K. Fujimoto², A. Morimoto³, T. Takikawa⁴, Y. Isoda⁵
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- 24-ENP-14 Vertical profiles of ²²⁸Ra and ²²⁶Ra activities in the Sea of Japan and their implications for water circulation**
M. Inoue¹, M. Minakawa^{2*}, K. Yoshida¹, Y. Nakano¹, H. Kofuji¹, S. Nagao¹, M. Yamamoto¹, Y. Hamajima¹
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- 24-ENP-15 Induced radioactivity in air and water at medical accelerators**
K. Masumoto¹, K. Takahashi¹, H. Nakamura¹, A. Toyoda¹, K. Iijima¹, K. Kosako², K. Oishi², F. Nobuhara³
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- 24-ENP-16 Radioactivity determination of ¹⁴C and ³H in solid waste samples by liquid scintillation counter**
Jong-Myoung Lim^{1*}, Mun-Ja Kang¹, Kun-Ho Chung¹, Chang-Jong Kim¹, Geun-Sik Choi¹
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- 24-ENP-17 Preparation of pure TiO₂ sorption material**
Irena Špendlíková, Jakub Raindl, Mojmír Němec
Czech Technical University in Prague, Department of Nuclear Chemistry, Czech Republic
- 24-NPP-01 Mössbauer study of iron carbide nanoparticles produced by sonochemical synthesis**
R. Miyatani¹, Y. Yamada¹, Y. Kobayashi^{2,3}
¹Department of Chemistry, Tokyo University of Science, ²Department of Engineering Science, The University of Electro-Communications, ³RIKEN
- 24-NPP-02 Mössbauer study of iron fluoride films produced by pulsed laser deposition**
K. Shiga¹, Y. Yamada¹, Y. Kobayashi^{2,3}
¹Department of Chemistry, Tokyo University of Science, ²Department of Engineering Science, The University of Electro-Communications, ³RIKEN
- 24-NPP-03 Iron sulfide particles synthesized in liquid phase**
R. Shimizu¹, Y. Yamada¹, Y. Kobayashi^{2,3}
¹Department of Chemistry, Tokyo University of Science, ²Department of Engineering Science, The University of Electro-Communications, ³RIKEN
- 24-NPP-04 Mössbauer and XRD studies of NiCuZn ferrites By Sol-Gel auto-combustion**
Chenglong Lei¹, Qing Lin^{1,2*}, Haifu Huang³, Hui Zhang¹, Yun He¹
¹College of Physics and Technology, Guangxi Normal University, China, ²Department of Information Technology, Hainan Medical College, China, ³Nanjing National Laboratory of Microstructures and Jiangsu Provincial Laboratory for NanoTechnology, Department of Physics, Nanjing University, China
- 24-NPP-05 Thermal stability of locally-associated Al and In impurities in zinc oxide**
S. Komatsuda¹, W. Sato^{1,2}, and Y. Ohkubo³
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- 24-NPP-06 Structure and antimony-121 Mössbauer spectra of hypervalent antimony compounds with an antimony–gold bond in equatorial position**
Masashi Takahashi, Asumi Sato, Shiro Matsukawa
Department of Chemistry, Toho University, Japan
- 24-NPP-07 Local structure of ⁵⁷Mn/⁵⁷Fe implanted into lithium hydride**
Jun Miyazaki¹, Takashi Nagatomo², Yoshio Kobayashi^{3,4}, Michael K. Kubo⁵, Yasuhiro Yamada⁶, Mototsugu Mihara⁷, Wataru Sato⁸, Kazuya Mae⁵, Shinji Sato⁹, Atsushi Kitagawa⁹
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- 24-NPP-08 Evaluation of vacancy-type defects in ZnO by the positron annihilation lifetime spectroscopy**
R. Ono¹, T. Togimitsu¹, and W. Sato^{1,2}
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- 24-AAP-01** **Determination of ultratrace-levels of ^{99}Tc using ICP-QMS in the low level radioactive waste samples**
Te-Yen Su, Tsuey-Lin Tsai, Hsin-Chieh Wu, Lee-Chung Men
Chemistry Division, Institute of Nuclear Energy Research, Taiwan, R.O.C.
- 24-AAP-02** **Development of an automatic prompt gamma-ray activation analysis system**
Takahito Osawa¹
¹*Neutron Imaging and Quantum Beam Analysis Group, Quantum Beam Science Directorate, Japan Atomic Energy Agency*
- 24-AAP-03** **Concentration of heavy metal elements in Chinese medicine by INAA**
S. Ishihara¹, E. Furuta², N. Iwasaki¹, Y. Yoshihara³, R. Okumura⁴, Y. Iinuma⁴
¹*Ochanomizu University, Faculty of Sciences*, ²*Ochanomizu University, Graduate School of Humanities and Sciences*, ³*Ochanomizu University, Faculty of Human Life and Environmental Sciences*, ⁴*Kyoto University, Research Reactor Institute*
- 24-AAP-04** **Application of instrumental neutron activation analysis to assess dietary intake of selenium in Korean adults from meat and eggs**
Jong-Hwa Moon¹, Sun-Ha Kim¹, Yong-Sam Chung¹, Ok-Hee Lee²
¹*Korea Atomic Energy Research Institute, Korea*, ²*Dept of Food Science and Nutrition, Yongin University, Korea*
- 24-AAP-05** **Evaluation of hypoxia at dredged trenches in Tokyo Bay by determination of redox sensitive elements in the sediments**
T. Yamagata¹, K. Shozugawa¹, R. Okumura², K. Takamiya², M. Matsuo¹
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- 24-AAP-06** **Determination of ultra trace amounts of Mn in iron meteorites by preconcentration neutron activation analysis**
Y. Tanaka¹, Y. Arai¹, T. Imamura¹, Y. Oura¹
¹*Department of Chemistry, Tokyo Metropolitan University*
- 24-AAP-07** **Instrumental photon activation analysis of geological and cosmochemical samples**
Naoki Shirai¹, Shun Sekimoto², Mitsuru Ebihara¹
¹*Tokyo Metropolitan University*, ²*Kyoto University Research Reactor Institute*
- 24-AAP-08** **Monte carlo calculation of chloride diffusion in concrete**
A. A. Naqvi¹, Khateeb-ur-Rehman¹, M. Maslehuddin², O.S.B. Al-Amoudi³ and M. Raashid¹
¹*Department of Physics*, ²*Center for Engineering Research*, and ³*Department of Civil and Environmental Engineering King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia*
- 24-APP-01** **Catalysis induced by radiation in fatty acids adsorbed on clay minerals**
A. Negron-Mendoza^{1*}, S. Ramos-Bernal¹, M. Colin-Garcia² and F.G. Mosqueira³
¹*Instituto de Ciencias Nucleares, Universidad Nacional Autonoma de Mexico, México*, ²*Instituto de Geología, Universidad Nacional Autonoma de Mexico, México*, ³*Dirección General de Divulgación de la Ciencia, Universidad Nacional Autonoma de Mexico, México*
- 24-APP-02** **Preliminary study for highly sensitive airborne radioiodine monitor**
Yoshimune Ogata¹, Tadashi Yamasaki², Ryuji Hanafusa³
¹*Nagoya University*, ²*CEPCO*, ³*Fuji Electric*
- 24-APP-03** **Radiation synthesis and cesium removal of cellulose microsphere based hybrid adsorbent**
Long Zhao^{1*}, Yanliang Chen¹, Yuezhou Wei¹
¹*School of Nuclear Science and Engineering, Shanghai Jiao Tong University, China*
- 24-APP-04** **Study about separation mechanism of endohedral metallofullerenes with Lewis acid**
K. Chiba¹, T. Hamano¹, E. Takeuchi¹, K. Akiyama¹, S. Kubuki¹, and H. Shinohara²
¹*Department of Chemistry, Tokyo Metropolitan University, Japan*, ²*Graduate School of Science, Nagoya University, Japan*
- 24-APP-05** **Crystal structure and spin state of mixed-crystals of $\text{Fe}(\text{NCS})_x(\text{NCBH}_3)_{2-x}(\text{bpp})_2$ (bpp = 1,3-Bis(4-Pyridyl)Propane)**

Haruka Dote¹, Hiroki Yasuhara¹, Satoru Nakashima²

¹*Graduate School of Science, Hiroshima University*, ²*Natural Science Center for Basic Research and Development (N-BARD), Hiroshima University*

24-APP-06 Analysis of fragments of a roman mask using Mössbauer spectroscopy

Paulo de Souza^{1,2}, G. Klingelhöfer³, P. Gütlich³, M. Egg⁴

¹*University of Tasmania, Australia*, ²*Commonwealth Scientific and Industrial Research Organisation, Australia*, ³*Johannes Gutenberg-Universität Mainz, Germany*, ⁴*Römisch-Germanisches Zentralmuseum, Germany*

24-APP-07 Synthesis of ¹⁴C labeled C₆₀ with higher specific activity

T. Tadai¹, K. Akiyama¹, H. Aoshima², R. Ibuki², S. Kubuki¹

¹*Department of Chemistry, Tokyo Metropolitan University, Japan*, ²*Vitamin C60 BioResearch Corporation, Japan*

Wednesday, 25 September 2013, Poster Session

- 25-FKP-01** **$^{235}\text{U}/^{238}\text{U}$ Isotopic Ratio in Environmental Samples at the Fukushima Area**
Y. Shibahara¹, T. Fujii¹, S. Fukutani¹, T. Kubota¹, R. Okumura¹, T. Ohta², K. Takamiya¹, N. Sato¹, M. Tanigaki¹, Y. Kobayashi¹, H. Yoshinaga¹, H. Yoshino¹, A. Uehara¹, S. Mizuno³, T. Takahashi¹, and H. Yamana¹
¹Research Reactor Institute, Kyoto University, ²Faculty of Engineering, Hokkaido University, ³Nuclear Power Safety Division, Fukushima Prefectural Government
- 25-FKP-02** **Particulates of Ag and Pu radioisotopes released from Fukushima Daiichi nuclear power plants**
H. Kimura¹, M. Uesugi², A. Muneda², R. Watanabe¹, A. Yokoyama³, T. Nakanishi⁴
¹Grad. School Nat. Sci. Tech., Kanazawa Univ., ²Col. Sci. Eng., Kanazawa Univ., ³Inst. Sci. Eng., Kanazawa Univ., ⁴Adv. Sci. Res. Cent., Kanazawa Univ.
- 25-FKP-03** **The measurement of $^{14}\text{C}/^{12}\text{C}$ ratios in Japanese plant samples affected by anthropogenic sources**
R. Hashimoto¹, A. Inoue¹, Y. Muramatsu¹, H. Matsuzaki²
¹Department of Chemistry, Gakushuin University, ²School of Engineering, the University of Tokyo
- 25-FKP-04** **Radiocesium and stable cesium in edible wild plants (Sansai) collected from forests in Fukushima Prefecture**
M. Sugiyama¹, Y. Muramatsu¹, T. Ohno¹, M. Sato²
¹Gakushuin University, ²Fukushima Agricultural Technology Center
- 25-FKP-05** **Annual Variation of Radioactivity in Marine Biota in the Pacific off Fukushima after TEPCO's Fukushima Daiichi Nuclear Power Station Accident**
T. Aono¹, S. Yoshida¹, T. Saotome², T. Mizuno², Y. Ito³, J. Kanda³, T. Ishimaru³
¹National Institute of Radiological Sciences, ²Fukushima prefecture fisheries experimental station, ³Tokyo University of Marine Science and Technology
- 25-FKP-06** **Migration behavior of ^{134}Cs and ^{137}Cs in the Niida River water in Fukushima Prefecture, Japan during 2011-2012**
S. Nagao¹, M. Kanamori², S. Ochiai¹, M. Yamamoto¹
¹Low Level Radioactivity Laboratory, Kanazawa University, ²Graduate School of Natural Science and Technology, Kanazawa University
- 25-FKP-07** **Migration Behavior of Radiocesium Released from Fukushima Daiichi Nuclear Power Plant Accident**
T. Ohnuki¹, N. Kozai¹, F. Sakamoto
¹Japan Atomic Energy Agency
- 25-FKP-08** **Research on Atmospheric Radionuclides from the Fukushima Nuclear Accident at the MRI, Japan**
Y. Igarashi¹, K. Adachi¹, T. Tanaka¹, M. Kajino¹, T. Sekiyama¹, T. Maki¹, Y. Zaizen¹, M. Mikami¹
¹Meteorological Research Institute, Japan
- 25-FKP-09** **Presuming techniques of radioactive cesium concentration in muscle for beef cattle**
T. Ohtsuki¹, F. Koga², M. Uchida², Y. Ishikawa², T. Takase³, K. Kawatsu³, M. Mogi⁴, S. Murayama⁴, Y. Izumi⁴, H. Kikunaga¹, T. Tachiya⁵, Y. Shiraishi², K. Endo²
¹Research Center for Electron Photon Science, Tohoku University, ²Fukushima Agricultural Technology Center Livestock Industry Research Center, Fukushima Prefecture, ³Faculty of Symbiotic System Science, Fukushima University
⁴Japan Environment Research Co., LTD, ⁵Comtec Eng. Co., LTD, Fukushima
- 25-FKP-10** **Spatio-temporal distribution of atmospheric radiocesium at monitoring stations for Suspended Particulate Matter in Fukushima area released from the TEPCO Fukushima Daiichi Nuclear Power Plant accident**
H. Tsuruta¹, Y. Oura², M. Ebihara², M. Ishimoto³, Y. Katsumura³, T. Ohara⁴, T. Nakajima¹
¹Atmosphere and Ocean Research Institute, The University of Tokyo, Japan, ²Department of Chemistry, Tokyo Metropolitan University, Japan, ³Center for Regional Environmental Research, National Institute for Environmental Studies, ⁴Nuclear Professional School, The University of Tokyo, Japan
- 25-EDP-01** **Education of Nuclear and Radiochemistry in Hallym University, Korea**
Y. H. Chung
Department of Chemistry, Hallym University

- 25-EDP-02 Use of Small $^{68}\text{Ge}/^{68}\text{Ga}$ Generators in Experiments for the Education of Radioisotope-related Fields as well as of Natural and Social Sciences in General**
T. Nozaki,¹ K. Ogawa²
¹School of Sciences, Kitasato University, ²School of Allied Health Sciences, Kitasato University
- 25-NFP-01 Application of alpha spectrometry to the measurement of a single plutonium particle for nuclear safeguards**
K. Yasuda, D. Suzuki, F. Esaka and M. Magara
Research group for analytical chemistry, Japan Atomic Energy Agency
- 25-NEP-01 High LET Radiolytic Degradation Studies of Separation Processes for Spent Nuclear Fuel**
J. Pearson and M. Nilsson
University of California – Irvine, USA, Department of Chemical Engineering and Materials Science
- 25-NEP-02 Effects of helium retention and lithium depletion on tritium behaviors in Li_2TiO_3**
M. Kobayashi¹, H. Uchimura¹, K. Toda¹, M. Sato¹, K. Tatunuma², Y. Oya¹ and K. Okuno¹
¹Radioscience Research Laboratory, Faculty of Science, Shizuoka University, ²Kaken Co. Ltd.
- 25-NEP-03 Adsorptivity of Various Metal Ions onto Benzo-18-crown-6 and Dibenzo-18-crown-6 Resins**
M. Nogami¹, T. Haratani¹, Y. Tachibana², T. Kaneshiki³, M. Nomura³, T. Suzuki²
¹Department of Electric and Electronic Engineering, Kinki University, ²Department of Nuclear System Safety Engineering, Nagaoka University of Technology, ³Research Laboratories for Nuclear Reactors, Tokyo Institute of Technology
- 25-NEP-04 Cesium adsorption ability and stability of metal hexacyanoferrate irradiated with gamma-rays**
M. Arisaka¹, M. Watanabe¹, M. Ishizaki², M. Kurihara², R. Chen³, H. Tanaka³
¹Research Group for Radiochemistry, Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency, ²Department of Material and Biological Chemistry, Faculty of Science, Yamagata University, ³Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology
- 25-NEP-05 Residual Actinides Separation from the DIAMEX/SANEX Secondary Waste and Decontamination of the Spent DIAMEX Solvent from the “Difficult-to-Strip” Elements**
J. John, F. Šebesta, K. V. Mareš, F. Klimek, M. Vlk
Czech Technical University in Prague, Department of Nuclear Chemistry
- 25-NEP-06 Thorium based Molten Salt Fuel Cycle**
Q.-N. Li*, L. Zhang, W.-X. Li, G.-Z. Wu
Shanghai Institute of applied physics, Chinese Academy of Sciences
- 25-NEP-07 Study on electrochemical behaviors of rare earth elements in FLINAK eutectic salt**
L.-F. Tian, W. Huang, F. Jiang, C.-F. She, H.-Y. Zheng, D.-W. Long*, Q.-N. Li
Shanghai Institute of applied physics, Chinese Academy of Sciences
- 25-NCP-01 Measurement of cosmogenic nuclides in meteorites by well-type Ge detector in Ogoya Underground Laboratory - Correction of coincidence sum effect for Al-26, Co-56, Na-22 and Co-60 -**
Y. Hamajima
Kanazawa Univ. LLRL
- 25-NCP-02 Development of Multipurpose Neutron Irradiation Apparatus at KUR**
K. Takamiya¹, Y. Yoshida², H. Tanaka¹, T. Fujii¹, S. Fukutani¹, T. Sano¹, H. Yoshino¹, Y. Iinuma¹, R. Okumura¹, S. Shibata¹
¹Research Reactor Institute, Kyoto University, ²Graduate School of Engineering, Kyoto University
- 25-NCP-03 Development of a new continuous dissolution apparatus with a hydrophobic membrane for superheavy element chemistry**
K. Ooe^{1,2}, K. Tsukada², M. Asai², T. K. Sato², A. Toyoshima², S. Miyashita², Y. Nagame², M. Schädel², Y. Kaneya³, H. V. Lerum⁴, J. P. Omtvedt⁴, J. V. Kratz⁵, H. Haba⁶, A. Wada⁷, Y. Kitayama⁸
¹Institute of Science and Technology, Niigata University, ²Japan Atomic Energy Agency, ³Graduate School of Science and Engineering, Ibaraki University, ⁴Department of Chemistry, University of Oslo, ⁵Institut für Kernchemie, Universität Mainz, ⁶Nishina Center for Accelerator-Based Science, RIKEN, ⁷Department of Chemistry, Tokyo Metropolitan University, ⁸Graduate School of Natural Science and Technology, Kanazawa University

- 25-NCP-04 Cross-section Measurements of High Energy Neutron-induced Reactions for Cu and Nb**
K. Ninomiya¹, T. Omoto¹, R. Nakagaki¹, N. Takahashi¹, Y. Kasamatsu¹, A. Shinohara¹, S. Sekimoto², H. Yashima², S. Shibata², T. Shima³, H. Matsumura⁴, M. Hagiwara⁴, Y. Iwamoto⁵, D. Satoh⁵, M. W. Caffee⁶ and K. Nishiizumi⁷
¹ Graduate School of Science, Osaka University, ² Research Reactor Institute, Kyoto University, ³ Research Center of Nuclear Physics, Osaka University, ⁴ Radiation Research Center, High Energy Accelerator Organization, ⁵ Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency, ⁶ Department of Physics, Purdue University, ⁷ Space Sciences Laboratory, University of California
- 25-NCP-05 Development of a rapid solvent extraction technique with flow injection analysis for superheavy element chemistry**
T. Koyama¹, N. Goto¹, M. Murakami^{1,2}, K. Ooe¹, H. Haba², J. Kaneya², S. Goto¹, and H. Kudo¹
¹Department of Chemistry, Faculty of Science, Niigata University, ²Nishina Center for Accelerator-Based Science, RIKEN
- 25-NCP-06 Solid-liquid extraction of Mo and W by Aliquat 336 from HF and HCl solutions towards extraction chromatography experiments of Sg**
Y. Komori¹, T. Yokokita¹, K. Toyomura¹, K. Nakamura¹, Y. Kasamatsu¹, H. Haba², J. Kanaya², M. Huang², Y. Kudou², A. Toyoshima³, N. Takahashi¹, A. Shinohara¹
¹Graduate School of Science, Osaka University, ²Nishina Center for Accelerator-Based Science, RIKEN, ³Advanced Science Research Center, Japan Atomic Energy Agency
- 25-NCP-07 Off-line isothermal gas chromatography of Zr and Hf compounds**
Y. Oshimi, S. Goto, T. Taguchi, T. Tomitsuka, K. Ooe, H. Kudo
Department of Chemistry, Faculty of Science, Niigata University
- 25-NCP-08 Chemical studies of Rf and Db in liquid-phases using automated rapid chemical separation apparatuses at JAEA**
K. Tsukada¹, A. Toyoshima¹, M. Asai¹, Y. Kasamatsu², Z. J. Li³, Y. Ishii¹, H. Haba⁴, T. K. Sato¹, Y. Nagame¹, M. Schädel¹
¹ Japan Atomic Energy Agency, ² Graduate School of Science, Osaka University, ³ Institute of High Energy Physics, Chinese Academy of Science, ⁴ Nishina Center for Accelerator Based Science, RIKEN
- 25-NCP-09 Solvent extraction of hexavalent Mo and W using 4-isopropyltropolone (Hinokitiol) for Seaborgium (Sg) reduction experiment**
S. Miyashita¹, A. Toyoshima¹, K. Ooe², M. Asai¹, T. K. Sato¹, K. Tsukada¹, Y. Nagame¹, M. Schädel¹, Y. Kaneya³, H. Haba⁴, J. Kanaya⁴, M. Huang⁴, Y. Kitayama⁵, A. Yokoyama⁵, A. Wada⁶, Y. Oura⁶, J. V. Kratz⁷, H. V. Lerum⁸ and J. P. Omtvedt⁸
¹Advanced Science Research Center, Japan Atomic Energy Agency, Tokai, ²Institute of Science and Technology, Niigata University, ³Graduate School of Science and Engineering, Ibaraki University, ⁴Nishina Center for Accelerator-Based Science, RIKEN, ⁵College and Institute of Science and Engineering, Kanazawa University, ⁶Graduate School of Science and Engineering, Tokyo Metropolitan University, ⁷Institut für Kernchemie, Universität Mainz, ⁸Department of Chemistry, University of Oslo
- 25-NCP-10 Development of Surface Ionization Ion-source for Determination of the First Ionization Potentials of Heavy Actinides**
Y. Kaneya^{1,2}, T. K. Sato², M. Asai², K. Tsukada², A. Toyoshima², S. Miyashita², Y. Nagame^{1,2}, M. Schädel², N. Sato³, K. Ooe⁴, A. Osa⁵, S. Ichikawa^{2,6}, T. Stora⁷, J. V. Kratz⁸
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- 25-NCP-11 Comparison of the decay constants of ⁵¹Cr with various valence states**
H. Kikunaga¹, K. Takamiya², K. Hirose^{1*}, and T. Otsuki¹
¹Research Center for Electron Photon Science, Tohoku University, ²Research Reactor Institute, Kyoto University, *Present address: Advanced Science Research Center, Japan Atomic Energy Agency
- 25-NCP-12 Selective Separation of Strontium (II) from Nitric Acid Solution by a Macroporous Silica-based DtBuCH₁₈C₆ Adsorbent Modified with Surfactants**

Y. Wu, Z. Chen, Y. Wei*

School of Nuclear Science and Engineering, Shanghai Jiao Tong University

- 25-NCP-13 Exploring the Synthesis and Characterization of Binary Technetium Chlorides and Bromides**
E. Johnstone¹, F. Poineau¹, P. M. Forster¹, P. Weck,² C. D. Malliakas³, E. Kim⁴, M. G. Kanatzidis³, B. L. Scott⁵, A. P. Sattelberger⁶, and K. R. Czerwinski¹
¹*Department of Chemistry, University of Nevada Las Vegas, Las Vegas, ²Sandia National Laboratories, ³Department of Chemistry, Northwestern University, ⁴Department of Physics and Astronomy, University of Nevada, ⁵Materials Physics and Applications Division, Los Alamos National Laboratory, ⁶Energy Engineering and Systems Analysis Directorate, Argonne National Laboratory*
- 25-ACP-01 Solvent Extraction of Americium(III) and Europium(III) Using Hydroxyoctanoic Acid and N-heteroaromatic Compound**
M. Seike¹, M. Eguchi¹, A. Shinohara¹, T. Yoshimura²
¹*Graduate School of Science, Osaka University, ²Radioisotope Research Center, Osaka University*
- 25-ACP-02 Stability of uranyl peroxy-carbonato complex ions in the presence of metal oxide in carbonate media**
D.-Y. Chung¹, M.-S. Park¹, K.-Y. Lee¹, H.-B. Yang¹, E.-H. Lee¹, K.-W. Kim¹, J.-K. Moon¹
¹*Korea Atomic Energy Research Institute*
- 25-ACP-04 Raman Spectroscopic Study on Uranyl and Neptunyl Complexes in Highly Concentrated Calcium Chloride**
T. Fujii¹, A. Uehara¹, Y. Kitatsuji², and H. Yamana¹
¹*Division of Nuclear Engineering Science, Research Reactor Institute, Kyoto University, ²Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency*
- 25-ACP-05 Electrode Reaction of Actinide Ions in a Weak Acidic Solution**
Y. Kitatsuji¹, H. Otobe¹, T. Kimura¹
¹*Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency*
- 25-ACP-06 Biomineralization of uraninite and uranyl phosphate controlled by organic acids**
Y. Suzuki¹, N. Kozai², T. Ohnuki²
¹*Graduate School of Bionics, Tokyo University of Technology, ²Advanced Research Center, Japan Atomic Energy Agency*
- 25-ACP-07 Comparison of the spectroscopic characteristics of uranium species when U(III) in a LiCl-KCl molten salt is leached out with water and ionic liquid**
H.-J. Im, K. Song
Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute
- 25-ACP-08 Distribution of Neptunium in PUREX streams**
N. Rawat, A. Kar, M.A. Mahajan, N.B. Khedekar, R.M. Sawant, B. S. Tomar and K. L. Ramakumar
Radioanalytical Chemistry Division, Bhabha Atomic Research Centre
- 25-ACP-09 α -Radiation Effect on Solvent Extraction of Minor Actinide**
Y. Sugo¹, Y. Sasaki², M. Taguchi¹, N. S. Ishioka¹
¹*Quantum Beam Science Directorate, Japan Atomic Energy Agency, ²Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency*
- 25-ENP-01 Retardation and Release Study of U(VI) on Phlogopite at Conditions Relevant to Uranium Contamination in Environment**
D. Pan^{1,2}, Z. Wang², W. S. Wu¹
¹*Radiochemistry Laboratory, Lanzhou University, ²Pacific Northwest National Laboratory*
- 25-ENP-02 Application of Simplified Desorption Method to Sorption Study: (2) Sorption of Neptunium (V) on Montmorillonite-based Mixtures**
N. Kozai¹, T. Ohnuki¹
¹*Japan Atomic Energy Agency*
- 25-ENP-03 Continuous measurement of radon exhalation rate of soil in Beijing**
L. Zhang^{1, 2}, K. S.², Q. Guo²
¹*Solid Dosimetric Detector and Method Laboratory, ²State Key Laboratory of Nuclear Physics and Technology,*

School of Physics, Peking University

25-ENP-04 Dosimetric Evaluation of Thoron Exposure in Three Typical Rural Indoor Environments in China

L. Zhang¹, Q. Guo², S. Wang¹

¹*Solid Dosimetric Detector and Method Laboratory, ²State Key Laboratory of Nuclear Physics and Technology, School of Physics, Peking University*

25-ENP-05 Binary Technetium Phosphide Synthesis at Low Temperature Conditions

B. C. Childs¹, W. M. Kerlin¹, K. R. Czerwinski¹

¹*University of Nevada Las Vegas*

25-ENP-06 Dissolution behavior of ¹³⁷Cs absorbed on the green tea leaves

Y. Oya¹, H. Uchimura¹, K. Toda¹, T. Ikka², A. Morita², K. Okuno¹

¹*Graduate School of Science, Shizuoka University, ²Graduate School of Agriculture, Shizuoka University*

25-ENP-07 Characterization on the Radioactive Aerosols Dispersed during Plasma Arc Cutting of Radioactive Metal Piping

T. Shimada¹ and T. Tanaka¹

¹*Nuclear Safety Research Center, Japan Atomic Energy Agency*

25-ENP-08 A passive collection method for whole size fractions of suspended river materials

T. Matsunaga¹, T. Nakanishi¹, E. Takeuchi¹, S. Nishimura¹, K. Tsuduki¹, M. Atarashi-Andoh¹, J. Koarashi¹, S. Ootosaka¹, T. Sato², S. Nagao³

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25-ENP-09 Study of factors controlling organic pollution in Lake Kiba

Y. Kawano¹, S. Nagao¹, S. Ochiai¹, M. Yamamoto¹

¹*Low Level Radioactivity Laboratory, Kanazawa Univ.*

25-ENP-10 Rapid monitoring particulate Radiocesium with nonwoven fabric cartridge filter and application to field monitoring

H. Tsuji¹, Y. Kondo², S. Kawashima², T. Yasutaka¹

¹*National Institute of Advanced Industrial Science and Technology, ²Japan Vilene Company. Ltd.*

25-ENP-11 In-situ measurement of ¹³⁴Cs and ¹³⁷Cs in seabed by underwater γ -spectrometry systems and application for the survey to the Fukushima Dai-ichi NPP accident

H. Kofuji

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25-ENP-12 Radiocarbon dating of molluscan shells and its application

Y. Miyata^{1,2,3}, H. Matsuzaki²

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25-ENP-13 Concentration of Uranium on TiO-PAN and NaTiO-PAN Composite Absorbers

A. Motl, F. Šebesta, J. John, I. Špendlíková, M. Němec

Czech Technical University in Prague, Department of Nuclear Chemistry

25-ENP-14 Use of radon to characterise surface water recharge to groundwater

N Hermanspahn,¹ M Close,¹ M Matthews,¹ L Burbery,¹ P Abraham,¹

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25-RPP-01 Production and Utilization of Radioactive Astatine Isotopes in the ⁷Li+^{nat}Pb Reaction

I. Nishinaka¹, A. Yokoyama², K. Washiyama², R. Amano², E. Maeda², N. Yamada², H. Makii¹, A. Toyoshima¹, S. Watanabe¹, N. S. Ishioka¹, K. Hashimoto¹

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- 25-RPP-02 Production of actinium-225 from natural thorium irradiated with protons**
A. N. Vasiliev¹, V. S. Ostapenko¹, R. A. Aliev¹, S. N. Kalmykov¹, E. V. Lapshina², S. V. Ermolaev² and B. L. Zhuikov²
¹Chemistry Department, Lomonosov Moscow State University, Leninskie Gory, ²Institute for Nuclear Research of Russian Academy of Sciences, 60th October Anniversary Prospect
- 25-RPP-03 Development of ⁹⁹Mo-^{99m}Tc Domestic Production with High-Density MoO₃ Pellets by (n, r) Reaction**
K. Tsuchiya^{*1}, M. Tanase^{*2}, T. Shiina^{*2}, A. Ohta^{*2}, M. Kobayashi^{*3}, A. Yamamoto^{*3}, Y. Morikawa^{*3}, M. Kaminaga^{*1}, H. Kawamura^{*1}
^{*1} Japan Atomic Energy Agency, ^{*2} Chiyoda Technol Corporation ^{*3} FUJIFILM RI Pharma Co. Ltd.
- 25-RPP-04 Preparation of ⁹⁹Mo-^{99m}Tc by using Spallation Neutron**
Y. Hayashi^{*1}, N. Takahashi¹, K. Nakai¹, H. Ikeda², G. Horitsugi², T. Watabe², Y. Kanai², H. Watabe², E. Shimosegawa², Y. Miyake², J. Hatazawa², M. Fukuda³, K. Hatanaka³, K. Takamiya⁴, S. Yamamoto⁵, Y. Kasamatsu¹ and A. Shinohara¹
¹ Graduate School of Science, Osaka University, ² Graduate School of Medicine, Osaka University, ³ Research Center for Nuclear Physics, Osaka University, ⁴ Kyoto University Research Reactor Institute, ⁵ Graduate School of Medicine, Nagoya University
- 25-RPP-05 Development of Automated Measurement System for Radioactive Intensities of Sealed Small Radiation Sources (Iodine-125 Seed Source) for Brachytherapy**
M. Sakama¹, H. Ikushima², T. Saze³, Y. Nagano⁴, T. Yamada⁵, T. Ichiraku⁵, H. Takai⁵, Y. Kuwahara⁶ and S. Nakayama⁷
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- 25-RPP-06 Extraction of astatine isotopes for development of radiopharmaceuticals**
E. Maeda¹, A. Yokoyama², T. Taniguchi¹, K. Washiyama³, I. Nishinaka⁴
¹Grad. School Nat. Sci., Tech. Kanazawa Univ., ²Inst. Sci. Eng., Kanazawa Univ., ³Sch. of Health Sci., College of Med., Pharma. Health Sci., Kanazawa Univ., ⁴ASRC, Japan Atomic Energy Agency
- 25-RPP-07 Lutetium-177 Complexation of DOTA and DTPA in the Presence of Competing Metals**
S. Watanabe¹, K. Hashimoto², N. S. Ishioka¹
¹Medical Radioisotope Application Group, Quantum Beam Science Directorate, Japan Atomic Energy Agency, ²Medical Radioisotope Application Group, Quantum Beam Science Directorate, Japan Atomic Energy Agency
- 25-RPP-08 Enabling personalized medicine with the use of theragnostic radiopharmaceuticals**
S. Srivastava
Collider-Accelerator Department, Brookhaven National Laboratory
- 25-NPP-01 Hyperfine Fields at ¹⁴⁰Ce in He-Doped Fe**
Y. Ohkubo¹, A. Taniguchi¹, Q. Xu¹, M. Tanigaki¹, K. Sato¹ and M. Tsuneyama²
¹Research Reactor Institute, Kyoto University, ²Graduate School of Science, Kyoto University
- 25-NPP-02 Mössbauer studies of lanthanum doped Ni_{0.4}Cu_{0.2}Zn_{0.4}Fe₂O₄ ferrites by Sol-Gel autocombustion**
Q. Lin^{1,2}, C. Lei^{1*}, H. Huang³, H. Zhang¹, Y. He¹
¹College of Physics and Technology, Guangxi Normal University, ²Department of Information Technology, Hainan Medical College, ³Nanjing National Laboratory of Microstructures and Jiangsu Provincial Laboratory for NanoTechnology, Department of Physics, Nanjing University
- 25-NPP-03 Analysis of corrosion products formed on anti-weather steel**
M. Oyabu¹, R. Satoh¹, K. Nomura²
¹Math & Science Division, Kanazawa Institute of Technology, ²The University of Tokyo
- 25-NPP-04 Study of the Spin-Crossover Phenomena in 1D Coordination Polymers, [FeII(NH₂-triazole)₃](CnH_{2n+1}SO₃)₂, by Fe-K edge XAFS and ⁵⁷Fe Mössbauer Spectroscopy**

H. Kamebuchi¹, A. Nakamoto¹, M. Enomoto², T. Yokoyama³, N. Kojima¹

¹Graduate School of Arts and Sciences, The University of Tokyo, ²Department of Chemistry, Tokyo University of Science, ³Department of Materials Molecular Science, Institute for Molecular Science

25-NPP-05 Mössbauer Spectroscopic and Powder X-ray Diffraction Studies on Incorporation of Gaseous Organic Molecules into Intermolecular Nano-voids of Mixed-valence Trinuclear Iron Pentafluorobenzoate Complex

Y. Sakai¹, S. Onaka¹, R. Ogiso¹, M. Takahashi², T. Nakamoto³, and T. Takayama¹

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25-NPP-06 Dynamic Perturbation to ¹¹¹Cd(\leftarrow ¹¹¹Ag) Doped in AgI Nanoparticles

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25-AAP-01 A prototype of a simple collection system for the determination of ¹⁴C

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25-AAP-02 Elemental analysis of Korean adult toenail using of instrumental neutron activation analysis

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25-AAP-03 Determination of Vanadium at ppb Levels in Relatively High-Salt Biological Materials without Chemical Separation and using Neutron Activation coupled to Compton Suppression Gamma-Ray Spectrometry

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25-AAP-04 Radiochemical neutron activation analysis of halogens (Cl, Br and I) in geological and cosmochemical samples

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25-AAP-05 Multielement analysis of KIGAM reference samples by INAA, ICP-AES and ICP-MS

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25-AAP-06 Comparison of Calculated Results with NTD Measured Data for Establishment of Burned Core Model for Monte Carlo Simulation of HANARO Reactor

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25-AAP-07 Neutron Activation Analysis of JCFA-1, JCu-1 and JZn-1

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25-AAP-08 Prompt Gamma-ray Analysis of Chloride Concentration in Blended Cement Concretes

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25-AAP-09 Cold Neutron and Thermal Neutron PGAA facilities at The HANARO Research Reactor

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