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. Tanoi4, T. M. Nakanishi5, S. Satoh1
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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
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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 Daiichi nuclear power plant (Part 2).
T. Shimasaki1, Y. Shirishi1, O. Kawahara1, K. Goto1, M. Shimamoto1, A. Kojima1, S. Okada2
1Institute of Source Development and Analysis, Kumamoto University, 2Center 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. Fujimura1,2, Y. Sakuma1, T. Yamauchi1, K. Niitsuma1, N. Sato3, M. Sato1, T. Saito1, K. Yoshioka1
1Fukushima Agricultural Technology Centre, 2 NARO Tohoku Agricultural Research Center, 3Inawashiro Town

23-FKP-06 Size distribution of airborne radioactive particles from the Fukushima Accident
H. Muramatsu1, K. Kawasumi1, T. Kondo1, and K. Matsuo2
1Department of Chemistry, Faculty of Education, Shinshu University, 2Graduate 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
1Graduate School of Engineering, Tokyo City University, 2Faculty 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. Muramatsu1
1Department of Nuclear Engineering and Management, School of Engineering, The University of Tokyo, 2Graduate School of Integrated Basic Sciences, Nihon University, 3College of Humanities and Sciences, Nihon University, 4Department 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
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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
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23-FKP-11 Thermal Oxidation of Cesium Loaded Prussian Blue as a Precaution for Exothermic Phase Change in Extreme Conditions
Analysis of $^{134}$Cs and $^{137}$Cs distribution in soil of Fukushima prefecture and their specific adsorption on clay minerals
A. Maekawa$^1$, N. Momoshima$^2$, S. Sugihara$^2$, R. Ohzawa$^1$, A. Nakama$^1$
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Distribution of radionuclides in seabed sediments off Ibaraki coast after the Fukushima Daiichi Nuclear Power Plant accident
M. Nagaoka$^1$, H. Yokoyama$^1$, H. Fujita$^1$, M. Nakano$^1$, H. Watanabe$^1$, S. Sumiya$^1$
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Radiocesium Concentration Change in Tree Leaves Before and After Defoliation
S. Uchida$^1$, K. Tagami
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Distributions and Concentrations of Radionuclides in Giant Butterbur after the Fukushima Nuclear Power Plant Accident
K. Tagami$^1$, S. Uchida$^1$
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The Behavior of Cs Adsorption of Microcapsule Beads Nano-Prussian Blue
A. Kitajima$^1$, K. Yoshino$^2$, M. Takasaki$^2$, H. Tanaka$^1$, T. Kawamoto$^1$
$^1$Nanosystem Research Institute, $^2$Kanto Chemical Company Inc.

Transfer of Radiocesium from Soil to Cut Flowers
Y. Suzuki$^1$, H. Munakata$^1$, Y. Yajima$^1$, Y. Tooyama$^3$, H. Suzuki$^1$, H. Tsukada$^1$, K. Inubushi$^2$
$^1$Fukushima Agricultural Technology Centre, $^2$Graduate School of Horticulture, Chiba University, $^3$Komoku District Agriculture and Forestry Office, $^4$Fukushima University

CLEVASOL, a novel radiation hard cation exchanger suitable for treatment of liquid radioactive waste with high salinity
A. Yakushev$^1$, A. Türler$^2$, Z. Dvorakova$^3$, K. von Bremen$^2$
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Estimation of I-131/I-129 ratios and vertical distribution of radiiodine in soil collected from Fukushima Prefecture
N. Inagawa$^1$, Y. Muramatsu$^1$, T. Ohno$^1$, T. Toyama$^1$, C. Satou$^2$, M. Outsku$^1$, T. Matsuzaki$^4$
$^1$Gakushuin University, $^2$Fukushima Agricultural Technology Centre, $^3$Tohoku University, $^4$University of Tokyo

Effects of soil types on the transfer of radiocesium to plant
K. ODA$^1$, Y. MURAMATSU$^1$, T. OHNO$^1$, T. KOBAYASHI$^2$, S. FUJIMURA$^2$
$^1$Gakushuin University, $^2$Fukushima Agricultural Technology Centre

Temporal distribution of plutonium isotopes in marine sediments off Fukushima and Ibaraki after the Fukushima Daiichi Nuclear Power Plant accident
W. Bu$^1$, J. Zheng$^2$, T. Aono$^2$, S. Otosaka$^1$, K. Tagami$^2$, Q. Guo$^1$, S. Uchida$^2$
$^1$School of Physics, Peking University, $^2$National Institute of Radiological Sciences, $^3$Japan Atomic Energy Agency

Evaluation of Iodine-129 mobility and deposition amount in the soil contaminated by the Fukushima Daiichi nuclear power plant accident
M. Honda$^1$, H. Matsuzaki$^2$, T. Yamagata$^2$, Y. (S.) Tuchiya$^2$, C. Nakano$^2$, Y. Matsuishi$^4$, Y. Maejima$^5$, H. Nagai$^3$
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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. Aoyama1
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. Tsukada3,4, M. Sato1, K. Yoshioka1
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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. Inoue1,2, S. Ochiai1, T. Murakami1, S. Oikawa2, M. Yamamoto1, S. Nagao1, Y. Hamajima1, H. Kofuji1, J. Misonoo2
1 Low Level Radioactivity Laboratory, Kanazawa University, 2 Marine Ecology Research Institute

23-NCP-01 The heavy-ion reactions 238U + 238U and 238U + 244Cm and actinide production close to the barrier revisited
J.V. Kratz1,2, M. Schädel1b, H.W. Gäggeler1c
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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. A WALUDIN1, A. H. GUNAWAN1, H. LUBIS1, SRIYONO1, HERLINA1, A. MUTALIB1, A. KIMURA2, K. TSUCHIYA2, M. TANASE3, M. ISHIHARA2
1 Center for Radioisotope and Radiopharmaceutical, National Nuclear Energy Agency of Indonesia, 2 Neutron Irradiation and Testing Reactor Center, Oarai Research and Development Center, Japan Atomic Energy Agency, 3 Chiyoda Technol Corporation

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. Tsuoto2, 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-Engdahl1, G. Skarnemark1, K. El Tayara1, J. Eriksson1, N. Halldin1, J. Halleröd1, M. Malmberg1, J. Mattiasson Bjurgren1
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23-NCP-05 Formation and stability of sulfides of the superheavy elements Cn and Fl
N.M. Chiera1,2, R. Eichler1,2, A. Türler1,2
1 Department of Chemistry & Biochemistry, University of Berne, 2 Laboratory 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. Kanayama2, M. Huang2, Y. Kudou2, T. Yoshimura3, A. Shiohara1
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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. Yoshimura3, H. Haba2, Y. Kudou3, H. Kikunaga4, T. Ohtsuki4, K. Takamiya4, T. Mitsugashira5, and A. Shiohara1
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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. Usoltsev¹,², Wang Yang³, R. Eichler¹,², A. Türler¹,², 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 ≥ 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. Wangsuò*
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. Saito$^1$, N. Aoyagi$^2$, T. Kimura$^2$
$^1$Nuclear Professional School, School of Engineering, The University of Tokyo, $^2$Nuclear Science and Engineering Directorate, Japan Atomic Energy Agency

23-ENP-01 Determination of $^{56}$Fe and $^{88,90}$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 $^{85}$Sr(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. Kozai$^1$, T. Ohnuki$^1$
$^1$Japan 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. Wang$^1$, D. Hu$^2$, Q. Guo$^1$
$^1$State Key Laboratory of Nuclear Physics and Technology, Feking University, $^2$Radiation Monitoring Technical Center of Ministry of Environmental Protection

23-ENP-06 Atmospheric deposition of radionuclides ($^{7}$Be,$^{210}$Pb,$^{134}$Cs, and $^{40}$K) during 2000–2012 at Rokkasho, Japan, and impact of the Fukushima Dai-ichi Nuclear Power Plant accident
N. Akata$^1$, H. Hasegawa$^1$, H. Kawabata$^1$, H. Kakiuchi$^1$, Y. Chikuchi$^2$, N. Shima$^3$, T. Suzuki$^4$, S. Hisamatsu$^1$
$^1$Institute for Environmental Sciences, $^2$Aomori JGC PLANTECH, $^3$Fukushima University, $^4$Yamagata 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. Tsai$^1$, M.-C. Horng$^1$, C.-C. Huang$^1$, Y.-W. Wu$^2$
$^1$Radiation Monitoring Center, AEC, $^2$Department 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. Yooniv, 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 1Institute for Environmental Sciences

23-ENP-15  The Rapid determination of radiostrontium from large amount of seawater (within 72hrs) for the Emergency situation  H. Kim1, K.-H. Chung1, H.-K. Park1, J.-M. Lim1, M.-J. Kang1 1Environmental 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 1Solid 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 Souza1,2,3, G. Timms2, R. Ollington1 1School of Computing and Information Systems, University of Tasmania
2  Vale Institute of Technology, 3Intelligent Sensing and Systems Laboratory, ICT Centre, CSIRO,

23-RPP-01  Development of the in-line multiple elution cartridge-based radioisotope concentrator device for increasing 99mTc and 186Re concentration of commercial radionuclide generator eluates  Van S. Le1,2, N. Morcos1, J. McBrayere1, Z. Bogulski1, C. Buttigneg1, G. Phillips1 1CYCLOPHARM 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. Türler1,2, M. Behe3, M. Bunka1,2, H. Dorrer1,2, A. Hohn3, K. Johnston1, U. Köster3, C. Müller3, J. Reber3, R. Schibli1, N.T. van der Walt1,4, K. Zhernosekov1,2 1Laboratory of Radiochemistry and Environmental Chemistry, Paul Scherrer Institute, 2Laboratory of Radiochemistry and Environmental Chemistry, University of Bern, 3Center for Radiopharmaceutical Sciences ETH-PSI-USZ, Paul Scherrer Institute, 4Physics Department, ISOLDE/CERN, 5Institut Laue-Langevin, 6Faculty of Applied Sciences, Cape Peninsula University of Technology

23-RPP-03  99Mo production by 100Mo(n,2n)99Mo using accelerator neutrons  N. Sato1, M. Kawabata1, Y. Naga11, K. Hashimoto1, Y. Hatsuoka1, H. Saeki1, S. Motoishi1, T. Kin2, C. Konno3, K. Ochiai1, K. Takakura1, F. Minato1, O. Iwamoto1, N. Iwamoto4, S. Hashimoto4 1Nuclear Engineering Research Collaboration Center, Japan Atomic Energy Agency, 2Faculty of Engineering Sciences, Kyushu University, 3Fusion Research and Development Directorate, Japan Atomic Energy Agency, 4Nuclear 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. Naga11 1Nuclear Engineering Research Collaboration Centre, 2Fusion Research and Development Directorate, 1,2Japan Atomic Energy Agency

23-RPP-05  Novel radiochemical separation of arsenic from selenium for 72Se/72As generator.  E. Chajduk1, H. Polkowska-Motrenko1, A.Bilewicz1 1Institute of Nuclear Chemistry and Technology

23-RPP-06  Training Program of Synthesizing a Radiopharmaceutical in KAERI  S. Yang1, Y. H. Chung2 1Advanced 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. Inaki\textsuperscript{1}, Y. Tachibana\textsuperscript{1}, M. Nomura\textsuperscript{2} T. Suzuki\textsuperscript{1}
\textsuperscript{1}Department of Nuclear System Safety Engineering, Nagaoka University of Technology, \textsuperscript{2}Reserch 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. Wei\textsuperscript{1}, B. Juannjuan\textsuperscript{1}, W. Jing\textsuperscript{1}, L.Zhan\textsuperscript{2}, L. Peng\textsuperscript{1}, W. Wangsuo\textsuperscript{1*}
\textsuperscript{1} Radiochemical Laboratory, Lanzhou University, \textsuperscript{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\textsuperscript{1*}, M. A. Gondal\textsuperscript{1}, M. Raashid\textsuperscript{1}, Khateeb-ur-Rehman\textsuperscript{1}, M. Dastegeer\textsuperscript{1}
\textsuperscript{1} Department 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. Goutelard\textsuperscript{1}, P. Perret\textsuperscript{1}, C. Hamon\textsuperscript{1}, R. Brennetot\textsuperscript{1}, C. Andrieu\textsuperscript{2}
\textsuperscript{1} Operator Support Analyses Laboratory, Atomic Energy Commission, CEA Saclay, DEN/DANS/DPC/SEARS/LASE, \textsuperscript{2} Electricité 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
B.A. Teiara Mohamed\textsuperscript{1,2}, S. B. Sarmani.
\textsuperscript{1}Department of Physics, University of Al-Zaituna, Tarhruna, \textsuperscript{2}School of Chemical Sciences and Food Technology, Faculty of Science and Technology, Universiti Kebangsaan

23-APP-06 On the Use of $^{233}$U and $^{237}$Np 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 $^{129}$I/$^{127}$I ratios from underground fluids collected in Japan
N. Okabe\textsuperscript{1}, Y. Muramatsu\textsuperscript{1}, M. Ara\textsuperscript{1}, H. Matsuzaki\textsuperscript{2}, M. Takahashi\textsuperscript{3}, K. Kazahaya\textsuperscript{3}
\textsuperscript{1} Gakushuin University, \textsuperscript{2}University of Tokyo, \textsuperscript{3}AIST

23-APP-08 Radiocarbon Dating of Ancient Japanese Calligraphy Sheets: Checks with Ancient Documents of Known Age and Its Application to Kohitsu sugire Calligraphies
H. Oda\textsuperscript{1}, K. Ikeda\textsuperscript{2}, H. Yasu\textsuperscript{3}, S. Sakamoto\textsuperscript{4}
\textsuperscript{1} Center for Chronological Research, Nagoya University, \textsuperscript{2}Faculty of Letters, Chuo University, \textsuperscript{3}Taga High School, \textsuperscript{4}Digital Archives Research Center, Ryukoku University

23-APP-09 μ-XRF study on Wiangkalong pottery
K. Won-in\textsuperscript{1}, S. Tancharakorn\textsuperscript{1}, W. Tanthanuch\textsuperscript{2}, P. Dararutana\textsuperscript{3}
\textsuperscript{1} Department of Earth Sciences, Faculty of Science, Kasetsart University, \textsuperscript{2}Synchrotron Light Research Institute, \textsuperscript{3}The Royal Thai Army Chemical School of the Royal Thai Army Chemical Department
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24-FKP-01  
Determination of short-lived 241Pu 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  
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24-FKP-03  
Secular distribution of radioactive concentration in the atmosphere at Fukushima, Hitachi and Marumori  
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24-FKP-04  
Concentration of 137Cs in atmospheric coarse and fine particles collected in Fukushima  
Kyo Kitayama1, Hirofumi Tsukada1, Kenji Ohse1, Chika Suzuki1, Akira Kanno1, Kencho Kawatsu1  
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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 Kurihara1,2, Makoto Arisaka1, Takuya Nankawa1,2 and Masayuki Watanabe1  
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24-FKP-06  
Determination of 129I in Fukushima soil samples by ICP-MS  
Takeshi Ohno1, Yasuyuki Muramatsu1, Hiroiuki Matsuzuki2  
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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, Yoshi Takahashi2, Yuichi Onda3  
1Institute for Sustainable Sciences and Development, Hiroshima University, Japan, 2Department of Earth and Planetary Systems Science, Hiroshima University, Japan, 3Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan

24-FKP-09  
Decontamination of radioactive cesium in the soil  
Makoto YANAGA, Ayumi OISHI  
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24-FKP-10  
Altitude distribution of radioactive cesium at Mt. Fuji due to Fukushima No.1 nuclear power plant accident.  
1Faculty of Comprehensive Human Sciences, Shokei Gakuin University, 2School of Science and Technology, Meiji University, 3Research Center for Nuclear Physics, Osaka University, 4Graduate School of Science, Osaka University, 5Department 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. Fuji1, 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.
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
K. Tsujita¹, A. Hasegawa¹, N. Harada², T. Yamagata², H. Nagai², M. Aoyama³
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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
A. Hasegawa¹, T. Yamagata², H. Nagai², M. Aoyama³, H. Matsuzaki⁴
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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
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24-FKP-19 Sediment transport processes in reservoir-catchment system inferred from sediment trap observation and fallout radionuclides
Shinya Ochiai¹, Seiya Nagao¹, Masayoshi Yamamoto¹, Taeko Itono², Kenji Kashiwaya³
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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 Sugiuara, 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
Nobunuki Sato, Kohei Fukuda and Akira Kirishima
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24-FKP-23 Radiocesium in zooplankton in seawaters off Miyagi, Fukushima, and Ibaraki Prefectures
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24-FKP-24 Plutonium isotopes and ²³⁷Am in surface sediments off the coast of the Japanese islands after the Fukushima accident
S. Oikawa¹, T. Watabe³, H. Takata¹, J. Misonoo², M. Kusakabe²
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24-NEP-01 A theoretical study of actinide and lanthanide extraction with carbamoylmethylphosphine oxide ligands
Cong-Zhi Wang¹, Jian-Hui Lan¹, Yu-Liang Zhao¹, Zhi-Fang Chai¹, Wei-Qun Shi²
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24-NEP-02 The role of microorganisms during the wet nuclear fuel storage in Slovak Republic
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24-NEP-03 Single centrifugal contactor test of a proposed group actinide extraction process for partitioning and transmutation purposes
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24-NEP-04 Application of flow analytical methods for determination of radionuclides in cooling water and wastes from nuclear plants
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24-NEP-05 Determination of low level ⁹⁹Tc in the primary coolant water by ICP-MS. Analysis of potential interferences
Ewelina Chajduk¹, Sylwia Witman-Zając¹, Halina Półkowska-Motrenko¹
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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. Kudou¹, K. Takamiya¹, 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 ⁹⁹ᵐTc generator production
Van So Le¹, Cong Duc Nguyen²
¹Medisotec, NSW, Australia, ² ChoRay 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
Muonic atom formation by muon transfer process in CaHs / CaH12 + CCl4 mixtures
M. Inagaki1, K. Fujihara1, G. Yoshida1, K. Ninomiya1, Y. Kasamatsu1, A. Shinohara1, M. K. Kubo2, W. Higemoto3, Y. Miyake4, T. Miura1
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Research for fusion reaction mechanisms with deformed nuclei
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Extraction behavior of Nb and Ta in HF solutions with tributyl phosphate
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A modified method for synthesis of [γ-32P] labeled adenosine triphosphate
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Production of 56Nb and 170Ta for chemical studies of element 105 Db using the GARIS gas jet system
M. Huang1, M. Asai2, H. Haba1, D. Kaji1, J. Kanaya1, Y. Kasamatsu1, H. Kikunaga2, Y. Kikutani3, Y. Komori3, H. Kudo2, Y. Kudou1, K. Morimoto1, K. Morita1, M. Murakami1, K. Nakamura1, K. Ozeki1, R. Sakai1, A. Shinohara1, T. Sumita1, K. Tanaka1, A. Toyoshima1, K. Tsukada1, T. Wakabayashi2 and A. Yoneda2
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Half-life measurement of 7Be in several materials
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Verification of anticlockwise gyre in the semi-closed water area of Lake Nakaumi, southwest Japan, by using 224Ra/228Ra activity ratios
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Effect of hydroxylated fullerene on U(VI) adsorption onto oxidized multi-walled carbon nanotubes
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Corrosion of copper in water and colloidal formation under intense radiation field
Kotaro Bessho1, Yuichi Oki2, Naoya Akimune3, Hiroshi Matsumura1, Kazuyoshi Masumoto1, Shun Sekimoto2, Naoyuki Osada1, Norikazu Kinoshita3, Hideaki Monjushiro1, Seiichi Shibata2
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Study on Unattached Fraction of Radon Progeny and its Environmental Influence Factors
Lu Guo1, Lei Zhang2, Qiju Guo1
1State Key Laboratory of Nuclear Physics and Technology, Peking University, China, 2Solid Dosimetric Detector and Method Laboratory, China
24-ENP-05 Preliminary study on measuring radon progeny concentration using alpha/beta spectroscopic method
Abdoumnin Kadir1, Lei Zhang2, Quiju Guo3, and Juncheng Liang4
1State Key Laboratory of Nuclear Physics and Technology, School of Physics, Peking University, China, 2Solid Dosimetric Detector and Method Laboratory, China, 3Ionizing Radiation and Medical Science, National Institute of Metrology, China

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, Kyoshi 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 Sasa2,3, Yukihiko Satou1, Tsutomu Takahashi2, Masumi Matsumura3, Hiroyuki Matsuaki4, Michio Murakami5, Rei Yamashita6, Mahua Saha6, Hideshige Takada6, Yukio Koibuchi7, Soulichan Lamxy7, Taikan Oki8
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24-ENP-09 Ra isotopes in Na-Cl type groundwater in Japan
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24-ENP-10 A new method to estimate 210Pb/209Pb activity ratio in atmospheric aerosol by alpha spectrometry
N. Momoshima1, S. Nishio2, K. Hibino2, S. Sugihara2
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24-ENP-11 Sedimentary environment inferred from sedimentation rates by 210Pb and 137Cs and their inventories in Mutsu Bay, Japan
Kazuhiro Hamataka1, Seiya Nagao1, Michio Kato2, Isako Kudo3, Masayoshi Yamamoto1
1Low Level Radioactivity Laboratory, KINET, Kanazawa University, Japan, 2Graduate School of Science, Kanazawa University, Japan, 3Graduate School of Fisheries Sciences, Hokkaido University, Japan

24-ENP-12 Distribution of radiocarbon in Japanese agricultural soils
Nobuyoshi Ishii, Keiko Tagami, Shigeo Uchida
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24-ENP-13 Lateral distributions of 232Th/230Ra 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 222Rn and 228Rn activities in the Sea of Japan and their implications for water circulation
M. Inoue1, M. Minakawa2, 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  
¹High Energy Accelerator Research Organization (KEK), ²Shimizu Co., ³Tokyo Nuclear Service Co.

24-ENP-16  
**Radioactivity determination of ¹⁴C and ³⁴S in solid waste samples by liquid scintillation counter**  
Jong-Myoung Lim¹, Mun-Ja Kang¹, Kun-Ho Chung¹, Chang-Jong Kim¹, Geun-Sik Choi¹  
¹Environmental Radioactivity Assessment Team, Korea Atomic Energy Research Institute, Korea

24-ENP-17  
**Preparation of pure TiO₂ sorption material**  
Irena Špendlíková, Jakub Raindl, Mojmir Němec  
Czech Technical University in Prague, Department of Nuclear Chemistry, Czech Republic

24-NPP-01  
**Mössbauer study of iron carbide nanoparticles produced by sonoechemical synthesis**  
R. Miyatani¹, Y. Yamada¹, Y. Kobayashi²,³  
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. Kobayashi²,³  
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**  
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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 Lin¹,²,³, 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. Sato¹,², 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 ⁵⁷Mn⁶⁷Fe implanted into lithium hydride**  
Jun Miyazaki¹, Takashi Nagatomo², Yoshio Kobayashi³, ⁴, Michael K. Kubo⁵, Yasuhiro Yamada⁶, Mototsugu Mihara⁷, Wataru Sato⁸, Kazuya Mae⁹, 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. Sato¹,²  
¹Graduate School of Natural Science and Technology, Kanazawa University, ²Institute of Science and Engineering, Kanazawa University
24-AAP-01 Determination of ultratrace levels of $^{99m}$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 Osawa
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24-AAP-03 Concentration of heavy metal elements in Chinese medicine by INAA
S. Ishihara$^1$, E. Furuta$^2$, N. Iwasaki$^3$, Y. Yoshihara$^3$, R. Okumura$^4$, Y. Inuma$^4$
$^1$Ochanomizu University, Facility 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 meet and eggs
Jong-Hwa Moon$^1$, Sun-Ha Kim$^1$, Yong-Sam Chung$^1$, Ok-Hee Lee$^2$
$^1$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. Yamagata$^1$, K. Shozugawa$^1$, R. Okumura$^2$, K. Takamiya$^2$, M. Matsuo$^1$
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24-AAP-06 Determination of ultra trace amounts of Mn in iron meteorites by preconcentration neutron activation analysis
Y. Tanaka$^1$, Y. Arai$^1$, T. Imamura$^1$, M. Maslehuddin$^1$, M. Raashid$^1$
$^1$Department of Chemistry, Tokyo Metropolitan University

24-AAP-07 Instrumental photon activation analysis of geological and cosmochemical samples
Naoki Shirai$^1$, Shun Sekimoto$^2$, Mitsuru Ebihara$^1$
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24-AAP-08 Monte carlo calculation of chloride diffusion in concrete
A. A. Naqviv$^1$, Khateeb-ur-Rehman$^1$, M. Maslehuddin$^2$, O.S.B. Al-Amoudi$^3$ and M. Raashid$^1$
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24-APP-01 Catalysis induced by radiation in fatty acids adsorbed on clay minerals
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24-APP-02 Preliminary study for highly sensitive airborne radiiodine monitor
Yoshimune Ogata$^1$, Tadashi Yamasaki$^2$, Ryuji Hanafusa$^3$
$^1$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 Chen$^1$, Yuezhou Wei$^1$
$^1$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. Chiba$^1$, T. Hamano$^1$, E. Takeuchi$^1$, K. Akiyama$^1$, S. Kubuki$^1$, and H. Shinohara$^2$
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24-APP-05 Crystal structure and spin state of mixed crystals of Fe(NCS)$_2$(NCBH$_3$)$_2$+(bpp)$_2$ (bpp = 1,3-Bis(4-pyridyl)Propane)
Haruka Dote¹, Hiroki Yasuhara¹, Satoru Nakashima²
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24-APP-06  Analysis of fragments of a roman mask using Mössbauer spectroscopy
Paulo de Souza¹², G. Klingelhöfer³, P Gütlich³, M. Egg⁴
¹University of Tasmania, Australia, ²Commonwealth Scientific and Industrial Research Organisation, Australia, ³Johannes Gutenberg-Universität Mainz, Germany, ⁴Römisch-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
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Wednesday, 25 September 2013, Poster Session

25-FKP-01 235U/238U Isotopic Ratio in Environmental Samples at the Fukushima Area
Y. Shibahara1, T. Fujii1, S. Fukutani1, T. Kubota1, R. Okumura1, T. Ohta2, K. Takamiya3, N. Sato3, M. Tanigaki1, Y. Kobayashi1, H. Yoshinaga1, H. Yoshino1, A. Uehara1, S. Mizuno1, T. Takahashi1, and H. Yamana1
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25-FKP-02 Particulates of Ag and Pu radioisotopes released from Fukushima Daiichi nuclear power plants
H. Kimura1, M. Usugi2, A. Munez1, R. Watanabe1, A. Yokoyama3, T. Nakanishi4

25-FKP-03 The measurement of 14C/12C ratios in Japanese plant samples affected by anthropogenic sources
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25-FKP-04 Radiocesium and stable cesium in edible wild plants (Sansai) collected from forests in Fukushima Prefecture
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25-FKP-05 Annual Variation of Radioactivity in Marine Biota in the Pacific off Fukushima after TEPCO's Fukushima Daiichi Nuclear Power Station Accident
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25-FKP-06 Migration behavior of 134Cs and 137Cs in the Niida River water in Fukushima Prefecture, Japan during 2011-2012
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25-FKP-07 Migration Behavior of Radioceisum Released from Fukushima Daiichi Nuclear Power Plant Accident
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25-FKP-08 Research on Atmospheric Radionuclides from the Fukushima Nuclear Accident at the MRI, Japan
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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. Kawatsu4, M. Mogi4, S. Murayama4, Y. Izumi4, H. Kikunaga1, T. Tachiya5, Y. Shiraishi2, K. Endo2
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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
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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 $^{60}$Ge/$^{68}$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$_2$TiO$_3$  
M. Kobayashi¹, H. Uchimura¹, K. Toda³, M. Sato¹, K. Tatunuma², Y. Oya¹ and K. Okuno³  
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25-NEP-03 Adsorption of Various Metal Ions onto Benzo-18-crown-6 and Dibenzo-18-crown-6 Resins  
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¹Department of Electric and Electronic Engineering, Kinki University, ²Department of Nuclear System Safety Engineering, Nagoya 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  
Shanghai Institute of applied physics, Chinese Academy of Sciences

25-NCP-01 Measurement of cosmogenic nuclides in meteorites by well-type Ge detector in Ogya 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. Inumura¹, R. Okumura¹, S. Shibata¹  
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25-NCP-03 Development of a new continuous dissolution apparatus with a hydrophobic membrane for superheavy element chemistry  
K. Ooe¹,², K. Tsukada², M. Asai², T. K. Sato², A. Toyoshima², S. Miyashita², Y. Nagame², M. Schädel², Y. Kaneya³, H. V. Lerum¹, J. P. Omtvedt¹, J. V. Kratz³, H. Haba³, A. Wada³, Y. Kitayama³  
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Cross-section Measurements of High Energy Neutron-induced Reactions for Cu and Nb
K. Nominoya1, T. Omoto1, R. Nakagaki1, N. Takahashi1, Y. Kasamatsu1, A. Shinohara1, S. Sekimoto2, H. Yashima3, S. Shibata4, T. Shimam4, H. Matsumura4, M. Hagiwara4, Y. Iwamoto5, D. Satoh5, M. W. Caffee6 and K. Nishizumi7
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Development of a rapid solvent extraction technique with flow injection analysis for superheavy element chemistry
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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
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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

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. Ishii4, H. Haba4, T. K. Sato4, Y. Nagame1, M. Schädel1
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Solvent extraction of hexavalent Mo and W using 4-isopropyltropolone (Hinokitiol) for Seaborgium (Sg) reduction experiment
S. Miyashita1, A. Toyoshima1, K. Ooe2, M. Asai2, T. K. Sato1, K. Tsukada1, Y. Nagame1, M. Schädel1, Y. Kaneya2, H. Haba2, J. Kanaya2, M. Huang1, Y. Kitayama2, A. Yokoyama2, A. Wada4, Y. Ours4, J. V. Kratz7, H. V. Lerum6 and J. P. Omtvedt8
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Development of Surface Ionization Ion-source for Determination of the First Ionization Potentials of Heavy Actinides
Y. Kaneyama1,2, T. K. Sato2, M. Asai2, K. Tsukada3, A. Toyoshima3, S. Miyashita2, Y. Nagame1,2, M. Schädel2, N. Sato4, K. Ooe5, A. Osa6, S. Ichikawa3,6, T. Stora7, J. V. Kratz8
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Comparison of the decay constants of 51Cr with various valence states
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Selective Separation of Strontium (II) from Nitric Acid Solution by a Macroporous Silica-based DtBuCH18C6 Adsorbent Modified with Surfactants
25-NCP-13 Exploring the Synthesis and Characterization of Binary Technetium Chlorides and Bromides
E. Johnstone1, F. Poineau1, P. M. Forster1, P. Week,2 C. D. Malliakas3, E. Kim1, M. G. Kanatzidis3, B. L. Scott4, A. P. Sattelberger5, and K. R. Czerwinski1
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25-ACP-01 Solvent Extraction of Americium(Ill) and Europium(Ill) Using Hydroxyoctanoic Acid and N-heteroaromatic Compound
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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
1Korea Atomic Energy Research Institute

25-ACP-04 Raman Spectroscopic Study on Uranyl and Neptunyl Complexes in Highly Concentrated Calcium Chloride
T. Fuji1, A. Uehara1, Y. Kitatsuji2, and H. Yamada1
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25-ACP-05 Electrode Reaction of Actinide Ions in a Weak Acidic Solution
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25-ACP-06 Biomineralization of uraninite and uranyl phosphate controlled by organic acids
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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
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Nuclear Chemistry Research Division, Korea Atomic Energy Research Institute

25-ACP-08 Distribution of Neptunium in PUREX streams
Radioanalytical Chemistry Division, Bhabha Atomic Research Centre

25-ACP-09 α-Radiation Effect on Solvent Extraction of Minor Actinide
Y. Sugó1, Y. Sasaki2, M. Taguchi1, N. S. Ishioka1
1Quantum 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. Pan1,2, Z. Wang2, W. S. Wu1
1Radiochemistry 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
1Japan Atomic Energy Agency

25-ENP-03 Continuous measurement of radon exhalation rate of soil in Beijing
L. Zhang1,2, K. S.3, Q. Guo2
1Solid Dosimetric Detector and Method Laboratory, 2State Key Laboratory of Nuclear Physics and Technology,
Dosimetric Evaluation of Thoron Exposure in Three Typical Rural Indoor Environments in China
L. Zhang¹, Q. Guo², S. Wang¹
¹Solid Dosimetric Detector and Method Laboratory, ²State Key Laboratory of Nuclear Physics and Technology, School of Physics, Peking University

Binary Technetium Phosphide Synthesis at Low Temperature Conditions
B. C. Child¹, W. M. Kerlin¹, K. R. Czerwinski¹
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Dissolution behavior of 134Cs absorbed on the green tea leaves
Y. Oya¹, H. Uchimura¹, K. Toda¹, T. Ikka², A. Morita², K. Okuno²
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Characterization on the Radioactive Aerosols Dispersed during Plasma Arc Cutting of Radioactive Metal Piping
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A passive collection method for whole size fractions of suspended river materials
T. Matsunaga¹, T. Nakaništi¹, E. Takeuchi¹, S. Nishimura¹, K. Tsuduki¹, M. Atarashi², Andoh¹, J. Koarashi¹, S. Otošaka¹, T. Sato², S. Nagao³
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Study of factors controlling organic pollution in Lake Kiba
Y. Kawano¹, S. Nagao¹, S. Ochiai¹, M. Yamamoto¹
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Rapid monitoring particulate Radionuclide with nonwoven fabric cartridge filter and application to field monitoring
H. Tsuji³, Y. Kondo², S. Kawashima², T. Yasutaka¹
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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
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Radiocarbon dating of molluscan shells and its application
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Concentration of Uranium on TiO-PAN and NaTiO-PAN Composite Absorbers
A. Motl, F. Šebesta, J. John, I. Špendlíková, M. Němec
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Use of radon to characterise surface water recharge to groundwater
N Hermanšpanh, M Close, M Matthews, L Burberry, P Abraham
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Production and Utilization of Radioactive Astatine Isotopes in the 7Li+208Pb 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. Zhiukov3
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 $^{99m}$Mo-$^{99m}$Tc Domestic Production with High-Density MoO₃ Pellets by (n, γ) Reaction
1Japan Atomic Energy Agency, 2Chiyoda Technol Corporation 3FUJIFILM RI Pharma Co. Ltd.

25-RPP-04 Preparation of $^{99m}$Tc by using Spallation Neutron
Y. Hayashi1, 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. Yamamoto4, Y. Kasamatsu1 and A. Shinohara1
1Graduate School of Science, Osaka University, 2Graduate School of Medicine, Osaka University, 3Research Center for Nuclear Physics, Osaka University, 4Kyoto University Research Reactor Institute, 5Graduate 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
Department of Radiological Science (also Advanced Radio-Analytical Chemistry, Division of Biomedical Information Sciences, Institute of Health Biosciences, The University of Tokushima, Department of Radiation Therapy Technology, Division of Biomedical Information Sciences, Institute of Health Biosciences, The University of Tokushima, Otsuka Pharmaceutical Factory, Department of Radiological Science, Division of Biomedical Information Sciences, Institute of Health Biosciences, The University of Tokushima, Dairyu Co. Ltd, Radioisotope Center, The University of Tokushima, Department of Nuclear Science, Institute of Socio-Arts and Sciences, The University of Tokushima

25-RPP-06 Extraction of astatine isotopes for development of radiopharmaceuticals
E. Maeda, A. Yokoyama, T. Taniguchi, K. Washiyama, I. Nishinaka

25-RPP-07 Lutetium-177 Complexation of DOTA and DTPA in the Presence of Competing Metals
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25-RPP-08 Enabling personalized medicine with the use of theraagnostic radiopharmaceuticals
S. Srivastava
Collider-Accelerator Department, Brookhaven National Laboratory

25-NPP-01 Hyperfine Fields at $^{140}$Ce in He-Doped Fe
Y. Ohkubo, A. Taniguchi, Q. Xu, M. Tanigaki, K. Sato and M. Tsuneyama
Research Reactor Institute, Kyoto University, Graduate School of Science, Kyoto University

25-NPP-02 Mössbauer studies of lanthanum doped Ni$_8$Cu$_{12}$Zn$_4$Fe$_2$O$_4$ ferrites by Sol-Gel auto combustion
Q. Lin, C. Lei, H. Huang, H. Zhang, Y. He
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. Oyabu, R. Sato, K. Nomura
Math & Science Division, Kanazawa Institute of Technology, 2The University of Tokyo

25-NPP-04 Study of the Spin-Crossover Phenomena in 1D Coordination Polymers, [FeII(NH$_3$triazole)$_3$](CnH$_{2n+1}$SO$_4$)$_n$, by Fe-K edge XAFS and $^{57}$Fe Mössbauer Spectroscopy
H. Kamebuchi¹, A. Nakamoto¹, M. Enomoto², T. Yokoyama³, N. Koijima¹
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Y. Sakai¹, S. Onaka¹, R. Ogiso¹, M. Takahashi², T. Nakamoto³, and T. Takayama¹
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25·NPP-06 Dynamic Perturbation to $^{111}$Cd(--$^{111}$Ag) Doped in AgI Nanoparticles
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25·AAP-01 A prototype of a simple collection system for the determination of $^{14}$C
Chemistry Division, Institute of Nuclear Energy Research

25·AAP-02 Elemental analysis of Korean adult toenail using of instrumental neutron activation analysis
S. –H. Kim¹, J. –H. Moon¹, Y. –S. Chung¹, O. –H. Lee²
¹Korea Atomic Energy Research Institute, ²Korean Nuclear Research and Development Institute

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
W. Zhang and A. Chatt
Trace Analysis Research Centre, Department of Chemistry, Dalhousie University

25·AAP-04 Radiochemical neutron activation analysis of halogens (Cl, Br and I) in geological and cosmochemical samples
M. Ebihara¹ and S. Sekimoto²
¹Tokyo Metropolitan University, ²Kyoto University Research Reactor Institute

25·AAP-05 Multielement analysis of KIGAM reference samples by INAA, ICP-AES and ICP-MS
N. Shirai¹, M. Tクトガノベ¹, H. Takahashi¹, Y. Yokozuka¹, S. Sekimoto³, M. Ebihara¹
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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
D. K. Cho and M. -S. Kim
Korea Atomic Energy Research Institute

25·AAP-07 Neutron Activation Analysis of JCFA-1, JCu-1 and JZn-1
S. Sekimoto¹, Y. Homura¹, R. Okumura¹, N. Shirai²
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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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