

IV. Oral/Poster Session

Oral Session

[WO1] Neutron Scattering: Engineering Materials

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	11:20 ~ 12:50
Session Room:	Room A (105)
Session Chair:	Dr. Hobyung Chae (Korea Atomic Energy Research Institute)

WO1_1 <Invited>

11:20~11:50

Unveiling Role Distribution in Multi-Phase Structural Materials: A Neutron Diffraction Study on Brittleness Mitigation and Wear Resistance Enhancement of High-Volume-Fraction Al/SiCp Composites

Taegyu Lee

Hanbat National University

WO1_2

11:50~12:10

Quantitative Analysis of Nanoscale Oxides in Oxide Dispersion-Strengthened High-Entropy Alloy via Small-Angle Neutron Scattering

SeungHyeok Chung¹, Bin Lee², Soo Yeol Lee³, Changwoo Do⁴, Ho Jin Ryu⁵

¹Korea Institute of Industrial Technology, ²Kyung Hee University, ³Chungnam National University, ⁴Oak Ridge National Laboratory, ⁵Korea Advanced Institute of Science and Technology

WO1_3

12:10~12:30

Analysis of L1₂ Nanoprecipitates in High-Entropy Alloys via Small Angle Neutron Scattering

Seungjin Nam¹, E. Shin², S.S. Sohn¹

¹Korea University, ²Korea Atomic Energy Research Institute

WO1_4

12:30~12:50

Quantitative Microstructural Analysis of High-Entropy Alloy Manufactured by Powder Metallurgy

S. Park¹, S. -H. Lee¹, E. Shin², Jae-Gil Jung¹

¹Jeonbuk National University, ²Korea Atomic Energy Research Institute

[WO2] Neutron Activation Analysis (7th NAT) I

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	11:20 ~ 12:00
Session Room:	Room B (106)
Session Chair:	Dr. Jinhwan Kim (Korea Atomic Energy Research Institute)

WO2_1

11:20~11:40

Characterization of Inorganic Elements in the KRISS Complex Lake Sediment Matrix CRM by SC-INAA

Hana Cho^{1,4}, K.B. Dasari^{2,4}, M.C. Lim^{1,4}, J.W. Lee¹, Y. Lim¹, S.P. Hong^{3,4}, G.M. Sun^{3,4}, S.W. Heo^{1,4}, K.-S. Lee^{1,4}

¹Korea Research Institute of Standards and Science, ²Gyeongsang National University, ³Korea Atomic Energy Research Institute, ⁴KRISS-KAERI Joint Research Center

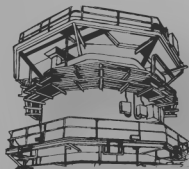
WO2_2

11:40~12:00

Unique Application of Internal Monostandard NAA for Chemical Characterization of Certified Reference Materials

Kishore Babu Dasari^{1,2}, H. Cho^{1,3}, S.P. Hong^{1,4}, B.Y. Han⁴, R. Acharya⁵, G.M. Sun^{1,4}

¹KRISS-KAERI Joint Research Center, ²Gyeongsang National University, ³Korea Research Institute of Standards and Science, ⁴Korea Atomic Energy Research Institute, ⁵Bhabha Atomic Research Centre



[WO3] Research Reactor Technology I

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	11:20 ~ 12:50
Session Room:	Room C (107)
Session Chair:	Mr. Jin-Won Shin (Korea Atomic Energy Research Institute)

WO3_1 <Invited>

11:20~11:50

The Jordan Research and Training Reactor (JRTR): Status and Plans

Majd Hawwari^{1,2}, Mahmoud Suaifan^{1,2}, Saed Almomani^{1,2}

¹Jordan Research and Training Reactor, ²Jordan Atomic Energy Commission

WO3_2

11:50~12:10

HANARO Operation Status and Outlook

Jinwon Shin, W.H. In, M.S. Kim, C.W. Kim

Korea Atomic Energy Research Institute

WO3_3

12:10~12:30

Current Status of Kijang Research Reactor Project

Kye Hong Lee, H.C. Kim, S.H. Kim, J.S. Ryu, D.W. Lee, M.H. Kim

Korea Atomic Energy Research Institute

WO3_4

12:30~12:50

International Utilization of HANARO and Its Ancillary Facilities based on IAEA ICERR

Sung Ho Ahn, G.M. Sun, J.W. Shin, Y.S. Han, J.T. Hong, D.S. Kim, Y.M. Nam

Korea Atomic Energy Research Institute

[WO4] Radioisotope I

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	11:20 ~ 12:50
Session Room:	Room D (108)
Session Chair:	Dr. EunHa Cho (Korea Atomic Energy Research Institute)

WO4_1 <Invited>

11:20~11:50

Theranostics with Metallic Radionuclides: Developments in Bifunctional Chelator Design for Targeting Cancer

Brett M. Paterson

The University of Queensland

WO4_2

11:50~12:10

Ensuring Safety related to Designation of Radiopharmaceutical Testing and Inspection Institution

Sungsoo Nam, E.H. Cho, H.J. Ahn, T.G. Lee, Y.E. Lee

Korea Atomic Energy Research Institute

WO4_3

12:10~12:30

Formulation-Driven Stabilization of m-Iodobenzylguanidine (mIBG): Analytical Insights via HPLC

Yeeun Lee, S.J. Lee, T.H. Lee, Y.M. Jung, E.H. Cho

Korea Atomic Energy Research Institute

WO4_4

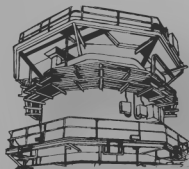
12:30~12:50

Thyrokitty Injection (I-131): Korea's First Veterinary Radiopharmaceutical under Development

Jae Cheong Lim, So-Young Lee, Eun Ha Cho, Yu Mi Jung, Ki Hwan Park, Young Uk Park, Sung Soo Nam,

Tae Hoon Lee, Jae Won Lee, Seung Jae Lee

Korea Atomic Energy Research Institute



[WO5]

Neutron Scattering : Quantum Materials

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	14:00 ~ 16:00
Session Room:	Room A (105)
Session Chair:	Dr. Sungdae Ji (Korea Atomic Energy Research Institute)

WO5_1 <Invited>

14:00~14:30

Asymmetry Effect on Electronic States in the Remeika Phase Compounds

Kazuaki Iwasa

Ibaraki University

WO5_2 <Invited>

14:30~15:00

Tunable Longitudinal Mode Decay in the Quasi-Two-Dimensional Antiferromagnet $\text{Ba}_2\text{FeSi}_2\text{O}_7$

Seung-Hwan Do^{1,2,3}, Hao Zhang³, Travis J. Williams², Tao Hong², V. O. Garlea², Tae-Hwan Jang⁴, Jae-Hoon Park^{4,5}, Cristian D. Batista³, Andrew D. Christianson²

¹Korea Research Institute of Standards and Science, ²Oak Ridge National Laboratory, ³University of Tennessee,

⁴Max Planck POSTECH/Korea Research Initiative, ⁵Pohang University of Science and Technology

WO5_3

15:00~15:20

Growth of Non-Centrosymmetric Quantum Spin Liquid Candidate Hyper-Kagome System $\text{Yb}_3\text{Sc}_2\text{Ga}_3\text{O}_{12}$

Jaewook Kim

Korea Atomic Energy Research Institute

WO5_4

15:20~15:40

Anisotropy of Upper Critical Field in Pb-Based Misfit Layer Superconductors

Wonhyuk Shon, Jaewook Kim, Seongsu Lee

Korea Atomic Energy Research Institute

WO5_5

15:40~16:00

Quantum Fisher Information Analysis for Multipartite Entanglement in Correlated Materials

Seokhwan Yun

Korea Atomic Energy Research Institute

[WO6] Neutron Activation Analysis (7th NAT) II

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	14:00 ~ 15:40
Session Room:	Room B (106)
Session Chair:	Dr. Kishore B. Dasari (Gyeongsang National University)

WO6_1

14:00~14:20

Analysis of Major and Trace Elements Using NAA and ICP-MS for Development of Geological Reference Materials

Jin Mi-Eun¹, Sun G.-M.¹, Dasari K.B.², Hong S.P.¹, Lee S.H.¹, Jwa Y.-J.²

¹Korea Atomic Energy Research Institute, ²Gyeongsang National University

WO6_2

14:20~14:40

The Half-Life Determination of Rhenium Radionuclides to Enhance Medical Treatments

Kishore Babu Dasari^{1,2}, G.-M. Sun^{1,3}, J.Y. Kim³, H. Cho^{1,4}, M.-S. Kim³

¹KAERI-KRISS Joint Research Center, ²Gyeongsang National University, ³Korea Atomic Energy Research Institute,

⁴Korea Research Institute of Standards and Science

WO6_3

14:40~15:00

Quantification of Trace Elements in Neutron Transmutation-Doped Silicon Carbide Wafers Using Neutron Activation Analysis

Junhyeok Kim, B.G. Park, J. Park, G.D. Kang, G.M. Sun, M.S. Kim

Korea Atomic Energy Research Institute

WO6_4

15:00~15:20

A Bayesian Inference Framework for Deconvolution of Complex Gamma-Ray Spectra

Jinhwan Kim¹, K.M. Kim^{1,2}

¹Korea Atomic Energy Research Institute, ²Sejong University

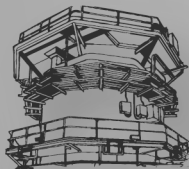
WO6_5

15:20~15:40

Progress on Developing an Operando Neutron Depth Profiling System at KAERI

Kyung Min Kim^{1,2}, B.G. Park¹, J.H. Kim¹

¹Korea Atomic Energy Research Institute, ²Sejong University



[WO7] Research Reactor Technology II

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	14:00 ~ 15:50
Session Room:	Room C (107)
Session Chair:	Dr. DongHyuk Lee (Korea Atomic Energy Research Institute)

WO7_1 <Invited>

14:00~14:30

20 Years of CNS Operation on the OPAL Reactor and its Replacement

Weijian Lu

Australia's Nuclear Science and Technology Organization

WO7_2

14:30~14:50

Investigation of Non-nuclear Heat Load in Cold Neutron Source of HANARO Including Helium Transfer Line

Hun Young Kim, D.H. Lee, J.S. Hwang, W.T. Lee

Korea Atomic Energy Research Institute

WO7_3

14:50~15:10

I&C Equipment Modernization of TRIGA Research Reactors

Yong Suk Suh, Dane Baang, Sang Mun Seo

Korea Atomic Energy Research Institute

WO7_4

15:10~15:30

Development of McCARD/MATRA-h Coupled Analysis Framework for Reactor Physics and Thermal-Hydraulic Analysis of HANARO Reactor Core

DongHyuk Lee, H.Y. Kim

Korea Atomic Energy Research Institute

WO7_5

15:30~15:50

Correlation between Document Management System and Schedule Management System in Project Management

Kook-Nam Park¹, T.H. Lee¹, J.S. Lee¹, J.H. Choi¹, S.K. Lee², H.J. Yu¹

¹Korea Atomic Energy Research Institute, ²Digital Business Vision Co. Ltd.

[WO8] Radioisotope II

Session Date:	Sept. 10 (Wed.), 2025
Session Time:	14:00 ~ 15:40
Session Room:	Room D (108)
Session Chair:	Dr. Jong-bum Kim (Korea Atomic Energy Research Institute)

WO8_1

14:00~14:20

Photon Counting Statistics Based Analytical Approaches to Estimating the Timing Resolution of SiPM-Based Scintillation Detector

Kilyoung Ko, J.B. Kim, S.J. Kim, J.J. Kim, G.J. Kang, S.H. Park, D.H. Kim, J.H. Kwon, S.M. Kim, J.T. Hong
Korea Atomic Energy Research Institute

WO8_2

14:20~14:40

Cryogenic Ion Spectroscopy of a Singly Protonated Peptide DYYVVR: Locating Phosphorylation Sites of a Kinase Domain

JangHan Kwon¹, Min Ji Lee³, Gyeongok Song³, Kazuya Tsuruta², Shun-ichi Ishiuchi², Masaaki Fujii², Hyuk Kang³
¹*Korea Atomic Energy Research Institute*, ²*Tokyo Institute of Technology*, ³*Ajou University*

WO8_3

14:40~15:00

Determination of MDA by Measuring Co-57 and Sr-85 instead of Ba-140, for Installation of Radionuclide International Monitoring System(IMS) in South Korea

Seung Woo Lee^{1,2}, Jihye Lee¹, Hyeonggon Kim¹, Mingi Park^{1,2}, Yuvin Kim^{1,3}, Gyeongmin Lee⁴, Ina Do⁵, Jiseok Kim¹
¹*Korea Atomic Energy Research Institute*, ²*Hanyang University*, ³*Chungnam National University*, ⁴*Jeonbuk National University*, ⁵*Yonsei University*

WO8_4

15:00~15:20

Acquisition of the Fast Neutron Response Matrix Using Time-of-Flight Method

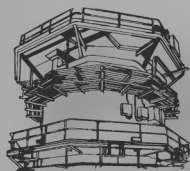
Gyohyeok Song¹, Jisung Hwang^{1,2}, Gyuseong Cho¹
¹*Korea Advanced Institute of Science and Technology*, ²*Korea Institute of Nuclear Safety*

WO8_5

15:20~15:40

Study on Gamma-ray Dose Assessment for Accurate Monitoring of Liquid Radioactive Waste

Jaehyun Park¹, Gyohyeok Song¹, Wonku Kim¹, Sangho Lee¹, Ki-Baek Shin², Deokseong Kim¹, Seoyun Jang¹, Uijin Lee¹, Gyuseong Cho¹
¹*Korea Advanced Institute of Science and Technology*, ²*Korea Atomic Energy Research Institute*



[TO1]

Neutron Scattering : Soft Matter

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	10:40 ~ 12:30
Session Room:	Room A (105)
Session Chair:	Dr. Jong Dae Jang (Korea Atomic Energy Research Institute)

TO1_1 <Invited>

10:40~11:10

Small-Angle Neutron Scattering Experiments to Investigate Non-equilibrium Phase Separation in Supercritical Fluids at HANARO, KAERI

J.H. Lee¹, Y.U. Kim¹, J.D. Jang², C.W. Do³, M.Y. Ha⁴, Gunsu Yun¹

¹Pohang University of Science and Technology, ²Korea Atomic Energy Research Institute, ³Oak Ridge National Laboratory, ⁴Kyung Hee University

TO1_2

11:10~11:30

Small Angle Neutron Scattering Study on Thermally Responsive Polymeric Vesicle Fabricated by Block Copolymer Blends

Tae-Hwan Kim¹, J.-K. Lee^{1,2}

¹Jeonbuk National University, ²QuantumCat Co., Ltd.

TO1_3

11:30~11:50

Quantitative Pore Analysis Using Small Angle Neutron and X-ray Scattering for Advanced Energy Materials

Hyeong Min Jin¹, Hyungsub Kim², Jong Dae Jang², Young-Soo Han², Young Soo Yun³

¹Chungnam National University, ²Korea Atomic Energy Research Institute, ³Korea University

TO1_4

11:50~12:10

Influence of Solvent Dielectric Constant on the Complex Coacervation Phase Behavior of Polymerized Ionic Liquids

J. Shin¹, H. Shin¹, S.-H.Lee², J.D.Jang², HyeongJun Kim¹

¹Sogang University, ²Korea Atomic Energy Research Institute

TO1_5

12:10~12:30

Contrast-Matched Neutron Reflectometry for Langmuir Monolayers of Surface-Active Polymer Nanoparticles

Sangyoon Kim, Xinzhe Jin, Seyoung Kim

Dankook University

[TO2]

Neutron Activation Analysis (7th NAT) III

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	10:40 ~ 12:20
Session Room:	Room B (106)
Session Chair:	Dr. Jongin Park (Korea Research Institute of Standards and Science)

TO2_1 <Invited>

10:40~11:10

Probing Local Electronic and Magnetic Structures in Solid: Insights from Mössbauer, NMR, PES, and XMCD Spectroscopies

J.H. Lee¹, D.Y. Han¹, Y.R. Um², Z.H. Jang³, G. Schütz⁴, Kwanghyo Son¹

¹Kongju National University, ²Korea Atomic Energy Research Institute, ³Kookmin University, ⁴Max-Planck-Institute for Intelligent Systems

TO2_2 <Invited>

11:10~11:40

Biomedical Applications of Positron Annihilation Lifetime Spectroscopy (PALS)

Jaehong Kim¹, J.G. Lee²

¹Institute for Basic Science, ²Korea Atomic Energy Research Institute

TO2_3

11:40~12:00

Electrocatalysts Derived from Iron-Chloride Precursors: Correlation between Active-Site Structure and Electrochemical Activity

Young Rang Uhm

Korea Atomic Energy Research Institute

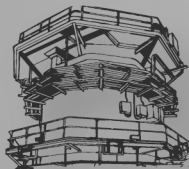
TO2_4

12:00~12:20

Development of PALS-PET: A Novel Positronium Lifetime Tomography System for Enhanced Molecular Imaging

Jaegi Lee, Gwang-Min Sun

Korea Atomic Energy Research Institute



[TO3]

Irradiation Test I

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	10:40 ~ 11:40
Session Room:	Room C (107)
Session Chair:	Dr. Kee-Nam Choo (Korea Atomic Energy Research Institute)

TO3_1

10:40~11:00

The Strategic Role and Upgrade of the HANARO to Meet Global Demands for Next-Generation Nuclear Material Tests

Seongwoo Yang, Jong-Woo Kim, Junesic Park, Ye-Eun Na, Kee-Nam Choo, Sung-Jae Park, Yoon-Taeg Shin,
Chul-Yong Lee, Hae-Sun Jeong

Korea Atomic Energy Research Institute

TO3_2

11:00~11:20

Irradiation Test of LWR Fuels at HANARO; Experience, Status and Plans

Jae Ho Yang, D.J. Kim, D.S. Kim, Y.S. Jung, J.H. Yoon, J.H. Lee, H.J. Kim

Korea Atomic Energy Research Institute

TO3_3

11:20~11:40

Qualification of U-Mo Dispersion Fuel for the KJRR Project

Jong Man Park, Yong Jin Jeong, Tae Won Cho, Dong Jun Park, Gwan Youn Jung, Hyun Jung Kim, Young Wook Tahk

Korea Atomic Energy Research Institute

[TO4]

Radioisotope III

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	10:40 ~ 12:00
Session Room:	Room D (108)
Session Chair:	Dr. Seung-Kon Lee (Korea Atomic Energy Research Institute)

TO4_1

10:40~11:00

Development of Korean Radioisotope Thermoelectric Generator

Sunjin Kim, J.-B. Kim, J.-J. Kim, J. Kim, K. Ko, G.-J. Kang, D.-H. Kim, J. Hong

Korea Atomic Energy Research Institute

TO4_2

11:00~11:20

Long-Term Performance Degradation Analysis of Electrically Heated Thermoelectric Generator (ETG) for Space Exploration

Da-hye Kim, S.J. Kim, J.B. Kim, J.J. Kim, K.Y. Ko, J.T. Hong

Korea Atomic Energy Research Institute

TO4_3

11:20~11:40

Supply Roadmap of Reactor-Produced Radioisotopes Using KJRR

Seung-Kon Lee¹, Suseung Lee², Kyungseok Woo¹, Mal-Go-Bal-Gae-Bit-Na-La Yoo², Jin-Hee Kim²

¹*Kijang Research Reactor Design and Construction Project*, ²*Korea Atomic Energy Research Institute*

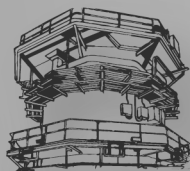
TO4_4

11:40~12:00

Current Status of RI R&D Center in Korea

Dong-Eun Lee

Korea Atomic Energy Research Institute



[TO5]

Neutron Scattering : Energy Materials

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	14:00 ~ 16:00
Session Room:	Room A (105)
Session Chair:	Dr. Hyungsub Kim (Korea Atomic Energy Research Institute)

TO5_1

14:00~14:20

Recent Trends in Secondary Battery Material Research Using the High-Resolution Powder Diffractometer at HANARO

Hyungsub Kim

Korea Atomic Energy Research Institute

TO5_2 <Invited>

14:20~14:50

Mn-Rich Layered Cathode Materials for Lithium and Sodium Intercalation

Seung-Taek Myung

Sejong University

TO5_3 <Invited>

14:50~15:20

Exploring Sulfide and Halide Superionic Conductors for Practical All-Solid-State Battery Design

Yoon Seok Jung

Yonsei University

TO5_4

15:20~15:40

Neutron Diffraction-Guided Design of High-Capacity Cathode Materials for Advanced Lithium-Ion Batteries

Kyu-Young Park

Pohang University of Science and Technology

TO5_5

15:40~16:00

Oxygen-Deficiency-Induced Lithium and Particle Size Gradients in Ni-Rich Cathodes: Insights from Neutron Diffraction Analysis

Seok Hyun Song¹, H. Kim²

¹*Korea Institute of Energy Research*, ²*Korea Atomic Energy Research Institute*

[TO6]

Neutron Activation Analysis (7th NAT) IV

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	14:00 ~ 15:30
Session Room:	Room B (106)
Session Chair:	Dr. Jaegi Lee (Korea Atomic Energy Research Institute)

TO6_1 <Invited>

14:00~14:30

Designs for Versatile Imager Using Electron Spins Resonance for Redox Patterns for Biomedical Applications

Jong In Park^{1,2}, Rukundo Solomon¹, In Jung Kim^{1,2}, Seongmoon Jung¹

¹Korea Research Institute of Standards and Science, ²University of Science and Technology

TO6_2

14:30~14:50

Development and Application of Digital Age-Momentum Correlation Spectroscopy for Polymer Microstructure Studies

YoungSu Jeong¹, B.Y. Han¹, J.G. Lee¹, J.Y. Kim¹, G.M. Sun¹, Y.M. Kim²

¹Korea Atomic Energy Research Institute, ²Daegu Catholic University

TO6_3

14:50~15:10

Application of Mössbauer Spectroscopy in Multifunctional Iron-Containing Solids: From Energy Materials to Archaeometry

Hyunkyung Choi¹, C.S. Kim², G.M. Sun¹, Y.R. Uhm¹

¹Korea Atomic Energy Research Institute, ²Kookmin University

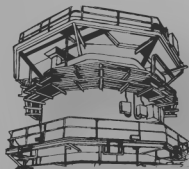
TO6_4

15:10~15:30

A Preliminary Study on the Corrosion Behavior of Simulated Iron Artifacts in Chloride-Based Environments: Comparison by Corrosive Solutions and Exposure Condition

Seoeun Jang^{1,2}, H.H. An³, N.C. Cho², J.Y. Kim², H.K. Choi¹, G.M. Sun¹, G.H. Kim², Y.R. Uhm¹

¹Korea Atomic Energy Research Institute, ²Kongju National University, ³Konyang University



[TO7]

Irradiation Test II

Session Date:	Sept. 11 (Thu.), 2025
Session Time:	14:00 ~ 15:20
Session Room:	Room C (107)
Session Chair:	Mr. Seongwoo Yang (Korea Atomic Energy Research Institute)

TO7_1

14:00~14:20

Technical Issues Occurred during Recent Materials Irradiation Testing in HANARO

Keenam Choo, J.W. Kim, H.S. Jeong, Y.T. Shin, S.J. Park, C.Y. Lee, J.S. Park, Y.E. Na, S.W. Yang
Korea Atomic Energy Research Institute

TO7_2

14:20~14:40

Thermal Analysis of Irradiation Capsule Using COMSOL Multiphysics and Comparison with GENGTC

Ye-eun Na, S.W. Yang, K. N. Choo, J.S. Park, J.W. Kim, H.S. Jung, S.J. Park, Y.T. Shin, C.Y. Lee
Korea Atomic Energy Research Institute

TO7_3

14:40~15:00

CORANI Phase 1: Setup and Preliminary Results

Junesic Park¹, Seong Woo Yang¹, Sung Jae Park¹, Byung Gun Park¹, Jong Woo Kim¹, Kishore B. Dasar²,
Christophe Destouche³, Loïc Barbot³, Christophe Domergue³, Hervé Philibert³
¹Korea Atomic Energy Research Institute, ²Gyeongsang National University, ³CEA Cadarache

TO7_4

15:00~15:20

Post-Irradiation Examination Capabilities and the Status of PIE Projects at the IMEF

YoungJun Kim, Y.G. Jin
Korea Atomic Energy Research Institute

[FO1]

Opening and Facility Reports

Session Date:	Sept. 12 (Fri.), 2025
Session Time:	09:00 ~ 10:00
Session Room:	Room A (105)
Session Chair:	Prof. Seung Wook Lee (Pusan National University)

FO1_1

09:15~09:30

Update on HANARO Neutron Beam Instruments, Korea

Young-Soo Han

Korea Atomic Energy Research Institute

FO1_2

09:30~09:45

Facility Report: Status and Activities of JRR-3 at JAEA

Cyril Micheau¹, R. Motokawa¹, M. Matsuda¹, T. J. Sato^{2,3}

¹Japan Atomic Energy Agency, ²The University of Tokyo, ³Tohoku University

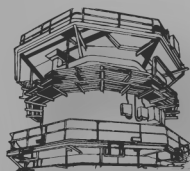
FO1_3

09:45~10:00

Current Status and Roadmap of Materials and Life Science Experimental Facility at J-PARC

Yukinobu Kawakita¹, T. Otomo²

¹Japan Atomic Energy Agency, ²High Energy Accelerator Research Organization



[FO2]

Neutron Imaging and Applications

Session Date:	Sept. 12 (Fri.), 2025
Session Time:	10:20 ~ 12:40
Session Room:	Room A (105)
Session Chairs:	Dr. Youngju Kim (Korea Atomic Energy Research Institute), TBD (Japan)

FO2_1

10:20~10:40

Swelling Dynamics of Crosslinked Polymer: Neutron Radiography Study

Hyeonjun An¹, Youngtak Koo¹, Jae Kwan Im¹, Youngju Kim², Jongyul Kim², TaeJoo Kim², Joonwoo Jeong¹

¹Ulsan National Institute of Science and Technology, ²Korea Atomic Energy Research Institute

FO2_2

10:40~11:00

Recent Developments in Neutron Grating Interferometry at PNU and KAERI: From Experimental Progress to Deep Learning Phase Retrieval

Seung Wook Lee

Pusan National University

FO2_3

11:00~11:20

Study on the Performance of Metallic Separator Fuel Cell Using Neutron

Taejoo Kim, J.Y. Kim, Y.J. Kim, E.J. Shin, W. Woo, H.B. Chae

Korea Atomic Energy Research Institute

FO2_4

11:20~11:40

Neutron 3D Atomic-Imaging Method with Element Selectivity: White Neutron Holography

Kenji Ohoyama¹, K. Abe¹, M. Takita¹, T. Igawa¹, R. Suzuki¹, A. Fujimori¹, M. Ito¹, S. Sugano¹, M. Harada², K. Oikawa², Y. Inamura², K. Hayashi³

¹Ibaraki University, ²Japan Atomic Energy Agency, ³Nagoya Institute of Technology

FO2_5

11:40~12:00

Complementary Neutron and X-ray Imaging of Paleontological Fossils and Historical Artifacts in Japan

Daisuke Ito¹, N. Odaira¹, Y. Saito¹, I. Harayama², K. Kurita², T. Shinohara², T. Osawa², Y. Kiyanagi³

¹Kyoto University, ²Japan Atomic Energy Agency, ³Hokkaido University

FO2_6

12:00~12:20

Neutron Imaging Technology for Understanding of Lubricating Grease Fluidity inside Bearings

Kazumi Sakai¹, T. Utsumi¹, Y. Matsumoto²

¹ENEOS Corporation, ²Comprehensive Research Organization for Science and Society

FO2_7

12:20~12:40

Pulsed Neutron Imaging Study of Japanese Swords at J-PARC

Kenichi Oikawa¹, Y. Matsumoto², K. Watanabe³, H. Sato⁴, J.D. Parker², T. Shinohara¹, Y. Kiyanagi^{5,6}

¹Japan Atomic Energy Agency, ²Comprehensive Research Organization for Science and Society, ³Kyushu University, ⁴Hokkaido University, ⁵Japan Neutron Optics Inc., ⁶Hokkaido University

[FO3]

Neutron Instrumentation and Engineering

Session Date:	Sept. 12 (Fri.), 2025
Session Time:	15:20 ~ 17:20
Session Room:	Room A (105)
Session Chairs:	Dr. Junehyuk Lee (Korea Atomic Energy Research Institute), TBD (Japan)

FO3_1

15:20~15:40

Development of a Neutron Detector Using a Boron-Based GEM Detector

WooJong Kim, JSH Lee, HW Lee, IK Park, DH Song, MJ Kwon

University of Seoul

FO3_2

15:40~16:00

New Devices for Positioning Heavy Loads and Leveling

Sang Jin Cho, J.Y. Kim, S.W. Kim

Korea Atomic Energy Research Institute

FO3_3

16:00~16:20

Upgrade Plan and Prospects for Neutron Detectors in HANARO Neutron Spectrometers

Myungkook Moon, J.Y. Kim, W. Woo

Korea Atomic Energy Research Institute

FO3_4

16:20~16:40

The New Research Reactor at the “Monju” Site in Japan: Project Overview and Neutron Instruments Study

Nobuhiro Sato

Kyoto University

FO3_5

16:40~17:00

Research and Development of RIKEN Compact Neutron Systems, RANS Project

Takaoki Takanashi¹, T. Kobayashi¹, M. Mizuta¹, M. Takamura^{1,2}, H. Okuno¹, T. Fukuchi^{1,2}, Y. Wakabayashi^{1,2}, S. Imajyo¹, S. Ikeda⁴, A. Muneem¹, H. Kusano¹, S. Otsuka¹, T. Ohgo¹, H. Murakami^{1,2}, T. Hashiguchi¹, Y. Kawamura¹, Y. Nakayama¹, Y. Ikeda¹, T. Enoto^{1,3}, Y. Otake^{1,2}

¹RIKEN Center for Advanced Photonics, ²Rans View Corporation, ³Kyoto University, ⁴Institute of Science Tokyo

FO3_6

17:00~17:20

Development and Applications for Polarized Neutron Experiments Using SEOP-Based ³He Spin Filters in Japan

Shusuke Takada^{1,2}, K. Asai³, M. Fujita¹, T. Ino⁴, K. Kakurai¹, R. Kobayashi², T. Oku^{2,5}, T. Okudaira^{2,3}, M. Okuizumi³, K. Sakai², S. Takahashi⁶

¹Tohoku University, ²Japan Atomic Energy Agency, ³Nagoya University, ⁴High Energy Accelerator Research Organization, ⁵Ibaraki University, ⁶The University of Tokyo