

The 7th International Conference on Nuclear Analytical Techniques NAT 2026

September 6 /Sun. – 10 /Thu., 2026
aT Center, Seoul, Korea

PROGRAM BOOK

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SEOUL METROPOLITAN
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Korea Radioanalytical Association



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Program at a Glance

Sept. 6 (Sun.)

		Room A (Grand Hall)	Room B (Segyero 1)	Room C (Segyero 2)	Room D (Segyero 3)	3F Foyer
16:00~18:00	120'	Registration				
18:00~20:00	120'	Welcome Reception				

Sept. 7 (Mon.)

		Room A (Grand Hall)	Room B (Segyero 1)	Room C (Segyero 2)	Room D (Segyero 3)	3F Foyer
09:30~10:00	30'	Opening Ceremony (5F, Grand Hall)				
10:00~10:45	45'	Plenary Talk 1 (5F, Grand Hall) Dr. Heather Chen–Mayer (National Institute of Standards and Technology (NIST), USA) "Nuclear Analytical Techniques at NIST"				
10:45~11:30	45'	Plenary Talk 2 (5F, Grand Hall) Prof. Xiaolin Hou (Lanzhou University, China) "Radioanalytical Chemistry, Present Status and Challenge"				
11:30~13:00	90'	Lunch (B1F, Lucia Hall)				
13:00~16:00	180'	[MA1] Radionuclide Analysis for Geological Disposal (13:00~16:00)	[MB1] Neutron Activation Analysis & Prompt Gamma Activation Analysis (13:00~15:50)	[MC1] Radiochemistry I: Environmental Radioactivity and Analysis (13:00~15:00)	[MD1] Nuclear Instrumentation and Methodology (13:00~15:00)	
16:00~17:00	60'					Poster Session 1

Sept. 8 (Tue.)

		Room A (Grand Hall)	Room B (Segyero 1)	Room C (Segyero 2)	Room D (Segyero 3)	3F Foyer
10:00~10:45	45'	Plenary Talk 3 (5F, Grand Hall) Prof. Yoshio Takahashi (The University of Tokyo, Japan) "Environmental Behaviors of Radionuclides Studied by Advanced X-ray Absorption Spectroscopy"				
10:45~11:30	45'	Plenary Talk 4 (5F, Grand Hall) Dr. Raghunath Acharya (Bhabha Atomic Research Centre, India) "Developments and Applications of Neutron and Proton Based Nuclear Analytical Techniques for Non-destructive Chemical Characterization of Materials"				
11:30~13:00	90'	Lunch (B1F, Lucia Hall)				
13:00~16:00	180'	[TA1] UST-KAERI (13:00~17:15)	[TB1] ACC&AI based NATs (13:00~16:05)	[TC1] Radiochemistry II: Radioisotope Production, Analysis and Applications (13:00~15:30)	[TD1] Special Session on Cultural Heritage (13:00~15:30)	Poster Session 2
16:00~17:00	60'					
18:30~20:30	120'	Banquet (EL Tower, 5F, Orce Hall)				

Sept. 9 (Wed.)

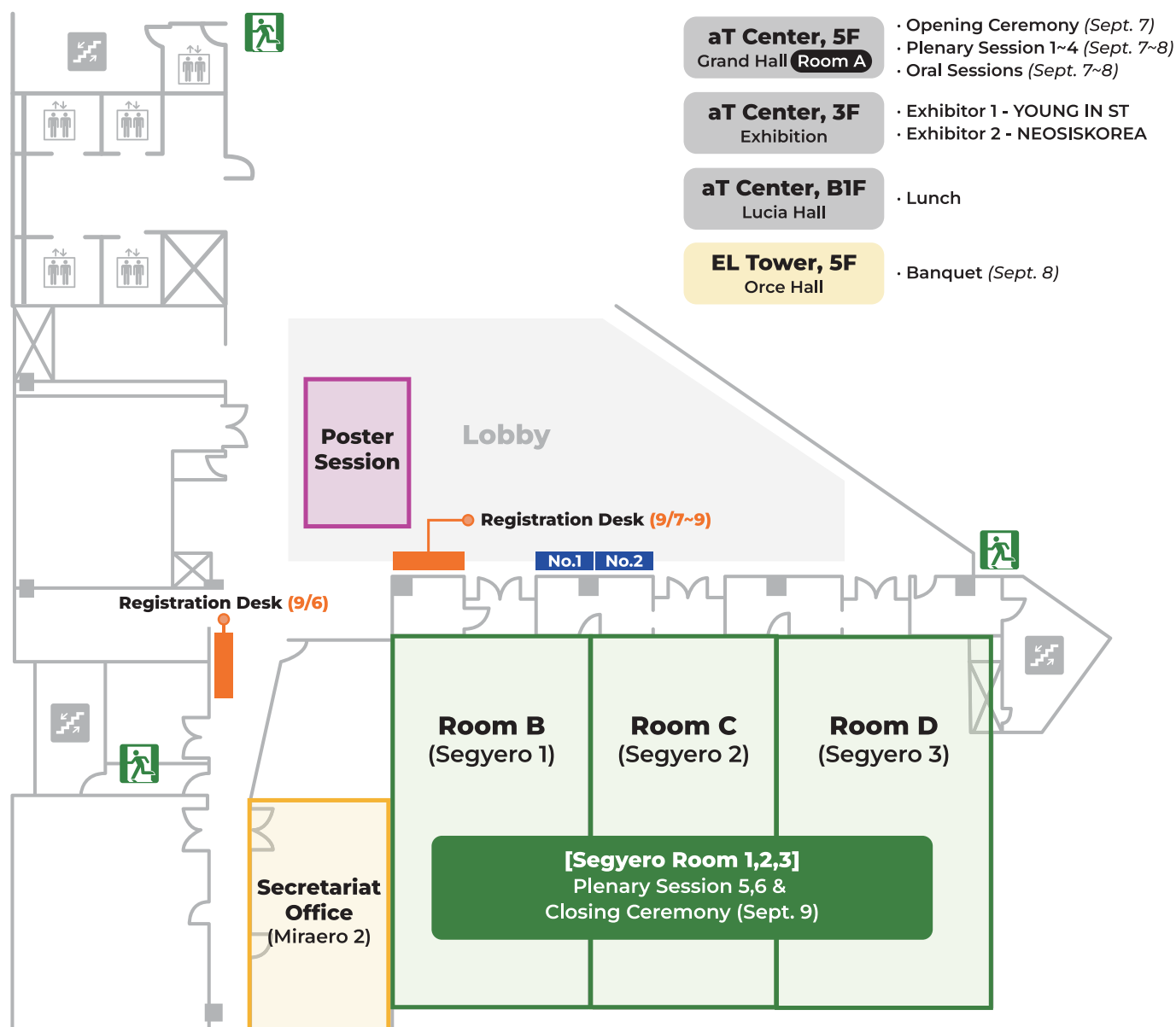
		Room A (Grand Hall)	Room B (Segyero 1)	Room C (Segyero 2)	Room D (Segyero 3)	3F Foyer
09:30~11:30	120'		[WB1] Radiochemical Analysis & Characterization of Decommissioning and Radioactive Waste (09:30~10:50)	[WC1] Dosimetry (10:10~11:30)	[WD1] Radiochemistry III: Isotope Separation & Analysis (09:30~11:30)	Poster Session 3 (UST-KAERI)
11:30~13:00	90'		Lunch (B1F, Lucia Hall)			
13:00~15:00	120'		[WB2] Radiochemical Analysis & Characterization of Decommissioning and Radioactive Waste (13:30~14:50)	[WC2] Nuclear Characterization Techniques (13:00~14:40)	[WD2] Recent Progress in Advanced Reactors (13:00~14:55)	
15:00~15:30	30'		Break			
15:30~16:15	45'		Plenary Talk 5 (3F, Segyero Room 1,2,3) Prof. Mitsuru Ebihara (Tokyo Metropolitan University (TMU), Japan) "Contributions of Activation Analysis to Cosmochemical Research"			
16:15~17:00	45'		Plenary Talk 6 (3F, Segyero Room 1,2,3) Prof. Byungchan Han (Yonsei University, Republic of Korea) "AI-machine Learning Techniques Applied to Energy Materials Discovery and Design"			
17:00~17:20	20'		Closing Ceremony (3F, Segyero Room 1,2,3)			

Sept. 10 (Thu.)

09:00~17:00	480'	Excursion (For Excursion Applicants Only)				
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Map of Conference Venue

aT Center 3F



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International Conference on
Nuclear Analytical Techniques

NAT 2026

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PROGRAM BOOK



NAT 2026

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The **7th**

International Conference on
Nuclear Analytical Techniques

NAT 2026





I . Welcome Message

It is my great pleasure and honor to invite you to the 7th International Conference on Nuclear Analytical Techniques (NAT 2026), to be held in September 2026 at the aT Center in Seoul, Republic of Korea.

Nuclear Analytical Techniques are vital in advancing human life across nuclear research and industry, environment, security, and cultural heritage. NAT 2026 will serve as a global platform for experts to share the latest research achievements and explore future development directions together. This year's conference features an exceptionally diverse scientific program. We will engage in profound discussions on core foundational technologies, including Actinide Analytical Chemistry, Neutron Activation Analysis, Mass Spectrometry, and Accelerator-based Analytical Methods. Furthermore, participants will explore broad application fields, ranging from Radioecology and Nuclear Forensics to Radiopharmaceuticals and Material Structure Studies.

We also highly anticipate our two Special Sessions, designed to promote interdisciplinary research. The Cultural Heritage Session explores the use of radiation technology in conserving historical artifacts, while the AI and Robot-based Radiochemistry and Nuclear Chemistry session integrates cutting-edge ICT to showcase the innovative future of our field.

We kindly ask you to share your valuable academic achievements through active participation in oral and poster presentations. We sincerely hope this conference will help you build a strong global network with fellow researchers worldwide.

We look forward to welcoming you to the dynamic city of Seoul to open a fruitful chapter of academic exchange.

Welcome!



Dr. Gwang-Min SUN



Dr. Sang Ho LIM

Co-Chairpersons on behalf of the NAT 2026 Organizing Committee



II. Sponsors and Supporters

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IV. Scope

01. ACT; Actinide Analytical Chemistry
02. CMX; Collaborative Material Exercise
03. ECO; Radioecology and Environmental Radioactivity
04. FOR; Nuclear Forensics
05. FUE; Advances in Radiochemistry Supporting the Nuclear Fuel Cycle
06. LON; Radioanalytical Methods of Long-lived Radionuclides
07. MAS; Mass Spectrometry
08. MET; Nuclear Instrumentation and Methodology
09. MOS; Nuclear Methods in Material Structure Studies (Mössbauer Effect, Positron Annihilation, MuSr, etc.)
10. NAA; Neutron Activation Analysis
11. PGA; Prompt Gamma Activation Analysis
12. NDP; Neutron Depth Profiling
13. ACC; Accelerator based Analytical Methods (PIXE, PIGE, NRA, RBS, AMS etc.)
14. PHA; Radiolabeled Compounds and Radiopharmaceuticals
15. PRO; Production of Radionuclides
16. SEP; Radionuclide Separation
17. REF; Metrology, Reference Materials, Reference Methods
18. K 0; K0 Method
19. EDU; Education in Radiochemistry and Activation Analysis
20. DOS; Dosimetry
21. Special Session: Cultural Heritage Session
22. Special Session: AI and Robot based Radiochemistry and Nuclear Chemistry
23. UST-KAERI Special Session: UST-Nuclear Rising Stars Session



V. Conference Information

1. Registration

- **Place:** 3F, Foyer

Credit cards and Cash are the only accepted forms of payment for on-site registration. The registration desk is open during the conference according to the following schedule;

- **Operation Hours**

Date	Time
September 6 (Sun.)	16:00-18:00
September 7 (Mon.)	09:00-17:00
September 8 (Tue.)	
September 9 (Wed.)	

- **On-site Registration Fee**

Registration Type	On-site (September 6-9)
Regular	600,000 won (\$480)
Student	300,000 won (\$240)

- ▶ Regular Fee Includes: Welcome Reception, Lunch, Coffee Break, Technical Sessions, and Banquet
- ▶ Student Fee Includes: Welcome Reception, Lunch, Coffee Break, and Technical Sessions

- **Name Badge**

For security purpose, participants must wear their name badges during the conference. If your badge needs any correction, please visit the registration desk for a replacement. There will be staff to check your badge at every gate of session rooms.

- **Receipt of Registration**

You can find the receipt inside your name tag. If you have any inquiries or requests on receipt, please visit the registration desk to get it.



2. Social Programs

1) Welcome Reception

Date / Time	September 6 (Sun.). 2026 / 18:00-20:00
Place	Red Squirrel
Address	1F, 327, Yangjae-dong, Seocho District, Seoul

2) Opening Ceremony

Date / Time	September 7 (Mon.). 2026 / 09:30-10:00
Place	5F, Grand Hall

3) Banquet

Participants are required to show the 'Banquet Ticket' at the entrance. Great food and lucky draw will be there!

Date / Time	September 8 (Tue.). 2026 / 18:30-20:30
Place	EL Tower, 5F, Orce Hall
Address	213, Gangnam-daero, Seocho-gu, Seoul, Korea

- Transportation

■ Public Bus (~10 mins)

Take any bus bound for Yangjae Station from Exit 3 or 4 (e.g., 400, 441, 452), get off at Yangjae Station & Seocho Culture & Arts Center, and walk 3 minutes to EL Tower.

■ Walk (25 mins)

Walk straight north along Gangnam-daero (~1.8 km) towards Yangjae Station Exit 9.

4) Closing Ceremony

Date / Time	September 9 (Wed.). 2026 / 17:00-17:20
Place	3F, Segyero Room 1,2,3

3. Awards

The Best Oral Presentation Awards and **Best Poster Awards** recognize outstanding research presented at NAT 2026. All submitted abstracts are automatically eligible and evaluated by session chairs and judges. Winners will be awarded at the Closing Ceremony.



4. General Information

1) Lunch

- **Place:** B1, Lucia Hall

- **Operation Hours**

Date	Sept. 7 (Mon.)	Sept. 8 (Tue.)	Sept 9. (Wed.)
Time	11:30-13:00	11:30-13:00	11:30-13:00

2) Excursion

A special excursion has been prepared for our international participants and accompanying guests to explore Seoul, Korea, during NAT 2026.

Date / Time	September 10 (Thu.). 2026 / 09:00-17:00
Tour Itinerary	Departure (aT Center) → Gyeongbokgung Palace & National Palace Museum → Lunch → Myeong-dong → Arrival (aT Center)

* Available only to those who registered for the excursion in advance.

3) Secretariat

- **Place:** 3F, Miraero Room 2

- **Operation Hours**

Date	Time
September 6 (Sun.)	13:00-18:00
September 7 (Mon.)	08:30-18:00
September 8 (Tue.)	09:00-18:00
September 9 (Wed.)	09:00-17:00



VI. Plenary Speakers

Plenary Talk 1

- Date & Time: September 7 (Mon.), 2026 / 10:00-10:45
- Place: 5F, Grand Hall
- Chairpersons: Young Rang Uhm (KAERI), Jong-Yun Kim (KAERI)



Nuclear Analytical Techniques at NIST

Dr. Heather Chen-Mayer

(National Institute of Standards and Technology (NIST), USA)

Biography

Dr. Huaiyu Heather Chen-Mayer is a Physicist in the Chemical Process and Nuclear Measurements Group of the Chemical Sciences Division at the National Institute of Standards and Technology (NIST), USA. Her current research activities include neutron-based analytical techniques, particularly Prompt Gamma Activation Analysis (PGAA), neutron and gamma imaging, and quantitative methods for elemental characterization. She is responsible for the Cold Neutron PGAA instrument at the NIST Center for Neutron Research (NCNR).

She has contributed extensively to the development and application of neutron-based measurement techniques for materials science, cultural heritage studies, nuclear technology, and industrial applications. Her work includes advancing PGAA methodologies and supporting interdisciplinary collaborations using reactor- and beam-based analytical facilities. Her past interest includes Neutron Depth Profiling (NDP) for near surface analysis, and on capillary neutron focusing optics for PGAA and NDP.

Previously at Radiation Physics Division at NIST, Dr. Chen-Mayer worked on CT dose standardization and water calorimetry-based absorbed dose standards for accelerator-based electron and x-ray radiotherapy and developed a novel method using ultrasound thermometry, enabling tomographic dose mapping in water.

She has participated in numerous international collaborations and continues to support the advancement of nuclear analytical techniques through research innovation, standards development, and scientific cooperation.

Abstract

This is an overview of nuclear analytical techniques at NIST employed at the NIST Center for Neutron Research (NCNR), operated based on the principle of thermal neutron capture and subsequent emission of MeV gamma rays (PGAA) or charged particles (NDP) (Fig. 1). PGAA was employed as a complementary technique for the certification of standard reference material (SRM), particularly for light elements in various matrices, based on the established comparator method for quantitative analysis. The absolute method based on tabulated partial gamma cross section and measured detector efficiency was also investigated. A recent addition of a linear motion



chopper enabled in-neutron beam analysis of prompt and decay gamma rays for short lived radionuclides, mimicking cyclic INAA but without the need for sample transfer. This method was applied to F-20 (11 s half-life) in biological reference materials. In addition to the separate spectral acquisitions according to the chopper's phase, list-mode data were also acquired and processed by using time and energy windows at various chopper duty cycles to evaluate the timing settings. Other research activities include prompt gamma imaging based on Compton imaging using a dual-plane detector with spectral and spatial information, and a planned emission ghost imaging in which spatial resolution is achieved using a single pixel spectral detector. The PGAA instrument is expected to be available when the reactor returns to operation later this year. The NDP instrument was recently relocated to a new curved neutron guide and is expected to accommodate limited users access within a year. The INAA method with in-reactor irradiation (thermal neutron fluence rate about $10^{14}/\text{cm}^2\text{-s}$) is an indispensable technique for SRM certification. Its availability depends on the accessibility of the irradiation area after the reactor resumes operation, as well as the thermal neutron PGAA station heavily utilized for SRM measurements (fluence rate $3.4 \times 10^8/\text{cm}^2\text{-s}$) atop the reactor.

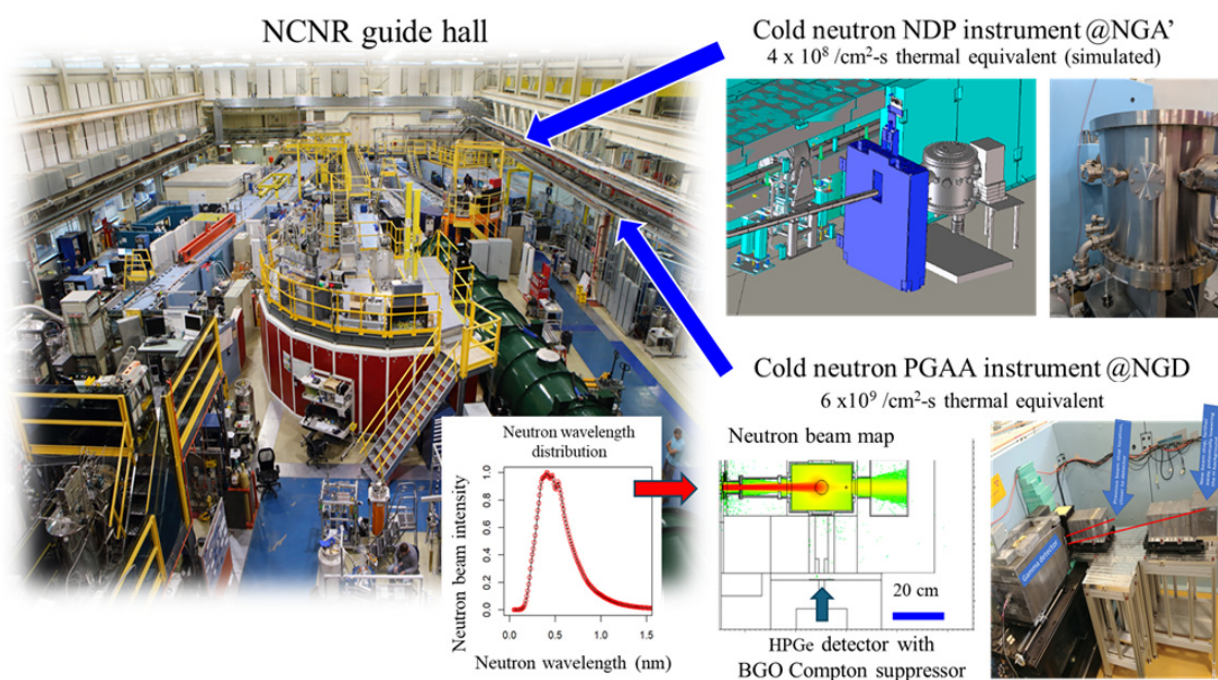


Fig. 1. Cold neutron beam instruments for NDP and PGAA at NIST Center for Neutron Research (NCNR)

Research Interests

Neutron-based analytical techniques (PGAA); neutron imaging; Compton imaging; Ghost imaging; quantitative elemental analysis; measurement standardization.



Plenary Talk 2

- Date & Time: September 7 (Mon.), 2026 / 10:45-11:30
- Place: 5F, Grand Hall
- Chairpersons: Young Rang Uhm (KAERI), Jong-Yun Kim (KAERI)



Radioanalytical Chemistry, Present Status and Challenge

Prof. Xiaolin Hou

(Lanzhou University, China)

Biography

A professor of radiochemistry in Lanzhou University and Institute of Earth Environment, CAS, China, and a professor in Technical University of Denmark in 2013-2023. He was awarded Hevesy Medal Award in 2019 for his outstanding contribution in the radioanalysis and environmental tracing. He has leaded >25 projects funded by EU and China, author/coauthored >400 papers with h-index of 49 and a monograph on Chemistry and Analysis of Radionuclides. He is an associated editor of Journal of Environmental Radioactivity, and services as member of Division of Nuclear and Radiochemistry of European Chemistry Society and a mission expert of IAEA, supervised >30 PhD and 25 master students.

Abstract

Radioanalytical chemistry of radionuclides is the most basic aspects in many aspects of nuclear industry, environmental monitoring, nuclear safety and tracing studies of environmental process. This work summarize the status and progress of materials and techniques developed for the separation of radionuclides, including extraction chromatographic resins, adsorption materials for gaseous and hard-to-measure radionuclides, scintillation resin for on-line determination of radionuclides. The development on instruments and methods for measurement radionuclides are also summarized, including the methods for measure ultra low-level radionuclides and rapid, automated, and on-line measurement techniques. The efforts to achieving an online and in-situ analysis of radionuclides in reprocessing process and influents from nuclear facilities nuclear power plants and medical radioisotope production laboratories are highlighted. These efforts include synthesis and production of various separation materials for specific separation of different radionuclides from various media including atmosphere, acidic and alkaline effluent, as well as scintillation resin for direct separation of target radionuclides for direct measurement by scintillation counter; establishment of various separation methods specific separation of target radionuclides from complicated matrices and sequential separation of a series radionuclides from the same sample; design and establish separation system based on flow injection concept to fulfil automated separation of radionuclides; integrate detection and control systems with automated separation and scintillation



separation material to achieving automated, on-line, even in-situ determination of radionuclides. Meanwhile, a comparison on the radiometric technique and mass spectrometric techniques for measurement of long-lived radionuclides are compared. The new challenge on the separation and determination of radionuclides, and the corresponding strategies are also discussion.

Acknowledgements

This work was financially supported by the Natural Science Basic Research Program of Shaanxi Province, China (No. 2025JC-YBQN-354) and National Nature Science Foundation of China (22341603).

Research Interests

Radioanalytical chemistry, Radioecology, Characterization of nuclear waste, Tracing studies using radionuclides.



Plenary Talk 3

- Date & Time: September 8 (Tue.), 2026 / 10:00-10:45
- Place: 5F, Grand Hall
- Chairpersons: Young Rang Uhm (KAERI), Jong-Yun Kim (KAERI)



Environmental Behaviors of Radionuclides Studied by Advanced X-ray Absorption Spectroscopy

Prof. Yoshio Takahashi

(The University of Tokyo, Japan)

Biography

Yoshio Takahashi is a Full Professor of Geochemistry and Environmental Radiochemistry in the Department of Earth and Planetary Science at the University of Tokyo. He received his Ph.D. from the Department of Chemistry at the same university. His research focuses on the speciation of various elements, including radionuclides, in the environment using X-ray spectroscopic techniques. He published more than 400 papers and their citations are more than 15,000 (Scopus). He has received the Commendation by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government. He has also contributed to establishing the field of Molecular Geochemistry with many colleagues in the world.

Abstract

In geochemistry and environmental chemistry, understanding the elementary processes of the behavior of elements by analyzing their chemical species (i.e. molecular geochemistry) contributes to a better understanding of the evolution of the universe, the earth, and life, and to the prediction of future environment, resources, and climate. This is basically similar to the studies of environmental radiochemistry. However, we need to consider several additional point in the environmental radiochemistry, which deals with chemistry related to radionuclides [1]: first, by gaining knowledge beyond the framework of the conventional periodic table, the behavior of all elements can be treated more systematically. The second is that the natural abundance of these elements is generally low, which needs more sensitive analysis in particular for speciation work to develop molecular geochemistry of radionuclides. Actually, tools developed in radiochemistry have often provided breakthroughs in molecular geochemistry and contributed to the understanding of the systematics of elemental behavior, especially as societal demands have made the development of such sensitive methods significant in this field. An example of such method is laser-induced fluorescence (LIF) spectroscopy, which has high-sensitivity and various information on the speciation of some elements [2], which was developed quickly in the field of environmental geochemistry in 1990s and subsequently used in trace element geochemistry afterwards. In a sense, this field is at the front of trace element geochemistry, and similar situation may be valid to the application of X-ray absorption fine structure (XAFS) spectroscopy. Generally, XAFS at hard X-ray region including X-ray absorption near-edge



structure (XANES) and extended X-ray absorption fine structure (EXAFS) are frequently employed, which provide information of (i) valence and symmpetry of the target element and (ii) local structures in the vicinity of the targe element such as interatomic distances to neighboring atoms and coordination number. To get the spectra, fluorescens mode using Si or Ge detector to detect X-ray fluorescence intensity from a target element is commonly used to get the XAFS spectra of trace elements. To conduct more sensitive analysis, high energy resolution fluorescence detection (HERFD) using both in energy-dispersive or wavelength-dispersive detector is very powerful to decrease the signal of the target element to background signal (XRF of other elements and scattered X-ray). In this presentation, as examples of their applications to environmental radiochemistry two topics, (i) studies on the migration of radionuclides emitted by the Fukushima Dai-ichi Nuclear Power Plant (FDNPP) accident in 2011 [3,4] and (ii) the development of advanced XAFS, which consists XANES and EXAFS. The former topic must be summarized from various scientific and engineering perspectives, and the various geochemical processes and migration behavior of radionuclides learned from these studies are important for predicting the behavior of radionuclides in the terrestrial environment [5]. The latter topic is important for a comprehensive understanding of the environmental behavior of all elements, which is also related to the first topic, because the highly sensitive analytical tool for the speciation of trace elements is necessary in all fields of environmental geochemistry. The high sensitivity method can be achieved by high energy resolution detection of fluorescent X-rays using either a crystal analyzer or a high energy resolution detector such as a transition edge sensor (TES)[6]. In particular, high energy resolution fluorescence detection XANES (HERFD-XANES) provides more speciation information than conventional XANES [7], which needs to be applied in a wide range of geochemistry in the future. Among the major radionuclides, radiocesium and U were the focus in this part. Radiocesium, which is abundant and volatile in the reactor, is the main radionuclide emitted from the FDNPP accident, and adsorption on phyllosilicates is the main reaction controlling radiocesium behavior [8].

References

- [1] Takahashi et al., *Treatise on Geochemistry* (Third Edition) 6 (2025) 105–150. [2] Takahashi et al., *Geochim. Cosmochim. Acta* 66 (2002) 1–12. [3] Yoshida and Takahashi, *Elements* 8 (2012) 201–206. [4] Igarashi et al., *J. Environ. Radioact.* 205–206 (2019) 101–118. [5] Y. Takahashi et al., *Sci. Rep.* 7 (2017) 12407. [6] W. Li et al., *Anal. Chim. Acta* 1240 (2023) 340755. [7] Yomogida et al., *Inorg. Chem.* 61 (2022) 20206–20210. [8] Yamaguchi et al., *J. Colloid Interface Sci.* 661 (2024) 317–332

Research Interests

Speciation, XAFS, Radionuclides, Molecular Geochemistry, Fukushima Nuclear Accident



Plenary Talk 4

- Date & Time: September 8 (Tue.), 2026 / 10:45-11:30
- Place: 5F, Grand Hall
- Chairpersons: Young Rang Uhm (KAERI), Jong-Yun Kim (KAERI)



Developments and Applications of Neutron and Proton Based Nuclear Analytical Techniques for Non-destructive Chemical Characterization of Materials

Dr. Raghunath Acharya

(Bhabha Atomic Research Centre, India)

Biography

Dr. Raghunath Acharya is an Outstanding Scientist at Bhabha Atomic Research Centre, Department of Atomic Energy (DAE), Government of India and also a Senior Professor in Chemical Sciences at Homi Bhabha National Institute, DAE. Currently he is the Head, Isotope and Radiation Application Division (IRAD), Radiochemistry and Isotope Group, BARC, Mumbai. He is a renowned expert in Nuclear Analytical Chemistry. He is instrumental in developing nuclear analytical facilities utilizing Dhruva and Apsara research reactors and tandem particle accelerators like FOTIA as well as nuclear analytical methods for faster and non-destructive chemical characterization of materials relevant for nuclear technology, materials sciences (glass, ceramics, alloys & high purity materials) as well as for geology, biology, environment, archaeology and forensic sciences. For the first time in India, he has developed k₀-based NAA & PGNAA, Internal Monostandard NAA (IM-NAA), and in-situ current normalized IBA (PIGE & PIXE) methods. A first of its kind external PIGE facility was developed by him and utilized for rapid analysis of as received samples for quantification of low Z elements and isotopic composition of B (10B/11B atom ratio) including B-10 isotope content certification in industrial B₄C samples. He has also contributed towards QA/QC of NATs and utilization of NATs (NAA & PIGE) for in-house reference material (IRM) preparation. He has utilized extensively NATs for collaborative R&D work with academic institutes and also for PhD programs of research scholars.

Abstract

Chemical characterization of materials is one of the important steps in chemical quality control (CQC) exercise. Compared to conventional wet-chemical and spectroscopic techniques, Nuclear Analytical Techniques (NATs) have several advantages like simultaneous multielemental capability at major to trace concentration levels, often non-destructive in nature, quantitative information on total elemental and isotopic concentrations and negligible or less spectral interference and matrix effects. Commonly used NATs utilizing neutron, charged particles and photon as probes are Instrumental Neutron Activation Analysis (INAA), Prompt Gamma-ray NAA (PGNAA), Charged Particle Activation Analysis (CPAA), Particle Induced Gamma-ray Emission (PIGE) and Photon Activation Analysis (PAA). Since 1994, different nuclear analytical facilities and methods have been developed for



non-destructive chemical characterization of materials of diverse matrices utilizing neutrons from research reactors as well as low energy proton beams from tandem particle accelerators of BARC, Mumbai. The developed methods, namely k_0 -based conventional and Internal Monostandard Neutron Activation Analysis (IM-NAA) and in situ current normalized vacuum chamber and external (in air) Particle Induced Gamma-ray Emission (PIGE), were optimized for quantification of low to high Z elements including REEs. Methods were validated utilizing suitable CRMs/SRMs as a part of QC. These methods were applied to various samples relevant for fields like geology, environment, biology, food & agriculture, archaeology, forensic sciences, materials sciences and nuclear technology. IM-NAA method in conjunction with in situ detection efficiency was successfully applied for standard-less compositional characterization of large sized and non-standard geometry reactor structural materials for CQC and for grouping/provenance studies of archaeological samples. INAA methods utilizing high flux reactor neutrons were utilized for trace element determination in many samples including high purity graphite and aluminium. In situ current normalized vacuum chamber PIGE method was utilized for simultaneous quantification of low Z elements in glass and ceramic samples as well as total B and its isotopic composition (IC) in neutron absorbers. External (in air) PIGE facility developed at our institute is very useful for rapid and non-destructive analysis of “as received” samples of glass, ceramics and alloys for quantification of low Z elements as well as IC of B in B_4C and other refractory materials, which are difficult to be analysed by conventional analytical techniques. Both INAA and PIGE methods were utilized for forensic studies of automobile (car) windshield glass samples with help of trace elements including REEs as a part of an IAEA CRP work and also for evaluating quality of coal and cement samples.

Acknowledgements

Author sincerely thanks all co-workers for their contributions and operation crews of research reactor and particle accelerator facilities of BARC, DAE for their help. Author is thankful to authorities of BARC, DAE, Government of India for their continued support and encouragements.

Research Interests

R&D Work on Nuclear Analytical Techniques (NAATs); The k_0 -based NAA, PGNA and IM-NAA; In situ current normalized vacuum chamber and external PIGE; CQC of Nuclear Technology and Advanced Materials; Total Elemental Conc. & Isotopic Composition of B ($^{10}B/^{11}B$ ratio); QA/QC of NATs and Preparation of In-house RMs



Plenary Talk 5

- Date & Time: September 9 (Wed.), 2026 / 15:30-16:15
- Place: 3F, Segyero Room 1,2,3
- Chairpersons: Young Rang Uhm (KAERI), Jong-Yun Kim (KAERI)



Contributions of Activation Analysis to Cosmochemical Research

Prof. Mitsuru Ebihara

(Tokyo Metropolitan University (TMU), Japan)

Biography

Professor Mitsuru Ebihara received his Ph.D. in Science from the University of Tokyo in 1979, following his undergraduate studies there. He began his academic career at the University of Chicago (1979–1982), and subsequently held positions at Gunma University (1982–1988), Tokyo Metropolitan University (1988–2018), and Waseda University (2018–2024). He is currently Professor Emeritus and Visiting Professor at Tokyo Metropolitan University. Professor Ebihara's research focuses on cosmochemistry, particularly the elemental composition of meteorites and its implications for early solar system processes. He has made significant contributions to analytical techniques and geochemical interpretations using neutron-based methods. He has served as a member of the International Commission on Atomic Weights and the International Committee on Activation Analysis. He is a Fellow of the Meteoritical Society and a recipient of major awards from the Geochemical Society of Japan and the Japan Society of Nuclear and Radiochemical Sciences.

Abstract

Cosmochemistry aims to understand the origin and evolution of the Solar System through the chemical and isotopic study of extraterrestrial materials. Among these materials, primitive meteorites are particularly important because they preserve records of processes that occurred during the earliest stages of Solar-System formation. Accurate elemental abundances obtained from meteorites provide fundamental constraints on the distribution and evolution of elements in the solar nebula and on subsequent parent-body processes. Activation analysis has played a significant role in cosmochemical research for several decades owing to its high sensitivity, accuracy, and freedom from many analytical biases. In particular, prompt gamma-ray activation analysis (PGAA) and radiochemical neutron activation analysis (RNAA) have provided unique information on volatile and trace elements in meteorites that is difficult to obtain by other analytical methods. This talk reviews the contribution of activation analysis to cosmochemistry through studies of carbonaceous chondrites. The first part focuses on the application of PGAA to Antarctic carbonaceous chondrites, especially Yamato-type (CY) chondrites. Because PGAA permits the non-destructive determination of hydrogen, chlorine and major rock-forming elements, it is



particularly suitable for the analysis of rare meteorite samples. The chemical characteristics of CY chondrites revealed by PGAA measurements provide important constraints on the effects of aqueous alteration and thermal metamorphism in primitive asteroidal materials. The second part highlights the application of RNAA to the determination of halogen elements in carbonaceous chondrites. Radiochemical separation following neutron irradiation enables highly reliable measurements of chlorine, bromine, and iodine at trace and ultra-trace concentration levels. The method minimizes the influence of contamination and allows chemical yields to be determined directly, resulting in robust abundance data. Recent RNAA studies of CI, CM, CO and CV chondrites have clarified systematic variations in halogen abundances among carbonaceous chondrite groups and provided new insights into the behavior of volatile elements during the formation and evolution of the Solar System. The combined use of PGAA and RNAA demonstrates the continuing importance of activation analysis in modern cosmochemistry. These complementary techniques provide unique information on hydrogen and halogen elements, which are key tracers of volatile-element evolution in primitive meteorites. Future studies integrating activation analysis with mineralogical and isotopic investigations will further improve our understanding of aqueous alteration, thermal processing and volatile-element evolution in the early Solar System.

Research Interests

Neutron Activation Analysis; Prompt Gamma-ray Analysis; Meteorites; Returned Samples from Asteroids; Solar System Abundances of the Elements



Plenary Talk 6

- Date & Time: September 9 (Wed.), 2026 / 16:15-17:00
- Place: 3F, Segyero Room 1,2,3
- Chairpersons: Young Rang Uhm (KAERI), Jong-Yun Kim (KAERI)



AI-machine Learning Techniques Applied to Energy Materials Discovery and Design

Prof. Byungchan Han

(Yonsei University, Republic of Korea)

Biography

- Ph.D. Department of Materials Science & Engineering, MIT
- M.S. & B.S. Department of Nuclear Engineering, Seoul National University
- Distinguished Professor, Yonsei University (2024 - Current)
- Associate Dean, in the school of engineering of Yonsei University (2024 - 2026)
- Department Head, Chem. & Biomol. Eng., Yonsei University (2022 - 2024)
- Professor, Chem. & Biomol. Eng., Yonsei University (2015 - Current)
- Assistant, Associate Professor, DGIST (2011-2014)
- Postdoctoral Fellow, Stanford University (2009 - 2011)
- Postdoctoral Research Associate, MIT (2007 - 2009)

Abstract

The discovery and design of advanced materials for energy conversion and storage, as well as for the safe management of the nuclear fuel cycle, has traditionally relied on slow, intuition-driven cycles of synthesis and characterization. In this plenary lecture, I present how the convergence of quantum-mechanical computation and artificial intelligence/machine learning (AI/ML) is transforming this paradigm into a rapid, data-driven, and increasingly autonomous process, and illustrate the approach with our work on energy materials and on adsorbents for radioactive species. At the core of our framework, machine-learning interatomic potentials trained on first-principles density functional theory (DFT) data accelerate atomistic simulations by several orders of magnitude, enabling high-throughput screening of vast compositional spaces. Graph neural networks serve as surrogate models that predict key properties—adsorption energies, formation energies, and selectivity—directly from atomic structure, while generative models combined with active learning enable the inverse design of candidate materials targeted at specified functions. Together these elements form a closed-loop discovery cycle in which AI-proposed candidates are validated by simulation and experiment, and the resulting data continuously refine the models. As a representative application relevant to nuclear analytical science, I will



describe reusable platinum-coated iron (Fe@Pt) core-shell nanoadsorbents for the selective removal of radioactive iodine (I^- , I_2 , CH_3I , and ^{129}I) from complex aqueous media, achieving removal efficiencies above 99.8% and stable performance over 100 reuse cycles. DFT calculations revealed the atomistic origin of the selectivity—spontaneous chemisorption and dissociation of iodine into neutral atoms on Pt(111)—consistent with X-ray absorption, ICP-MS, GC-MS, and liquid-scintillation-counting measurements. This case demonstrates how mechanistic insight and AI-guided design jointly accelerate the development of high-performance materials, pointing toward autonomous laboratories for energy and environmental applications.

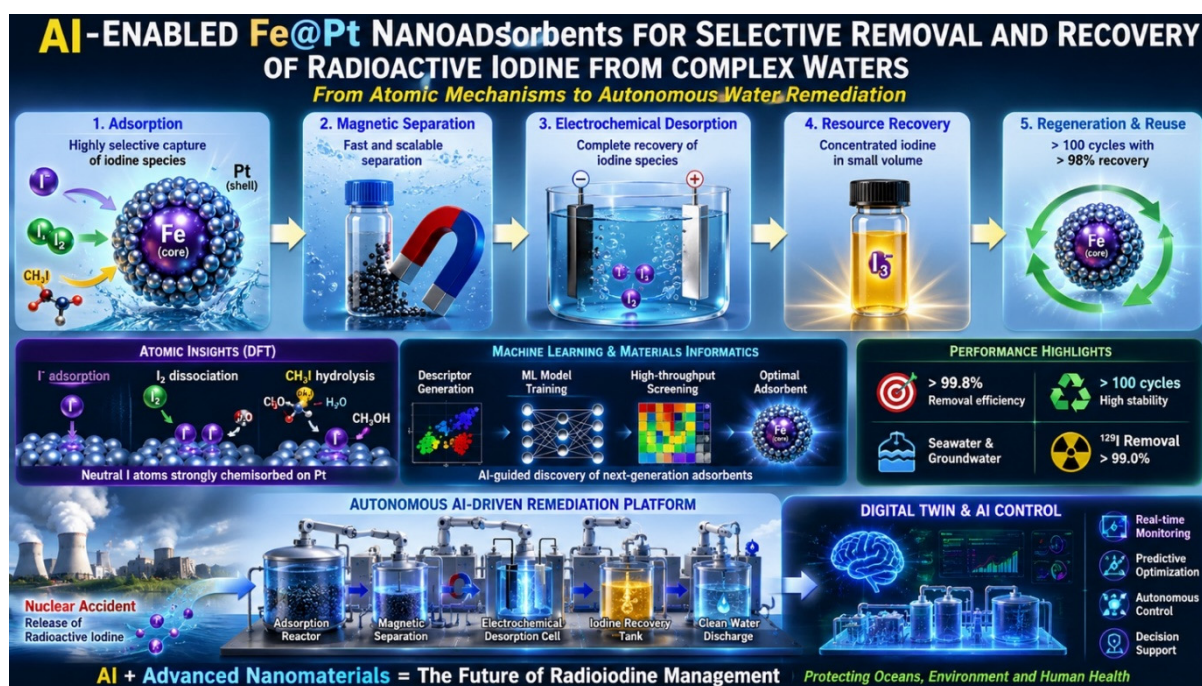


Fig. 1. AI/ML-driven closed-loop framework for energy materials discovery, illustrated by reusable Fe@Pt adsorbents for radioactive iodine: nuclear analytical characterization, first-principles DFT of iodine adsorption on Pt(111), and machine-learning design (ML interatomic potentials, graph neural networks, and generative inverse design). [image drawn with help of the ChatGPT]

Acknowledgements

This work was supported by the mid- and long-term nuclear research and development program (NRF-2017M2A8A5014716 and 2016M2B2B1945256) and by the Institute (2021M2E1A 1085202) for Korea Spent Nuclear Fuel (iKSNF) and National Research Foundation of Korea (NRF) grant funded by the Korea government (Ministry of Science and ICT, MSIT). T. H. acknowledges financial support from the Research center Program of the IBS (IBS-R006-D1) in the Republic of Korea.

Research Interests

First-principles Computational Radiochemistry, AI-Neural Network modeling for Energy Materials, Water Electrochemistry (Hydrogen & Oxygen Fuels), Catalysis, Fuel Cells, Battery Materials



VII. Technical Programs

1. Information on Technical Program

1) Oral Presentation

- ① The authors of abstracts accepted for oral presentation are asked to bring PowerPoint (or PDF) slides and present their research in a podium presentation.

※ Presentation Time

Presentation Type	Presentation Time
Plenary Talk	45 min. including Q&A
Invited Talk	20-35 min. including Q&A*
Oral Talk	15-20 min. including Q&A

* Presentation duration may vary by session. Please refer to the program book for details.

- We will prepare a computer for presentation, and authors are encouraged to use the conference computer for presentation, to avoid wasting time switching between personal laptops. (It is not recommended to bring your own laptop computer (especially MacBook) unless your presentation requires any special software and/or hardware)
- To avoid software compatibility problems (MS Power Point), speakers are advised to save their Power Point presentation on a USB memory stick and bring a backup version of their presentation.
- Files should be uploaded to the local PCs in the session room during the breaks between the sessions.

- ② Speakers should arrive in the session room 10 minutes BEFORE the start of their sessions to prepare their files with the session chair.

2) Poster Presentation

● Poster Presentation Regulation

- Poster session will be held on September 7 (Mon.)-9 (Wed.) in the 3F Foyer.
- Posters should be affixed and removed by the presenters themselves in time.
- Each poster should be allocated on a poster board corresponding to its poster number.
- Presenters are asked to stand at their designated positions to discuss their work.

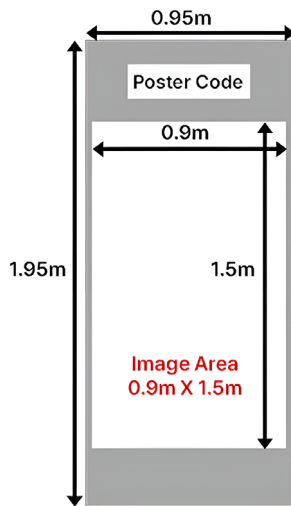
● Installation & Removal Information

- Authors should install and remove their posters during the designated hours shown below.

Title	Session Code	Date	Put-up Time	Presentation Time	Take-down Time
Poster Session 1	MP	Sept. 7 (Mon.)	11:30-15:30	16:00-17:00	17:00-17:30
Poster Session 2	TP	Sept. 8 (Tue.)	11:30-15:30	16:00-17:00	17:00-17:30
Poster Session 3 (UST-KAERI)	WP	Sept. 9 (Wed.)	09:00-09:30	09:30-11:30	11:30-13:00



● Poster Presentation Preparation



- Please check out the allowable size and prepare the poster.
- Each poster should indicate the abstract title, authors, affiliation, and abstract number
- The materials for displaying such as scissors, scotch tapes, and thumb tacks will be provided in the hall.
- Please remove your poster at the designated removal time. Any posters left behind will be discarded without notice.
- Q&A for Posters will be conducted on-site.



2. Technical Sessions

■ Oral Sessions

[MA1] Radionuclide Analysis for Geological Disposal	
Date / Time	September 7 (Mon.), 2026 / 13:00~16:00
Place	Room A (Grand Hall)
Chairpersons	Prof. Yongheum Jo (Hanyang University), Dr. Tae-Hyeong Kim (Korea Atomic Energy Research Institute)

[MA1_1] 13:00~13:20

Controlled Preparation of ^{237}Np Species and Thermodynamic Study of Np(V)–Isosaccharinate Complexation

So Yeon Chun, Wansik Cha, Hye-Ryun Cho, Hee-Kyung Kim

Korea Atomic Energy Research Institute

[MA1_2] 13:20~13:40

Concrete Barrier Performance in Controlling Radionuclide Migration in the Gyeongju LILW Repository

Hyeonjin Eun¹, Hyeongjin Kim¹, Jisoo Jung¹, Seungmo Yeon¹, Hee-Kyung Kim², Jong-Il Yun¹

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

[MA1_3] 13:40~14:00

Spectroscopic Insight into the Structural Evolution of Amorphous Wasteforms and the Immobilisation of Radioactive Wastes

Byoungkwan Kim^{1,2}, Brant Walkley², Dinu Iuga³, Daniel A. Geddes⁴, John L. Provis⁴

¹Korea Atomic Energy Research Institute, ²The University of Sheffield, ³University of Warwick, ⁴Paul Scherrer Institute

[MA1_4] 14:00~14:20

Effect of Magnesium Ion Concentration on the Fluorescence Characteristics of Uranyl-Phosphate Complexes Measured by Time-Resolved Laser Fluorescence Spectroscopy

Seungmo Yeon, Jisoo Jung, Jong-Il Yun

Korea Advanced Institute of Science and Technology

[MA1_5] 14:40~15:00

Niobium(V) Solubility in Cementitious Conditions Relevant to LILW Repository

Dongyeong Kim, Yongheum Jo

Hanyang University

[MA1_6] 15:00~15:20

Spectroscopic Study of Eu(III) Complexation with Polycarboxylate Ether under Alkaline Conditions

Hyeongjin Kim¹, Jisoo Jung¹, Hyeonjin Eun¹, Hee-Kyung Kim², Jong-Il Yun¹

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



[MA1_7]

15:20~15:40

Experimental and Modeling Study of Colloid-Facilitated Transport of Cs(I), Sr(II), and La(III) in Bentonite Colloid-Granite Systems

Junhyuk Ha, Jun-Yeop Lee

Pusan National University

[MA1_8]

15:40~16:00

A Comprehensive Thermodynamic Dataset for the Sorption of Highly Soluble Fission Products onto Bentonil-WRK Clay and Their Migration Modeling

Seonggyu Choi^{1,2}, Dageong Seong³, Hyun-Kyu Lee¹, Sang-Ho Lee^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Chungnam National University



[MB1] Neutron Activation Analysis & Prompt Gamma Activation Analysis	
Date / Time	September 7 (Mon.), 2026 / 13:00~15:50
Place	Room B (Segyero Room 1)
Chairpersons	Dr. Heather Chen-Mayer (National Institute of Standards and Technology), Dr. Raghunath Acharya (Bhabha Atomic Research Centre)

[MB1_1] [Invited] 13:00~13:35

Nuclear Analytical Techniques: Connecting Environment, Polymeric Materials and Public Health

Alok Srivastava

Panjab University

[MB1_2] [Invited] 13:35~14:10

Current Activities of Neutron Activation Analysis at HANARO Research Reactor in Korea

Gwang-Min Sun¹, Kishore Babu Dasari², Sungpyo Hong¹, Hana Cho³, Sunghyo Lee¹, Jong-Hwa Moon¹

¹Korea Atomic Energy Research Institute, ²Korea Research Institute of Standards and Science, ³Jeonbuk National University

[MB1_3] 14:10~14:30

INAA for Ca Determination via Sc-47, the Daughter Nuclide of Ca-47

Jong Hwa Moon¹, Kishore B. Dasari², Seong Pyo Hong¹

¹Korea Atomic Energy Research Institute, ²Jeonbuk National University

[MB1_4] 14:30~14:50

Evaluation of NAA Quantification Methods from the Analytical Perspectives of Artifacts Produced from Geological Raw Materials

Seoeun Jang^{1,2}, Kishore B. Dasari³, Seongpyo Hong¹, Gwang-Min Sun¹, Gyu Ho Kim²

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

[MB1_5] 14:50~15:10

Validation of a VITESS Model for the CG2B Cold Neutron Guide Using Neutron Energy Spectra

Kyung Min Kim¹, Gwang Min Sun¹, Kyung Taek Lim², Jinhwan Kim¹

¹Korea Atomic Energy Research Institute, ²Sejong University

[MB1_6] 15:10~15:30

Current Progress of the Cold Neutron NDP and Compton-Suppressed PGAA Systems at HANARO

Jinhwan Kim¹, Kyung-Min Kim^{1,2}, Gwang-Min Sun¹, Byung-Gun Park¹

¹Korea Atomic Energy Research Institute, ²Sejong University

[MB1_7] 15:30~15:50

LaBr₃(Ce)-Based Thermal-Neutron PGNA for Metallic Element Analysis: Comparison with a NaI(Tl) Detector at HANARO

Ki-Yoon Lee¹, Kyung-Hwan Jung¹, Hyun-Dong Kim¹, Hyun-Soo Ha¹, Jung-Hyeon Eo², Jun-Young Shin², Jong-Yul Kim³, Jae-Hyeon Kim³, Kyung-Min Oh³, Jin-Hyung Park³, Cheol-Ha Baek¹

¹Kangwon National University, ²3I Solution Inc., ³Korea Atomic Energy Research Institute



[MC1] Radiochemistry I: Environmental Radioactivity and Analysis	
Date / Time	September 7 (Mon.), 2026 / 13:00~15:00
Place	Room C (Segyero Room 2)
Chairpersons	Dr. Sang-Han Lee (KRISS), Dr. Myung Ho Lee (Korea Reactor Integrity Surveillance Technology)

[MC1_1]

13:00~13:20

Investigation of Polonium-210 Volatility in Biological Samples

Nicolas Guérin, Alexandre Gagné, John Leppinen, Da Ol Joseph Ro, Debbie Behm
Canadian Nuclear Laboratories

[MC1_2]

13:20~13:40

Efficient Chemical Separation of ⁹⁰Sr in Environmental Soil and Marine Sediment Using Cation Exchange Resin

Cheol-Su Kim, Bong-Ho Kim, Yong-Jin Lee
Korea Institute of Nuclear Safety

[MC1_3]

13:40~14:00

Comparative Study of Quantitative Elemental Analysis of Geological Samples Using WDXRF and Other Spectroscopic Techniques

Pottumuthu Hemalatha¹, Vasundhara Balireddy¹, Sarma MSSRKN¹, Sowjanya Penta², Kishore Babu Dasari³
¹GITAM University, ²Government Degree College, Paderu, ³Jeonbuk National University

[MC1_4]

14:20~14:40

Natural Radioactivity in Engineering Brick Samples of Tamil Nadu, India

K. Kaviyam, A. Chandrasekaran
Sri Sivasubramaniya Nadar College of Engineering

[MC1_5]

14:40~15:00

Distribution of Natural Radionuclides and Associated Radiological Hazards in Granite Rock Samples from Tamil Nadu

R. Jayasri, A. Chandrasekaran
Sri Sivasubramaniya Nadar College of Engineering



[MD1] Nuclear Instrumentation and Methodology	
Date / Time	September 7 (Mon.), 2026 / 13:00~15:00
Place	Room D (Segyero Room 3)
Chairpersons	Prof. Inyong Kwon (Yonsei University), Dr. Junhyeok Kim (Korea Atomic Energy Research Institute)

[MD1_1] 13:00~13:20

A Novel Radiation-Hardened Dual-Conversion Transmitter Architecture for Stable 2.4 GHz Wireless Communication

Muhammad Adeel Anwar^{1,2}, Koo Seo Ryong^{1,2}, Inyong Kwon³

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Yonsei University

[MD1_2] 13:20~13:40

Development of a Unified UAV-Radiation Measurement System based on a Tiltrotor VTOL Platform for Airborne Radiological Survey

Eunjoong Lee, Chang-Jong Kim, Hyuncheol Kim, Mee Jang

Korea Atomic Energy Research Institute

[MD1_3] 13:40~14:00

Feasibility Study of Photon-Counting Computed Tomography Using a Hyperspectral Pixelated Detector

Hwijoon Jeong¹, Sukwon Youn¹, Taeyun Kim¹, Mingi Eom^{1,2}, Sung-Joon Ye^{1,2}

¹Seoul National University, ²T-ROH Inc.

[MD1_4] 14:00~14:20

Construction and Implementation of a New FPGA-Based TDCR System at KRISS for the Primary Standardization of Pure Beta Emitters

Agung Agusbudiman^{1,2}, Kyoung Beom Lee¹, Jong Man Lee¹, Byoung Chul Kim¹, Dong Hye Heo¹, Tae Hee Kim¹

¹Korea Research Institute of Standards and Science, ²National Research and Innovation Agency (BRIN)

[MD1_5] 14:20~14:40

HPGe Gamma Spectrometry of Archived Irradiated Pressure-Tube Specimens from Wolseong Unit 1 CANDU Reactor: Residual Activation Inventory and Verification of CASE Source-Term Calculations

Seongpyo Hong, Gwang-Min Sun

Korea Atomic Energy Research Institute

[MD1_6] 14:40~15:00

Temperature Compensation for a NaI(Tl)-Based Decontamination Effluent Monitoring System

Seungil Kim, Seoryeong Park, Minho Kwak, Sangbok Lee, Gihun Hwang, Jeasung Kwon, Sangyong Kim

Neosiskorea Co., Ltd.



[TB1] ACC & AI based NATs	
Date / Time	September 8 (Tue.), 2026 / 13:00~16:05
Place	Room B (Segyero Room 1)
Chairpersons	Dr. Myung-Hwan Jung (Korea Atomic Energy Research Institute), Dr. Hogeon Seo (Korea Atomic Energy Research Institute)

[TB1_1] [Invited] 13:00~13:25

Qualitative Study of Medicinal and Food Resources Inorganic Elements with NAT for Health Management

Durga Prasada Rao Angalakuduru
Andhra University

[TB1_2] 13:25~13:45

HI-PIXE Facility Utilizing Low Energy Heavy-Ion Beams at VECC, Kolkata

Sk Wasim Raja^{1,2}, Sayed Masum¹, Chinmay Giri¹, Sunita Hansda¹, Siddhartha Dechoudhury^{1,2}, Vaishali Naik^{1,2}, Debasis Mitra³, Lokesh C. Tribedi^{4,5}

¹Variable Energy Cyclotron Centre, ²Homi Bhabha National Institute, ³University of Kalyani, ⁴Tata Institute of Fundamental Research, ⁵University of Petroleum and Energy Studies

[TB1_3] 13:45~14:05

Development of Gas Ionization Chamber (GIC) for Energy Spectrometry

Joonkon Kim¹, Sunwoo Moon¹, Jaeyeoul Kim¹, Andrés Redondo-Cubero²
¹Korea Institute of Science and Technology, ²Universidad Autónoma de Madrid

[TB1_4] 14:05~14:25

Accelerator Mass Spectrometry (AMS): An Overview of Principles and Applications

Gwan-Ho Lee, Byung-Yong Yu
Korea Institute of Science and Technology

[TB1_5] 14:25~14:45

Advances in Secondary Ion Mass Spectrometry for Depth Profiling of Advanced Semiconductor Materials

Tae Eun Hong¹, Mirang Byeon¹, ChaeHo Shin², Young-Jae Park³
¹Korea Basic Science Institute, ²Korea Research Institute of Standards and Science, ³Pohang University of Science and Technology

[TB1_6] 14:45~15:05

High Resolution Depth Profiling of Ultra-Thin Film Using Time of Flight-Medium Energy Ion Scattering Spectrometry (TOF-MEIS)

Wansup Kim, Kyungsu Park, Jwasoon Kim, Changsik Sim, Jiho Song, Haejoon Hahm, ChangSeon Park, Soobang Kim, WonJa Min
HB solution

[TB1_7] [Invited] 15:05~15:35

A Robotist's Perspective on Radiochemistry Laboratory Automation

Sungmoon Joo^{1,2}
¹Korea Atomic Energy Research Institute, ²University of Science and Technology

[TB1_8] [Invited] 15:35~16:05

From Using AI to Delegating to AI: Rethinking the Role of AI in Problem Solving

Hogeon Seo
Korea Atomic Energy Research Institute



[TC1] Radiochemistry II: Radioisotope Production, Analysis and Applications	
Date / Time	September 8 (Tue.), 2026 / 13:00~15:30
Place	Room C (Segyero Room 2)
Chairpersons	Prof. Young Soo Yoon (Gachon University), Dr. Jei-Won Yeon (Korea Atomic Energy Research Institute)

[TC1_1] [Invited] 13:00~13:30

Applications of Radiocarbon Analysis in Environmental Science in Korea

Neung-Hwan Oh, Eun-Ju Lee, Seung-Cheol Lee, Kyuyeon Lee, Hyunshin Koh

Seoul National University

[TC1_2] 13:30~13:50

Measurement of Actinium-225 Activity from Thorium-232 Target at IRIS

Jaehong Kim, Jae Sung Kim, Danhye Gil, Bumsik Park, Yeong Heum Yeon, Vivek R. Chavan, Hyoun Woo Jung, Beom Yeol Baek, Hee Joong Yim, Jinho Lee, Tacksu Shin

Institute for Basic Science

[TC1_3] 13:50~14:10

Half-Life Evaluation of Selected Radioisotopes Relevant to Nuclear Science and Medicine

Kishore Babu Dasari^{1,2}, Gwang-Min Sun¹, Jinyu Kim¹, Hana Cho^{1,3}, Myong-Seop Kim¹

¹Korea Atomic Energy Research Institute, ²Jeonbuk National University, ³Korea Research Institute of Standards and Science

[TC1_4] 14:30~14:50

First Application of an Ion-Molecule Reaction for Highly Sensitive Radioactive Cesium Isotope Ratio Measurement by ICP-MS/MS

Jiyoung Park

Korea Atomic Energy Research Institute

[TC1_5] 14:50~15:10

Occupational Radiation Dose Assessment of Nuclear Medicine Technologists during Manual Synthesis of High-Specific-Activity NCA Lutetium-177 Radiopharmaceuticals

Pottumuthu Hemalatha^{1,2}, B. Vasundhara¹, Sarma MSSRKN¹, Prabhakara Rao VVS³

¹GITAM University, ²Omega Hospitals, ³Healthcare Global Enterprises

[TC1_6] 15:10~15:30

Cross Section and Yield Measurements of Auger Emitting ¹⁰³Pd Radionuclide Produced via ¹⁰³Rh(p,n) Reactions Using X-Ray and Gamma-Ray Spectrometry

Sk Wasim Raja^{1,2}, Siddhartha Dechoudhury^{1,2}, Vaishali Naik^{1,2}

¹Variable Energy Cyclotron Centre, ²Homi Bhabha National Institute



[TD1] Special Session on Cultural Heritage	
Date / Time	September 8 (Tue.), 2026 / 13:00~15:30
Place	Room D (Segyero Room 3)
Chairpersons	Prof. Young Hoon Jo (Kongju National University), Dr. Joon-Pyo Jeun (Korea Atomic Energy Research Institute)

[TD1_1] [Invited] 13:00~13:35

Evaluation of Radiation Effects on Paper and Wood based on Changes in Cellulose Degree of Polymerization and Oxidation

Myung-Joon Jeong¹, Yujin Hwang¹, Sungeun Park¹, Antje Potthast²

¹Jeonbuk National University, ²BOKU University

[TD1_2] [Invited] 13:35~14:10

AI-Driven Precision Radiation-Based Conservation Treatment for Cultural Heritage

Jaegi Lee¹, Juyeon Choi¹, Young Rang Uhm¹, Hae-Jun Park¹, Joon-Pyo Jeun¹, Hyungmin Lee¹, Jinhyung Park¹, Jeongmin Yu², Dohyung Kwon², Min Su Han²

¹Korea Atomic Energy Research Institute, ²Korea National University of Heritage

[TD1_3] 14:10~14:30

A Segmentation Modeling Methodology for Heritage Artifacts based on Histogram Statistical Analysis of X-Ray CT Images

Seohyeon Kim, Young Hoon Jo

Kongju National University

[TD1_4] 14:30~14:50

A Study on Threshold Setting Methodology Using X-Ray CT Porosity Imaging for the Condition Diagnosis of Heritage Objects

Juyeon Choi¹, Seohyeon Kim², Young Hoon Jo²

¹Korea Atomic Energy Research Institute, ²Kongju National University

[TD1_5] 14:50~15:10

Radiation Disinfection Process Evaluation and AI-Based Precision Treatment Planning for Disaster-Affected Cultural Heritage

Gyeong-Seo Jo¹, Hae-Jun Park²

¹Korea National University of Heritage, ²Korea Atomic Energy Research Institute

[TD1_6] 15:10~15:30

A Characteristics Classification of Cobalt Pigments in Joseon Blue-and-White Porcelain

Na-Young Koo¹, Kye-Ryung Kim², Kang Kim¹, Gyu-Ho Kim¹

¹Kongju National University, ²Korea Atomic Energy Research Institute



[WB1] Radiochemical Analysis & Characterization of Decommissioning and Radioactive Waste	
Date / Time	September 9 (Wed.), 2026 / 09:30~10:50
Place	Room B (Segyero Room 1)
Chairpersons	Dr. Jeongmook Lee (Korea Atomic Energy Research Institute), Dr. Seon Byeong Kim (Korea Atomic Energy Research Institute)

[WB1_1] 09:30~09:50

Complementary Chemical and Biological Approaches for Radionuclide Remediation

Harshada Khanderao Pawar, Ji Seong Moon, Jinkyu Park
Gyeongsang National University

[WB1_2] 09:50~10:10

Application of an Automatic Sequential Extraction Device to Determination of Pu and Am Isotopes in Radioactive Waste Samples

Myung Ho Lee¹, Hee Seong Lim¹, Jeong Eun Kim², Ranhee Park², Jungwoon Choi², Sang Ho Lim²
¹*Korea Reactor Integrity Surveillance Technology*, ²*Korea Atomic Energy Research Institute*

[WB1_3] 10:10~10:30

Selective Separation of Metal Ions and Radioactive Isotopes from Decontamination Sludge via pH-Controlled Precipitation

Seon Byeong Kim, Seung Joo Lim
Korea Atomic Energy Research Institute

[WB1_4] 10:30~10:50

Self-Attenuation Correction in Environmental Samples Using Experimental Transmission Measurements Combined with LabSOCS

Truong Son Truong¹, Manh Tri Le^{1,3}, Minh Hai Nguyen¹, Thi Thao Quyen Trinh², Thi Thanh Nhan Doan², Van Hoai Nam Nguyen², Manh Dung Ho², Van Hoang Dao², Van Doanh Ho²
¹*HCMC University of Education*, ²*Center for Nuclear Technologies*, ³*Bui Thi Xuan High School*



[WC1] Dosimetry	
Date / Time	September 9 (Wed.), 2026 / 10:10~11:30
Place	Room C (Segyero Room 2)
Chairpersons	Dr. Jungil Lee (Korea Atomic Energy Research Institute), Dr. Byung Gun Park (Korea Atomic Energy Research Institute)

[WC1_1] [Invited] 10:10~10:30

A Statistical Reconstruction Method for Determining 99.5th Percentile Atmospheric Dispersion Factors from ARCON96 Frequency Distribution Tables

Seung-Chan Lee, Kyungho Nam

Korea Hydro & Nuclear Power Co., Ltd.

[WC1_2] 10:30~10:50

Characterization of Neutron Spectrum of NAA Irradiation Positions of HANARO: Validation and Application

Kishore Babu Dasari^{1,2}, Jong Hwa Moon¹, Seongpyo Hong¹, Hana Cho^{1,3}, Gwang-Min Sun¹

¹Korea Atomic Energy Research Institute, ²Jeonbuk National University, ³Korea Research Institute of Standards and Science

[WC1_3] 10:50~11:10

Predicting the Biological Effects of Auger-Emitting Radionuclides Using a Local Effect Model

Taewan Kim^{1,2}, Seok-Jin Kim², Jun Young Lee¹, Byeongchan Lee¹, Jeong Hoon Park¹, Sung-Joon Ye²

¹Korea Atomic Energy Research Institute, ²Seoul National University

[WC1_4] 11:10~11:30

Improved Precision of L-Band Electron Paramagnetic Resonance Tooth Dosimetry Using Information-Guided Nonlinear Field Sweep

Jeonghun Oh¹, Chang Uk Koo², Jong In Park³, Junyoung Lee¹, Sung-Joon Ye^{1,4}

¹Seoul National University, ²Pohang University of Science and Technology, ³Korea Research Institute of Standards and Science, ⁴Seoul National University Hospital



[WD1] Radiochemistry III: Isotope Separation & Analysis	
Date / Time	September 9 (Wed.), 2026 / 09:30~11:30
Place	Room D (Segyero Room 3)
Chairpersons	Prof. Jong Woo Kim (Incheon National University), Dr. Chan Woo Park (Korea Atomic Energy Research Institute)

[WD1_1] 09:30~09:50

Feasibility Study on Lithium Isotope Separation via Centrifugation

Young ah Park, Yi-Hyun Park, Woong-chae Kim

Korea Institute of Fusion Energy

[WD1_2] 09:50~10:10

Eco-Friendly Hybrid ^6Li Enrichment and Feedstock Synthesis for Fusion Fuel

Ji-Hyeok Choi¹, Yi-Hyun Park², Young Soo Yoon¹

¹Gachon University, ²Korea Institute of Fusion Energy

[WD1_3] 10:10~10:30

Progress in Hydrogen Isotope Separation Technologies for Nuclear Application

Chan Woo Park, Hyung-Ju Kim, Hee-Man Yang

Korea Atomic Energy Research Institute

[WD1_4] 10:30~10:50

Development of a Novel High-Performance Adsorbent for Ga-68 Generator

Jun Young Lee, Min Goo Hur, Jeong Hoon Park

Korea Atomic Energy Research Institute

[WD1_5] 10:50~11:10

R&D Status of Li_2TiO_3 Breeder Pebbles for Fusion Breeding Blankets

Yi-Hyun Park¹, Young Ah Park¹, Woong-chae Kim¹, Mu-Young Ahn¹, Young Soo Yoon², Haixia Wang³

¹Korea Institute of Fusion Energy, ²Gachon University, ³Institute of Nuclear Safety Technology

[WD1_6] 11:10~11:30

Equation-Oriented Simulation and Optimization of Combined Electrolysis Catalytic Exchange Process for Heavy Water Production Plant

Dong Wan Kim¹, Sang Ho Lim^{2,3}, Dong Woo Lee^{2,3}, Jong-Yun Kim^{2,3}, Jong Woo Kim¹

¹Incheon National University, ²Korea Atomic Energy Research Institute, ³University of Science and Technology



[WB2] Radiochemical Analysis & Characterization of Decommissioning and Radioactive Waste	
Date / Time	September 9 (Wed.), 2026 / 13:30~14:50
Place	Room B (Segyero Room 1)
Chairpersons	Dr. Jeongmook Lee (Korea Atomic Energy Research Institute), Dr. Seon Byeong Kim (Korea Atomic Energy Research Institute)

[WB2_1] 13:30~13:50

Uncertainty-Aware Scaling Factor Evaluation of Activated Reactor Vessel Internals Using Information-Driven Sampling Strategies

Tae-Hyeong Kim¹, Byungman Kang¹, Dong Woo Lee^{1,2}, Sang Ho Lim^{1,2}, Nak Woong Yang³, Seokjun Hong³, Chang-Je Park³, Jong-Yun Kim^{1,2}, Jeongmook Lee^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Sejong University

[WB2_2] 13:50~14:10

Radioactive Concrete Waste Treatment based on Stepwise Separation Technology

Keunyoung Lee¹, Maengkyo Oh¹, Jaewoong Hwang^{1,2}, Sungjune Sohn¹, Bum-Kyoung Seo¹, Sang Mook Kang³, Oleksii Miasnykov⁴

¹Korea Atomic Energy Research Institute, ²Chungnam National University, ³Orbitech Co., Ltd., ⁴State Specialised Enterprise "Chornobyl Nuclear Power Plant"

[WB2_3] 14:10~14:30

Adsorption and Desorption Evaluation for Soil Physicochemical Characteristics and Radionuclide such as Cs, Sr, and Co in Decommissioning Site of Nuclear Facilities Using Machine Learning

In-Ho Yoon, Sunyoung Park, Haein Kim, Ilgook Kim

Korea Atomic Energy Research Institute

[WB2_4] 14:30~14:50

Re-Evaluation of HANARO Gaseous Radioactive Waste Source Term based on Recent Operating Experience

Jayeong Yoon, DongHyuk Lee

Korea Atomic Energy Research Institute



[WC2] Nuclear Characterization Techniques	
Date / Time	September 9 (Wed.), 2026 / 13:00~14:40
Place	Room C (Segyero Room 2)
Chairpersons	Dr. Jinhwan Kim (Korea Atomic Energy Research Institute), Dr. Jaegi Lee (Korea Atomic Energy Research Institute)

[WC2_1] 13:00~13:20

⁵⁷Fe Mössbauer-Resolved Axial-Time Mapping of Phase Evolution and Catalyst Deactivation in CO₂ Hydrogenation

Wonjoong Yoon¹, Sheraz Ahmed¹, Heuntae Jo^{1,2}, Jiyeon Lee¹, Noritatsu Tsubaki³, Jaehoon Kim¹

¹Sungkyunkwan University, ²Korea Institute of Industrial Technology, ³University of Toyama

[WC2_2] 13:20~13:40

Study of Oxidation States in Geological Samples Using Mössbauer Spectroscopy

Mi-Eun Jin¹, Young Rang Uhm¹, Gwang-Min Sun¹, Yong-Joo Jwa², Dong Hyeok Moon³, Hang-Jae Lee³

¹Korea Atomic Energy Research Institute, ²Gyeongsang National University, ³Korea Institute of Geoscience and Mineral Resources

[WC2_3] 13:40~14:00

Free Volume Evolution in Cyanate Ester Resin under Accelerated Reactor Irradiation Probed by Positron Annihilation Lifetime Spectroscopy

Yongsu Jeong¹, Jaegi Lee¹, Hyeong Min Jin², Youngho Eom³, Ki-Ho Nam⁴, Hyeonuk Yeo⁴, Min Wook Lee⁵, Wonjin Na⁵

¹Korea Atomic Energy Research Institute, ²Chungnam National University, ³Hanyang University, ⁴Kyungpook National University, ⁵Korea Institute of Science and Technology

[WC2_4] 14:00~14:20

Ghost Imaging-Based Neutron Depth Profiling for 3D Lithium Distribution Mapping: A Monte Carlo Study

Junhyeok Kim, Jinhwan Kim

Korea Atomic Energy Research Institute

[WC2_5] 14:20~14:40

Development and Characterization of Operando Neutron Depth Profiling System at HANARO CG2B Cold Neutron Guide

Kyungmin Kim¹, Byung Gun Park¹, Kyung Taek Lim², Jinhwan Kim¹

¹Korea Atomic Energy Research Institute, ²Sejong University



[WD2] Recent Progress in Advanced Reactors	
Date / Time	September 9 (Wed.), 2026 / 13:00~14:55
Place	Room D (Segyero Room 3)
Chairpersons	Dr. Chang Hwa Lee (Korea Atomic Energy Research Institute), Prof. Sangtae Kim (Hanyang University)

[WD2_1] [Invited]

13:00~13:25

Molten Salt Chemistry: Fundamentals and Applications

Jong-Il Yun

Korea Advanced Institute of Science and Technology

[WD2_2] [Invited]

13:25~13:50

Advances in Electrochemical and Spectroscopic Techniques for Understanding Molten Salt Environments in Nuclear Applications

Sungyeol Choi

Seoul National University

[WD2_3] [Invited]

13:50~14:15

Engineering Materials against Molten Chloride Corrosion

Sangtae Kim

Hanyang University

[WD2_4]

14:15~14:35

Recent Progress in Thermophysical Property Measurements of Molten Chloride Salts for MSR Applications

Han Lim Cha¹, Chan-Yong Jung¹, Tae-Hyeong Kim¹, Jong-Yun Kim^{1,2}, Dalsung Yoon¹, Chang Hwa Lee¹

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

[WD2_5]

14:35~14:55

Monitoring of Metal Ion Concentrations in High Temperature Molten Salts

Sang-Eun Bae, Chanyong Jung

Korea Atomic Energy Research Institute



[TA1] UST-KAERI	
Date / Time	September 8 (Tue.), 2026 / 13:00~17:15
Place	Room A (Grand Hall)
Chairpersons	Part 1: Mr. Seok Min Yoon, Mr. Daeuk Kang Part 2: Ms. Malaika Sada, Mr. Joonha Park

[TA1_1] [Invited] 13:10~13:35

From Data Assimilation to Machine Learning: Surrogate Modeling from Limited Experimental Data

Nguyen Huu Tiep, Jae-Yong Lee, Hae-Yong Jeong

Sejong University

[TA1_2] 13:35~13:50

Self-Consistent Collisional-Radiative Modeling Coupled with Optical Emission Spectroscopy for Low-Temperature Xenon Plasma Diagnostics

Sakshi Patwal^{1,2}, Kil-Byoung Chai^{1,2}

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

[TA1_3] 13:50~14:05

Carbon Nanofoam-Assisted Enhancement in Laser Driven Proton Acceleration

Adnan Tariq^{1,2}, Malaika Sada^{1,2}, Kitae Lee^{1,2}, Hana Kim³

¹University of Science and Technology, ²Korea Atomic Energy Research Institute, ³Institute for Basic Science

[TA1_4] 14:05~14:20

Predicting Heavy Ion Radiation-Induced Oxidative Base Lesions and Clustered DNA Damage Using Geant4-DNA

Tu Minh Khuong^{1,2}, Sangyong Lim^{1,2}

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

[TA1_5] 14:20~14:35

A Novel Surface-Based Photoluminescence Chip for the Sensitive Detection of Transition Metal Ions

Abrar Hussain^{1,2}, Sang Hyun Park^{1,2}

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

[TA1_6] 14:35~14:50

Column Transport Experiments: Montmorillonite Colloid Effects on Eu(III) Migration under Gyeongju LILW Repository Conditions

Yeajin Kim^{1,2}, Kyeong-min Lee^{1,2}, So Yeon Chun², Hyeonjin Eun³, Youngbeom Kim², Sang-Ho Lee², Jong-Il Yun³, Hee-Kyung Kim^{1,2}

¹University of Science and Technology, ²Korea Atomic Energy Research Institute, ³Korea Advanced Institute of Science and Technology



[TA1_7] 14:50~15:05

Dispersion Stability of Illite Colloids and Adsorption Behavior of Eu(III), Sr(II), and U(VI) under Gyeongju Disposal Conditions

Kyeong-Min Lee^{1,2}, Yeajin Kim^{1,2}, Youngbeom Kim², Sang-Ho Lee^{1,2}, Hee-Kyung Kim^{1,2}

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

[TA1_8] [Invited] 15:20~15:45

Physical AI and the Humanoid Race

Jongwon Park

Korea Atomic Energy Research Institute

[TA1_9] 15:45~16:00

Flow-Demand-Based Control of Mobile Hydraulic Systems for Unstructured Tasks

Gaeun Shin^{1,2}, Jinyi Lee¹, Jongwon Park¹

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

[TA1_10] 16:00~16:15

Development of a Redundant DOF Wrist and Elevation/Posture-Adjustment Mechanism for Multi-Purpose Nuclear Disaster Response Robots

Seongjin Park¹, Jinyi Lee², Ki Hong Im², Jongwon Park^{1,2}

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

[TA1_11] 16:15~16:30

Development of Reversible Hydrogel Coatings for Low-Temperature Radioactive Surface Decontamination

Ye-won Jeong^{1,2}, Hyung-Ju Kim^{1,2}, Sung-Wook Kim², Chan Woo Park², Hee-Man Yang^{1,2}

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

[TA1_12] 16:30~16:45

AI-Assisted PSD with Gamma/Neutron Scintillation Detector for Safeguards Monitoring of Pyroprocessing Electrorefiner

Minkyu Kim^{1,2}, Seonkwang Yoon², Byung-Hee Won², Chaehun Lee^{1,2}

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

[TA1_13] 16:45~17:00

Investigation and Enhancement of Skin Deposition Dose Model in Level 3 Probabilistic Safety Assessment

Jia Hao Tang^{1,2,3}, Sung-yeop Kim^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Singapore Nuclear Research and Safety Institute

[TA1_14] 17:00~17:15

Sensitivity Analysis of Building Wake Effects on Atmospheric Dispersion Modeling Using RCAP

Waad Saleh^{1,2,3}, Sung-yeop Kim^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Alexandria University



■ Poster Sessions

Poster Session 1	
Date / Time	September 7 (Mon.), 2026 / 16:00~17:00
Place	3F, Foyer

[MP_1]

Solubility and Spectroscopic Studies of Am(III)-OH-Isosaccharinate Complexation under Alkaline Conditions

Hee-Kyung Kim, Sangki Cho, So Yeon Chun, Hye-Ryun Cho, Wansik Cha

Korea Atomic Energy Research Institute

[MP_2]

The Study of National Wide Groundwater Tritium Content Distribution in Korea

Yoon Yeol Yoon

Korea Institute of Geoscience and Mineral Resources

[MP_3]

Radioactivity Concentrations of ^3H and ^{137}Cs in Coastal Groundwater in Korea

Yoon Yeol Yoon

Korea Institute of Geoscience and Mineral Resources

[MP_4]

HPLC Method for Simultaneous Determination of Residual Chelating Agents on Metal Surfaces

Jin Young Yang, Hee-Jung Im

Jeju National University

[MP_5]

Feasibility Test of an In-Situ Underwater ^{137}Cs Detection System with Cesium Preconcentration

Hyemi Cha¹, Jiyoung Park¹, Jungmin Seo², Mee Jang¹, Min Sun Lee³, Soo Mee Kim²

¹Korea Atomic Energy Research Institute, ²Korea Institute of Ocean Science and Technology, ³Daegu Gyeongbuk Institute of Science & Technology

[MP_6]

A Study of the Content of Radionuclides in Coastal Seawater and Saline Groundwater in Jeju, Korea

Chung-Hun Han, Hee-Jung Im

Jeju National University

[MP_7]

Machine Learning of Axial Neutron Flux Weighted Splitting GPR (Gaussian Process Regression) for Reactor Structure Activation of OPR1000

Nak Woong Yang¹, Seokjun Hong¹, Tae-Hyeong Kim², Jeongmook Lee^{2,3}, Jong-Yun Kim^{2,3}, Chang Je Park¹

¹Sejong University, ²Korea Atomic Energy Research Institute, ³University of Science and Technology



[MP_8]

A Preliminary Study on Ultra-Low-Level Tritium (^3H) in Precipitation over the Korean Peninsula

Yun Ji Heo^{1,2}, Sang-Han Lee¹, Yoonhee Jung¹, Jiyeon Ryoo^{1,2}, Aran Kim^{1,3}

¹Korea Research Institute of Standards and Science, ²Chungnam National University, ³Korea University

[MP_9]

Interpretable Machine Learning with Prediction Intervals for Distribution Coefficients of Radionuclides in Bentonite Systems

Do-Hyeon Kim, Jun-Yeop Lee

Pusan National University

[MP_10]

Integrated Nuclear Analytical Techniques for Quantitative and Isotopic Characterization of Uranium in Environmental Fly Ash

Kishore Babu Dasari^{1,3}, Hana Cho^{2,3}, Seongpyo Hong³, J.H. Park¹, Gwang-Min Sun³

¹Jeonbuk National University, ²Korea Research Institute of Standards and Science, ³Korea Atomic Energy Research Institute

[MP_11]

A Study on the Most Efficient Volume of Detection of Voluminous Gamma-Ray Source for Safety Management of Radiation Worksite

Minyoung Kang, Geun-Ho Kim, Junhyuck Im, Dooseong Hwang, Joone Lee, Insu Chang

Korea Atomic Energy Research Institute

[MP_12]

Development of Oxide Blocks Fabricated by Slip Casting Process

Yunmock Jung¹, Kweonho Kang¹, Daeuk Kang², Kyungho Roh³, Beomgyu Kim³, Eunyong Choi¹

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Korea Hydro and Nuclear Power Central Research Institute

[MP_13]

Influence of Iron and Cobalt on Oxalic Acid Degradation during Underwater Plasma Treatment of Chemical Decontamination Solutions

Ki-baek Shin¹, Kilyoung Ko¹, Sunjin Kim¹, Jong-bum Kim¹, Jin Kim¹, Jin-joo Kim¹, Jintae Hong¹, Yong Cheol Hong², Kangil Kim²

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

[MP_14]

Cs Pollucite-Based Ceramic-Metal Composite Waste Forms for Cesium Immobilization

Ga-Yeong Kim, Ki Rak Lee, Jung-Hoon Choi, Hyun Woo Kang, Jae-Young Pyo, Hwan Seo Park

Korea Atomic Energy Research Institute



[MP_15]

Development and Chemical Durability of Silver Molybdate-Tellurite Glasses for Radioactive Iodine Immobilization

Ga-Yeong Kim, Hyun Woo Kang, Jung-Hoon Choi, Ki Rak Lee, Jae-Young Pyo, Hwan Seo Park

Korea Atomic Energy Research Institute

[MP_16]

Chemical Considerations for Improving the Disposal Compatibility of Cellulose-Based Radioactive Waste: Pyrolysis, Modeling, and Irradiation

Jaehun Lee, Gun woo Yoon, Yongheum Jo

Hanyang University

[MP_17]

Local Coordination Structure of Iodide Immobilized on a Bismuth-Impregnated Mixed Metal Oxide: An Iodine K-Edge EXAFS Study

Sang-Ho Lee¹, Yoshio Takahashi²

¹Korea Atomic Energy Research Institute, ²The University of Tokyo

[MP_18]

Sequential Correlation Evaluation Strategy for the Scaling Factor Method Using Multiple Correlation Measures

Tae-Hyeong Kim¹, Byungman Kang¹, Dong Woo Lee^{1,2}, Sang Ho Lim^{1,2}, Jong-Yun Kim^{1,2}, Jeongmook Lee^{1,2}

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

[MP_19]

Validation of a PIPS-Based Detection System for Strontium-90 Analysis in Seawater Using Spiked Samples

Younghak Kim, Gahyun Kim, Hyemi Cha, Hyuncheol Kim, Mee Jang

Korea Atomic Energy Research Institute

[MP_20]

Fast and Thermal Neutron Output Measurement of a Compact D-D Neutron Generator Using Neutron-Induced Reactions in an HPGe Detector

Jaegi Lee, Gwang-Min Sun, Sun-Ho Kim

Korea Atomic Energy Research Institute

[MP_21]

Uranium Measurement Using FO-LIBS

Se-Hwan Park, Jonghui Han

Korea Atomic Energy Research Institute

[MP_22]

Neutron Dosimetry and Sensor Testing Preparation for the KAERI-CEA CORANI Project in HANARO

Junesic Park¹, Seong Woo Yang¹, Sung Jae Park¹, Byung Gun Park¹, Jong Woo Kim¹, Kishore Babu Dasari², Christophe Destouches³, Loïc Barbot³, Christophe Domergue³, Hervé Philibert³

¹Korea Atomic Energy Research Institute, ²Gyeongsang National University, ³CEA



[MP_23]

Defect and Transport Properties Governed by Compositional Engineering in CdZnTeSe Semiconductor

Yeong-Seo Gwon¹, Jihwan Boo¹, Beomjun Park¹, Jaegi Lee², Geehyun Kim¹

¹Seoul National University, ²Korea Atomic Energy Research Institute

[MP_24]

Design and Installation of an Underground Ultra-Low Background Gamma-Ray Spectrometry System for ¹³⁷Cs Analysis in Seawater

Chang-Jong Kim, Jaehyeon Seo, Eunjoong Lee

Korea Atomic Energy Research Institute

[MP_25]

Neutron Irradiation Test of Spent Nuclear Fuel Dry Storage Cask Materials Using an Instrumented Capsule

Ye-eun Na, Seong Woo Yang, Kee-Nam Choo, Jong-woo Kim, Junesic Park, Sung-Jae Park

Korea Atomic Energy Research Institute

[MP_26]

Physics-Based Gamma Spectrum Decomposition Using Geometry Specific MCNP Simulation for Multi-Nuclide Analysis

Seokhan Kim^{1,2}, Seungho Lee², Eunmi An², Seoha Kim², Homyung Lee², Minjoo Kwak², Jeongmin Park², Yeong Su Ha², Dong Yeon Lee¹

¹Dong-Eui University, ²Korea Research Institute of Decommissioning

[MP_27]

Monte Carlo Simulation of ³H and ¹⁴C Detection Efficiency in a Liquid Scintillation Counter Using OpenGate (GEANT4)

Aran Kim^{1,2}, Sang-han Lee¹, Ajin Jo², Yoon-hee Jung¹, Yun-ji Heo^{1,3}, Ji-yeon Ryoo^{1,3}, Jung-Yeol Yeom²

¹Korea Research Institute of Standards and Science, ²Korea University, ³Chungnam National University

[MP_28]

Radiation Source-Dependency of Charge Transport Evaluation in CdMnTeSe Crystals

Beomjun Park¹, Ill-Hyuk Han¹, Seungho Song², Yonghoon Kim², Jung-Yeol Yeom², Geehyun Kim¹

¹Seoul National University, ²Korea University

[MP_29]

Development and Proof-of-Concept Testing of a Gas-Filled Self-Powered Neutron Detector at the HANARO Research Reactor

Jong Woo Kim^{1,2}, Yong Kyun Kim²

¹Korea Atomic Energy Research Institute, ²Hanyang University

[MP_30]

Optimization of Measurement Strategies for ²¹⁰Po, ²³⁵U, and ²³⁸U in Environmental Samples by Alpha and Gamma-Ray Spectrometry

Minjoo Kwak, Jeongmin Park, Eunmi An, Seoha Kim, Seokhan Kim, Homyung Lee, Yeong Su Ha, Seungho Lee

Korea Research Institute of Decommissioning



[MP_31]

Charge Collection Efficiency Weighted Simulation for the Design of Pm-147 Betavoltaic Batteries

Changyu Ko, Kilyoung Ko, Deokseong Kim, Jongbum Kim, Sunjin Kim, Jinjoo Kim, Jintae Hong

Korea Atomic Energy Research Institute

[MP_32]

Optimization of Multi-Spectral CT Acquisition Configurations for Enhanced Material Decomposition

Yunsub Jung¹, Izabela Ewa Nielsen¹, Sangmin Lee², Ho Lee²

¹Aalborg University, ²Yonsei University College of Medicine

[MP_33]

Unrolling Based Analysis of Cylindrical Lithium-Ion Batteries Using Black Body Corrected Neutron Tomography

Junyoung Son^{1,2}, Tae Joo Kim¹, Jongyul Kim¹, Youngju Kim¹, Seung Wook Lee²

¹Korea Atomic Energy Research Institute, ²Pusan National University

[MP_34]

Development of a Hybrid Digital Timing System based on TDC and FADC for Positron Annihilation Lifetime Spectroscopy

Youngsu Jeong, Jaegi Lee, Bo-Young Han

Korea Atomic Energy Research Institute

[MP_35]

Evaluating Neutron Shielding Efficiency of Concrete Samples Using Thermal Neutron Beam Facility at KAERI

Jinyu Kim, Bo-Young Han, Gwang-Min Sun

Korea Atomic Energy Research Institute

[MP_36]

Optimization of Concrete Mixes for Low-Activation Bio-Shields in Commercial Reactors: A Monte Carlo Simulation Approach

Bo-Young Han¹, Seong Hee Park², Woo Yong Kim², Jung Ho Song², Yujin Lee³, Jong-Suk Lee³

¹Korea Atomic Energy Research Institute, ²Bridge between Radwaste & Clearance, ³Korea Institute of Civil Engineering and Building Technology

[MP_37]

Development of a Compact 10⁹ n/s-Class D–D Neutron Generator based on an ECR Ion Source for Prompt Gamma-Ray Neutron Activation Analysis (PGNAA)

Sung-Ryul Huh, Jong-Gab Jo, Tae-Seong Kim, Kihyun Lee, Dae-Sik Chang

Korea Atomic Energy Research Institute

[MP_39]

Development of an Analytical Procedure for Tc-99 Determination in Large-Volume Environmental Soil Samples

Hae-Ri Kim, Da-Young Kam, Mee Jang, Jong-Myoung Lim

Korea Atomic Energy Research Institute



[MP_40]

Cesium and Strontium Sorption Properties of Waste Concrete Powder for Radioactive Waste Management

Chan Woo Park, Hyung-Ju Kim, Hee-Man Yang, Ilgook Kim, Kirak Lee, Hwan Seo Park

Korea Atomic Energy Research Institute

[MP_41]

Comparison of MAC3 and FADC-Based Implementations of Coincidence Counting in a TDCR System

Ka-Young Park¹, Tanapol Dachviriyakij^{1,2}, Jong Man Lee^{1,2}, Kyoung Beom Lee^{1,2}, Young-Su Kim¹, Tae Hee Kim¹, Dong Hye Heo¹, Yeong Jae Park¹, Agung Agusbudiman¹, Byoung-Chul Kim¹

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

[MP_42]

A Study on Asymmetric PMTs in TDCR System

Tanapol Dachviriyakij^{1,2}, Ka-Young Park¹, Jong Man Lee^{1,2}, Kyoung Beom Lee^{1,2}, Yeong Jae Park¹, Dong Hye Heo¹, Tae Hee Kim¹, Agung Agusbudiman¹, Byoung-Chul Kim¹

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

[MP_43]

Defect-Engineered Rare-Earth-Doped Lithium-Based Materials for Visual–Luminescent Dual-Mode Radiation Dosimetry

Yuetong Ma, Menglin Qiu, Shasha Lv

Beijing Normal University

[MP_44]

Integrity Evaluation and Life Prediction of the HANARO CNS Moderator Vessel under Neutron Irradiation

Hun Young Kim, Dong Hyuk Lee, Byung Hun Hwang

Korea Atomic Energy Research Institute

[MP_45]

Estimation of Radiation Exposure Time and Dose Using OSL and ITL Fading Characteristics of Resistors in Electronic Personal Dosimeter

Hyunseok Lee^{1,2}, Jeong Wan Kwon¹, Hyungjoon Yu¹, Jeong Tae Lee¹, Hanjin Lee¹, Myung-Jin Kim³

¹Korea Institute of Nuclear Safety, ²Seoul National University, ³RADPION Inc.

[MP_46]

Application of the Organic Scintillator, Ultima Gold, Used for Radiation Detection, in Solar Light Detection

Hayun Jeong, Jin Young Yang, Hee-Jung Im

Jeju National University

[MP_47]

Production of Radionuclides with 30 MeV Cyclotron

Jeong Hoon Park, Jun Young Lee, Byeong Chan Lee, Young Bae Gong, Jin Sik Joo, Jong Cheol Lee, Dong Hyun Kwak, Min Goo Hur

Korea Atomic Energy Research Institute

[MP_48]

Radiation Induced Synthesis of Layer-Structured α -Co(OH)₂ for Supercapacitor

Jeong Hoon Park, Min Goo Hur

Korea Atomic Energy Research Institute



Poster Session 2	
Date / Time	September 8 (Tue.), 2026 / 16:00~17:00
Place	3F, Foyer

[TP_1]

Enhanced Sensitivity of Nuclear Material Analysis by LA-ICP-MS Using a Membrane Desolvator

Jeongmook Lee^{1,2}, Tae-Hyeong Kim¹, Jong-Yun Kim^{1,2}, Byungman Kang¹, Dong-Woo Lee^{1,2}, Sang Ho Lim^{1,2}

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

[TP_2]

A PIPS Detector-Based Gas Chamber System for In-Situ Measurement of Atmospheric ⁸⁵Kr

Jinhyung Lee, Jaehyeon Seo, Mee Jang, Hyemi Cha, Juyeol Yun, Wanno Lee

Korea Atomic Energy Research Institute

[TP_3]

Advanced Safety Protocols and System Separation Strategies for Nuclear Power Plant Decommissioning: Focusing on Air Gapping and Line Breaking

Jihwan Yu, Minchul Kim, Hyuchang Choi, Sukwon Jung, Hyunmin Kim, Gangwoo Ryu, Minseong Kim

Korea Hydro & Nuclear Power Central Research Institute

[TP_5]

Analytical Methods for Quantifying Volatile Iodine Species in Nuclear Safety Studies

Jei-Won Yeon

Korea Atomic Energy Research Institute

[TP_6]

Design of a Hierarchical Porous Pt@SDVB Hydrophobic Catalyst for Catalytic Hydrogen–Deuterium Exchange

Van-Toan Nguyen¹, Dong Woo Lee^{1,2}, Chan Woo Park¹, Sang Ho Lim^{1,2}, Jong-Yun Kim^{1,2}

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

[TP_7]

Equation Oriented Pore Network Modeling and Microstructure Optimization of Vanadium Redox Flow Batteries

Seung Hun Lee, Jong Woo Kim

Incheon National University

[TP_8]

Equation-Oriented Model Based Techno-Economic Assessment on CIRCE (Combined Industrial Reforming and Catalytic Exchange) Process

Ji Su Hyeon¹, Dong Wan Kim¹, Sang Ho Lim^{2,3}, Jong-Yun Kim^{2,3}, Jong Woo Kim¹

¹Incheon National University, ²Korea Atomic Energy Research Institute, ³University of Science and Technology

[TP_9]

Ultra-Trace Determination of Iodine-129 in Decommissioning Wastes by ICP-MS/MS Using Optimized Mixed-Matrix Composition

Seoha Kim, Eunmi An, Seokhan Kim, Homyung Lee, Minjoo Kwak, Jeongmin Park, Yeong Su Ha, Seungho Lee

Korea Research Institute of Decommissioning



[TP_10]

Establishment of an Integrated Analytical Approach for Accelerator-Derived Radionuclides in Operational Radioactive Waste at RAON

Danhye Gil, Beomyeol Baek, Jongwook Kim, Inseok Hong

Institute for Basic Science

[TP_11]

Simultaneous Simulation of True and Random Coincidence Summing Effect Using MCNP PTRAC in Gamma-Ray Spectrometry

Kyungmin Kim^{1,2}, Wanook Ji¹, Young-Yong Ji¹, Jung Bo Yoo¹, Jisoo Kim², Gyuseong Cho²

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

[TP_12]

Uncertainty-Based Evaluation of Inter-Laboratory Radiochemical Analysis Using Simulated Radioactive Samples

Eunmi An^{1,2}, Homyung Lee¹, Seoha Kim¹, Seokhan Kim¹, Minjoo Kwak¹, Jeongmin Park¹, Yeong Su Ha¹, Seungho Lee¹

¹Korea Research Institute of Decommissioning, ²Catholic University of Pusan

[TP_13]

Direct LA-ICP-QMS Method for Rapid Determination of U and Gd in Nuclear Fuel Pellets

Young Hyun Kim¹, Gyuhye Kim², Haneol Lee¹, Jung Youn Choi¹, Sang Hyeok Lee¹, Hyun Ju Kim¹

¹Korea Institute of Nuclear Nonproliferation and Control, ²Korea Research Institute of Standards and Science

[TP_14]

Qualitative and Quantitative Analysis of Gaseous Tritium Species in GTLS Consumer Products Using Precision Gas Mass Spectrometry

Jeong Eun Kim¹, Min Jun Kim², Bong Gi Kim², Kiryong Hong³, Jin Bok Lee³, Jin Seog Kim³, Junghwan Park¹, Jeongmook Lee¹, Sang Ho Lim¹

¹Korea Atomic Energy Research Institute, ²Korea Institute of Nuclear Safety, ³Korea Research Institute of Standards and Science

[TP_15]

A Comprehensive FTIR Spectroscopy Method for Full-Range Quantitative Analysis of Heavy Water (0.2 to 99.9% D₂O)

Do-Ahn Won¹, Hye Jin Cho¹, Dong Woo Lee^{1,2}, Sang Ho Lim^{1,2}, Jong-Yun Kim^{1,2}

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

[TP_16]

Analysis of Chelating Agents in Radioactive Waste: Evaluation of EDTA, NTA, and DTPA Complexes with Nickel Using HPLC-MS

Daeun Kang^{1,2}, Jihye Kim¹

¹Korea Atomic Energy Research Institute, ²Hanyang University

[TP_17]

Free-Volume and Chemical Characterization of Proton Exchange Membranes by Positron Annihilation Spectroscopy

Jaegi Lee, Young-Su Jeong, Young Rang Uhm

Korea Atomic Energy Research Institute



[TP_18]

Structure, Magnetic, Electric, and Mössbauer Studies for Multiferroic Rare-Earth Orthoferrite $RFeO_3$ ($R=Y, Tb, Dy, Er, Ho$)

Hyun Ho Ahn, Gyeong Tae Lee, Sung Baek Kim

Konyang University

[TP_19]

Preliminary Study on Proton Irradiation of a Trench Field-Stop IGBT for Switching-Loss Reduction

Jinhwan Kim¹, Kyung Min Kim^{1,2}, Gye-Ryung Kim¹

¹Korea Atomic Energy Research Institute, ²Sejong University

[TP_20]

Assessing the Potential of Mössbauer Spectroscopy for Redox Reconstruction in Paleozoic Sedimentary Rocks: An Example from the Sesong Formation, Taebaek Group, Korea

Dong Hyeok Moon, Seung-Bae Lee

Korea Institute of Geoscience and Mineral Resources

[TP_21]

Effects of Gamma Irradiation on Spinel Ferrites: A Comparative Structural and Magnetic Study

Hyunkyung Choi¹, Hyun Ho An², Chul Sung Kim³, Gwang-Min Sun¹

¹Korea Atomic Energy Research Institute, ²Konyang University, ³Kookmin University

[TP_22]

Comparative Study of Time-Resolved Luminescence in UID, Sn-Doped and Fe-Doped β -Ga₂O₃ under Oxygen-Ion Excitation

Ruotong Chang, Hongtao Hu, Xiaoxiao Zhou, Zhaochao Guo, Shasha Lv, Menglin Qiu

Beijing Normal University

[TP_23]

Characterization and Calibration of Novel FCVA-Prepared TaN Thin-Film Nuclear Targets Using RBS and Narrow Resonance Profiling

Hongtao Hu, Ruotong Chang, Xiaoxiao Zhou, Zhiwei Qin, Jun Su, Menglin Qiu

Beijing Normal University

[TP_24]

External Beam PIXE Facility based on the 1.7 MV Tandem Accelerator of KOMAC

Kye-Ryung Kim, Han-Sung Kim, Young-Gi Song, Jae-Ha Kim, Hyeok-Jung Kwon

Korea Atomic Energy Research Institute

[TP_25]

Cherenkov Radiation-Driven Reactive Oxygen Species Production via Optically Tunable Zirconium-89 Labeled Metal-Organic Frameworks

Byeongchan Lee, Taewan Kim, Jun Young Lee, Jeong Hoon Park

Korea Atomic Energy Research Institute



[TP_26]

Proton-Induced Production of High-Yield ^{67}Cu Using Enriched Zinc Targets

Myung-Hwan Jung, Won-Je Cho, Hye-Min Jang, Sung-Cheol Yang

Korea Atomic Energy Research Institute

[TP_27]

Study on the Production and Radiochemical Separation of Cu-67 at GRIPF(Gyeongju Radiolotope Production Facility)

Hye Min Jang, Myung-hwan Jung, Chorong Kim, Wonje Cho

Korea Atomic Energy Research Institute

[TP_28]

Millimeter-Sized Mesoporous Silica Beads Templated with Alginate for Efficient Strontium Removal

Hye Jin Cho^{1,2}, Inseok Hong¹, Jong-Yun Kim², Sang Ho Lim²

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

[TP_29]

Development of U/Pu Separation Procedure for Pyroprocessing Salt Samples Using a Gas-Pressurized Extraction Chromatography

Hwakyung Jeong¹, Ranhee Park¹, Jeong Eun Kim¹, Junghwan Park¹, Jonghui Han¹, Sang Ho Lim^{1,2}

¹*Korea Atomic Energy Research Institute*, ²*University of Science and Technology*

[TP_30]

Effects of Process Parameters on Tritium Recovery in Wet Oxidation–Distillation Analysis

Sora Choi, Shinkyung Lee, Kwangeun Lee, Tae-Hong Park, Jung Bo Yoo, Jai Il Park

Korea Atomic Energy Research Institute

[TP_31]

Selective Capture of Boric Acid from Simulated Radioactive Wastewater Using Diol-Functionalized PAN Nanofibers

Hee-Man Yang, Ga-Eun Lee, Ye-Won Jeong, Kirak Lee, Hwan-Seo Park

Korea Atomic Energy Research Institute

[TP_32]

Conceptual Design of a Closed-Loop Nanofiltration–Diffusion Dialysis System for the Treatment of Strongly Acidic Radioactive Liquid Waste

Danhye Gil¹, Wongu Youn¹, Byungju Lim², Jaekyeong Lee³, Sungso Lim³, Yongheum Jo⁴, Taehoon Lee⁵

¹*Institute for Basic Science*, ²*Korea Institute of Machinery and Materials*, ³*VICTEX Co., Ltd.*, ⁴*Hanyang University*,

⁵*Sungkyunkwan University*

[TP_33]

Development of Rapid Sequential Chemical Separation Procedure for DTM Nuclides Measurement in Fe-Rich Radioactive Wastes

Hyeon Young Cho, Gyuhyeon Kim, So Yeon Min, Ji Won Kim, Bo Jong Yoo, Gwang Tae Joo, Seung Jae Han, Kwang Soon Choi

Korasol Co., Ltd.



[TP_34]

Optimization of Pretreatment for the Analysis of ^{55}Fe , ^{63}Ni , and ^{90}Sr Isotopes in the Nuclear Wastes

Jiyoon Ryoo^{1,2}, Sang-Han Lee¹, Yun Ji Heo^{1,2}, Aran Kim^{1,3}, Yoonhee Jung¹

¹Korea Research Institute of Standards and Science, ²Chungnam National University, ³Korea University

[TP_35]

Selective Uranium Recovery from Seawater Using HDEHP-Functionalized Pore-Expanded Mesoporous Silica

Hye Ran Noh¹, Suk Bon Yoon², Tae-Hyeong Kim¹, Dong Woo Lee^{1,3}, Jeongmook Lee^{1,3}, Sang Ho Lim^{1,3}, Jong-Yun Kim^{1,3}

¹Korea Atomic Energy Research Institute, ²Korea Hydro & Nuclear Power Co., Ltd., ³University of Science and Technology

[TP_36]

Review of Conventional and Emerging Lithium Isotope Separation Methods

Gun Woo Yoon¹, Seungmo Yeon¹, Han Lim Cha², Jong-Il Yun¹

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

[TP_37]

Selective Extraction of Radioisotopes from Aqueous Media via Electrochemically Switched Ion Exchange

Chanyong Jung, Sang-Eun Bae

Korea Atomic Energy Research Institute

[TP_38]

Physics-Informed Untrained Neural Network for Quantitative Radionuclide Identification and Activity Estimation in HPGe Gamma Spectroscopy

Gyohyeok Song¹, Jeonghoon Lee^{1,2}, Jaehyun Park¹, Gyuseong Cho¹, Jisoo Kim¹

¹Korea Advanced Institute of Science and Technology, ²Yonsei University

[TP_39]

Standard Reference Data for Specific Heat of Cladding Materials

Kweonho Kang, Jaesoo Ryu, Chang Hwa Lee

Korea Atomic Energy Research Institute

[TP_40]

KAERI-ICERR's Activities Using HANARO and Ancillary Facilities

Sung Ho Ahn, Youngmi Nam, Gwang Min Sun, Jin Won Shin, Young Soo Han, Jintae Hong, Young Gwan Jin

Korea Atomic Energy Research Institute

[TP_41]

Optimization of Counting Time for in-vivo Radiobioassay in Population Monitoring

MinSeok Park, Kihoon Kim, Minsu Cho

Korea Institute of Radiological and Medical Sciences

[TP_42]

Battery-Floating AC Wheatstone Bridge with Software Lock-In-Amplifier for Ultra-Low-Noise Graphite Calorimetry in FLASH Radiotherapy

Jaegi Lee, Junhyeok Kim, Byung-Gun Park, Cheolhong Im, Wanseok Oh

Korea Atomic Energy Research Institute



[TP_43]

Preliminary Study on a Technical and Regulatory Assessment Framework for the Deployment of Betavoltaic Batteries

Deokseong Kim, Kilyoung Ko, Changyu Ko, Jongbum Kim, Gujin Kang, Jinjoo Kim, Jintae Hong
Korea Atomic Energy Research Institute

[TP_44]

Dosimetric Impact of Source Modeling and Day 30 Post-Implant Changes in I-¹²⁵ Low Dose Rate Prostate Brachytherapy

Kyung Hwan Chang¹, Yeonok Park², Woo Shik Kim^{2,3}, Jai Wo Lee², Jaeho Cho², Ho Lee²
¹*Far East University*, ²*Yonsei University College of Medicine*, ³*Korea University*

[TP_45]

Applications of Low-Temperature Mössbauer Spectroscopy in Archaeological Iron Corrosion Studies

Young Rang Uhm, Seoeun Jang, Hyunkyung Choi, Gwang Min Sun
Korea Atomic Energy Research Institute

[TP_46]

Dose Distribution Prediction for Optimizing Radiation Conservation Treatment of Cultural Heritage Objects

Juyeon Choi¹, Young Rang Uhm¹, Hae-Jun Park¹, Jung Il Song², Jaegi Lee¹
¹*Korea Atomic Energy Research Institute*, ²*Cultural Heritage Conservation Science Center*

[TP_47]

Development of a Compact IMU-Based Embedded Logger for In-Situ Monitoring of Sample Transport Dynamics in a Pneumatic Transfer System

Seongpyo Hong¹, Kishore Babu Dasari^{1,2,3}, Bo-young Han¹, Gwang-Min Sun¹
¹*Korea Atomic Energy Research Institute*, ²*Jeonbuk National University*, ³*Korea Research Institute of Standards and Science*



Poster Session 3 (UST-KAERI)	
Date / Time	September 9 (Wed.), 2026 / 09:30~11:30
Place	3F, Foyer

[WP_1]

Particle Flux Enhancement Using In-Vessel Electromagnet in Particle Flux Irradiation Facility at KAERI

Cheolwan Park^{1,2}, Haewon Shin¹, Dong Won Lee¹, Kill-Byoung Chai^{1,2}

¹Korea Atomic Energy Research Institute, ²UST-KAERI School

[WP_2]

Probing Material Response under Laser Shockwaves Using Velocity Interferometry

Malaika Sada^{1,2}, Adnan Tariq^{1,2}, Hana Kim³, Kitae Lee^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Institute for Basic Science

[WP_3]

Experimental Investigation of Microwave Sintering of Lunar Regolith Simulant

Geonwook Park^{1,2}, Myungjin Bae^{1,2}, Kyu-Ha Jang^{1,2}

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

[WP_4]

Characterization of the Electron Beam Extracted from a Microtron Accelerator

Young Uk Jeong^{1,2}, Myungjin Bae^{1,2}, Sangyoon Bae³, Hyun Woo Kim², Kyu-Ha Jang²

¹University of Science and Technology, ²Korea Atomic Energy Research Institute, ³Institute for Basic Science

[WP_5]

Preliminary Geant4 Simulation Study on Spatial Resolution of a Light-Guiding Scintillator for Fast Neutron Imaging

Hanna Lee^{1,2}, Pilsoo Lee^{1,2}, Soobin Lim³, Gyeongjin Choi⁴, Bongki Jung³, Kyoung-Jae Chung⁴, Dong Won Lee²

¹University of Science and Technology, ²Korea Atomic Energy Research Institute, ³Q-Beam Solution Inc., ⁴Seoul National University

[WP_6]

Development of EUV Light Source Using a Pulsed-Power Plasma Experiment

Dongwan Kim^{1,2}, Haewon Shin¹, Kil-Byoung Chai^{1,2}

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

[WP_7]

Geant4-DNA Simulation of Radiation-Induced DNA Damage in Reduced-Scale Human Fibroblast Cell Model: Quantification of Strand Breaks and Oxidative Base Lesions

Tu Minh Khuong^{1,2}, Jong-Hyun Jung¹, Sangyong Lim^{1,2}

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

[WP_8]

Radiolabeling and In Vivo SPECT/CT Imaging of an Antiviral Agent for Feline Infectious Peritonitis

Khurram Shahzad^{1,2}, Jeong Ae Kang³, Sang Hyun Park^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Osong Medical Innovation Foundation



[WP_9]

Development of a Gas-Based Separation System for Metallic Nuclides

Min Jae Shin^{1,2}, Hye Ran Noh², Sang Ho Lim^{1,2}, Jong-Yun Kim^{1,2}, Dong Woo Lee^{1,2}

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

[WP_10]

Fabrication of Large-Scale UO₂ Blocks by Slip Casting for Enhanced Storage Efficiency

Daeuk Kang^{1,2}, Yunmock Jung², Kweonho Kang², Kyungho Roh³, Beomgyu Kim³, Eun-Young Choi^{1,2}

¹University of Science and Technology, ²Korea Atomic Energy Research Institute, ³Korea Hydro and Nuclear Power Central Research Institute

[WP_11]

Dehydration and Rehydration Behavior of MSR Candidate Chloride Salts

Seol Kim^{1,2}, Hyeonwoo Kim³, Joonha Park^{1,2}, Seok Min Yoon^{1,2}, Dokyu Kang¹, Taeho Kim^{1,2}, Chang Hwa Lee^{1,2}, Sangtae Kim³, Eun-Young Choi^{1,2}

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³Hanyang University

[WP_12]

Influence of Impurity Moisture Levels on the Degradation of Structural Alloys in Molten KCl-MgCl₂

Seok Min Yoon^{1,2}, Joonha Park^{1,2}, Eun-Young Choi^{1,2}, Chang Hwa Lee^{1,2}, Taeho Kim^{1,2}

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

[WP_13]

Evaluation of Nanofiltration Membranes for Boron Upcycling in a Cross-Flow System

Dongjae Noh^{1,2}, Hee-Man Yang^{1,2}, Chan Woo Park^{1,2}, Il-Gook Kim¹, Gi-Rak Lee¹, Hwan Seo Park¹, Hyung-Ju Kim^{1,2}

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

[WP_14]

Development of Photopolymerization Based 3D-Printed Plastic Scintillators with Improved Shape Stability for Beta Detection

Sujin Kim^{1,2}, Sujung Min², Bum Kyoung Seo², Sang Bum Hong^{1,2}

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

[WP_15]

Carbonization Temperature-Dependent Xe/Kr Adsorption Behavior of PVDF-Derived Porous Carbons for Molten Salt Reactor Off-Gas Treatment

Namcheol Kim^{1,2}, Seok-Min Hong^{1,2}, Chang Hwa Lee^{1,2}, Eun-Young Choi^{1,2}

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

[WP_16]

Selective Melt-Extraction of CsCl from LiCl-Based Ingot

Chae-Woong Ma, Jung-Hoon Choi

Korea Atomic Energy Research Institute



[WP_17]

Rehydration-Accelerated Corrosion of SS316H in Molten MgCl_2

Joonha Park^{1,2}, Seol Kim^{1,2}, Jae Yun Lee^{1,2}, Chang Hwa Lee^{1,2}, Eun-Young Choi^{1,2}

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

[WP_18]

Preparation of EDTA-Assisted Hydrothermal Corrosion Oxide Film on Inconel 600 for Decontamination of Steam Generator Tube in Nuclear Power Plant

Muhammad Wasim Ikram^{1,2}, Sang-Hun Lee¹, Yessika Natalia Chelsie¹, Hafiz Amir Nadeem^{1,2}, Seung joo Lim^{1,2}, Wangkyu Choi^{1,2}

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

[WP_19]

Autoclave-Assisted Oxide Layer Formation on Inconel 690

Hafiz Amir Nadeem^{1,2}, Sang-Hun Lee^{1,2}, Yessika Natalia Chelsie^{1,2}, Muhammad Wasim Ikram^{1,2}, Seung joo Lim^{1,2}, Wangkyu Choi^{1,2}

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

[WP_20]

Complexity-Aware Composition and Optimization of Multi-Agent Workflows

Jaejun Lee^{1,2}, Hogeon Seo^{1,2}

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

[WP_21]

Vision-Based Sensor-Minimal Robotic System for High-Torque Bolt Fastening in Unstructured Industrial Environments

Hyeokbeom Kwon^{1,2}, Jinyi Lee^{1,2}, Jongwon Park^{1,2}

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

[WP_22]

Constructing Citation Knowledge Graph from Nuclear Regulatory Documents for Traceable Evidence Retrieval: A Case Study

Bokyeong Kim^{1,2}, Yonggyun Yu³

¹University of Science and Technology, ²Korea Atomic Energy Research Institute, ³National Research Council of Science & Technology

[WP_23]

Design of a Versatile Leader-Follower Teleoperation System for Nuclear Disaster Scenarios

Jaehee Park¹, Jinyi Lee², Jongwon Park^{1,2}

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

[WP_24]

Comparing LLM Agent Architectures for Nuclear Procedural Automation: Where Multi-Agent Coordination Helps and Where It Fails

Joowon Cha^{1,2}, Seung-Geun Kim¹, Yonggyun Yu^{1,2}

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



[WP_25]

A Stage-Gated Workflow for Evidence-Bounded Review of AI-Generated Nuclear Technical Claims: A Reactor Coolant System Pilot

Byeongha Jo^{1,2}, Yonggyun Yu³

¹Korea Atomic Energy Research Institute, ²University of Science and Technology, ³National Research Council of Science and Technology

[WP_26]

Comparative Analysis of Input Modalities for 3D CAD Generation Using Multimodal Large Language Models

YeongA Jang^{1,2}, Hogeon Seo^{1,2}

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

[WP_27]

Whole-Body Collision Avoidance and Haptic Feedback in Vision-Guided VR Teleoperation for Radioactive Waste Management

GeeGum Lee^{1,2}, Seungnam Yu¹

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



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Mitra, Debasis	TB1_2	31	Park, Hae-Jun	TD1_2	33	Park, Tae-Hong	TP_30	51
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	WC2_2	38		TP_46	53		MP_42	47
Moon, Ji Seong	WB1_1	34	Park, Hwan Seo	MP_14	43	Park, Yeonok	TP_44	53
Moon, Jong Hwa	MB1_2	28		MP_15	44	Park, Yi-Hyun	WD1_1	36
	MB1_3	28		MP_40	47		WD1_2	36
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Moon, Sunwoo	TB1_3	31		WP_13	55	Park, Young ah	WD1_1	36
MSSRKN, Sarma	MC1_3	29	Park, J.H.	MP_10	43		WD1_5	36
	TC1_5	32	Park, Jaehee	WP_23	56	Park, Young-Jae	TB1_5	31
			Park, Jaehyun	TP_38	52	Patwal, Sakshi	TA1_2	40
N			Park, Jai Il	TP_30	51	Pawar, Harshada Khanderao	WB1_1	34
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Qiu, Menglin	MP_43	47		MB1_4	28		WC1_4	35
	TP_22	50		MB1_5	28	Yeo, Hyeonuk	WC2_3	38
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				MD1_5	30		MP_28	45
R				TC1_3	32	Yeon, Jei-Won	TP_5	48
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Rao, Prabhakara VVS	TC1_5	32		MP_10	43		TP_36	52
Redondo-Cubero, Andrés	TB1_3	31		MP_20	44	Yeon, Yeong Heum	TC1_2	32
Ro, Da Ol Joseph	MC1_1	29		MP_35	46	Yim, Hee Joong	TC1_2	32
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	WP_10	55		TP_40	52	Yoo, Jung Bo	TP_11	49
Ryong, Koo Seo	MD1_1	30		TP_45	53		TP_30	51
Ryoo, Ji-yeon	MP_27	45		TP_47	53	Yoon, Dalsung	WD2_4	39
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				WP_2	54	Yoon, Seok Min	WP_11	55
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	TA1_3	40	Trinh, Thi Thao Quyen	WB1_4	34	Yoon, Suk Bon	TP_35	52
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Shin, Ki-baek	MP_13	43		TA1_11	41		MA1_6	26
Shin, Min Jae	WP_9	55		TP_31	51		TA1_6	40
Shin, Tacksu	TC1_2	32		WD1_3	36		TP_36	52
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Sohn, Sungjune	WB2_2	37	Yang, Jin Young	MP_4	42		TP_2	48
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Song, Gyohyeok	TP_38	52		MP_7	42	Zhou, Xiaoxiao	TP_22	50
Song, Jiho	TB1_6	31	Yang, Nak Woong	WB2_1	37		TP_23	50
Song, Jung Ho	MP_36	46	Yang, Seong Woo	MP_22	44			
Song, Jung Il	TP_46	53		MP_25	45			
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Song, Young-Gi	TP_24	50						
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감마 핵종 분광분석 시스템

HPGe based Gamma-ray Spectroscopy System



구성

- ✓ HPGe Detector
- ✓ 냉각 시스템(ICS, MOBIUS)
- ✓ 신호처리장치(DSPEC Series, NIM Modules)
- ✓ 소프트웨어 (Gamma Vision/LVis)
- ✓ 납 차폐체
- ✓ 자동시료교체장치(옵션)

특징

- ✓ 응용에 따라 10~150% 효율의 검출기 선택 가능
- ✓ SMART 옵션을 통한 시스템 및 검출기 상태의 실시간 모니터링
- ✓ 전기적/기계적 냉각 시스템으로 빠르고 손쉬운 저소음 냉각
- ✓ 디지털 노이즈 필터 기능
- ✓ Zero Dead Time(ZDT)보정
- ✓ 광범위한 Count Range 측정 및 분석 가능
- ✓ 루틴 업무를 위한 자동 교정 마법사 및 Job Programming
- ✓ 최대 8개 Detector + 8개 저장 스펙트럼창 동시 출력
- ✓ 측정 응용에 따라 5개의 분석 엔진 선택 가능
- ✓ 최대 21개 시료 연속 측정 가능한 자동시료교체장치 (마리넬리버커, 실린더, 필터 등 다양한 시료 용기 사용 가능)

Detective DX1

HPGe Radioisotope Identification System



- ✓ 동축형 P-type HPGe(65X50mm) 효율 / $\geq 40\%$
- ✓ 8시간으로 단축된 냉각 시간
- ✓ Energy Range : 기본 40keV~3MeV(옵션 : 8MeV)
- ✓ Dose Rate Range : 0.1~2,000mR/h
- ✓ 옵션 : Li6F/ZnS Neutron Detector
- ✓ ANSI N42.42 2020 파일 포맷 지원
- ✓ 최대 8시간 사용 가능한 Dual Li-ion 배터리
- ✓ 5 inch 터치스크린 디스플레이
- ✓ 사용자 편의에 최적화된 인터페이스
- ✓ 10/100/1,000M Ethernet 지원
- ✓ WLAN 802.11 및 블루투스 5.1 지원
- ✓ 작동 환경 (온도 : -20°C~50°C, 상대 습도 : 95%)
- ✓ IP65 등급 및 방진, 방수 기능

Radeaglet-R

Nal(Tl) 기반의 고감도 소형 검출기



- ✓ 기본Nal(Tl) 2"X1" in 내장 (옵션 : 1"X1" in LaBr3(Ce))
- ✓ 최대 1.54kg의 초경량 무게(옵션별 상이)
- ✓ Energy Range : Nal(Tl) 15 keV ~ 3 MeV / GM 45 keV ~ 1.5 MeV
- ✓ 67종 이상의 핵종 라이브러리
- ✓ IP65 등급 및 방진, 방수 기능
- ✓ 최대 15시간의 동작 가능한 Li-ion 배터리
- ✓ Hot Swap 기능으로 전원 종료없이 배터리 교체 가능
- ✓ 내장된 GM Tube를 통한 선량 측정
- ✓ 30초 이내 최대 6개 핵종 검출 및 식별 가능
- ✓ WLAN, 핫스팟, USB 연결 및 Reachback 및 스펙트럼 분석
- ✓ 옵션: GPS, He-3, 자체 교정(Cs-137, K40)

한국방사능 분석협회

Korea Radioanalytical Association

방사능분석 산업의 안전한 관리와
지속적인 발전을 위해
최선의 노력을 다 하겠습니다.

「방사능분석 회원사 전국 협력 네트워크」



안전한 방사능 관리로
안전한 세상을 만들어갑니다.

(사)한국방사능분석협회는 관련 산업의 안전한 관리와 지속적인 발전을 위해
방사능 분석 전문가와 분석 전문 기관의 글로벌 육성을 목표로 하고 있습니다.



MIRION
TECHNOLOGIES

AEGIS PORTABLE HPGe SPECTROMETER

Versatile, Laboratory-Grade High-Purity Germanium (HPGe) Gamma Spectroscopy for Field and Lab

IP65 / -20 to 50°C

Harsh Environment
Protection

THERMAL-CYCLE FREE

Minimum Downtime
for Recooling

LiFePO4 HOT-SWAP

Extended, Non-Interruptible
Power System

CORE FEATURES

- **LABORATORY-GRADE RESOLUTION:**
High-performance Stirling cooler for LN₂-free operation
- **RDC (REMOTE DETECTOR CHAMBER) OPTION:** Separation of HPGe crystal for backshielding and background optimization
- **MULTIPLE DETECTOR OPTIONS:**
Coaxial, Xtra™, BE5030 crystals for efficiency/resolution
- **ROBUST & DECONTAMINABLE:**
IP65 ingress protection, fanless design
- **INTEGRATED SOFTWARE:**
Genie™ (Standard Counting) and Aegis Dashboard UI (Continuous Monitoring)



CONTINUOUS SPECTROSCOPIC MONITORING (CSM) APPLICATIONS



CONVEYOR MONITORING:

Specific screening of debris/
contaminated material



EMERGENCY RESPONSE:

ISOCS™ integration for fast, sourceless
quantification in the field



CIRCUIT MONITORING:

Continuous tracking of nuclide activities
in power plants

SMART POWER & CRYOSTAT DESIGN

- **THERMAL-CYCLE FREE Cryostat:**
Immediate re-cooling after power loss
- **UN3481 CERTIFIED LiFePO4 Battery:**
Safe, stable, and long-life

DETECTOR CONFIGURATION SPECIFICATIONS

MODEL	REL. EFF.	RESOLUTION @ 1332 keV	ENERGY RANGE
AEGIS-GC40 (-RDC)	40%	2.1 keV	40 - 10,000 keV
AEGIS-GX40 (-RDC)	40%	2.1 keV	15 - 10,000 keV
AEGIS-BE5030 (-RDC)	~45% (Typ.)	2.0 keV	15 - 3,000 keV

HARDWARE & COMMUNICATIONS SPECIFICATIONS

COMM. & CONTROL	Wi-Fi (802.11b/g/n), Ethernet, GPS (optional removal)
DISPLAY & INPUT	Backlit LCD, Status LEDs, HV/Power/Cooler keypad
I/O PORTS	6x GPIO ports for fault, monitor, and future use
VESA & MOUNTING	VESA 100x100mm pattern, ISOCS cart & tripod adapters

STANDARD INCLUSIONS

Aegis Unit & Shipping Case
2x Internal Batteries + 2x Spare Batteries (Total 4)
AC Power Supply & Battery Chargers
1-year Genie-Single License
1-year ISOCS™ License

FOR DETAILED SPECIFICATIONS, CUSTOM SHIELDING, AND CART
ADAPTERS, CONTACT YOUR MIRION REPRESENTATIVE.





원자력·방사선 관리

방사선 업무대행

방사성폐기물처리

계측기 교정

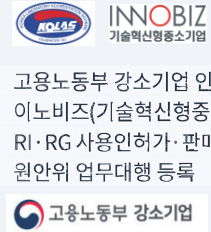
방사성 핵종분석

회사 소개

- 기업부설연구소 : 1999년 설립
- 사업장 현황 : 방사선(농) 교정·분석센터(대전), 새울사업소(부산), KAERI 사업소(서울/대전)
- 국제협력 : WAKAIDA(일본) 방폐물처리기술, FEVDI(프랑스) 해체·제염전문기술

인증 및 인허가

- KOLAS 공인교정기관 인증
- KOLAS 공인시험기관 인증
- ISO 45001 안전보건경영
- ISO 9001 품질경영
- ISO 19443 원자력 QMS
- 고용노동부 강소기업 인증
- 이노비즈(기술혁신형중소기업)
- RI·RG 사용인허가·판매허가
- 원안위 업무대행 등록



주요 사업 영역

방사선 안전관리

- 원자력발전소 방사선 안전관리(2000년 이후 지속 수행)
- 원자력 관련 시설의 환경영향평가 및 규제해제 지원
- 방사선관리구역 해제 신청·인허가 대행

보건물리

방사성폐기물관리

방사선방호관리

원자력품질관리

방사선 업무대행

- 방사선안전보고서·방사선안전관리규정 작성
- RI·발생장치 사용 인허가 컨설팅, 사용시설 설치 안전 감리
- 방사성오염 제거, 방사성폐기물 수거·처리·운반 대행
- 선원 누설점검 및 자체점검 보고서 작성
- 수도권·충청권 SK하이닉스, 한국에이브이엘 등 다수 수행

방사성폐기물처리

원전해체·DECOMMISSIONING

- 해체 전·중·후 방사선구역 분류·설정·관리
- 해체 작업자 ALARA 계획 수립 및 공정별 방사선 측정·모니터링
- 오염 확산 방지·제염, 해체폐기물 발생량 최소화 및 분류·처리

처리·처분·TREATMENT & CLEARANCE

- 방사선학적 특성평가: 매질별 방사화학분석, 핵종재고량·척도인자 평가
- 처분인도: 처분시설 인수기준(WAC) 적합성 검증 및 인허가 지원
- 자체처분 인허가 대행, 일반화시설 전환·부지 복원

계측기 교정

KOLAS 국제공인 교정기관 (KC13-273)

- 방사선 분야: 엑스·감마 서베이미터, 개인피폭선량계(ADR·PD)
- 방사능 분야: 표면오염 감시기(알파·베타)
- 방문·택배 접수 (대전 교정사업소)



방사선 분야 교정 사용선원



방사선 분야 교정시설



방사능 분야 교정 사용선원

방사성 핵종분석

KOLAS 국제공인 시험기관 (KT1339)

- 분석 대상: 원전·방사성폐기물(수질·금속·콘크리트), 환경·식품
- 분석 핵종: H-3, C-14, 감마 핵종, 전알파·베타
- 보유 장비: HPGe, LSC(Quantulus 1220·Hidex 300SL)



전처리실 (Pyrolyzer)



감마 계측실 (HPGe)



베타 계측실 (LSC)

주요 연구개발 (국책연구)

- 기계화학적 부피저감 및 안정화 기술을 이용한 해체폐기물 연속처리 시스템 개발
- 해체 발생 방사성 오염 폐전선의 안전처리 공정개발
- 대량 발생 저준위 이하 해체폐기물 핵종분석 R&D 기반 구축 및 유효성 검증 품질관리체계 개발
- 해체폐기물 핵종재고량 평가를 위한 핵종분석 및 간접 평가법 개발

특허 현황

- 폐전선 처리 방법 및 시스템 (PCT 국제출원)
- 삼중수소 제거 장치 및 제거 방법
- 방사성 폐기물 이송장치 (특수지)
- 방사성 금속폐기물의 전해제염방법 및 이에 사용되는 시스템
- 파이프 내부 방사성 오염 채취 장치 및 이를 포함하는 측정시스템
- 기타 37건



본사

서울특별시 동대문구 답십리로60길 125

Tel. 02-711-5145~6



방사선(농) 교정·분석센터

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Tel. 042-933-8060

www.korasol.co.kr

주식회사 코라솔



방사선안전관리 종합서비스 제공

오르비텍은 1991년 창립 이래로 국내외에 분포되어 있는 10여 개의 사업소를 통해 원자력 분야, 항공기 정밀부품 제조업 등 다양한 분야의 사업다각화를 추진하여 여러 부문에서 성과를 이루어 내고 있습니다.

T. 02-6250-2230

피폭선량 측정 서비스

개인 방사선량측정의 최종목적은 방사선 이용자의 안전을 확보해 드리는 것에 있고, 이를 위해 세계 최고 수준의 기술력 확보를 위해 노력하고 서비스하겠습니다.

원자력안전위원회 판독업무자등록 제 22-11호
질병관리청 측정기관등록 제 측정 22-2호
농림축산검역본부 측정기관지정 제 2011-1호

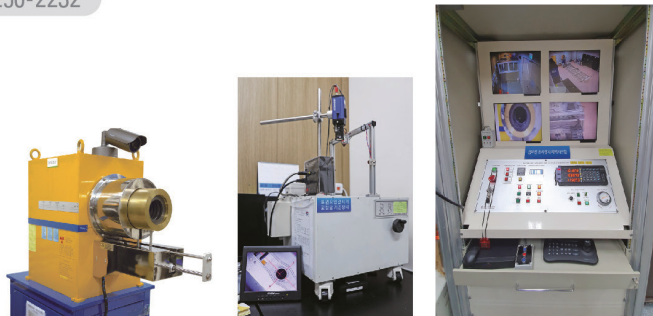


T. 02-6250-2232

방사선(능) 교정서비스 (KOLAS)

국가표준기본법 제14조, KOLAS 공인기관 인정제도 운영요령 제10조의 규정과 KS Q ISO/IEC 17025:2017 인정 요건에 의거 한국인정기구(KOLAS)로부터 국제공인교정기관으로 공인을 인정받아 현재 방사선과 방사능 교정 서비스를 제공하고 있습니다.

KOLAS 교정 (방사선/방사능) KC13-278



T. 070-4260-7579

방사능 분석 시험서비스 (KOLAS)

환경 및 원자력 분야 등 다양한 분야의 시험분석서비스를 수행하며, 한국인정기구(KOLAS)로부터 국제공인시험기관으로 인정 받아 객관성과 신뢰성을 바탕으로 시험서비스를 제공합니다.

KOLAS 시험 KT777



T. 02-6250-2212

방사선(능) 계측기 판매

Radico-II 서베이미터, 표면오염감시기
 감마선, X-ray 선량을 측정 기능
 알파선, 베타선 계수율 측정 기능

Radico ARMS 지역방사선감시시스템
 자가진단 기능 내장(X-ray 발생장치 탑재)



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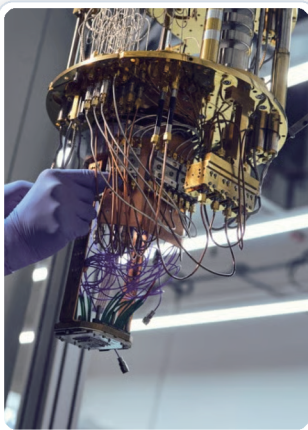


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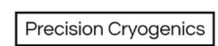
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