

## Ⅱ.분과별 논제 및 발표자

### 1. 제 1 분과 : 원자로시스템기술

제 1 분과 A 원자로시스템기술 (SFR Technology I )		좌 장 이재한(Jae-Han Lee) 장진욱(Jin-Wook Jang) 발표장소 은하수홀
일 정	논 문 제 목	저자명 및 소속
5.29(목)		
09:00	Acoustic Leak Detection Requirements for a SFR Steam Generator Protection	Tae-Joon Kim, Valery S. Yughay, Ji-Young Jeong, Jae-Hyuk Oeh, Jong-Man Kim, and Byung-Ho Kim (KAERI)
09:20	Preliminary Structural Evaluation of the SMFR Core Support Structure	Chang-Gyu Park and Gyeong-Hoi Koo (KAERI)
09:40	Feasibility Test of Ultrasonic Waveguide Sensor Assembly for Under-sodium Viewing in Sodium-cooled Fast Reactor	Young-Sang Joo, Sa-Hoe Lim, Chang-Gyu Park, and Jae-Han Lee (KAERI)
10:00	Core Function Changes from a Breakeven Core to a TRU Burner Core	Jae-Yong Lim, Sang Ji Kim, and Yeong-Il Kim (KAERI)
10:20	Self-wastage Behavior of Modified 9Cr-1Mo Steel as Heat Transfer Tube Material for a SFR SG	Ji-Young Jeong, Tae-Joon Kim, Jong-Man Kim, Jong-Hyeun Choi, and Byung-Ho Kim (KAERI) Nam-Cook Park (CNU)
10:40	Coffee Break	
11:00	Core Performance Comparisons in TRU Burning Large Fast Reactors	Hoon Song, Sang Ji Kim, and Yeong Il Kim (KAERI)
11:20	Corrosion Behaviors of T91 Steel in Static Lead-Bismuth Eutectic	J. H. Choi, B. H. Choi, J. M. Kim, J. Y. Jeong, C. H. Cho, CH. Cho, and B. H. Kim (KAERI)
11:40	Preliminary Structural Analysis of a Reactor Internal Structure in a SMFR	S. H. Kim and G. H. Koo (KAERI)

제 1 분과 B 원자로시스템기술 (SFR and Experimental Reactor Technology)		좌 장 김명현(Myung-Hyun Kim) 권영민(Young Min Kwon) 발표장소 은하수 B
일 정	논 문 제 목	저자명 및 소속
5.29(목)		
09:00	Component Arrangement Design of Two and Three Loop Systems for a Large Capacity SFR	Lee, Jae-Han and Park, Chang-Gyu (KAERI)
09:20	Preliminary Analysis of the Fuel Bundle Stiffness by ANSYS for SFR	Byoung Oon LEE, Jin Sik CHEON, Do Hee Hahn, and Chan Bock LEE (KAERI)
09:40	PASCAR - a Small Modular Reactor for PEACER Demonstration	IL Soon Hwang, Myung Hyun Kim, Han Gyu Joo, Kyung Woo Yi, Bong Yoo, Moo Hwan Kim, Seung Rok Oh, Yoon Jae Kim, Jong Gye Shin, Kwang Myung Lee, Jae Yong Lim, Dong Yoon Han, Jun Lim, Hyo On Nam, Jae Hyun Cho, Keun Young Lee, and Chang Hyo Kim (SNU)
10:00	Development of a Design Code for a Double Wall Tube Steam Generator in a Liquid Metal Reactor	Seok-Ki Choi and Seong-O Kim (KAERI)
10:20	Design Concept of Transportable Capsular LBE Cooled Fast Reactor, PASCAR	Keun-young Lee and Myung-Hyun Kim (KHU)
10:40	Coffee Break	
11:00	Conceptual Nuclear Design of 10 MW Pool Type Research Reactor with HANARO Fuel Assemblies	Win Naing, Mon Mon Kyaw, and Myung-Hyun Kim (KHU)
11:20	A New Conceptual Core Design of REX-10 with Thorium Fuel	Mon Mon Kyaw and Myung-Hyun Kim (KHU)

제 1 분과 C	원자로시스템기술-Poster (Reactor Technology)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
<b>P01C01</b>	An Evaluation on Geometric Parameters of Helical Coil from the Viewpoint of Heat Transfer	Han-Ok Kang, Cheon-Tae Park, and Juhyeon Yoon (KAERI)
<b>P01C02</b>	Introduction to Feasibility Evaluation for Supercritical Water-cooled Reactor Development in Korea	Kwangho Lee, Sung-Yull Hong, Yong-Bae Kim, and Seong-Man Bae (KEPRI)
<b>P01C03</b>	Numerical Analysis of Characteristics of a Particulate Debris Bed Coolability with Single Phase Flow	Jewhan Lee and Soon-heung Chang (KAIST) Chungho Cho and Yong-bum Lee (KAERI)
<b>P01C04</b>	Application of a Waveguide Sensor for a Volumetric Inspection of SFR Reactor Internals	Sa-Hoe Lim, Young-Sang Joo, and Jae-Han Lee (KAERI)
<b>P01C05</b>	Large Burner Core Design with a Varying Fuel Cladding Thickness	Hoon Song, Sang Ji Kim, and Yeong Il Kim (KAERI)
<b>P01C06</b>	600 MWe TRU Burner Core Designs with Core Height Variations	Hoon Song, Sang Ji Kim, and Yeong Il Kim (KAERI)
<b>P01C07</b>	Study on Integrated Fuel Handling and Inspection Concept in SFR	S. H. Kim and J. H. Lee (KAERI)
<b>P01C08</b>	Calculation Model of Radial Core Expansion Reactivity Feedback in Sodium-cooled Fast Reactors	Young-Min KWON, Hae-Yong JEONG, Chung-Ho CHO, Su-Dong SUK, and Yong-Bum LEE (KAERI)
<b>P01C09</b>	A New Design of High Flux Research Reactor (HFRR) for the Developing Countries	Win Naing and Myung-Hyun Kim (KHU)
<b>P01C10</b>	Improvement of CRDM Damping Mechanism for AHR	Choon-Gyo Seo, Yeong-Garp Cho, Jeong-Soo Ryu, and Jin-Won Shin (KAERI)
<b>P01C11</b>	Design Concept of Propulsion System for Nuclear Operated Vessel Adventurer	B. Halimi, T. W. Kim, H. M. Son, and Kune Y. Suh (SNU)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
<b>P01C12</b>	Experiment Plan of High Temperature Steam and Carbon Dioxide Co-electrolysis for Synthetic Gas Production	Duk-Joo Yoon and Jae-Hwa Ko (KEPRI)

제 1 분과 D	원자로시스템기술 (SFR Technology II)	좌 장 김영일(Young Il Kim) 한도희(Dohee Hahn) 발표장소 은하수홀
일 정	논 문 제 목	저자명 및 소속
5.30(금)		
09:00	SFR Breakeven Core Designs with Various Rated Powers	Hyung-Kook Joo, Jin-Wook Jang, Jae-Woon Yoo, and Yeong-Il Kim (KAERI)
09:20	Analytical Study of Sodium Fire Characteristics under Sodium Leak Accidents	Byung Ho Kim, Ji Young Jeong, Jong Hyun Choi, Tae Joon Kim, and Ho Yun Nam (KAERI)
09:40	Development of a Supercritical CO <sub>2</sub> Brayton Energy Conversion System for KALIMER	J. E. Cha, T. H. Lee, and S. O. Kim (KAERI) D. E. Kim and M. H. Kim (POSTECH)
10:00	Investigation into Thermal-hydraulic Behavior in the KALIMER-600 Pool in a Steady State	Ji-Woong Han, Tae-ho Lee, Jae-Hyuk Eoh, and Seong-O Kim (KAERI)
10:20	Numerical Modeling and Analysis of Turbine in Brayton Cycle for KALIMER-600	T. W. Kim, W. S. Jeong, and K. Y. Suh (SNU) J. E. Cha and S. O. Kim (KAERI)
10:40	Coffee Break	
11:00	Preliminary Design of PCHE in S-CO <sub>2</sub> Brayton Cycle Coupled to KALIMER-600	Tae-Ho Lee, Jae-Eun Cha, Jae-Hyuk Eoh, Seong-O Kim, and Do-Hee Hahn (KAERI)
11:20	Feasibility Study on the Design Options to Prevent the PDRC Loop Sodium Freezing in KALIMER-600	Jae-Hyuk Eoh, Yong-Hwan Yoo, Ji-Woong Han, and Seong-O Kim (KAERI)
11:40	Passive Decay Heat Removal Performance Analysis with the MARS-LMR Code	Hae-yong Jeong, Kwi-seok Ha, Won-pyo Chang, Young-min Kwon, Chung-ho Cho, and Yong-bum Lee (KAERI)

제 1 분과 E	원자로시스템기술 (GCR Technology)	좌 장 장종화(Jong-Hwa Chang) 김용완(Yong-Wan Kim) 발표장소 은하수 B
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
09:00	Numerical Analysis of the Bypass Flow and the Flow Distribution Characteristics in the VHTR Core with Unstructured Non-conformal Mesh	Chang-Yong Jin, Su-Jong Yoon, and Goon-Cherl Park (SNU) Won-Jae Lee (KAERI)
09:20	Sensitivity Calculations on Spark Ignition Model for a CFD Analysis of the JAEA Explosion Test in the Open Space	H. S. Kang, S. B. Kim, M. H. Kim, and W. J. Lee (KAERI) H. C. No (KAIST)
09:40	Preliminary Design of a Primary Hot Gas Duct Based on a Heat Balance Model	Keenam Song and Y-W Kim (KAERI)
10:00	Development of an Innovative High Temperature Compact Heat Exchanger for the Coupling of VHTR and Hydrogen Production System	Yong Wan Kim, Jae Won Park, Sung Deok Hong, Chan Soo Kim, Won Jae Lee, and Jonghwa Chang (KAERI)
10:20	Effects of a Flow Mixing and Flow Path Configurations on an Air Ingress in a VHTR	Hong Sik LIM and Won Jae LEE (KAERI)
10:40	Coffee Break	
11:00	Assessment of Pebble Bed Micro Model Using Modified Circulator Model in MARS-GCR	Dong-Un Seo (SNU) Sung-Won Bae and Won-Jae Lee (KAERI)

제 1 분과 F	원자로시스템기술-Poster (Gas Cooled Reactor Technology)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
<b>P01F01</b>	Numerical Simulation of a Coolant Flow and Heat Transfer in a Pebble Bed Reactor	Wang-Kee In, Min-Hwan Kim, and Won-Jae Lee (KAERI)
<b>P01F02</b>	Interfacial Reactions of Ion Beam Mixed SiC Film Deposited onto Hastelloy X Substrate	Jae-Won Park, Zuhair S. Khan, Hyung-Jin Kim, and Yong-Wan Kim (KAERI)
<b>P01F03</b>	The GAMMA Code Assessment of the HTR-10 Safety Demonstration Experiments-CRW ATWS	Ji Su Jun, HongSik Lim, Jae Man Noh, and Won-Jae Lee (KAERI)
<b>P01F04</b>	Calculations for Estimating the Tritium Generation and Distribution in a 600 MWt VHTR with TRITGO	Jong-Hwa. Park, Ik Kyu Park, and Won-Jae. Lee (KAERI)
<b>P01F05</b>	Simulation of a Secondary System for the Small-scale Test Loop	J. H. Kim, S. D. Hong, C.S. Kim, Y. W. Kim, K. Y. Lee, and W.J.Lee (KAERI)
<b>P01F06</b>	Axiomatic Design Approach for the Advanced GT-MHR Core	Hyedong JEONG and Soon Heung CHANG (KAIST)
<b>P01F07</b>	Calculation of Fission Products Inventory for HTR-10	Hyedong JEONG and Soon Heung CHANG (KAIST)
<b>P01F08</b>	Thermal Performance Analysis of a Cooled-vessel Design Using GAMMA+	Nam-il Tak, Hong Sik Lim, Min-Hwan Kim, and Won Jae Lee (KAERI)
<b>P01F09</b>	Preliminary Structural Analysis of High Temperature Vessel	S. H. Kim, D. O. Kim, K. B. Park, and W. J. Lee (KAERI)
<b>P01F10</b>	New Insights on Risk-informed Performance-based Approaches to Technology-neutral Regulatory Framework for Generation IV Reactors	Sang Kyu Ahn and Nam Chul Cho (KINS) Inn Seock Kim (ISSA)
<b>P01F11</b>	Review of the Structural Integrity for a VHTR Cooled Vessel Concept	Jong-Bum Kim, Dong-Ok Kim, Keun-Bae Park, and Won-Jae Lee (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.30(금)		
P01F12	Survey on the Technology Readiness Level of R&D Projects for a Technical Risk Management	S. J. Song, J. H. Chang, and K. Y. Lee (KAERI)
P01F13	Sulfuric Acid Evaporator Sizing for a Nuclear Hydrogen Production by a SI Process	Jihwan Kim, Jiwoon Chang, Youngjoon Shin, Kiyoun Lee, Wonjae Lee, and Jonghwa Chang (KAERI)
P01F14	Analysis and Design of the SI-simulator Software System for the VHTR-SI Process by Using the Object-oriented Analysis and Object-oriented Design Methodology	Jiwoon Chang, Youngjoon Shin, Jihwan Kim, Kiyoun Lee, Wonjae Lee, and Jonghwa Chang (KAERI) Cheung Youn (CNU)
P01F15	Simple Examples for Dynamics of a Single Flexible Block	Dong-Ok Kim, Woo-Seok Choi, Keun-Bae Park, and Won-Jae Lee (KAERI)
P01F16	A CFD Assessment of a Bypass Flow in a Cooled-vessel Design of a Prismatic VHTR	Min-Hwan Kim, Nam-il Tak, and Won Jae Lee (KAERI)



## 제2분과 : 원자로물리 및 계산과학

<div> <div>제 2 분과 A</div> <div> 원자로물리 및 계산과학(Division of Reactor Physics and Computational Science)  - 노심핵설계(Reactor Physics and Analysis) </div> <div> 좌 장 주한규(Joo Han Gyu)  김용희(Kim Yonghee)  발표장소 가야금 A </div> </div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
09:00	Neutronic Impact of Pressure Tube Creep in a CANDU Lattice	Hak-Sung Kim, Yonghee Kim, Gyu-Hong Roh, and Joo-Hwan Park (KAERI)
09:20	Improvement of Two-Dimensional Source Expansion Based Multigroup Pin Power Reconstruction Method	Joo Il Yoon and Han Gyu Joo (SNU)
09:40	Monte Carlo Burn-up Calculation for 400MW <sub>th</sub> PBMR Startup Core	Nam Hai LUU, Hong-Chul KIM, and Jong Kyung KIM (HYU) Soon Young KIM (ITRS) Jae Man NOH (KAERI)
10:00	Thermal Transient Analysis of Pebble Fuels Based on the Two-Temperature Homogenized Model	Nam Zin Cho, Hui Yu, and Jong Woon Kim (KAIST)
10:20	Reevaluation of Burnable Poison Effects in a VHTR	Chang Keun Jo, Yonghee Kim, and Jae Man Noh (KAERI)
10:40	Coffee Break	
11:00	MARS-GCR/CAPP Coupled Multi-Physics Calculation for the OECD/NEA PBMR-400 Benchmark Problem	Hyuh Chul Lee, Seung Wook Lee, Jae Man Noh, and Won Jae Lee (KAERI)
11:20	TRU Deep-Burn in a Self-Cleaning Modular Helium Reactor (SC-MHR)	Yonghee Kim (KAERI)
11:40	Development of the 200MW <sub>th</sub> Pebble-bed Type VHTR Core Concepts	Chang Keun Jo, Hong Sik Lim, and Jae Man Noh (KAERI)

<div>제 2 분과 <b>B</b></div> <div>원자로물리 및 계산과학-Poster (Division of Reactor Physics and Computational Science)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
<b>P02B01</b>	The APR1400 Core Design by Using APA Code System	Choi Yu Sun (KEPRI) Koh Byung Marn (USERS)
<b>P02B02</b>	A Sensitivity Study on Baffle/Reflector Effect for the Cycle Length of SMART	Bae Seong Man (KEPRI) Koh Buung Marn (USERS)
<b>P02B03</b>	Core Protection Method with 4-Channel CEA Signals for Application of OPR-1000 Plants	Bon-Seung Koo, Jin-Young Cho, Jae-Seung Song, and Keung-Koo Kim (KAERI)
<b>P02B04</b>	Monte Carlo Calculation for Modeling HTR-10 Core	Hyedong JEONG and Soon Heung CHANG (KAIST)

제 2 분과 C 원자로물리 및 계산과학(Division of Reactor Physics and Computational Science) - 핵자료 및 응용(Nuclear Data and its Application)			좌 장 이영옥(Lee Young Ouk) 노재만(Noh Jae Man) 발표장소 가야금 A
일 정	논 문 제 목	저 자 명 및 소 속	
5.30(금)			
09:00	A Validation Test of ORIGEN2/HELIOS for AMBIDEXTER Design Studies	S. T. Hong, Y. J. Lee, T. K. Ham, and S. K. Oh (AJU)	
09:20	Multi-Group Library Processing for the Transport Lattice Code KARMA	Ser Gi Hong, Kang-Seog Kim, and Jae-Seung Song (KAERI)	
09:40	ENDF/B-V II .0 Library and its Extension to Covariances	Michal Herman (BNL)	
10:20	Uncertainty Analysis of $k_{eff}$ on the GODIVA Core Using Recently Developed Covariance Data	Choong-Sup Gil, Do Heon Kim, and Young-Ouk Lee (KAERI) Luiz C. Leal (ORNL)	
10:40	Coffee Break		
11:00	Cyclotron Production of the $^{105}\text{Rh}$ Radionuclide from Natural Palladium	Mayeen Uddin Khandaker, Kwangsoo Kim, Manwoo Lee, and Guinyun Kim (KNU) Young-Sik Cho and Young-Ouk Lee (KAERI)	
11:20	Analysis of Metallic Uranium Fueled BFS Critical Assemblies with the ECCO/ERANOS2.1 Code System	Jaewoon Yoo and Yeong-Il Kim (KAERI) Robert Jacqmin (CEA)	
11:40	Burnup Analysis of Fuel Assembly Designs for the 300 kW Small Medical Reactor	Odmaa Sambuu and Nam Zin Cho (KAIST)	

<div>제 2 분과 <b>D</b></div> <div>원자로물리 및 계산과학-Poster (Division of Reactor Physics and Computational Science)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
<b>P02D01</b>	Excitation Function for the $^{27}\text{Al}(p, x)^{24}\text{Na}$ Monitor Reaction	Mayeen Uddin Khandaker, Kwangsoo Kim, Manwoo Lee, Kyung-Sook Kim, and Guinyun Kim (KNU) Young-Sik Cho and Young-Ouk Lee (KAERI)
<b>P02D02</b>	Nuclear Data Evaluation for $^{54,56,57,58}\text{Fe}$ Induced by Proton	Sung Chul Yang, Hyeong Il Kim, and Young Ouk Lee (KAERI)
<b>P02D03</b>	Analytical Derivation of the Compton Wavelength Shift	Sun-Tae Hwang and Dong-Gwan Shin (TEKCIVIL Corporation)
<b>P02D04</b>	Consistent Generation and Verification of 190 Group Cross Section Library Data for Primary Nuclides	Gwan Young Kim and Han Gyu Joo (SNU)
<b>P02D05</b>	Implementation of a Multigroup Cross-Section Generation Capability into McCARD	Hyung Jin Shim, Kang Seog Kim, and Jae Seung Song (KAERI) Chang Hyo Kim (SNU)

제3분과 : 방사성폐기물관리

제 3 분과 A 방사성폐기물관리 (Radioactive Waste Management)		좌 장 김창락(Chang-Lak Kim) 이연명(Youn-Myoung Lee) 발표장소 항비파 B
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
09:00	Sensitivity of Nuclide Release Behavior to Groundwater Flow in an HLW Repository	Youn-Myoung Lee and Yongsoo Hwang (KAERI)
09:20	Introduction to OECD/NEA Sorption Project Phase III	Min Hoon Baik and Jae Kwang Lee (KAERI)
09:40	Gas Generation and Transport in Subsurface Repository for LILW	Haeryong Jung, Joo Wan Park, and Chang-Lak Kim (KHNP-NETEC)
10:00	Effects of Ligands on a Ternary Hydroxo Complex Formation with Eu(III) in Aqueous Solution: Comparison of a Pyridine-2,6-dicarboxylate with a Phthalate	K. K. Park, H-R. Cho, W. H. Kim, and E. C. Jung (KAERI)
10:20	Application of Zeolite on Removal of Radionuclides (I/II) within Waste LiCl Salt	Jeong-Guk Kim, Hwan-Young Kim, Do-Hee Ahn, and In-Tae Kim (KAERI)
10:40	Coffee Break	
11:00	Preliminary Study of RFID System for the LILW Transportation	Dohyung Kim, Unjang Lee, and Kyu-Sup Choi (KONES)

제 3 분과 <b>B</b> 방사성폐기물관리-Poster (Radioactive Waste Management)			발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저자명 및 소속	
5.29(목)			
<b>P03B01</b>	An Analysis on the Effect of the Elecetrokinetic Remediation of a Soil Around Decommissioning Site by Reagent	Gye-Nam Kim, Yun-Ho Jung, Jung-Joon Lee, Jei-Kwon Moon, Chong-Hun Jung, Kune-Woo Lee, and Un-soo Chung (KAERI)	
<b>P03B02</b>	Transuranium Inventory in High Burnup Spent Fuel Samples by an Alpha Spectrometry	Kihsoo Joe, Byung-Chul Song, Young-Bok Kim, Sun-Ho Han, Young-Shin Jeon, Euo-Chang Jung, and Kyuseok Song (KAERI)	
<b>P03B03</b>	Thermal Characterization of Insulation of the Hot Cell Cask	K. S. Bang, J. C. Lee, W. S. Choi, K. O. Nam, and K. S. Seo (KAERI)	
<b>P03B04</b>	Decontamination Characteristics of Stainless Steel Surface Contaminated with Cs <sup>+</sup> Ion by Light Ablation	Byambatseren Baigalmaa, Hui-Jun Won, Jei-Kwon Moon, and Chong-Hun Jung (KAERI) Jae-Hyuk Hyun (CNU)	
<b>P03B05</b>	Assessment of the Characteristic Aggregates during a Decontamination of Contaminated Concrete Waste	B. Y. Min, W. K. Choi, W. Z. Oh, C. H. Jung, and J. W. Park (KAERI)	
<b>P03B06</b>	A Study of I-TEDA Solubility in a Supercritical Carbon Dioxide Using QCM	Jaeryong Yoo, Moonsung Koh, Jinhyun Sung, Jeong ken Lee, and Kwangheon Park (KHU)	
<b>P03B07</b>	The Activation Process of ZrCo by an Adsorption-desorption Cycle of H <sub>2</sub>	Sunmi Kim, Seungwoo Paek, Minsoo Lee, Si-Hyung Kim, Kwang-Rag Kim, and Do-Hee Ahn (KAERI) Soon-Hwan Sohn and Kyu-Min Song (KEPRI)	
<b>P03B08</b>	Thermal Behavior of PrCl <sub>3</sub> in an Oxidizing Condition	Hee-Chul Eun, Hee-Chul Yang, Yung-Zun Cho, Han-Soo Lee, and In-Tae Kim (KAERI)	

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
<b>P03B09</b>	Study on a Vacuum Distillation of LiCl-KCl Eutectic Salts Containing rare Earth Oxidative Precipitates	Hee-Chul Eun, Hee-Chul Yang, Yung-Zun Cho, Han-Soo Lee, and In-Tae Kim (KAERI)
<b>P03B10</b>	Re-evaluation of the Activity Concentration for a Volume Reduction of the Combustible Wastes in KAERI	Young-Yong Ji, Dae Seok Hong, Il-Sik Kang, Young-Hee Lee, and Tae-Kuk Kim (KAERI)
<b>P03B11</b>	Thermal Analyses for the Korean Reference HLW Disposal System	Seungwoo Lee, Dongkeun Cho, Heuijoo Choi, and Jongwon Choi (KAERI) Jeonghun Cha (KHU)
<b>P03B12</b>	Development of the Radioactive Waste Risk Volume Verification Method	Bum-Soo Youn, Jung-Hoon Cha, Joon-Suk Ji, and Sang-Nyung Kim (KHU)
<b>P03B13</b>	A Study for Uranium Extraction from Contaminated Soil in Supercritical Carbon Dioxide	Jinhyun Sung, Jeongsu Kim, Moonsung Koh, and Kwang heon Park (KHU) Gyenam Kim and Jeikwon Moon (KAERI)
<b>P03B14</b>	Conceptual Design of Pyroprocess Mock-up Facility	Gil-Sung You, Won-Myung Choung, Jeong-Hoe Ku, Il-Je Cho, Dong-Hak Kook, Kie-Chan Kwon, Eun-Pyo Lee, Won-Kyung Lee, and Dong-Hee Hong (KAERI)
<b>P03B15</b>	Removal of Radionuclides from Molten LiCl Part 1: Cs and Sr Removal by Using a Tablet-shaped Inorganic Material	Mi Sook Son, Hwan-Seo Park, So Lim Kang, and In-Tae Kim (KAERI)
<b>P03B16</b>	The Study on the Conceptual Design of National Nuclear Spent Fuel Database System	Yong Suk Lee and Byung Chul Lee (FNC)
<b>P03B17</b>	Removal of Radionuclides from Molten LiCl-KCl Part 1: Cs, Sr and Ce Removal by Using a Tablet-shaped Inorganic Material	So Lim Kang, Hwan-Seo Park, Mi Sook Son, and In-Tae Kim (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
<b>P03B18</b>	Immobilization of Rare Earth Oxides into Ceramic Wasteform: Synthesis of Some Candidates for Host Matrix	Park Hwan Seo, Kim In Tae, Ahn Byung Gil, Kim Hwan Young, and Kim Joon Hyung (KAERI)
<b>P03B19</b>	Fabrication of Monolithic Wasteform Containing Molten Salt Waste and its Chemical Durability	Kim In Tae, Park Hwan Seo, Ahn Byung Gil, Kim Hwan Young, and Kim Joon Hyung (KAERI)
<b>P03B20</b>	Numerical Analysis for Design of Cryogenic Cooling System	Sung-Kyun Kim, Dong-Gyu Lee, and Kung-Woo Lee (KAERI)
<b>P03B21</b>	Development of Gamma/Neutron Combined Counter for Small SF Sample Application	Kwang-June Park, June-Sik Ju, Hee-Young Kang, Hee-Sung Shin, and Ho-Dong Kim (KAERI)
<b>P03B22</b>	Sea Sand Decontamination Using a Supercritical CO <sub>2</sub>	Joungken Lee, Jaeryong Yoo, Moosung Koh, and Kwangheon Park (KHU)
<b>P03B23</b>	Preliminary Analysis of Radiation Shielding for HIC Transport Package under the Hypothetical Accident Conditions	Jaehoon Ko, Dohyung Kim, Unjang Lee, and Kyu-Sup Choi (KONES)
<b>P03B24</b>	Development of Spent Nuclear Fuels Arising Projection Program	Jeong Hun Cha (KHU) Dong Keun Cho, Heui Joo Choi, and Jong Won Choi (KAERI)
<b>P03B25</b>	Characteristics Estimation of the Scintillation Detector for Decommissioning Monitoring in the High Radiation Dose Area	B. K. Seo, C. H. Park, D. G. Lee, and K. W. Lee (KAERI)
<b>P03B26</b>	Effects of a Capital Investment and a Discount Rate on the Optimal Operational Duration of an HLW Repository	Sung Ki Kim, Min Soo Lee, Heui Joo Choi, and Jong Won Choi (KAERI)
<b>P03B27</b>	A Glass-ceramic Waste Forms for the Immobilization of Rare Earth Oxides from the Pyroprocessing Waste Salt	Byung-Gil Ahn, Hwan-Seo Park, Hwan-Young Kim, and In-Tae Kim (KAERI)



일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P03B28	Changes in Radial Lattice Parameter of a Spent Fuel by Radiation Shielded Micro-X-ray Diffraction System	Yang-Soon Park, Jong-Goo Kim, Soon-Dal Park, Hang-Seok Seo, Yeong-Keong Ha, and Kyuseok Song (KAERI)
P03B29	The Characteristics of $^{14}\text{C}$ Chemical Composition in Reactor Coolant Water from PWR	Sun Wook Hong (ACT) Hee Yang Yang, Doo Ho Hee, and Duk Won Kang (KEPRI)
P03B30	Projection of Spent Fuel Arising Using Three Estimation Models	Dong-Keun Cho, JungHun Cha, Jong-Won Choi, Jong-Youl Lee, and Heui-Joo Choi (KAERI)
P03B31	Evaluation of the dose to Curie Conversion Factor of the High Compressed Dry Active Waste Drum by Using the MCNP Code	Yu Jin Cha, Sang Chul Lee, Yoon Hee Lee, and Kun Jai Lee(KAIST)
P03B32	Seismic Response Analysis of Spent Nuclear Fuel Metal Storage Cask Considering Soil-structure Interaction Effects	Chang-Yeal Baeg, Kyung-Ho Lee, and Dae-Ki Lee (KHNP) In-Su Jung, Won-Tae Song, Han-Uk Jin, and Jong Soo Kim (KONES)

#### 4. 제4분과 : 핵연료 및 원자력재료

제 4 분과 A	핵연료 및 원자력재료 (Division of Nuclear Fuel and Materials) - 핵연료 (Nuclear Fuel)		좌 장 천진식(Cheon Jin-Sik) 류호진(Ryu Ho-Jin) 발표장소 거문고 A
	일 정	논 문 제 목	저자명 및 소속
	5.29(목)		
	09:00	Migration of Fission Products in a Fuel Element of a Prismatic High Temperature Gas-cooled Reactor	Kim Young Min, Y. K. Kim, S. C. Oh, K. C. Jeong, W. K. Kim, Y. W. Lee, and M. S. Cho (KAERI)
	09:20	Current Capabilities of a Fission Product Release Analysis Code COPA-FPREL	Kim Young Min, Y. K. Kim, S. C. Oh, K. C. Jeong, W. K. Kim, Y. W. Lee, and M. S. Cho (KAERI)
	09:40	Personal Supercomputing for Monte Carlo Simulation Using a GPU	Jae-Yong Oh, Yang-Hyun Koo, and Byung-Ho Lee (KAERI)
	10:00	Assessment of Fuel Rod Performance by Consideration of Crud Deposition	Joosuk Lee, Andong Shin, Sungsik Kang, Seong woong Woo (KINS)
	10:20	Effects of Diffusion Barriers on the Fuel/Cladding Interaction of SFR Metallic Fuel	Ho Jin Ryu, Byoung Oon Lee, Jun Hwan Kim, Young Mo Ko, Seok Jin Oh, Sung Ho Kim, and Chan Bock Lee (KAERI)
	10:40	Coffee Break	
	11:00	Thermal Expansion Measurement under Compressive Pressure to Simulate the PCI of Fuel Pellets	Jae Ho Yang, Ki Won Kang, Jong Heon Kim, Young Woo Rhee, Kim Dong-Joo, Keon Sik Kim, and Kun Woo Song (KAERI)
	11:20	Thermal Conductivity for U-Zr-Ce Metallic Fuels	Jin-Sik Cheon, Byoung-Oon Lee, Seok-Jin Oh, Ki-Hwan Kim, and Chan-Bock Lee (KAERI)
	11:40	Suggestions to Enhance the Crush Strength of a LWR Spacer Grid Assembly	Keenam Song (KAERI) S-B Lee (Univ. of Maryland)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
12:00	Behavior of a Recrystallization in Zirconium-based Alloys	Yang-Il Jung, Myung-Ho Lee, Hyun-Gil Kim, Jeong-Yong Park, and Yong-Hwan Jeong (KAERI)

제 4 분과 B 핵연료 및 원자력재료 (Division of Nuclear Fuel and Materials) - 재료 신뢰성 (Reliability Evaluation of Nuclear Materials)			좌 장 김홍덕(Kim Hong-Deuk) 백종혁(Baek Jong Hyuk) 발표장소 거문고 B
일 정	논 문 제 목	저자명 및 소속	
5.29(목)			
09:00	IASCC of Stainless Steels in a PWR Environment	Seong Sik Hwang, Choon Sung Yoo, Young Suk Kim, and Won Sam Kim, Dae Whan Kim, Jangyul Park, and Hong Pyo Kim (KAERI)	
09:20	Crack Growth Rate Test for Evaluating Stress Corrosion Cracking of Alloy 600	Y. C. Jung, H. D. Kim, and H. S. Chung (KEPRI)	
09:40	An Empirical Assessment of Steam Generator Tube Wear Rate	Hansub Chung and Hongduk Kim (KEPRI)	
10:00	The Effect of Material Variability on Fatigue Behaviors of Low Alloy Steels in 310°C Deoxygenated Water	Hun Jang, Changheui Jang, and In Sup Kim (KAIST) Hyunchul Cho (Doosan Heavy Co. Ltd)	
10:20	Effects of the Chromium and Molybdenum on Precipitation behavior and Mechanical Properties in SA508 Gr. 4N Low Alloy Steel	Sang Gyu Park and Dang Moon Wee (KAIST) Min Chul Kim and Bong Sang Lee (KAERI)	
10:40	Coffee Break		
11:00	Delayed Hydride Cracking Velocity of Zr-2.5Nb Pressure Tubes with Hydrogen Concentration	Young S. Kim and Yong Moo Cheong (KAERI)	
11:20	Effect of an Annealing on the Mechanical Properties of Cold Rolled 9Cr-2W-NbV Steel	Tae Kyu Kim, Chang Hee Han, Jong Hyuk Baek, Sung Ho Kim, and Chan Bock Lee (KAERI)	
11:40	Boron-bearing Influences of 9Cr-0.5Mo-2W-V-Nb Ferritic/Martensitic Steels for a SFR Fuel Cladding	Jong-Hyuk Baek, Chang-Hee Han, Woo-Gon Kim, Sung-Ho Kim, and Chan-Bock Lee (KAERI)	
12:00	Development of SFR Fuel Cladding Tube Materials	S. H. Kim, W. G. Kim, J. H. Baek, T. K. Kim, C. H Han, J. H. Kim, C. B. Lee, and Dohee Hahn (KAERI)	

<div>제 4 분과 C</div> <div>핵연료 및 원자력재료-Poster (Division of Nuclear Fuel and Materials) - 재료 신뢰성 (Reliability Evaluation of Nuclear Materials)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
P04C01	Positron Annihilation Study of Electron-Irradiated FeCr Alloys	Yong-Min Kim and Kun-Woo Cho (KINS) Jung-ki Shin and Junhyun Kwon (KAERI) Changsun Kang (SNU)
P04C02	Ductility and Fracture Toughness Test Techniques of Irradiated Cladding in a Hot Cell	Dosik Kim, S. J. Baik, B. O. Yoo, Y. S. Choo, S. B. Ahn, and Y. B. Chun (KAERI)
P04C03	Irradiation of Parts of the X-Gen Nuclear Fuel Assembly Made by KNF in HANARO	K. N. Choo, M. S. Cho, Y. T. Shin, and B. G. Kim (KAERI) S. H. Lee and K. B. Eom (KNF)
P04C04	ODSCC Flaw Development Procedure for a Leak Test of SG Tubes	Ch. Nam-Gung, S. S. Hwang, M. K. Jung, J.Y. Park, and H. P. Kim (KAERI)
P04C05	A Review on Specimen and Water Loop Design for IASCC of Proton-irradiated Stainless Steels	Won-Sam Kim, Han-Hee Lee, and Seong Sik Hwang (KAERI)
P04C06	Prediction of Irradiation Induced Hardening by Artificial Neural Network for 304 and 316 Stainless Steels	Han-Hee Lee, Won-Sam Kim, and Seong Sik Hwang (KAERI)
P04C07	Burst Test of Zirconium Alloy at High Temperature under Internal Pressure	Seongwoo Yang, Jungsoo Kim, and Kwangheon Park (KHU) Seungjae Lee and Sundoo Kim (KNF)
P04C08	State-of-the-art Sodium Compatibility Research on Austenitic and Ferritic Steels for the Fuel Cladding Materials of a SFR	Sung Woo Kim, Hong Pyo Kim, Sung Ho Kim, and Chan Bock Lee (KAERI)
P04C09	High Temperature Oxidation Behavior of Hydrogen-Charged Zirconium Alloy under High Steam Pressure	Yeonseung Kim, Seongwoo Yang, and Kwangheon Park (KHU)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		Seungjae Lee and Sundoo Kim (KNF)
<b>P04C10</b>	Laboratory-Grown Axial Cracks in the Secondary Side of Steam Generator Tubes	Do Haeng Hur, Myung Sik Choi, Jung Ho Han, and Deok Hyun Lee (KAERI)
<b>P04C11</b>	Framework for Probabilistic EAC Management of Ni-base Alloy in PWR	Tae Hyun Lee, Seung Ki Lee, and Il Soon Hwang (SNU)
<b>P04C12</b>	Effects of Design Changes of a Capsule on a Specimen's Temperature	Young-Hwan KANG, Myung-Hwan Choi, Man-Soon Cho, Ki-Nam Choo, and Bong-Goo Kim (KAERI)
<b>P04C13</b>	Characterization of Guided Wave Signals from Hole Defects in a Carbon Steel Mockup Pipe	Dae-Seo Koo, Shin Kim, and Yong-Moo Cheong (KAERI)
<b>P04C14</b>	Interaction of Vacancies with Solute Atoms in Electron-Irradiated Fe-Cr Alloys	Junhyun Kwon (KAERI) Yong-Min Kim (KINS)
<b>P04C15</b>	Effect of Crystallographic Texture on Corrosion Behavior of Zircaloy Cladding Tube	J. J. Lee, D. J. Kim, H. J. Jung, H. J. Cho, Y. W. Moon, J. M. Jang, N. I. Baik, and Y. Choi (SMU)
<b>P04C16</b>	The Cause of Eddy Current Signal Noise from the Steam Generator Tube and its Effect on the Detectability of a Crack	Deok Hyun Lee, Myung Sik Choi, Do Haeng Hur, Kyung Mo Kim, and Jung Ho Han (KAERI)
<b>P04C17</b>	Technical Status of the Sodium/Material Compatibility Facility for the Sodium-cooled Fast Reactor	Jun Hwan Kim, Sung Ho Kim, and Chan Bock Lee (KAERI)
<b>P04C18</b>	Preliminary Tests of a Creep-fatigue Crack Initiation and Growth for a G91 Tubular Specimen with a Defect	Jong-Bum Kim, Chang-Gyu Park, Hyeong-Yeon Lee, and Jae-Han Lee (KAERI)
<b>P04C19</b>	Development of an In-situ Measurement Technique for a PWSCC Crack Length Determination	Yun Soo Lim, Hong Pyo Kim, Seong Sik Hwang, and Han Hee Lee (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P04C20	Study on the Propagation Characteristic of the Thermal Fatigue Crack by Cyclic Thermal Load in the STS 304 Tube	Dae-Hwan An, Woong-Ki Hwang, Jae-Seong Kim, Sang-Yul Lee, and Bo-Young Lee (KAU)

<div>제 4 분과D</div> <div>핵연료 및 원자력재료-Poster (Division of Nuclear Fuel and Materials) - 신소재개발 (Development of New Materials)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P04D01	A Performance Test of a Capsule for a Material Irradiation in the or Holes of HANARO	M. S. Cho, K. N. Choo, Y. T. Shin, J. M. Sohn, S. J. Park, Y. H. Kang, and B. G. Kim (KAERI)
P04D02	Mechanical and Thermal Properties of a Nuclear Grade C/C Composite for an Application of In-core Structural Materials of VHTR	Weon-Ju Kim, Ji Yeon Park, and Yongwan Kim (KAERI)
P04D03	Microstructural Differences in the SCCG, ICCG HAZs of SA 508 Gr. 3 and 4N Low Alloy Steels	Ki Hyoung Lee and Dang Moon Wee (KAIST) Yoon Sun Lee, Min Chul Kim, and Bong Sang Lee (KAERI)
P04D04	Corrosion and Mechanical Properties of HANA-4 Inner Strip	Myung Ho Lee, Yang Il Jung, Jun Hwan Kim, Sang Yoon Park, Byoung Kwon Choi, Jeong Yong Park, and Yong Hwan Jeong (KAERI) Kyong Bo Eom and Nam Gyu Park (KNF)
P04D05	Texture and Microstructure Development of Zr Alloy during Cold-rolling	Yan Zhang LIU, Hyun Gil KIM, Byung Kwan CHOI, Jeong Yong PARK, and Yong Hwan JEONG (KAERI)
P04D06	Non-contact Thickness Measurement of a Non-magnetic Plate Using EMAT	H. K. Jung, K. C. Huh, and Y. M. Cheong (KAERI)



제 4 분과 E	핵연료 및 원자력재료-Poster (Division of Nuclear Fuel and Materials) - 신소재개발 (Development of New Materials)	좌 장 박지연(Park, Ji-Yeon) 김영도(Kim, Young-Do) 발표장소 거문고 A
일 정	논 문 제 목	저자명 및 소속
5.30(금)		
09:00	Corrosion and Creep Characteristics of the HANA-4 Alloy with the Various Manufacturing Processes	Hyun-Gil Kim, Byung-Kwan Choi, Jeong-Yong Park, and Yong-Hwan Jeong (KAERI)
09:20	An in Situ Dispersoid Formation in ODS Steels by a Wet Processing	Ho Jin Ryu, Min Ho Kim, Chang Hee Han, and Jinsung Jang (KAERI)
09:40	VHTR Materials R&D in KAERI	Ji Yeon Park, Dong Jin Kim, Dae Whan Kim, Sung Ho Kim, Woo Gon Kim, Weon-Ju Kim, Eung Sun Kim, and Hong Pyo Kim (KAERI)
10:00	Model-based Approach for Long-term Creep Curves of Alloy 617 for a High Temperature Gas-cooled Reactor	Woo Gon Kim, Song Nan Yin, and Yong Wan Kim (KAERI)
10:20	High Temperature Degradation Behavior and its Mechanical Properties of Inconel 617 Alloy for Intermediate Heat Exchanger of VHTR	Tae Sun Jo, Se-Hoon Kim, and Young Do Kim (HYU) Ji Yeon Park (KAERI)
10:40	Coffee Break	
11:00	Mechanical Properties of Candidate Materials for Hot Gas Duct of VHTR	Dae Whan Kim and Yong Wan Kim (KAERI)
11:20	Corrosion of Materials in Sulfuric Acid for Hydrogen Production by Using VHTR	Dong-Jin Kim, Hyuk Chul Kwon, Hong Pyo Kim, and Yong Wan Kim (KAERI)
11:40	Thermal Oxidation Behaviors of Candidate Nuclear Grade Graphites for VHTR at High Temperatures above 900°C	Eung-Seon Kim and Yong-Wan Kim (KAERI)
12:00	Oxidation and Temperature Effects on the Fracture Toughness of Nuclear Graphite at VHTR	Byung Jun Kim, Daejong Kim, and Changheui Jang (KAIST) Se-Hwan Chi (KAERI)

제 4 분과 F 핵연료 및 원자력재료(Division of Nuclear Fuel and Materials) - 기기건전성(Integrity of Reactor Equipments)		좌 장 정명조(Jhung, Myung-Jo) 구경회(Koo, Kyung-Hoi) 발표장소 거문고 B
일 정	논 문 제 목	저자명 및 소속
5.30(금)		
09:00	Stress Analysis of Surge Line due to Thermal Stratification	Myung Jo Jhung and Young Hwan Choi (KINS)
09:20	Development of a Prototypal Integrity Assessment Program for Flawed Tubes	Jae-Uk Jeong, Seung-Cheon Yu, Yoon-Suk Chang, and Young-Jin Kim (SKKU) Seong-Sik Hwang and Hong-Pyo Kim (KAERI)
09:40	The Effect of Residual Stress on the Stress Intensity Factor of Nuclear Material	Taek-Ho Song (KEPRI)
10:00	A Fuzzy Support Vector Regression Model for Estimation of Collapse Moment of Wall-Thinned Pipes	In Ho Bae, Man Gyun Na, and Jin Weon Kim (CSU)
10:20	Conceptual Design of an IHTS Piping System for an Integrated SG/Pump System Subjected to Elevated Temperatures	Gyeong-Hoi Koo and Jae-Han Lee (KAERI)
10:40	Coffee Break	
11:00	Structural Integrity Evaluations of a Reactor Vessel for a Sodium-Cooled Fast Reactor Subjected to Elevated Temperatures	Gyeong-Hoi Koo (KAERI)
11:20	Mode Converted Reflection of Torsional Guided Waves by a Magnetostirctive Sensor Technique	Yong-Moo Cheong, Shin Kim, and Hyun-Kyu Jung (KAERI)
11:40	A Residual Stress Prediction Model in Dissimilar Metals Welding Zones Using Data-based Modeling	Dong Hyuk Lim, Man Gyun Na, and Jin Weon Kim (CSU)

<div>제 4 분과 <b>G</b></div> <div> <div>핵연료 및 원자력재료-Poster (Division of Nuclear Fuel and Materials)</div> <div>- 핵연료 (Nuclear Fuel)</div> </div> <div> <div>발표시간 10:00~12:00</div> <div>발표장소 1층 로비</div> </div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
<b>P04G01</b>	Preliminary Analysis for the Swelling and Densification Phenomena of a Dual Cooled Fuel Rod	J. Y. Kim, Y. S. Yang, K. H. Yoon, H. K. Kim, K. W. Song, and J. S. Cheon (KAERI)
<b>P04G02</b>	Application of Statistical Evaluation Method for Debris Filtering Effectiveness	Joon-Kyoo Park, Jin-Seok Lee, Jung-Min Suh, Kyu-Tae Kim, and Kyeong-Lak Jeon (KNF)
<b>P04G03</b>	Analysis of Thermal Diffusivity of Specimens with Sample Holder Design in Laser Flash Apparatus	Heemoon Kim, Dae-Gyu Park, Sang-Bok Ahn, and Woo-Seog Ryu (KAERI)
<b>P04G04</b>	Overview of High Burn-up Fuel Irradiation Test in Fuel Test Loop	Je Geon Bang, Yong Sik Yang, Sun Ki Kim, Dae Ho Kim, Su Ki Park, and Chul Gyo Seo (KAERI)
<b>P04G05</b>	ISCC Properties of HANA Claddings	Sang Yoon Park, Byoung Kwon Choi, Jun Hwan Kim, Jeoung Yong Park, and Yong Hwan Jeong (KAERI)
<b>P04G06</b>	Analysis of Fission Gas Release in LWR UO <sub>2</sub> Fuel under RIA Conditions Using Artificial Neural Network	Yang-Hyun Koo, Jae-Yong Oh, and Byung-Ho Lee (KAERI)
<b>P04G07</b>	An Ab-initio Calculation of the Actinides and the Lanthanides for a Simulated Uranium Metal Fuel	Chang Je Park, Kweon Ho Kang, Sang Ho Na, Young Hee Kim, and Kee Chan Song (KAERI)
<b>P04G08</b>	Finite Pulse Time Effects for High Thermal Diffusivity Material	Daegyu Park, Heemoon Kim, and Wooseok Ryu (KAERI)
<b>P04G09</b>	Visco-elastic Analysis of PyC Coated Surrogate Fuel Particles for an Irradiation Test	Moon-Sung Cho, Y. M. Kim, Y. W. Lee, K. C. Jeong, Y. K. Kim, S. C. Oh, and W. K. Kim (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.30(금)		
<b>P04G10</b>	Out-pile Test of Double Cladding Fuel Rod Mockups for a Nuclear Fuel Irradiation Test	Jaemin Sohn, Sungjae Park, Younghwan Kang, Harkrho Kim, Bonggoo Kim, and Youngki Kim (KAERI)
<b>P04G11</b>	Measurement Technique of an Irradiation Stress Relaxation in a HANARO Fuel Bundle Guide Spring	Sangbok Ahn, Seungjai Baek, Dosik Kim, Yongsun Choo, Chungsung Lee, Heonil Kim, and Wooseok Ryu (KAERI) Asif Waheed and Steve Palleck (AECL)
<b>P04G12</b>	Vibration Analysis of a Dual-cooled Fuel Rod	Kang-Hee Lee, Hyung-Kyu Kim, and Kyung-Ho Yoon (KAERI)
<b>P04G13</b>	Determination of a Wear Initiation Cycle by Using a Contact Resistance Measurement in Nuclear Fuel Fretting	Young-Ho Lee and Hyung-Kyu Kim (KAERI)
<b>P04G14</b>	Examination on PIE Working Conditions in IMEF for Irradiated Capsule (07M-21K) at HANARO or Irradiation Hole	Yong-Sun CHOO, Do-Sik KIM, Seung-Je BAIK, Byung-Ok YOO, Ki-Ha KIM, Eun-Pyo LEE, Ki-Nam JOO, and Sang-Bok Ahn (KAERI)
<b>P04G15</b>	Revisit to the Methodologies of the Thickness Determination of PWR Fuel Cladding Tubes	Hyung-Kyu Kim, Kyung-Ho Yoon, Young-Ho Lee, Jae-Yong Kim, Kang-Hee Lee, and Kun-Woo Song (KAERI)
<b>P04G16</b>	Hydrogen Effects on Hoop Directional Creep Behaviors of Zr-based Nuclear Fuel Cladding	Sunki Kim, Jegeon Bang, Dosik Kim, Daeho Kim, Yongsik Yang, and Keun woo Song (KAERI)
<b>P04G17</b>	Development of GTA Welding Technology for Dual Cooled Fuel Rods	Soo-Sung Kim and Hyung-Kyu Kim (KAERI)
<b>P04G18</b>	Development of Image Processing System for Innovative Laser Welding of Nuclear Fuel Assembly	Sung-Hoon Baik and Chin-Man Chung (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.30(금)		Myoung-Ho Oh, Byeong-Eun Oh, and Hak-Beum Park, and Hung-Soon Chang (KNF) Joon-Jae Lee (KMU)
<b>P04G19</b>	Effect of Granule Size on Diametric Tolerance of Annular Fuel Pellet	Young Woo Rhee, Dong Joo Kim, Jong Hun Kim, Jae Ho Yang, Keon Sik Kim, Ki Won Kang, and Kun Woo Song (KAERI)
<b>P04G20</b>	Application of Lubricant to Minimize Axial Deviation of Annular Pellet Diameter	Dong-Joo Kim, Young Woo Rhee, Jong Hun Kim, Jae Ho Yang, Ki Won Kang, Yong Woon Kim, and Keon Sik Kim (KAERI)
<b>P04G21</b>	Densification Enhancement in AUC UO <sub>2</sub> Pellet with High Lubricant Content	Yong Woon Kim, Dong-Joo Kim, Young Woo Rhee, Jae Ho Yang, Jong Hun Kim, Ki Won Kang, and Keon Sik Kim (KAERI)
<b>P04G22</b>	Small Amplitude Flow-Induced Vibration of a Fuel Rod in Axial Flow by Fluid-Structures Interaction Analysis	K. H. Yoon, J. Y. Kim, K. H. Lee, Y. H. Lee, and H. K. Kim (KAERI)
<b>P04G23</b>	Effect of a Gas Atmosphere on the Grain Growth of UO <sub>2</sub>	Chang Young Joung, Han Soo Kim, and Yang Hyun Koo (KAERI)
<b>P04G24</b>	Simulation on the Statistical Analysis of the Distribution of Coated Particles on the Virtual Tomograph in a Cylindrical Compact	Woong Ki Kim, Young Woo Lee, Weon Ju Kim, Young Min Kim, Yeon Ku Kim, Seung Chul Oh, Kyung Chai Jeong, and Moon Sung Cho (KAERI)
<b>P04G25</b>	Torque Strength of an Endplate Welding due to Process Parameters Using a Fuel Assembling Welder	Koo Dae-Seo and Kim Soo-Sung (KAERI)
<b>P04G26</b>	Spherical ADU and UO <sub>3</sub> Intermediate Particles Preparation	Jeong Kyung Chai, Kim Yeon Ku, Oh Seung Chul, Kim Young Min, Kim Woong Ki, Lee Young Woo, and Cho Moon Seoung (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.30(금)		
P04G27	Feasibility Study of Advanced U-Mo-X Metallic Fuel System for SFR	Ki-Hwan Kim, Seok-Jin Oh, Jong-Tak Lee, Yoon-Sang Lee, Yoon-Myung Woo, Young-Mo Ko, and Chan-Bok Lee (KAERI)

## 5. 제5분과 : 원자력열수력 및 안전

제 5 분과 <b>A</b> 원자력열수력 및 안전 (Division of Thermal Hydraulics and Safety) - 열수력실험 (Thermal Hydraulic Analysis)			좌 장 송철화(C. H. Song) 정범진(B. J. Chung) 발표장소 거문고 C
일 정	논 문 제 목	저 자 명 및 소 속	
5.29(목)			
09:00	Mechanistic Modeling of Interfacial Area Transport Equation for the Analysis of Subcooled Boiling Two-phase Flow	B. U. Bae and G. C. Park (SNU) B. J. Yun, H. Y. Yoon, and C. H. Song (KAERI)	
09:20	Integral Effect Tests on the Reflood Period of a LBLOCA for APR1400 Using the ATLAS	Hyun-Sik Park, Ki-Yong Choi, Seok Cho, Kyoung-Ho Kang, Nam-Hyun Choi, Chul-Hwa Song, Moon-Ki Chung, Won-Pil Baek, and Yeon-Sik Kim (KAERI)	
09:40	CFD Analysis on Critical Void Fraction in Round Tube under CHF Conditions	Byungsoo Shin and Soon Heung Chang (KAIST)	
10:00	An Experimental Study on the Transition Criteria of Natural Convective Flows	Bong Jin KO, Deok-Won MOON, and Bum-Jin CHUNG (CNU)	
10:20	Reduced Radiation Error for Temperature Measurement in Internal Gas Flow	Chan Soo Kim, Sung-Deok Hong, Dong-Un Seo, Yong-Wan Kim, and Won Jae Lee (KAERI)	
10:40	Coffee Break		
11:00	Natural Convection Heat Transfer in a Horizontal Layer Heated from Below and Cooled from Side and Above	Y. C. Park, S. W. Noh, and K. Y. Suh (SNU)	
11:20	Flow Visualization of Calandria Tank of CANDU Nuclear Reactor	Tae Kwang Eom and Jae Young Lee (HGU) Manwoong Kim (KINS)	
11:40	Dynamic Analysis of Slug Flow Regime in Two-phase Flow	Nam Yee Kwak and Jae Young Lee (HGU) Manwoong Kim (KINS)	
12:00	Boiling Heat Transfer of Water-based Si Nanofluid during Rapid Quenching	Se-Young Chun, Yeon-Jun Choo, Jong-kuk Park, and Chul-Hwa Song (KAERI)	

<div>제 5 분과 <b>B</b></div> <div>원자력열수력 및 안전 (Division of Thermal Hydraulics and Safety)</div> <div>- PSA 및 리스크 정보활용 I (PSA and Risk-informed Application)</div> <div>좌 장 정우식(Woo Sik Jung)</div> <div>김길유(Kil-Yoo Kim)</div> <div>발표장소 은하수 C</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
09:00	Regulatory PSA Model Development for Risk Evaluation of Kori Nuclear Unit 1 Continued Operation	Huichang Yang, Jae Won Lim, and Hyung Suk Kim (ENESYS) Dong Joo Chang and Key Yong Sung (KINS)
09:20	Best Estimate Analysis of OPR 1000 ATWS Risk for Probabilistic Safety Assessment	Ki-Yeoul Seong, Jang-Hwan Na, Hyuk-Soon Lim, and Myoung-Su Kim (KHNP)
09:40	New Method for an Efficient Risk Quantification of External Events	Woo Sik Jung, Sang Hoon Han, and Joon-Eon Yang (KAERI)
10:00	Construction and Quantification of the One Top Model of the Fire Events PSA	Daeil Kang, Yoonhwan Lee, and Sang-Hoon Han (KAERI)
10:20	Estimation of a Seismic Induced Initiating Event Frequency ; Current Status and Proposal	Jin-Hee Park and In-Kil Choi (KAERI)
10:40	Coffee Break	
11:00	Scoping Process in Maintenance Rule Development for PHWR	Mi-Ro Seo and Jeong-Heon Ha (KEPRI)
11:20	Optimization of STI and AOT of RPS/ESFAS for Kori Unit 2	J. H. Ha, M. K. Kim, B. S. Chung, H. C. Oh, and M. R. Seo (KEPRI)
11:40	A Sensitivity Analysis for Modified Surveillance Test Interval of EDG by Considering Failure due to Demand Stress	Sun Yeong Choi and Joon-Eon Yang (KAERI) Jooho Lee (CNU)



<div>제 5 분과 C</div> <div>원자력열수력 및 안전-Poster (Division of Thermal Hydraulics and Safety) - 열수력 실험 (Thermal Hydraulics Analysis)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
P05C01	Effect of the Geometry on a Free Surface Fluctuation in a Vessel with an Internal Structure	Ho-Yun Nam, Byoung-Hae Choi, Jong-Man Kim, and Byung-Ho Kim (KAERI)
P05C02	Thermal-fluid Characterizations toward a Standardized Design of Nanofluids Experiments	In Cheol Bang (Tokyo Institute of Technology)
P05C03	CHF Enhancement under Pool Boiling Using Nanofluids	Won Joon Chang, Yong Hoon Jeong, and Soon Heung Chang (KAIST)
P05C04	Experimental Study on Local Bubble Parameters in a Low Pressure Subcooled Boiling	B. U. Bae and G. C. Park (SNU) B. J. Yun, W. M. Park, and C. H. Song (KAERI)
P05C05	Assessment of Critical Heat Flux Data Base for Rod Bundles	Dae-Hyun Hwang, Kyong-Won Seo, and Hyuk Kwon (KAERI)
P05C06	Conceptual Designs for the Performance Improvement of APR1400 SIT and Preliminary Performance Evaluation	In-Cheol Chu, Tae Soon Kwon, and Chul-Hwa Song (KAERI)
P05C07	Image Processing Technique for a Droplet Size and Velocity Measurement in an Air-Water Droplet Flow	H. K. Cho, Y. J. Choo, and C. H. Song (KAERI)
P05C08	Helium Hydraulic Tests in the Printed Circuit Heat Exchanger	In Hun Kim, Cheol Shin Lee, and Hee Cheon No (KAIST)
P05C09	Technical Description for the Secondary System of the ATLAS Facility	Seok Cho, Sung-Jae Yi, Bok-Deuk Kim, Jong-Kuk Park, Yeon-Sik Kim, Se-Young Chun, Choon-Kyung Park, and Won-Pil Baek (KAERI)
P05C10	Development of RCP Characteristic Models for the ATLAS Facility	Ki-Yong Choi, Yeon-Sik Kim, Sung-Jae Yi, and Won-Pil Baek (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P05C11	Development of an Empirical Correlation for the Velocity and Temperature at the Centerline of a Turbulent Jet by a Steam Jet Condensation	H. S. Kang, Y. S. Kim, Y. J. Youn, and C. H. Song (KAERI)
P05C12	Analysis of a Bubble Coalescence in the Multiphase Lattice Boltzmann Method	Seungyeob Ryu, Cheon Tae Park, Chung Chan Lee, and Keung Koo Kim (KAERI)
P05C13	Pool Boiling CHF Enhancement in Nanofluids Using a Flat Plate Heater	Ho Seon Ahn, Seontae Kim, Hangjin Jo, and Moo Hwan Kim (POSTECH)
P05C14	Experimental Investigation on the Core Quench Phenomenon under a Low Reflooding Rate Condition Using the ATLAS	Hyun-Sik Park, Ki-Yong Choi, Seok Cho, Kyoung-Ho Kang, Dae-Hun Kim, Byong-Jo Yun, Tae-Soon Kwon, Won-Pil Baek, and Yeon-Sik Kim (KAERI)
P05C15	Determination of Pressure Losses in the Primary System of the ATLAS	D. H. Kim, Y. S. Kim, H. S. Park, K. Y. Choi, S. Cho, K. H. Kang, N. H. Choi, K. H. Min, and B. D. Kim (KAERI)
P05C16	Effects of the Upside Inflow Area on Pool Boiling Heat Transfer in a Vertical Annulus with Closed Bottoms	Myeong-Gie Kang (ANU)
P05C17	Preliminary Analysis of Mixing Tests in a Cylindrical Tank	C. K. Park, H. G. Jun, Y. J. Youn, and C. H. Song (KAERI) K. K. Lee and H. J. Ko (KOPEC)

<div>제 5 분과D</div> <div>원자력열수력 및 안전(Division of Thermal Hydraulics and Safety) - 열수력안전해석 I (Thermal - Hydraulic Safety Analysis)</div> <div>좌 장 정재준(J. J. Jeong) 박찬억(C. E. Park) 발표장소 거문고 C</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
09:00	A Modified SMAC Scheme for a Non-equilibrium Compressible Two-phase Fluid	H. Y. Yoon and J. J. Jeong (KAERI)
09:20	Preliminary Assessment of the Component Thermal-Hydraulic Analysis Module, CUPID	H. K. Cho, I. K. Park, H. Y. Yoon, J. J. Jeong, and J. T. Kim (KAERI)
09:40	Development of Wall-to-Fluid Heat Transfer Package for the SPACE Code	Ki Yong Choi, Byong Jo Yun, Hyun Sik Park, Kwon-Yeong Lee, Hee Dong Kim, Yeon Sik Kim, and Kyung Doo Kim (KAERI)
10:00	Finite Element Based Formulation of Lattice Boltzmann Equation	Jong Chull Jo and Kyung Wan Roh (KINS) Young W. Kwon (Navel Postgraduate School)
10:20	Development of an Implicit Scheme to Solve Three Dimensional Three Field Equations	M. T. Oh, C. E. Park, and S. Y. Lee (KOPEC)
10:40	Coffee Break	
11:00	Development of a Staggered Mesh Semi-implicit Scheme and its Application to the Multi-D Two Phase Flow	C. E. Park, S. J. Ahn, and S. Y. Lee (KOPEC)
11:20	Status and Perspective of the Hydraulic Solver Development for SPACE Code	S. Y. Lee, M. T. Oh, J. C. Park, S. J. Ahn, C. E. Park, E. J. Lee, and Y. W. Na (KOPEC)
11:40	Numerical Study on Single Vapor Bubble Condensation Using VOF Model	Seong-Su Jeon, Seong-Jin Kim, and Goon-Cherl Park (SNU)
12:00	Objective Oriented Design of System Thermal Hydraulic Analysis Program and Verification of Feasibility	Bub Dong Chung, Jae Jun Jeong, and Moon Kyu Hwang

제 5 분과 E 원자력열수력 및 안전 (Division of Thermal Hydraulics and Safety) - 열수력 안전해석 II (Thermal-Hydraulics Safety Analysis)		좌 장 김만웅 (Man-Woong Kim) 김한곤 (Han-Gon Kim) 발표장소 가야금 C
일 정	논 문 제 목	저자명 및 소속
5.30(금)		
09:00	LBLOCA Analysis for Westinghouse 2 Loop Plant of Downcomer Injection by Realistic Evaluation Method	Jun Soo Yoo, Soo Hyun Hwang, and Soon Joon Hong (FNC) Young Seok Bang, Deog Yeon Oh, and Byung Gil Huh (KINS)
09:20	Multi-dimensional Analysis about UPI During the LBLOCA of KORI Unit 1	Sungwon Bae (KAERI) Bub-Dong Chung and Young Seok Bang (KINS)
09:40	Phenomena Identification and Rankings in Domestic PWR Accident Conditions	S. H. Ahn, C. W. Huh, J. Y. Park, M. W. Kim, and Y. J. Cho (KINS)
10:00	Development of APR1400 Nuclear Plant Analyzer Using RETRAN-3D	Sang Hee Kang and Han Gon Kim (KHNP)
10:20	Evaluation of Scale Bias Effect in LBLOCA of UPI Plant	Byung Gil Huh, Young Seok Bang, Deog-Yeon Oh, and Sweng Woong Woo (KINS)
10:40	Coffee Break	
11:00	Numerical Approach for Performance Evaluation of Fluidic Device in APR1400	Sang-Gyu Lim, Suk-Ho Lee, and Han-Gon Kim (KHNP)
11:20	Sensitivity Study on Ageing Elements Using Degradation Model	Manwoong Kim, Sang-Kyu Lee, Hyun-Koon Kim, and Yong -Ho Ryu (KINS)
11:40	RELAP5 Modeling Method for SIT Equipped with Fluidic Device	T. S. Choi and D. U. Choi (KNF)

<div>제 5 분과 F</div> <div>원자력열수력 및 안전 (Division of Thermal Hydraulics and Safety) - PSA 및 리스크 정보 활용 II (PSA and Risk-Informed Applications)</div> <div>좌 장 한상훈(Sang Hoon HAN) 김명기(Myung-Ki KIM) 발표장소 가야금 B</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
09:00	Qualitative Evaluation of Single Point Vulnerability in Domestic NPPs	Eun-Chan Lee, Woo-Jin Cho, Jang-Hwan Na, Ki-In Bahng, and Ki-Yeoul Seong (KHNP)
09:20	A Generation Risk Assessment for CCWS at UCN 3	Kilyoo Kim, M. J. Hwang, and SangHoon Hahn (KAERI)
09:40	The Approaches on the Determination of Frequency-consequence Criteria for Risk Assessment of New Reactors	Kju-Myeng Oh, Sang-Kyu Ahn, Won-Hyo Yoon, and Hoon-Joo Lee (KINS)
10:00	The Role of Level-3 PSA in the Regulatory Structure for the Licensing of Future NPPs	Jongtae Jeong and Sang Hoon Han (KAERI)
10:20	The Effect of Probability Distributions in a Failure Criterion for the Reliability of a Passive Safety System	Seok-Jung HAN, Joon-Eon YANG, and Won-Jea LEE (KAERI)

<div>제 5 분과 <big>G</big></div> <div>원자력열수력 및 안전 (Division of Thermal Hydraulics and Safety) - 중대사고 (Severe Accidents)</div> <div>좌 장 서남덕(Namduk Suh) 홍성완(Seong-Wan Hong) 발표장소 가야금 B</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
11:00	OECD/NEA Activities in the Area of Severe Accidents	Han-Chul Kim (KINS)
11:20	OECD/NEA SERENA Project for a Resolution of Ex-vessel Steam Explosion Risks	S. W. Hong, J. H. Kim, B. T. Min, I. K. Park, K. S. Ha, S. H. Hong, J. H. Song, J. Y. Lee, and H. D. Kim (KAERI)
11:40	A Comparative Study on the Methodology of Quantitative Health Objectives	Gunhyo Jung and Juyoul Kim (FNC) Namduk Suh and Changwook Huh (KINS)

제 5 분과 H 원자력열수력 및 안전 (Division of Thermal Hydraulics and Safety) - 안전현안 (Safety Issues)			좌 장 박종석(Jong-Seuk Park) 홍순준(Soon-Joon Hong) 발표장소 항남 파 B
일 정	논 문 제 목	저 자 명 및 소 속	
5.30(금)			
09:00	Assessment on Recirculation Sump Performance for Pressurized Water Reactor Equipped with Incontainment Refueling Water Storage Tank	Jonguk Kim, Jeong Ik Lee, Soon Joon Hong, and Byung Chul Lee (FNC) Young Seok Bang, Deog Yeon Oh, and Byung Gil Huh (KINS)	
09:20	Debris Transport Evaluation during LOCA Blow-down for Recirculation Sump Performance of OPR-1000 Plant	Soon Joon Hong, Jonguk Kim, Jeong Ik Lee, and Jin Yong Lee (FNC) Manwoong Kim, Ju Yeop Park, and Yong-Ho Ryu (KINS)	
09:40	Debris Transport Evaluation during LOCA Blow-down Using CFD Methodology for OPR-1000 Plant	Jong Pil Park and Ji Hwan Jeong (PNU) Man Woong Kim (KINS)	
10:00	Analysis of Anticipated Transients Without Scram (ATWS) Event for Kori Unit 1 Nuclear Power Plant	Jung Won Sun, Song Kee Sung, Jae Yong Chang, and Jae Shik Kim (KNF) Ki Hyun Kang (KHNP)	
10:20	Evaluation of the Safety Issue Concerning the Potential for Loss of Decay Heat Removal Function due to Crude Oil Spill in the Ultimate Heat Sink of Nuclear Reactors	Jong Chull Jo, Kyung Wan Roh, Young Gill Yune, Dong Gu Kang, and Hho Jung Kim (KINS)	
10:40	Coffee Break		
11:00	Application of Alternative Source Term for Locked Rotor Event for Kori Unit 1	Seung Chan Lee and Jong Woon Park (KHNP)	
11:20	Application of FDS 5 to PRISME DIVA Test, PRS_D3	Jongseuk PARK and Hun joo LEE (KINS) Moonhak JEE (KEPRI)	

제 5 분과		원자력열수력 및 안전-Poster (Division of Thermal Hydraulics and Safety) - 열수력안전해석 (Thermal-Hydraulics Safety Analysis)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저자명 및 소속	
5.30(금)			
P05I01	Implementation of a Two-phase Three-field Model on an Unstructured-mesh Pressure-based Algorithm	Jongtae Kim, Ik-Kyu Park, Hyoung Kyu Cho, Han-Young Yoon, Kyung Doo Kim, and Jae Jun Jeong (KAERI)	
P05I02	Analysis of Condensation in a Vertical Tube in the Presence of Noncondensable Gases Using MARS Code	Young-Suk Bang, Ji-Han Chun, and Goon-Cherl Park (SNU)	
P05I03	Development of the Heated Length Correction Factor	Ho-Young Park, Kang Hoon Kim, Kee-Yil Nahm, and Eung-Jun Park (KNF)	
P05I04	Prediction of Heat Transfer in a CEA Extension Shaft Guide Tube	Seong Hoon Kim, Young In Kim, and Chun Tae Park (KAERI)	
P05I05	A Review on the Coupling of CFD Code into System Analysis Code in Gas Cooled Reactors	Hyeonil Kim and Hee Cheon No (KAIST)	
P05I06	Flow Regime Map Models for the Horizontal and Vertical Pipes for the SPACE Code	D. H. Kang and K. D. KIM (KAERI)	
P05I07	Performance Analysis of the Passive Residual Heat Removal System in the SMART Plant	Jae-Min Oh, Han-Ok Kang, Soo-Hyoung Kim, Young-Jong Chung, and Cheon-Tae Park (KAERI)	
P05I08	CFD Simulation of Pool Thermal Mixing	Y. T. Moon and H. J. Ko (KOPEC) C. K. Park and C. H. Song (KAERI) G. C. Park (SNU)	
P05I09	Interfacial Area and Heat Transfer Models and Correlations for the SPACE Code	Sunwon Bae, Young Jin Lee, Young Jong Chung, Hee Chul Kim, and Kyung Du Kim (KAERI)	



일 정	논 문 제 목	저자명 및 소속
5.30(금)		
P05I10	An Assessment of MARS-KS Code Using Real Plant Transients of OPR-1000 Nuclear Power Plant	Yong Jin Cho, Seung-Hoon Ahn, Sang-Kyu Lee, and Jong Kap Kim (KINS)
P05I11	A Preliminary Study on the Containment Integrity Following BIT Removal for Kori NPP Unit 3,4	Dong Soo Song and Choong Sup Byun (KEPRI) Jong Young Jo (ENERGEO Inc.,)
P05I12	Design Concept of DVI+	Tae-Soon Kwon, In-Cheol Chu, and Chul-Hwa Song (KAERI)
P05I13	Assessment of the MARS-KS Code by Using the OECD-PKL III F1.1 Experiment	Seung Wook Lee, Won Jae Lee, and Bub Dong Chung (KAERI)
P05I14	Geometrical Approach to the Grid System in the KOPEC Pilot Code	E. J. Lee, C. E. Park, and S. Y. Lee (KOPEC)
P05I15	Application of an Unstructured Mesh Semi-implicit Scheme to Multi-D Two-phase Flow	J. C. Park, C. E. Park, and S. Y. Lee (KOPEC)
P05I16	A Study on the Effect of the Radiation on the CANDU Fuel Channel Thermalhydraulics in a Stratified Two-phase Flow Condition	Bo Wook Rhee, Joo Hwan Park, and H. T. Kim (KAERI)
P05I17	Implementations of Non-equilibrium Droplet Energy Equation and Shared Memory Parallelism into the CUPID Code	I. K. Park, H. K. Cho, J. Kim, H. Y. Yoon, and J. J. Jeong (KAERI)
P05I18	Material Effects on the Result of Fuel Coolant Interactions	I. K. Park, J. H. Kim, B. T. Min, and S. W. Hong (KAERI)
P05I19	Comparison of the Thermal Hydraulic Behaviors in the Rectangular and Triangular Sub-channels of Bare Rod Bundles	Chungho Cho, Yonghee Kim, Sang Ji Kim, Hae-Yong Jeong, and Yong-Bum Lee (KAERI)
P05I20	Post Accident Heat Removal in KALIMER-600	S. D. Suk and Y. B. Lee (KAERI)
P05I21	Validation of the Manometric Oscillations in the TASS/SMR Code	See Darl Kim, G. H. Lee, and Young-Jong Chung (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.30(금)		
P05I22	Implementation of Wolsong Pump Model, Pressure Tube Deformation Model and Off-take Model into MARS Code for Regulatory Auditing of CANDU Reactors	C. Yoon, B. W. Rhee, and B. D. Chung (KAERI) Y. J. Cho and M. W. Kim (KINS)
P05I23	Multi-Components Mesh Connection and its Application to the System Analysis Code	S. J. Ahn, C. E. Park, and S. Y. Lee (KOPEC)
P05I24	Case Study for the Numerical Instabilities of the MATRA at Low Flow and Low Pressure Conditions	Kyong-Won Seo, Dae-Hyun Hwang, and Jae-Seung Song (KAERI)
P05I25	Condensation Analysis of Steam/Air Mixtures in Horizontal Tubes	Keon-Yeong Lee and Sung won Bae (KAERI) Moo Hwan Kim (POSTECH)
P05I26	Development of Advanced Non-LOCA Analysis Methodology for Licensing	Chansu Jang, Kilsup Um, and Jaedon Choi (KNF)

<div>제 5 분과 J</div> <div>원자력열수력 및 안전-Poster (Division of Thermal Hydraulics and Safety) - PSA 및 리스크정보활용 (PSA and Risk - Informed Application)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
P05J01	Development of Risk Evaluation Program SEIF for Inspection Findings	Huichang Yang and Duck Yong Song (ENESYS) Dae Wook Chung, Nam Chul Cho, and Hun Joo Lee (KINS)
P05J02	The Feasibility Study for Application of Technology-neutral Regulatory Framework to Korean New Plant Licensing	Yong Suk Lee and Soon Joon Hong (FNC) Sang Kyu Ahn and Hun-Joo Lee (KINS)
P05J03	The Feasibility Study for Application of Risk-informed Performance Indicators to Korean NPPs	Yong Suk Lee (FNC) Dae Wook Jung and Nam Chul Cho (KINS)
P05J04	A Test of a System Modeling Method for a Trip Model Development	Meejeong Hwang and Sang-Hoon Han (KAERI)
P05J05	A Verification Study on the Loop-Breaking Logic of FTREX	Jong-Soo Choi (KINS)

<div>제 5 분과K 원자력열수력 및 안전-Poster (Division of Thermal Hydraulics and Safety) - 중대사고 (Severe Accidents)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
P05K01	Review of Containment Fragility Curves in Use	Namduk Suh and Chang wook Huh (KINS)
P05K02	Visualization of Two Phase Flow in a Horizontal Flow with Electrical Resistance Tomography Based on Extended Kalman Filter	Jeong Seong Lee, Nauman Muhammad Malik, Anil Kumar Khambampati, Ahmar Rashid, Sin Kim, and Kyung Youn Kim (CJNU)
P05K03	Concept Design of Ex-Vessel Cooling System for In-vessel Retention in Severe Accidents	Ji Joon-Suk, Lim Snng-Gyu, Youn Bum-Soo, and Kim Sang-Nyung (KHU)
P05K04	Experimental Study for Effects of Pressure Condition on Equipment Integrity in LOCA Simulation Test	Byung-ju Lim, Chang-dae Park, and Chi-sung Song (KIMM)
P05K05	Development of a MELCOR Input for ThAI HM Tests	Jung-Jae Lee, Namduk Suh, Chang-Wook Huh, and Song-Won Cho (KINS)
P05K06	A TROI Steam Explosion Test with a Zirconia Melt in a Narrow Interaction Vessel	Jong-Hwan Kim, B. T. Min, I. K. Park, H. D. Kim, and S. W. Hong (KAERI)
P05K07	CANDU Reactor Severe Accident Analysis for Accident Management	Young Choi, D. H. Kim, J. H. Jin, and J. H. Park (KAERI)

6. 제 6분과 : 방사선이용 및 방호

제 6 분과 A 방사선이용 및 방호 (Radiation Science and Engineering)		좌 장 김교윤(KIM Kyo Yoon) 이상훈(Sang Hoon, LEE) 발표장소 가야금 B
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
09:00	Radiation Induces Cathepsin S through ROS-IFN- $\gamma$ Pathways: Involvement of Cellular Radioresistance	Haeng Ran Seo and Yun-Sil Lee (KIRAMS) Joon Kim (KU)
09:20	Radiation Shielding for the Fast Neutron Generation Facility	N. S. Jung and H. D. Choi (SNU)
09:40	Monte Carlo Simulation of an Active Neutron Counter for Fissile Material Accounting	Seong Kyu Ahn, Tae-Hoon Lee, Hee-Sung Shin, and Ho-Dong Kim (KAERI)
10:00	Shielding Assessment for Solid Target Experiment on Ultrashort Quantum Beam Facility Using Monte Carlo Method	Hong-Chul KIM and Jong Kyung KIM (HYU) Chang-ho SHIN (ITRS) Hyung Taek Kim, Il Woo Choi, Do-Kyeong Ko, and Jongmin Lee (GIST)
10:20	Quantitative Analysis of Energy Spectrum Distortion for CdZnTe Detector	Kyung-O KIM and Jong Kyung KIM (HYU) Soon Young KIM (ITRS)
10:40	Coffee Break	Jang-Ho Ha (KAERI)
11:00	Sludge Hygienization Plant with Electron Beam	Jin-Kyu Kim, Yuri Kim, and Bumsoo Han (EB Tech) Nitzan Ben Yaacob (BIL)
11:20	A Study on Performance of $^3\text{He}$ and $^4\text{He}$ Proportional Counter for Thermal Neutron Detection	Dong Hoon Lee, Byeong Hyeon Park, and Yong Kyung Kim (HYU) Gi Dong Kim (KIRAMS)
11:40	Retrospective Accident Dosimetry Using OSL of Electronic Components of Mobile Phones	J. I. Lee, J. L. Kim, A. S. Pradhan, B. H. Kim, and J. S. Kim (KAERI)
12:00	An Intercomparison of Model Predictions for an Urban Contamination Resulting from the Explosion of a Radiological Dispersal Device	Won Tae Hwang, Hyo June Jeong, Eun Han Kim, and Moon Hee Han (KAERI)

제 6 분과 <b>B</b>	방사선 이용 및 방호-Poster (Radiation Science and Engineering)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
<b>P06B01</b>	Neutron Shielding Characteristics of Nano-B <sub>2</sub> O <sub>3</sub> Dispersed Poly Vinyl Alcohol	Jaewoo Kim, Young Rang Uhm, Min-Ku Lee, Hee Min Lee, and Chang Kyu Rhee (KAERI)
<b>P06B02</b>	Measurement of Neutron Spectrum Parameters for the NAA#1 and #2 Irradiation Holes at the HANARO Research Reactor	Sun Ha Kim, Jong Hwa Moon, and Yong Sam Chung (KAERI)
<b>P06B03</b>	Development of an Ion Chamber for Monitoring the Containment of a Nuclear Power Plant	Tae-Yung Song, Han Soo Kim, Se-Hwan Park, and Jang Ho Ha (KAERI)
<b>P06B04</b>	Modeling of Radiolytic Degradation of Cefaclor by Ionizing Energy	Seungho Yu, Dongkyu Choi, and Myunjoo Lee (KAERI)
<b>P06B05</b>	Promising Markers for the Detection of Premature Senescence induced by Ionizing Radiation: Cathepsin D and Eukaryotic Translation Elongation Factor 1	Hae-Ok Byun, Na-Kyung Han, and Jae-Seon Lee (KIRAMS)
<b>P06B06</b>	Ionizing Radiation Promotes the Migratory and Invasive Potential of Lung Cancer Cells by Different Mechanisms	Jin Nyoung Ho, Ga Young Kang, and Hong-Duck Um (KIRAMS)
<b>P06B07</b>	Bcl-w, a Radio-resistant Protein, Promotes the Gastric Cancer Cell Migration by Inducing the Phosphorylation of Focal Adhesion Kinase	In Hwa Bae, Sung Hwan Yoon, and Hong-Duck Um (KIRAMS)
<b>P06B08</b>	Study on Method of Asphalt Density Measurement Using Low Level Radioactive Isotope	Chung Jin-young, Kim Jung-hoon, and Whang Joo-ho (KHU)
<b>P06B09</b>	Preliminary Study on the Development of Extremity Dosimetry Program at Korean Nuclear Power Plants	Tae Young Kong and Hee Geun Kim (KEPRI) Sang Gu Lee, Taek Min Jeong, and Yong Min An (KHNP)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P06B10	Observations on the Electron Multiplication Using of Thick GEM	Kwon-Pyo Hong, Sang-Bok Ahn, and Woo-Seog Ryu (KAERI) J. Li, A. White, and J. Yu (Univ., of Texas at Arlington)
P06B11	An Analysis of the Correlation Between Dust Storms in Korea and <sup>137</sup> Cs Nuclide Concentration	Choi Soo-won, Kim Jeong-hun, Shin Sang-hwa, and Hwang Joo-ho
P06B12	Characteristic Examination of the HANARO Pneumatic Transfer Irradiation System for a Neutron Activation Analysis	Yong-Sam Chung, Sun-Ha Kim, Sung-Yeol Baek, Kwang-Min Sun, Jong-Hwa Moon and Kye-Hong Lee (KAERI)
P06B13	Development of CZT Planar Detectors for High-Resolution Portable Radioisotope Identifier	Se-Hwan Park, Han Soo Kim, Jae-Hyung Lee, Nam-Ho Lee, Hyeong Sik Park, and Jang Ho Ha (KAERI)
P06B14	Signal-to-Noise Measurement and Radiation Damage Study of a Silicon PIN Diode with a Proton Beam	D. H. Kah, H. D. Kang, H. J. Kim, H. O. Kim, Y. I Kim, H. Park, H. J. Hyun, and D. H. Son (KNU) Kyeryung Kim (KAERI)
P06B15	Evaluation of Preamplifiers for a Multi-channel CZT Strip Detector	Han Soo KIM, Se Hwan PARK, and Jang Ho HA (KAERI) Yong Kyun KIM (HYU) Seung Yeon CHO and Chan Gi KIM (YSU)
P06B16	Development of a Carbon Coating Process for a Detector-grade CZT Growth	Hyeong Sik Park, Se Hwan Park, Jang Ho Ha, Jae Hyung Lee, Han Soo KIM, Jung Bok Kim, Nam Ho Lee, Sang Mook Kang, and Sung Dae Chun (KAERI)
P06B17	Performance Test of Silicon PIN Diode with Radioactive Sources	D. H. Son, H.J. Hyun, D. H. Kah, H. D. Kang, H. O. Kim, Y. I. Kim, H. J. Kim, and H. Park (KNU)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P06B18	A Self-powered Semiconductor Alpha-ray Detector for a Harsh Environment	Jang Ho Ha, Sang Mook Kang, Se Hwan Park, Tae-Young Song, and Han Soo Kim (KAERI)
P06B19	Simulation Study of a Focusing Quadrupole System for Low Energy Protons	J. H. Kim, Y. S. Kim, Y. S. Park, and T. K. Yang (KIRAMS) K. R. Kim (KAERI)
P06B20	Evaluation on the Counting Efficiency of a Chair-type Whole Body Counter for Accident Monitoring of Internal Contamination	Wi-Ho HA, Ji-Seok KIM, Hyun Ki KIM, and Chang Woon CHOI (KIRAMS)
P06B21	Installation Technique of the In-pile Plug Assembly for the Neutron Guide System at HANARO	Jin-Won Shin, Yeong-Garp Cho, and Jung-Hee Lee (KAERI)
P06B22	Preparation of a lysine-based DTPA Derivative for the Conjugation with Biomolecules	Mi-Sun Pyun, Young-Don Hong, Kang-Hyuk Choi, and Sun-Ju Choi (KAERI)
P06B23	Development of Neutron Guides in HANARO	Yeong Garp Cho, Jin Won Shin, Sang-Jin Cho, Jong-Myeong Oh, Jeong Soo Ryu, Baek-Seok Seong, Hak-Sung Kim, Jung-Hee Lee, Min-Jin Kim, and Hyun-Jun Kim (KAERI)
P06B24	Preparation and Characterization of <sup>177</sup> Lu Labeled Antibody Against Tyrosine Kinase Receptor Her2	Lee So-Young, Young-Don Hong, and Sun-Ju Choi (KAERI)
P06B25	Monte Carlo Simulations for the Optimum Design of Microbeam Collimator	Dong-Hyun Kim and Eun-Hee Kim (SNU)
P06B26	Investigation for Water Propagation at PEMFC with Single Channel by Neutron Imaging Technique	TaeJoo Kim and Cheul Muu Sim (KAERI) Jongrok Kim and Moo Hwan Kim (POSTECH)



일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P06B27	Divisions of Survived Cells with Primary Radiation Damage	Jin Kyu Kim, Yun Jong Lee, and Jae-Hun Kim (KAERI) Mohammad Nili (DRI) Vladislav G. Petin (MRRC)
P06B28	Recent Status of Irradiation Facilities in the World	Yun Jong Lee, Hoje Kwon, Tai-Jin Kang, Dong-Soo Kim, and Young-Chang Nho (KAERI) Sang Jun Han (KHNP)
P06B29	Effect of whole Body Proton or Gamma Irradiation on Genetic Damage and Hematological Variables	Ji-Young Shim, Ji-Yeon Ahn, Yeon-Sook Yun, Jie-Young Song, Jae Youn Yi, and Chang-Mo Kang (KIRAMS)
P06B30	ICAM-3, Radiation Resistance Gene, Activates PI3K/Akt - CREB - MMPs Pathway and Promotes Migration/Invasion of the Human Non-small Cell Lung Cancer Cell NCI-H1299	Jong Kuk Park, Seon Ho Park, Sung Hee Hong, and Hong-Duck Um (KIRAMS) Young Do Yoo (KU)
P06B31	Radiation Damage of BGO Scintillator Irradiated by <sup>60</sup> Co Gamma-ray	Yun Ho CHO, Sin Yang KANG, Byeong Hyeon PARK, Seung Kyu LEE, Dong Hoon LEE, and Yong Kyun KIM (HYU) Jae-Woo PARK (CJNU)
P06B32	Evaluation of Measurement Uncertainties for As, Ba, Mn, Sb, V and Zn in Sediment Samples Assayed by Neutron Activation Analysis	Jong Hwa Moo, Sun Ha Kim, and Yong Sam Chung (KAERI)
P06B33	Design of a Test Bed for Evaluating a Intrusion Detection System (IDS)	Jae Kwang Kim and Jung Soo Kim (KINAC)
P06B34	Investigation of Neutron Flux Variation at PGA Facility of the HANARO Research Reactor by Using Prompt Gamma-ray Activation	G. M. Sun, Y. N. Lee, and J. H. Moon(KAERI)

## 7. 제 7분과 : 양자공학 및 핵융합기술

제 7 분과 A	양자공학 및 핵융합기술 (Quantum Engineering & Nuclear Fusion Technology)	좌 장 차형기(Hyung-Gi Cha) 홍봉근(Bong-Geun Hong) 발표장소 가야금 C
일 정	논 문 제 목	저자명 및 소속
5.29(목)		
09:00	Design of the Compact Permanent-magnet ECR Ion Source	J. Y. Park and J. K. Ahn (PNU) H. S. Lee, M. S. Won, J. H. Yoon, J. P. Kim, J. S. Bae, and J. K. Bang (KBSI)
09:20	Cu <sup>+</sup> Ions Extraction of the Modified Bernas ion Source	I. S. Hong, Tu Anh Trinh, and Y. S. Cho (KAERI)
09:40	Digital Speckle Pattern Interferometer for Measuring Micro Deformation Area	Seung-Kyu Park, Sung-Hoon Baik, Young-Suk Kim, Yong-Moo Cheong, Hyun-Kyu Jung, and Hyung-Ki Cha (KAERI) Young-June Kang (CBNU)
10:00	Neutron Generation from Deuterium Clusters by Using an Intense Femtosecond Laser	Sungmo Nam, Jaemin Han, Yong Joo Rhee, Yong-Ho Cha, Duck-Hee Kwon, Sungman Lee, and Hyunki Cha (KAERI)
10:20	Self-consistent Analysis of a Blanket and Shielding of a Fusion Reactor Concept	Suk-Kwon Kim, B. G. Hong, D. W. Lee, D. H. Kim, and Y. O. Lee (KAERI)
10:40	Coffee Break	
11:00	Experimental and Theoretical Study on a Cylindrical Inertial Electrostatic Confinement Fusion Device	Soonwook Jung, Jihun Kim, and Yong-Seok Hwang (SNU)

<div>제 7 분과 <b>B</b></div> <div>양자공학 및 핵융합기술 (Quantum Engineering &amp; Nuclear Fusion Technology)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
<b>P07B01</b>	Transverse Tracking Studies in the PEFP RCS	Byungchul Chung, Yong Yung Lee, Ji-Ho Jang, and Yong-Sub Cho (KAERI)
<b>P07B02</b>	Design of the PEFP Beam Line	J. H. Jang, Y. S. Cho, I. S. Hong, B. S. Park, S. P. Yun, H. J. Kwon, B. C. Chung, and H. S. Kim (KAERI)
<b>P07B03</b>	Field Flatness Tuning for PEFP 100 MeV DTL	Kim Han-Sung, Kwon Hyeok-Jung, Seol Kyung-Tae, Kim Dae-Il, and Cho Yong-Sub (KAERI)
<b>P07B04</b>	Installation of Drift Tubes for 100-MeV Proton Linac Accelerator	Bum-Sik Park, Hyeok-Jung Kwon, Han-Sung Kim, In-Seok Hong, and Yong-Sub Cho (KAERI)
<b>P07B05</b>	Field Profile Adjustment and Beam Acceleration Test of PEFP 3 MeV RFQ	Hyeok-Jung Kwon, Han-Sung Kim, Dae-Il Kim, Ji-Ho Jang, and Yong-Sub Cho (KAERI)
<b>P07B06</b>	The Quantitative Analysis for Lanthanum Series Element Using Laser Induced Breakdown Spectroscopy	Seung Hyun Kim, Jong Sook Hong, June Sik Ju, and Hee Sung Sin (KAERI)
<b>P07B07</b>	Design of the First Prototype ZrCo Bed for the ITER SDS Bed	Myunghwa Shim, Hongsuk Chung, and Jong-Kuk Lee (KAERI) Hiroshi Yoshida (ITER) Seungyen Cho, Sehun Yun, Hyungoo Kang, and Min-ho Chang (NFRG) Kyu-Min Song (KEPRI)
<b>P07B08</b>	Development of Tritium and Helium Inventory Code for Tritium Storage and Delivery System	Sangchul Lee, Daesik Yook, and KunJai Lee (KAIST)

일 정	논 문 제 목	저자명 및 소속
5.30(금)		
		Kyu-min Song and Soon hwan Shon (KEPRI)
<b>P07B09</b>	First RF Conditioning of the KSTAR ICRF Antenna	Young-Dug BAE, Jong-Gu KWAK, Son-Jong WANG, Jae-Sung YOON, Sung-Kyu KIM, Suk-Kwon KIM, and Churl-Kew HWANG (KAERI) Young-Soon BAE, Jong-Su KIM, and Mi JUNG (NFRI)
<b>P07B10</b>	Low Heat Flux Test Facility at KAERI	Young-Dug BAE, Dong-Won LEE, Suk-Kwon KIM, and Bong-Geon HONG (KAERI)
<b>P07B11</b>	Fabrication and Preparation of a High Heat Flux Test with a mock-up for the First Wall of the KO HCML TBM	Dong Won Lee, Suk Kwon Kim, Young Dug Bae, and Bong Geun Hong (KAERI)
<b>P07B12</b>	Development of the Target Room For the 20 MeV PEFP Linacs	S. P. Yun, I. S. Hong, B. S. Park, J. H. Jang, Y. S. Min, H. J. Kwon, and Y. S. Cho (KAERI)
<b>P07B13</b>	Preliminary Test for the Design of the In-bed Calorimetry of the ITER SDS Bed	Jongkuk Lee, Myung-Hwa Shim, and Hongsuk Chung (KAERI) Seungyen Cho (NFRI) Hiroshi Yoshida (FSC)

## 8. 제8분과 : 원자력발전소 건설 및 운영

제 8 분과 <b>A</b> 원자력발전소 건설 및 운영 (Construction and Operation of NPP)		좌 장 정대율(D. Y. Chung ) 김종학(Jong-Hak Kim) 발표장소 가야금 D
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
09:00	Experimental Study of Friction Pendulum System for Seismic Protection of Transformer	J. B. Jang, J. K. Kim, K. M. Hwang, and K. W. Ham (KEPRI) J. W. Park (VE Tech) C. W. Lee (B&T)
09:20	Discrete Crack Model for Reinforced Concrete Joints	Do-Yeon Kim and In-Kil Choi (KAERI)
09:40	Development of Welding Procedures for NPP Dissimilar Metal Weld	Jang Wook Lee, Hong Seok Cho, Dong Min Lee, Yu Deog Park, and Sang Hoon Choi (KPS)
10:00	Development of the Aging Management Program for HVAC Systems	Hong Seok Cho, Dong Min Lee, Jang wook Lee, Ki Hyun Cho, Sang Bum Cho, and Sang Hoon Choi (KPS)
10:20	A Study on the Constructability of Steel Plate Concrete Structure for Nuclear Power Plant	Mun Tae Youp, Sun Won Sang, Kim Keun Kyeong, and Lee Ung Kwon (KHNP)
10:40	Coffee Break	
11:00	Utilization of Concept Mapping Program at the Root Cause Analysis of Events	Kim Bae-Joo and Kim Gwang -Bong (KHNP)
11:20	Study on the Impact Limiter Design for the Spent Fuel Transport Casks	Tae-Myung Shin (CJNU) Jae-Han Jung (KAERI)

제 8 분과 <b>B</b>	원자력발전소 건설 및 운영 - Poster (Construction and Operation of NPP)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
<b>P08B01</b>	Assessment of HCLPF Considering of Aging Deterioration at Nuclear Power Facility	J. B. Jang, J. K Kim, and K. M. Hwang (KEPRI) J. G. Song (KOPEC)
<b>P08B02</b>	Database System for Aging Deteriorated Equipment of Operating Nuclear Power Plants	J. B. Jang, J. K, Kim and K. M. Hwang (KEPRI)
<b>P08B03</b>	Tracking System for the Implementation of Nuclear Regulation:R-TRACER	Chang-Ju Lee, Sang-Jae Kim, Min-Chull Kim, and Durk Hun Lee (KINS)
<b>P08B04</b>	FEM Model of Concrete Structure in Highly Nonlinear Region	Yun-Suk Chung (KINS) Myung-Kue Lee (CJNU)
<b>P08B05</b>	A Study on Sludge Cleaning of a Nuclear Steam Generator by an Ultrasonic Transducer	Woo-tae Jeong, Seok-tae Kim, and Dong-ho Shin (KEPRI) Hyun-chul Back (Sae-An Eng.,)
<b>P08B06</b>	A Visual Inspection System for the Flow Distribution Plates of the OPR1000 Steam Generator	Woo-tae Jeong and Seok- tae Kim (KEPRI) Seok-chul Kang and Young-kug Kim (Sae-An Eng.,)
<b>P08B07</b>	Effect of Sulfur on a Stress Corrosion Cracking of Steam Generator Tubing Materials	E. H. Lee, Zhao Shuan, B. S. Choi, and W. Y. Maeng (KAERI)
<b>P08B08</b>	Development of Simplified Head Assembly with Internal Ducts in Westinghouse 3 Loop Plants	Nak-jeom Kim, Sang- hoon, Choi, and Kyung- sub Kim (KPS)
<b>P08B09</b>	Axial PWSCC Sizing Technique in Steam Generator Tubes	Chan-Hee Cho, Dong- Hyun Jee, Jee-Hong Jung, and Hee-Jong Lee (KEPRI)
<b>P08B10</b>	The Seismic Fragility Evaluation of an Offsite Transformer According to Aging Effects	Min Kyu Kim and In Kil Choi (KAERI)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P08B11	Piezoelectric and Sensitivity Evaluation of Acoustic Emission Sensors for Nuclear Power Plant Valve	Sang-Guk Lee, Sun-Ki Lee, Sung-Keun Park, and Myung-Ki Kim (KEPRI)
P08B12	Tube Plugging Criterion for No. 6 Heater of Ulchin NPP Unit 1 and 2 Based on Its Pressure and Temperature	Hyung-nam Kim, Hyun-ju Yoo, Sung-nam Choi, and Seok-yoon Song (KEPRI)
P08B13	The Effect of Eddy Current Bobbin Coil Dimension Changes on Signal Quality of Steam Generator	Hee Jong Lee, Chan Hee Cho, Dong Hyun Jee, and Jung Jee Hong (KEPRI)
P08B14	Lay-up During Retubing Outage at Wolsong Unit 1	Wook Sohn and (KEPRI) C. R. Stuart and G. R. Burton (AECL)
P08B15	Preliminary Economic Assessment of KALIMER-600	Kee-Hwan MOON, Seung-Su Kim, and Dohee Hahn (KAERI)
P08B16	Tracking of Steam Generator Thermal Performance Trends	S. K. Park (KAERI) H. D. Kim (KEPRI) S. J. Lee, D. M. Shin, and N. C. Cho (KHNP)
P08B17	Sampling Location in Nuclear Aerosol Stack	Ha, Gak-Hyeon and Lee, Sung-No (KEPRI)
P08B18	OPR1000 Overpressure Protection Analysis with an Increased MSSV Opening Uncertainty	Byung Heon Hwang, Myung Jun Song, Ju Han Lee, Jong Joo Sohn, Chul Jin Choi, and Eun Kee Kim (KOPEC)
P08B19	Change of Spectrum Shape in Alanine/ESR Dosimetry in NPP	Park Byeong Ryong, Kim Bo Reum, Choi Hoon, and Lim Young Khi (RHRI)
P08B20	Experimental Study on Shear Behavior of SSC Structures under out of Plane Loading	K. W. Ham, D. S. Park, and K. J. Lee (KEPRI)
P08B21	Preliminary Cost Estimates for Nuclear Hydrogen Production: HTSE System	K. J. Yang, K. Y. Lee, and T. H. Lee (KAERI)

제 8 분과 C 원자력발전소 건설 및 운영 (Construction and Operation of NPP)		좌 장 정우태(W. T. Jeong) 김영석(Y. S. Kim) 발표장소 가야금 D
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
09:00	Modeling of Activity Transport and Uptake of Cobalt in the Primary Circuit	Byung-Seon Choi and Wan-Young Maeng (KAERI) Ho-Yeon Yang (KHNP) J. Clara Wren (The Univ., Western Ontario)
09:20	Development of a Fatigue Monitoring System for Major components of Korean NPP	Jongjooh Kwon, Wanjae Kim, and Taeryong Kim (KEPRI)
09:40	Electrochemical Study on the PbSCC of SG Tube Material at a High Temperature	Kyung Mo Kim, Eun Hee Lee, Uh Chul Kim, and Wan Young Maeng (KAERI)
10:00	Electrochemical Fracture Model of the Stress Corrosion Cracking of Turbine Steel in High Temperature Water	W. Y. Maeng (KAERI) Digby D. Macdonald (Pennsylvania State Univ.,)
10:20	Comparison of a Penetration in Different Sizes of Titanium Dioxides into a Tubesheet Crevice	Jung Won Na, Uh-Chul Kim, and Wan Young Maeng (KAERI)
10:40	Coffee Break	
11:00	Fretting Wear of Steam Generator Tubes with Gap Effect	Ki-Wahn Ryu (CNU) Chi-Yong Park (KEPRI)
11:20	Review of Irradiation Assisted Stress Corrosion Cracking of Austenitic Stainless Steels	Young S. Kim and Sung S. Hwang (KAERI)



## 9. 제9분과 : 원자력정책, 인력 및 협력

<div> <div>제 9 분과 A</div> <div> <b>원자력정책, 인력 및 협력</b>            (Division of Nuclear Policy, Human Resources and Cooperation)         </div> <div> <b>좌 장</b> 김동원(Kim, Dong Won)            이의진(Eui-Jin Lee)  <b>발표장소</b> 항비 파 A         </div> </div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
09:00	Comparative Study on the Nuclear Energy Laws of Korea and Japan	Byung Woo Sin, Jae Beom Park, and Sang Tae Chung (KINAC)
09:20	Development of Safeguards Approach Considering Proliferation Resistance	Na Young Lee, Hosik Yoo, Wan-Ki Yoon, Sung Yeon Jo, and Jong-Kyu Jeon (KINAC)
09:40	Lessons Learned from an International e-Training	K. W. Han, I. A. Hwang, B. J. Min E. J. Lee and S. J. Kwon (KAERI)
10:00	Integrated Safety Assessment for Assuring Acceptable Level of Nuclear Safety	Kwang Sik Choi and Young sung Choi (KINS)
10:20	Analysis on Effects of Visiting Nuclear Power Plant	Kim, Dongwon (KNEF)
10:40	Coffee Break	
11:00	Study on Agreements for Cooperation in Peaceful Uses of Nuclear Energy Between ROK and US	Jae San Kim, Seong Youn Jo, and Kwan Kyoo Choe (KINAC)
11:20	KHNP' s Experience of Obtaining Public Acceptance for Continued Operation of Kori Nuclear Power Plant Unit 1	Jae-yuel Kang, Dong-kwan Choi, and Yeon-sang Yu (KHNP)
11:40	Comprehensive Plan for Public Confidence in Nuclear Regulator	Kwang Sik Choi, Young Sung Choi, and Ho Ki Kim (KINS)

<div>제 9 분과 <b>B</b></div> <div>원자력정책, 인력 및 협력-Poster (Division of Nuclear Policy, Human Resources and Cooperation)</div> <div>발표시간 10:00~12:00 발표장소 1층 로비</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.29(목)		
<b>P09B01</b>	Recent Activities in INRA	Dohyoung KIM, Yeon-Hee HAH, Jae-Woong CHUNG, Chae-Woon OH, Kun-Woo CHO, and Jeong-Seop PARK (KINS)
<b>P09B02</b>	Introduction to NPP Environment Monitoring Committee	Byung-Il Lee (WSNESC)
<b>P09B03</b>	Right Viewpoint for Interated Safeguards	Min-Su Kim, Seong Youn Jo, Min Soo Kim, Jae San Kim, Jeong Hoon Lee, and Sang Cheol Hyung (KINAC)
<b>P09B04</b>	Safety Culture Activities of HANARO in 2007	Jong-Sup WU (KAERI)
<b>P09B05</b>	Target Identification Against Radiological Terrorism Sabotage on a Spent Fuel Pool System	Seong Ho KIM, Y. Choi, S. H. HAN, and J. E. YANG (KAERI)
<b>P09B06</b>	A Study on the Trend of the Illicit Trafficking of Nuclear Materials and Other Radioactive Sources	Jounghoon Lee, Jae-Kwang Kim, and Jung-Soo Kim (KINAC)
<b>P09B07</b>	A Study on Strengthening the Export Competitiveness of Nuclear Technologies through Amendment of the ROK-U.S. Atomic Energy Agreement	Jin woo Park and Kun Jai Lee (KAIST)
<b>P09B08</b>	The Role of Nuclear Power in Addressing Climate Change Issues in Korea	Ji-Hee Nam, Man-ki Lee, and Seung-Su Kim (KAERI)

<div>제 9 분과 C</div> <div>원자력정책, 인력 및 협력 (Division of Nuclear Policy, Human Resources and Cooperation)</div> <div>좌 장 박일진(Park Iljin) 김태운(Tae-Woon Kim) 발표장소 항비 파 A</div>		
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
09:00	Regulatory Activities for Licensee's Safety Culture	Young Sung Choi and Kwang Sik Choi (KINS)
09:20	The Tile-map Based Vulnerability Assessment Code of a Physical Protection System :SAPE(Systematic Analysis of Protection Effectiveness)	Sung Soon Jang, Sung-Woo Kwak, Hosik Yoo, Jung-Soo Kim, and Wan Ki Yoon (KINAC)
09:40	A Summarized Review on the Atomic Energy Act	Sangcheol Hyung (KINAC)
10:00	Development of Risk Assessment Measures for Physical Protection of Nuclear Facilities	Hosik Yoo, Sung-Woo Kwak, Sung-Soon Chang, Jae-Kwang Kim, Jung-Soo Kim, and Wan-Ki Yoon (KINAC)
10:20	Developing a Vital Area Identification in Nuclear Power Plants Using PSA Results	Kilyoo Kim, WooSik Jung, and Jun-Eon Yang (KAERI)
10:40	Coffee Break	
11:00	A Condition Analysis of the Advance of Senior Staff to the IAEA	J. H. Lee and H. J. Kim (KAERI)
11:20	Discussion on the Scope of Legal Fictions to Assume Executives and Employees of Entrusted Agencies Are Civil Servants in the Application of Punishments	Kim Sang-won, Jang Gun-hyeon, Kim Chang-beom, Go Jae-dong, Ahn Hyeong-jun, Rhyu Jung, and Chung Sang-ki (KINS)
11:40	Implications and Prospects of the GNEP	Jae-Soo Ryu, Byung-Wook Lee, Han-Myung Lee, Han-Suk Ko, Kwang-Seok Lee, and Hak-Ro Kim (KAERI)

## 10. 제 10 분과 : 원자력 계측제어 및 자동원격

제 10 분과 <b>A</b>	원자력 계측제어 및 자동원격-Poster (Nuclear I&C and Automatic Remote Systems)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저자명 및 소속
5.29(목)		
<b>P10A01</b>	Effect of Axial Nodal Sections in a Faster-Running DNBR Program	Wang-Kee In and Tae-Hyun Chun (KAERI)
		Seung-Yeob Baeg (Doosan Heavey Co., Ltd)
<b>P10A02</b>	Stimulation Interfacing Method in APR1400 Simulator	Do Hyun Hwang, Myeong Soo Lee, and Jin Hyuk Hong (KEPRI)
<b>P10A03</b>	Modeling of Radionuclide Transport for NPP Simulator Using RELAP5 R/T	Jeong Kwan Suh, Jin Hyuk Hong, and Myeong Soo Lee (KEPRI)
<b>P10A04</b>	Development of Neutronics Model for ShinKori Unit 1 Simulator	JinHyuk Hong, MyeongSoo Lee, SeungHo Lee, Jung Kwan Suh, and DoHyun Hwang (KEPRI)
<b>P10A05</b>	Development of Seismic Resistance Position Indicator for the Integral Reactor	Je-Yong Yu, Hyung Huh, Myoung-Hwan Choi, Ji-Ho Kim, and Dong-Seong Sohn (KAERI)
<b>P10A06</b>	A Preliminary Verification and Validation (V&V) Methodology for the Artifacts Programmed with a Hardware Description Language (HDL)	Yong Suk Suh, Jong Yong Keum, and Je Youn Park (KAERI)
		Ki Ho Jo and Chang Whan Jo (SEC)
<b>P10A07</b>	CEDM Controller with Pulse Width Modulation Method for Step Motor-Type -CEDM	Joon-Koo Lee, Jong-Yong Keum, Jong-bok Lee, Heui-Youn Park, and In-Soo Koo (KAERI)
<b>P10A08</b>	Development of Optical Fiber Cable's Inspection Technology and Maintenance Criteria	Min-su Kim, Hee-Wan Ju, and Seon-Heum Shim (KHNP)
		Jin Il Kim and Taeyoung Huh (Sean ENC)

일 정	논 문 제 목	저자명 및 소속
5.29(목)		
P10A09	Development of a Network Interface Card for Digital Safety I&C	Kwang-Il Jeong, Seok-Bong Hong, Heui-Youn Park, and In-Soo Koo (KAERI)
P10A10	A Dead Time Correction for Overlapped Pulse Signals for a Thermal Neutron Coincidence Counter System	Chul-Yong Lee, Tae-Hoon Lee, Hee-Sung Shin, and Ho-Dong Kim (KAERI)

제 10 분과 <b>B</b> 원자력 계측제어 및 자동원격 (Nuclear I&C and Automatic Remote Systems)		좌 장 장귀숙(Gwi-sook Jang) 허균영(Gyunyoung Heo) 발표장소 은하수 C
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
09:00	DNBR Prediction Using a Support Vector Regression	Heon Young Yang and Man Gyun Na (CSU)
09:20	Development of a Base Model for a Performance Analysis Code of a SFR	Seung-Hwan Seong, Tae-Ho Lee, Hae-Yong Jeong, and Seong-O Kim (KAERI)
09:40	Development of Qualified Indication and Alarm System-PAMI Based on POSAFE-Q	Jung-Jin Park, Deok-in Kim, and Dae-jae Kim (Doosan Heavey Co., Ltd)
10:00	Cyber Security Risk Assessment for the KNICS Safety Systems	C. K. Lee, G. Y. Park, Y. J. Lee, J. G. Choi, D. H. Kim, D. Y. Lee, and K. C. Kwon (KAERI)
10:20	Effect of $k$ -out-of- $n$ Redundancy in Reactor Protection System in Consideration of Common Cause Failure	Hyun Gook Kang and Seung-Cheol Jang (KAERI)
10:40	Coffee Break	
11:00	An Evaluation of a Human Machine Interface Based on Attentional-resources Effectiveness	Jun Su Ha and Poong Hyun Seong (KAIST)
11:20	An Application on Logic Alarm Cause Tracking System(LogACTs) to Wolsong 3&4	J. T. KIM, I. K. Hwang, J. W. Lee, and J. C. Park (KAERI) Y. G. Lee, S. T. Chun, and B. J. Kim (KHNP) Sang Jung Lee (CNU) Sung Pil Lyu (SMU)
11:40	Mainformatics for Condition Monitoring Based Predictive Maintenance	Gyunyoung Heo (KHU) Jung Taek Kim (KAERI)
12:00	High-Confidence Flow Accelerated Corrosion Screening Technique	Kyung Ha Ryu, Ji Hak Kim, and Il Soon Hwang (SNU) Na Young Lee (KINAC) Ji-Hyun Kim (MIT)

제 10 분과 C	원자력 계측제어 및 자동원격-Poster (Nuclear I&C and Automatic Remote Systems)	발표시간 10:00~12:00 발표장소 1층 로비
일 정	논 문 제 목	저 자 명 및 소 속
5.30(금)		
P10C01	Alarm Reduction Processing of Advanced Nuclear Power Plant Using Data Mining and Active Database Technologies	Gwi-sook Jang, Jong-yong Keum, and Heui-youn Park (KAERI) Young-Kuk Kim (CNU)
P10C02	Countermeasures of SMART Digital Plant Protection Systems (DPPS) Against CCF	Jong Yong Keum, Gwi Sook Jang, Yong Suk Suh, and Heui Youn Park (KAERI)
P10C03	General Method of Using Bayesian Nets for Software Reliability Assessment in Varying SW Development Lifecycle	Heung-Seop Eom and Seung-Cheol Chang (KAERI)
P10C04	Nuclear Fuel Rod Displacement Measurement Using a Wide-area CCD Sensor	JaiWan Cho and YoungSoo Choi (KAERI) Jung Cheol Shin (KNF)
P10C05	Design of Reactor Coolant Pump Seal Online Monitoring System	Sang-ha An and Soon-heung Chang (KAIST) Song-kyu Lee (KOPEC)
P10C06	Determination of Unidentified Leakage Using a Kalman Smoother	Soek Bo Jang and Gyun young Heo (KHU) Insik Ra and Jeong-Hyun Han (ACT) Seon Woo Lee (KHNP)
P10C07	Conceptual Design of a Leak Detector Using Audio and Video Captures	Bo Gyung Kim and Gyun young Heo (KHU)
P10C08	Discrimination of a Crack in the Ultrasonic Spectrum Signal of Multi Laser Beams	J. S. Kim and S. H. Lee (CBNU) S. K. Park and S. H. Baik (KAERI) Y. J. Kang (CBNU)
P10C09	Application of 4-Face Fuel Visual Inspection System during Outage in Nuclear Power Plant	J. C. Shin, J. I. Kim, C. B. Choi, and Y. C. Kim (KNF) C. B. Kang (KHNP)