

Ⅲ. 분과별 논제 및 발표자

제 1 분과 A

원자로시스템기술(Reactor System Technology)

- SFR Technology

좌 장 한도희(Dohee Hahn), 김상지(KIM, Sang Ji)

발표장소 항비파A

일 정 | 10. 29(목)

- 09:00 Inelastic Analysis of the Creep Fatigue Damage for a Reactor Internal Structure**
S. H. Kim and G. H. Koo(KAERI)
- 09:20 Pre-analysis of Phenix End-of-life Thermal-hydraulic Tests with the MARS-LMR Code**
Hae-Yong Jeong, Kwi-Seok Ha, Young-Min Kwon, Won-Pyo Chang, Su-Dong Suk, and Yong- Bum Lee(KAERI)
- 09:40 Development of Preliminary PIRTs of Thermal-Hydraulic Phenomena for KALIMER-600**
Young-Min KWON, Hae-Yong JEONG, Kwi-Seok HA, and Won-Pyo CHANG(KAERI)
- 10:00 Partial Load Study for KALIMER in Once-through Mode of a Superheated Steam Generator**
Eui Kwang Kim and Seong-O Kim(KAERI)
- 10:20 A Correlated Active Acoustic Leak Detection in a SFR Steam Generator**
Tae-Joon Kim, Ji-Young Jeong, Jong-Man Kim, Byung-Ho Kim, Young-Il Kim, and DoHee Hahn(KAERI)
- 10:40 Coffee Break**
- 11:00 Core Design Studies for a 300 MWe TRU Burner Reactor**
Hoon Song, Sang Ji Kim, and Yeong Il Kim(KAERI)
- 11:20 The Multi-dimensional Analysis Method Development for Sodium Pool of SFR Using MARS-LMR CODE**
Seung Min Woo, Hae Min Park, and Soon Heung Chang(KAIST)
Kwi Seok Ha(KAERI)
- 11:40 Wastage Behavior of Modified 9Cr-1Mo Steel Tube Material by Sodium-water Reaction**
Ji-Young Jeong, Jong-Man Kim, Tae-Joon Kim, Jong-Hyeun Choi, and Byung-Ho kim(KAERI)
Nam-Cook Park(CNU)
- 12:00 The Development of a New Concept for a Double Wall Tube Steam Generator**
Ho-Yun Nam, Byoung-Hae Choi, Jong-Man Kim, and Byung-Ho Kim(KAERI)

제 1 분과 B

원자로시스템기술 (Reactor System Technology)-Poster

좌 장 정용훈(Jeong Yong Hoon), 이정익(Lee Jeong Ik)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P01B01 A Comparative Study of MATRA-LMR/FB for Local Flow Blockages with SABRE4**
Won-Pyo Chang, Ki-Suk Ha, and Yong-Bum Lee(KAERI)
- P01B02 Heat Transfer Experiment in a Radially Separated Tube Bundle Type DTBSG(II)**
Jong-Hyeun Choi, Byoung-Hae Choi, Jong-Man Kim, Ji-Young Jeong, and Byung-Ho Kim(KAERI)
- P01B03 Thermal-Fluid and Safety Analysis of the TRU Deep-Burn MHR Core**
Ji Su Jun, Hong Sik Lim, and Chang Keun Jo(KAERI)
Francesco Venneri(Logos Technologies)
- P01B04 Analysis and Design of the Input and Output Attributes of the Dynamic Simulation Code for the H₂SO₄ Distillation Process**
Jiwoon Chang, Youngjoon Shin, Jihwan Kim, Kiyoun Lee, Wonjae Lee, and Jonghwa Chang(KAERI)
Cheung Youn(CNU)
- P01B05 Micro-dimple Effect on High-cobalt Material**
Jae-Seon Lee and Chul-Hwa Song(KAERI)
Jong-Joo Rha(KIMS)
Young-Ho Jang(NETI)
- P01B06 DBE Analysis for KALIMER-600**
Kwi-Seok Ha, Hae-Young Jeong, Young-Min Kwon, Won-Pyo Chang, Yong-Bum Lee, and Young-IL Kim(KAERI)
- P01B07 Design Evaluations of the Accumulated Inelastic Strain for the Reactor Internal Structure in a ABTR**
S. H. Kim and G. H. Koo(KAERI)
- P01B08 Natural Circulation Capability Assessment for Small-Medium Reactor**
Sun-Do Choi and Gyoo-Dong Jeun(HYU)
Moo-Hwan Kim(POSTECH)
- P01B09 Hydrogen Iodide Decomposer Sizing for a Nuclear Hydrogen Production by a SI Process**
Jihwan Kim, Jiwoon Chang, Youngjoon Shin, Kiyoun Lee, Wonjae Lee, and Jonghwa Chang(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 1 분과 C

원자로시스템기술 (Reactor System Technology)-Poster

좌 장 허선(Heo Sun), 김상지(KIM, Sang Ji)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P01C01** **Passive Safety Features of KALIMER-600 Burner Reactor for Unprotected Under-cooling Events**
Young-Min KWON, Chang Gyu PARK, Chung Ho CHO, Hoon SONG, Eui Kwang KIM, and Sang Ji KIM(KAERI)
- P01C02** **Preliminary Sizing of Sodium Thermal-Hydraulic Experimental Facility**
Hyeong-Yeon Lee, Jae-Han Lee, Tae-Ho Lee, and Yong-Bum Lee(KAERI)
- P01C03** **Review of SFR In-Vessel HCDA Source Terms**
S. D. Suk and K. S. Ha(KAERI)
- P01C04** **Estimation on the Pressure Loss of the Conceptual Primary Cooling System and Design of the Primary Cooling Pump for a Research Reactor**
Kyoungwoo Seo, Jae-Min Oh, Jong-Hark Park, Heetaek Chae, Jae-kwang Seo, Cheon-Tae Park, Juhyeon Yoon, and Doo-Jeong Lee(KAERI)
- P01C05** **Performance Test of the Damping System Using a Spring-Hydraulic Damper**
Myoung-Hwan Choi, Ji-Ho Kim, Hyung-Huh, Je-Yong Yu, and Dong-Seong Sohn(KAERI)
- P01C06** **Sensitivity Analysis of Reactor Regulating System for SMART**
Yu-Lim Jeon, Han-Ok Kang, Seong-Wook Lee, and Cheon-Tea Park(KAERI)
- P01C07** **Survey on the Study of the PIRTs for the NGNP**
Kju-Myeng Oh, Sang-Kyu Ahn, Key-Yong Sung, and Chang-Ju Lee(KINS)
- P01C08** **Preliminary Level 1 PSA Results for SFR-600 Conceptual Design**
Tae Woon Kim, Sang-Hoon Han, Soo Yong Park, and Kwi Seok Ha(KAERI)
- P01C09** **Preliminary Performance Evaluation of Coolant Distribution Blocks in the Upper Plenum of a Prismatic-core VHTR**
Min-Hwan Kim and Nam-il Tak(KAERI)
- P01C10** **Estimating the Required Flow Rate to Lift an Absorber in the Shutdown System of Nuclear Reactors**
Jae-Min Oh, Kyung-Woo Seo, Heung-June Chung, Doo-Jeong Lee, and Cheon-Tae Park(KAERI)

제 1 분과 D

원자로시스템기술 (Reactor System Technology)-Poster

좌 장 이용범(Yong Bum Lee), 이원재(Won Jae LEE)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P01D01 Current Status of Quality Assurance for NHDD Project**
Tae-Hoon Lee, Ki-Young Lee, Kyung-Jin Yang, and Jong-Hwa Chang(KAERI)
- P01D02 Experimental Study on the RRE Method at High Pressure and High Temperature Environments**
Chan Soo Kim, Sung-Deok Hong, Dong-Un Seo, Yong Wan Kim, and Jonghwa Chang(KAERI)
- P01D03 Thermal Hydraulic Study for the KALIMER-600 by a Scaled Water Model**
S. H. Lee, S. O. Kim, and J. E. Cha(KAERI)
- P01D04 Analyses of Core Thermal-Hydraulic Characteristic for 1,200 MWe SFR Breakeven Reactor**
Chungho Cho, Jinwook Chang, Hyung-Kook Joo, Jae-Woon Yoo, Sang-Ji Kim, and Yeong-il Kim(KAERI)
- P01D05 Development of Supercritical CO₂ Compact Heat Exchanger for a Gen-IV SFR**
J. E. Cha and S. O. Kim(KAERI)
D. E. Kim and M. H. Kim(POSTECH)
- P01D06 Core Thermal-Hydraulic Design for Sodium Cooled TRU Burner Reactor**
Chungho Cho, Jinwook Chang, Hoon Song, Jae-Woon Yoo, Sang-Ji Kim, and Yeong-il Kim(KAERI)
- P01D07 Development of Double Rotation C-Scan Program for the Visualization of a Reactor Core and In-vessel Structures in SFR**
Young-Sang Joo, Jin-Ho Bae, and Jae-Han Lee(KAERI)
- P01D08 Scaling Analysis and Heat Removal System Design of the Sodium Thermal-hydraulic Experimental Facility**
Jae-hyuk Eoh, Tae-ho Lee, Ji-woong Han, Yong-bum Lee, and Seong-O Kim(KAERI)
- P01D09 Design of a Sulfur-trioxide Decomposer Exchanging Heat between N₂ and Sulfuric-acid**
J. H. Kim, S. D. Hong, Y. W. Kim, K. Y. Lee, and Y. H. Chang(KAERI)
- P01D10 The Effects of Internal Components' Disposition on Thermal-Hydraulic Behaviors in Sodium Cooled Fast Reactor**
Ji-Woong Han, Jae-Hyuk Eoh, and Seong-O Kim(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 1 분과 E

원자로시스템기술 (Reactor System Technology)-Poster

좌 장 탁남일(Tak Nam-il), 송진호(Jin Ho SONG)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P01E01 Verification of a Fission Product Analysis Module in the GAMMA+ Code**
Churl Yoon, Jun Soo Yoo, Nam Il Tak, and Hong Sik Lim(KAERI)
- P01E02 Core Design for TRU Burner Reactors**
Hoon Song, Sang Ji Kim, and Yeong Il Kim(KAERI)
- P01E03 Core Design Studies for a 600 MWe TRU Burner Reactor**
Hoon Song, Sang Ji Kim, and Yeong Il Kim(KAERI)
- P01E04 Analysis on the Piping Length Effects of the Intermediate System in the Nuclear Hydrogen Production System**
Soonja Song, Jaeman Noh, and Jonghwa Chang(KAERI)
- P01E05 Preliminary Estimation on the Heat Recovery Method for Hydrogen Production by the High Temperature Steam Electrolysis**
JaeHwa Koh and DuckJoo Yoon(KEPRI)
- P01E06 Fuel Melting Behavior in KALIMER-600**
S. D. Suk and Y. B. Lee(KAERI)
- P01E07 The Program of the Second 10 Years Periodic In-Service Inspection in HANARO**
Young-Chul Park and Hoan-Sung Jung(KAERI)
Kwang-Sik Yoon(UMI)
- P01E08 Fatigue Crack Growth Tests for Mod.9Cr-1Mo Steel at High Temperature Conditions**
Jong-Bum Kim, Chang-Gyu Park, Hyeong-Yeon Lee, and Jae-Han Lee(KAERI)
Bum-Joon Kim(SKKU)
- P01E09 Preconceptual Structure Design for Sodium-Cooled TRU Burner Reactors**
Chang-Gyu PARK, Jong-Bum KIM, and Sang-Ji Kim(KAERI)
- P01E10 Operating Experiences of a Gas-Bearing Circulator in a Small-scale Gas Loop**
Sung-Deok Hong, Chan Soo Kim, Dong-Un Seo, Yong-Wan Kim, and Jonghwa Chang(KAERI)

제 1 분과 F

원자로시스템기술(Reactor System Technology)

- GCR, Hydrogen and Power Cycle Technology

좌 장 김용완(Kim Yong Wan), 이찬복(Chan Bok Lee)

발표장소 향비파A

일 정 | 10. 30(금)

- 09:00 Numerical Analysis of the Fission Product Plate-out Distribution in the VAMPYR-I Experiment**
Jun Soo Yoo, Nam-il Tak, and Hong Sik Lim(KAERI)
- 09:20 Bypass Flow and Hot Spot Analysis for PMR200 Block-Core Design with Core Restraint Mechanism**
Hong Sik LIM and Min Hwan KIM(KAERI)
- 09:40 CFD Analysis for Hot Spot Fuel Temperature of Deep-Burn Modular Helium Reactor**
Nam-il Tak, Chang Keun Jo, Ji Su Jun, and Min-Hwan Kim(KAERI)
Francesco Venneri(Logos Technologies)
- 10:00 The Design and Analytical Validation of a C/C Composite Helium Heater for a VHTR Simulated Experimental Loop**
S. D. Hong, C. Yoon, H. S. Lim, Y. W. Kim, and J. H. Chang(KAERI)
- 10:20 Economic Analysis for Nuclear Hydrogen Production System Based on HyS Process**
Kyeong-Jin Yang, Ki-Young Lee, Tae-Hoon Lee, and Jong-Hwa Chang(KAERI)
- 10:40 Coffee Break**
- 11:00 Modeling of a High Temperature Sulfuric Acid Loop Using Aspen Plus**
DongUn Seo and G. C. Park(SNU)
S. D. Hong, C. S. Kim, J. H. Kim, Y. W. Kim, and J. H. Chang(KAERI)
- 11:20 Design Optimization of Upper Plenum of PBMR Using 3-D RANS Analysis**
Sang-Moon Lee and Kwang-Yong Kim(IHU)
- 11:40 Potential Improvements of Supercritical CO₂ Brayton Cycle by Modifying Critical Point of CO₂**
Woo Seok Jeong, Jeong Ik Lee, Yong Hoon Jeong, and Hee Cheon No(KAIST)

Ⅲ. 분과별 논제 및 발표자

제 1 분과 G

원자로시스템기술(Reactor System Technology)

- LWR and Power Cycle Technology

좌 장 서균렬(Kune Y. Suh), 방인철(Bang In Chel)

발표장소 항비파B

일 정 | 10. 30(금)

- 09:00 Automatic Power Control for Daily Load-following Operation Using Model Predictive Control Method**
Keuk Jong Yu and Han Gon Kim(KHNP)
- 09:20 Optimization of the CEDM Coil and Housing**
Jin Seok Park, Myoung Goo Lee, Hyun Min Kim, and In Young Kim(KOPEC)
- 09:40 A Preliminary Study on Criticality Evaluation of Corium Re-arranged in the 1400MW_{th} PWR Core Catcher**
Song Hyun Kim and Jong Kyung Kim(HYU) Chang Ho Shin(ITRS) Jin Ho Song(KAERI)
- 10:00 Soft-Sensing for the Feedwater Flowrate at PWRs Using a GMDH Algorithm**
Dong Su Kim, Sung Han Lee, and Man Gyun Na(CSU) Dong Hyuk Lim(KAERI)
- 10:20 Supercritical Carbon Dioxide Flowing up Vertical Small Tube**
Heung G. Yang(PHILOSOPHIA) Kune Y. Suh(SNU)

제 2 분과 A

원자로물리 및 계산과학(Reactor Physics and Computational Science) - 중성자수송 해석법(Neutron Transport Analysis Methodology)

좌 장 주한규(Han Gyu Joo), 노재만(Jae Man Noh)

발표장소 가야금A

일 정 | 10. 29(목)

- 09:00 Development of MUST(Multi-group Unstructured Geometry S_N Transport) Code**
Ser Gi Hong, Jong Woon Kim, and Young Ouk Lee(KAERI)
- 09:20 Implementation of the First Collision Source Method in a Three-Dimensional, Unstructured Tetrahedral Mesh, Discrete-Ordinates Code**
Jong Woon Kim, Ser Gi Hong, and Young-Ouk Lee(KAERI)
- 09:40 Transport Lattice Code KARMA 1.1**
Kang-Seog Kim, Ser Gi Hong, Jin Young Cho, and Jae Seung Song(KAERI)
- 10:00 Development of 3-D Transient Reactor Analyzer Using ASTRA, THALES, and ROPER Codes**
G. W. Lee, J. M. Choi, J. S. Lim, and J. I. Yun(KNF)
- 10:20 Validation of Kinetics Parameter Calculation Capability of McCARD**
Hyung Jin Shim and Yonghee Kim(KAERI)
Chang Hyo Kim(SNU)
- 10:40 Coffee Break**
- 11:00 A Feasibility Study of CMFD Acceleration in Monte Carlo Eigenvalue Calculation**
Min-Jae Lee and Han Gyu Joo(SNU)
Deokjung Lee and Kord Smith(Studsvik Scandpower Inc.)
- 11:20 2-D Extension of the Global-Local Iteration Method with Homogenization by Monte Carlo Based on Non-Zero Leakage Spectra**
Nam Zin Cho, Sunghwan Yun, and Jaejun Lee(KAIST)
- 11:40 Initial Assessment of Parallelization of Monte Carlo Calculation Using Graphics Processing Units**
Sung-hoon Choi and Han Gyu Joo(SNU)

Ⅲ. 분과별 논제 및 발표자

제 2 분과 B

원자로물리 및 계산과학 (Reactor Physics and Computational Science)-Poster

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P02B01 A Comparative Evaluation of NDR&PSAR Using the CASMO-3/MASTER Code System**
Jeoung Hun Sim and Han Gon Kim(KHNP)
- P02B02 A Preliminary Study on the Reuse of the Recovered Uranium from the Spent CANDU Fuel Using Pyroprocessing**
C. J. Park, S. H. Na, J. H. Yang, K. H. Kang, and J. W. Lee(KAERI)
- P02B03 Conceptual Nuclear Design of a 10 MW Research Reactor with MTR Type Fuel Assemblies**
Chul Gyo Seo, Young-Kyou Jeon, and Soo-Youl Oh(KAERI)
- P02B04 An Analysis of Fuel Region to Region Dancoff Factor with the Random Mixture Effects of Moderator and Fuel Pebbles**
Song Hyun Kim, Hong-Chul Kim, and Jong Kyung Kim(HYU)
Jae Man NOH(KAERI)
- P02B05 The Coventional and the Partial Current Based Unstructured Coarse Mesh Finite Difference Method on NEWT**
Kang-Seog Kim(KAERI)
Matthew A. Jessee and Mark D. DeHart(Oak Ridge National Lab..)
- P02B06 Decay Heat Analysis of a TRU-fueled Deep Burn VHTR Core**
Hyun Chul Lee, Chang Keun Jo, Yonghee Kim, and Jae Man Noh(KAERI)
- P02B07 A Study on Modeling the Plate Geometry Cells of the ZPPR-15A Critical Experiments**
Sang Ji Kim and Yeong-il Kim(KAERI)
Won Sik Yang(ANL)
- P02B08 Assessment of Loss-of-Coolant Effects on Pressurized Heavy Water Reactors**
Won Young Kim and Joo Hwan Park(KAERI)
Bong Ghi Kim(KOPEC)
- P02B09 Comparative Study on Incineration Effect of HLW Isotopes in Fast Reactors**
Young-Lim Shin and Myung-Hyun Kim(KHU)
- P02B10 Implementation of Multigroup Calculation for Commercial Reactor Core**
Jooil YOON, Jaehak KIM, and Changkyu LEE(KNF)

제 2 분과 C

원자로물리 및 계산과학(Reactor Physics and Computational Science)

- 원자로물리(Reactor Physics)

좌 장 김명현(Myung-Hyun KIM), 우승웅(Sweng Woong WOO)

발표장소 가야금A

일 정 | 10. 30(금)

- 09:00 Benefits of Low Boron Core Design Concept for PWR**
Aung Tharn Daing and Myung-Hyun Kim(KHU)
- 09:20 An Automated Calculation Program for the Axial Xenon Stability Index**
Woo Song Kim and Nam Zin Cho(KAIST)
Il Tak Woo and Sang Rin Shon(KNF)
- 09:40 Dual Reference Perturbation Method for Fast Loading Pattern Evaluation**
Tong Kyu Park, Han Gyu Joo, and Chang Hyo Kim(SNU)
- 10:00 A Packing Treatment of Stochastic Geometry in Pebble-bed Core with Monte Carlo Code MCNP**
Hong-Chul KIM, Songhyun Kim, and Jong Kyung KIM(HYU)
Jae Man NOH(KAERI)
- 10:20 Improvements on MERIT 1.1 and SUBDATA 1.1 and a New Procedure for Resonance Integral Adjustment**
Kang-Seog Kim, Ser Gi Hong, and Jae Seung Song(KAERI)
- 10:40 Coffee Break**
- 11:00 A Direct Iteration Method Using Resonance Integral Table for the Self-Shielding Calculations**
Ser Gi Hong, Kang-Seog Kim, and Jae Seung Song(KAERI)
- 11:20 Examination of Triangle-based Polynomial Expansion Nodal Method in Fast Reactor Analysis**
Moo Hoon Bae and Han Gyu Joo(SNU)
- 11:40 Improvement of Fission Product Cross Section Generation Procedure for Sodium Cooled Fast Reactor Depletion Analysis**
Jaewoon Yoo, Sang-Ji Kim, and Yeong-il Kim(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 3 분과 A

방사성폐기물관리 (Radioactive Waste Management)

좌 장 유길성(You Gil Sung), 최희주(Heui-Joo CHOI)

발표장소 항비파B

일 정 | 10. 29(목)

09:00 Safety Aspects of the PRIDE Facility

Gil-Sung You, il-Je Cho, Won-Myung Choung, Eun-Pyo Lee, Dong-Hee Hong, Won-Kyung Lee, and Jeong-Hoe Ku(KAERI)

09:20 A Spectral Active Material Interference in the Electrical Conductivity of the Internal Electrolyte and the Potential Shift of the Ag/AgCl Electrode

Myung-Hee Yun, Jei-Won Yeon, Jaesik Hwang, and Kyuseok Song(KAERI)

09:40 Preparation and Crystallographic Characterization of Ni-Zn-Fe Mixed Oxide for the Development of CRUD Analysis System Using a Laser Induced Breakdown Spectroscopy

Sang-Hyuk Jung, Jei-Won Yeon, Jaesik Hwang, Euo-Chang Jung, and Kyuseok Song(KAERI)

10:00 Numerical and Experimental Approaches for Residual Actinide Recovery Process Development

Judong Bae, Byung Gi Park, Hyo On Nam, Sin Kim, Bong Soo Lee, Kwang Hong, Hee Kwon Ku, Bum Young Jung, and Il Soon Hwang(SNU)

제 3 분과 B

방사성폐기물관리 (Radioactive Waste Management)-Poster

좌 장 송규석(Song Kyuseok), 최왕규(Wang Kyu Choi)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P03B01 A Biosphere Assessment: Influence due to Geosphere-Biosphere Interfaces**
Youn-Myoung Lee and Yongsoo Hwang(KAERI)
- P03B02 Laser Decontamination of Type 304 Stainless Steel Contaminated with Co^{2+} and CeO_2**
Hui-Jun Won, Byambatseren Baigalmaa, Jei-Kwon Moon, Chong-Hun Jung, and Kune-Woo Lee(KAERI)
- P03B03 Verification Plan for the Concrete Temperature of the MACSTOR/KN-400 Module under Transient State Considering Actual Operating Conditions**
Kyung-Ho Lee and Jeong-Eun Park(KHNP)
- P03B04 Development of Washing Technology for a Radioactive Concrete Particle**
Gye-Nam Kim, Wang-Kyu Choi, Byung-Yeon Min, Min-Woo Lee, Kune-Woo Lee, and Un-Soo Chung(KAERI)
- P03B05 Criticality Analysis of High Density Storage Rack for Fresh Fuel Assemblies**
Gang-Ug Lee, D. G. Lee, J. H. KO, and J. H. Park(KONES Co., Ltd)
S. Y. Shin(KNF)
- P03B06 Accident Analysis of High Density Storage Rack for Fresh Fuel Assemblies**
Ki-Jong Jang, M. J. Lee, H. U. Jin, and J. H. Park(KONES Co., Ltd)
S. Y. Shin(KNF)
- P03B07 Structural/Seismic Analysis of High Density Storage Rack for Fresh Fuel Assemblies**
Han-Uk Jin, W. T. Song, J. H. Park, and J. S. Kim(KONES Co., Ltd)
S. Y. Shin(KNF)
- P03B08 The Study on Isotopic Inventory Estimations of LWR Fuel Using SCALE5**
Jae Cheol Kim, Hyun Ju Na, Tae Young Han, Yong Suk Lee, and Byung Chul Lee(FNCTECH)
- P03B09 Characteristics Solidified Cement Waste Using Heavy Concrete and Light Concrete Paste Generated from KRR-2 and UCP**
B. Y. Min, W. K. Choi, G. N. Kim, and K. W. Lee(KAERI)

Ⅲ. 분과별 논제 및 발표자

제3분과 C

방사성폐기물관리 (Radioactive Waste Management)-Poster

좌 장 이연명(Youn-Myoung Lee), 류우석(Woo Seog RYU)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P03C01 The Effect of Molybdenum on the Uranium Dioxide Microstructure**
Daehyun Kim, Yang Soon Park, Soon Dal Park, Jong-Goo Kim, Yeong-Keong Ha, and Kyuseok Song(KAERI)
- P03C02 Interpretation of Radiounclide-migration in the Unsaturated Zone**
Byeong-IL Yang, Gyu-Nam Kim, Jei-Kwon Moon, Kune-Woo Lee, and Un-Soo Chung(KAERI)
- P03C03 Preparation of SiO₂-KCoFC Composite Ion-exchanger for Removal of Cs in the Soil Decontamination Waste Solution**
Jung-Joon LEE, Jei-Kwon MOON, and Kune-Woo LEE(KAERI)
- P03C04 Micro X-ray Diffraction Analysis for Spent Fuel of Burn-up 41,000 MWd/tU**
Yang-Soon Park, Hang-Seok Seo, Yeong-Keong Ha, and Kyuseok Song(KAERI)
- P03C05 Investigation of Chemical Reactivity between Cs-U-O Compounds and Zr Materials**
Jong-Goo Kim, Yang-Soon Park, Yeong-Keong Ha, and Kyuseok Song(KAERI)
- P03C06 The Geological Disposal Concepts for the Metal Wastes from Spent Fuel Recycling Process in KOREA**
Jong Youl Lee, Dong Geun Cho, Min Soo Lee, Heui Joo Choi, and Jong Won Choi(KAERI)
- P03C07 Development of Non-water Cooling Induction Coil of Ingot Casting Equipment for Uranium Deposits**
Yoon-Sang Lee, Choon-Ho Cho, Sung-Ho Lee, and Hansoo Lee(KAERI)
- P03C08 Structural and Thermal Properties of the Poly(styrene-ethyl acrylate) Polymeric Scintillation Material for Surface Radioactive Contamination Measurement**
Ho-Sang Hwang, Bum-Kyoung Seo, and Kune-Woo Lee(KAERI)
- P03C09 Investigation to Radioactive Contamination of Water Pool According to Take in/out Radioactivein Substance in IMEF**
Ung Sup Song, Hee Mun Kim, Yang Hong Jung, Woo Suk Ryu, and Sang Bok Ahn(KAERI)

제 4 분과 A

핵연료 및 원자력재료(Nuclear Fuel and Materials)

- 핵연료 성능(Fuel Performance)

좌 장 양재호(Yang, Jae Ho), 유종성(Yoo, Jong Sung)

발표장소 가야금C

일 정 | 10. 29(목)

09:00 Investigation of High Burnup Structure Evolution in UO₂ Nuclear Fuel Using Potts Model Based on Dislocation Density

Jae-Yong Oh, Yang-Hyun Koo, and Byung-Ho Lee(KAERI)

09:20 An Investigation on the Monte-Carlo Simulation Method for the Hold-down Force and Margin Calculation

Sang-Youn Jeon, Won-Jun Choi, and Hyeong-Koo Kim(KNF)

09:40 Advanced Mn-base Additives Doped-UO₂ Pellets for High Performance and High Burn-up LWR Fuel Applications

Jae Ho Yang, Ki Won Kang, Jong Hun Kim, Young Woo Rhee, Dong-Joo Kim, Keon Sik Kim, and Kun Woo Song(KAERI)

10:00 Study on the High Temperature Oxidation and Mechanical Properties of Hydrided Zircaloy-4

K. W. Lee and S. I. Hong(CNU)

S. Y. Park, D. J. Park, J. Y. Park, and Y. H. Jeong(KAERI)

10:20 Measurement of the Thermal Diffusivity of UO₂ Using a Sapphire Tray for PIE in a Hot-Cell

Heemoon Kim, Dae Gyu Park, Sang Ho Na, Chang Je Park, Kweon Ho Kang, Yoo Byung Ok, Kim Gil Soo, and Sang-Bok Ahn(KAERI)

10:40 Coffee Break

11:00 The Cause of Failure of the REP Na-1 Fuel Rod in a Simulated RIA Accident

Young Suk Kim(KAERI)

11:20 Benchmark of COSMOS Code for PRIMO MOX Fuel

Byung-Ho Lee, Yang-Hyun KOO, Jae-Yong OH, Han-Soo KIM, Young-Wook TAHK, and Dong-Seong SOHN(KAERI)

11:40 Investigation of the Breakaway Oxidation Phenomenon for Zircaloy-4 Oxidized at 1000℃

Dong Jun Park, Jeong Yong Park, Byoung Kwon Choi, and Yong Hwan Jeong(KAERI)

12:00 Thermal Deformation Analysis of the Annular Fuel

Ju Seong Kim and Yong Soo Kim(HYU)

Yong Sik Yang and Je Geon Bang(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 4 분과 B

핵연료 및 원자력재료(Nuclear Fuel and Materials)

- 원자력신소재(Advanced Materials for Nuclear Power)

좌 장 백종혁(Jong-Hyuk Baek), 목용균(Mok, Yong Kyoon)

발표장소 가야금D

일 정 | 10. 29(목)

- 09:00 Performance Evaluation of Advanced Ferritic/Martensitic Steels for a SFR Fuel Cladding**
Jong-Hyuk Baek, C. -H. Han, W. -G. Kim, T. -K. Kim, J. -H. Kim, S. -H. Kim, and C. -B. Lee(KAERI)
- 09:20 Effect of Rolling Direction on the Creep Properties of the HANA-6 Strip**
Yong-Nam Seol, Yang-Il Jung, Byoung-Kwon Choi, Jeong-Yong Park, and Yong-Hwan Jeong(KAERI)
Sun-Ig Hong(CNU)
- 09:40 Effect of Tantalum on the Creep Properties of SFR Fuel Cladding Tube Materials**
Sung Ho Kim, Woo Gon Kim, and Chan Bock Lee(KAERI)
- 10:00 Creep Behaviors of Alloy 617 in Air and Helium Environments at 950℃**
Woo Gon Kim, Song Nan Yin, Gyeong-Geon Lee, and Yong Wan Kim(KAERI)
- 10:20 Master Curve Analysis of the SA508 Gr. 4N Ni-Mo-Cr Low Alloy Steels for Reactor Pressure Vessels**
Ki Hyoung Lee and Dang Moon Wee(KAIST)
Min Chul Kim and Bong Sang Lee(KAERI)
- 10:40 Coffee Break**
- 11:00 Effects of Postweld Heat Treatment on the Dissimilar Weldments of SA508 Gr. 4N Ni-Mo-Cr Low Alloy Steels**
Hong Eun Kim and Chang Hee Lee(HYU)
Min Chul Kim, Ho Jin Lee, and Keong Ho Kim(KAERI)
In Chul Jung and Jin Gwi Byeon(Doosan Heavy Co.,Ltd)
- 11:20 Effects of Tempering Temperature and Path on the Microsturctural and Mechanical Properties of ASTM Gr.92 Steel**
Yeon-Keun Kim and S. -I. Hong(CNU)
C. -H. Han, J.- H. Baek, S. -H. Kim, and C. -B. Lee(KAERI)
- 11:40 Comparison of the Fracture Toughness of Nuclear Grade Graphites at Ambient Temperature**
Eung-Seon Kim and Yong-Wan Kim(KAERI)

제 4 분과 C

핵연료 및 원자력재료(Nuclear Fuel and Materials)-Poster - 핵연료 I

좌 장 김선기(KIM SUN KI), 서정민(Suh, Jung Min)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P04C01 Study on Fabrication and Characterization of Nano Structured ZrO_2 thin Films for Cladding of Advanced Light Water Reactor**
Seung Hyun Jee, Soo Ho Kim, and Young Soo Yoon(YSU)
Jong Hyuk Baek and Jun Hwan Kim(KAERI)
- P04C02 A Study of Parameters Affecting Debris Filtering Effectiveness**
Kwang-Ho Yun, Jin-Seok Lee, Joon-Kyoo Park, Yong-Hwan Kim, and Kyeong-Lak Jeon(KNF)
Ki-Young Kim and Sung-Tae Yang(KHNP)
- P04C03 Thermal Diffusivity Evaluation of U-Zr Alloys as a Surrogate Metallic Fuel for SFR**
Sun-Ki Kim, Jong-Tak Lee, Seok-Jin Oh, Young-Mo Ko, Ki-Hwan Kim, Youn-myung Woo, Ho-Jin Ryu, Chan-Bock Lee, and Jong-Hun Kim(KAERI)
- P04C04 Temperature Effect on the Dimensional Change of Zirconium Alloy Grid**
Oh-Hyun Kwon, Jong-Il Choi, Sang-Yoon Jeon, Jae-Ik Kim, and Kyeong-Lak Jeon(KNF)
- P04C05 Thermal Properties of $MnO-Al_2O_3$ Doped UO_2 Fuel Pellets**
Ki Won Kang, Jae Ho yang, Young Woo Rhee, Dong-Joo Kim, Jong Heon Kim, Keon Sik Kim, and Kun Woo Song(KAERI)
- P04C06 Effects of Rare Earth Elements on the Surface Interaction of U-Zr-Ce Metallic Fuel**
Ho Jin Ryu, Seok Jin Oh, Chong Tak Lee, Young Mo Ko, Yoon Myung Woo, and Chan Bock Lee(KAERI)
- P04C07 FCCI Barrier Performance of a Nitrided Cr Plating Layer**
Ho Jin Ryu, Seong Woo Yang, Jun Hwan Kim, Jin Sik Cheon, Byoung Oon Lee, and Chan Bock Lee(KAERI)
- P04C08 Numerical Prediction of Dual-Cooled Annular Fuel Temperature during Control Rod Ejection Accident in OPR1000**
Chan-Eun Park, Wang-Kee In, Soo-Hyung Yang, Tae-Hyun Chun, and Kun-Woo Song(KAERI)
- P04C09 Experimental Characteristic Analysis of 4x4 Partial Supporting Structures for a Dual-Cooled Fuel**
Young-Ho Lee, Jae-Yong Kim, Kang-Hee Lee, Kyung-Ho Yoon, Heung-Seok Kang, and Hyung-Kyu Kim(KAREI)

Ⅲ. 분과별 논제 및 발표자

제 4 분과 D

핵연료 및 원자력재료(Nuclear Fuel and Materials)-Poster - 핵연료 II

좌 장 윤경호(Yoon Kyung-Ho), 김영민(Kim Young Min)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P04D01 Design of an Instrumented Fuel Capsule(09F-08K) for an Irradiation Test of the Double Cladding Fuel Rods at HANARO**
Jaemin Sohn, Jongmyung Oh, Sooyeol Oh, Myunghwan Choi, Yoontaeg Shin, Sungjae Park, Mansoon Cho, Keenam Choo, and Youngki Kim(KAERI)
- P04D02 Design of a Capsule for an Irradiation Test of TRISO Fuels in Compact Form**
Moon-Sung Cho, Y. M. Kim, and B. C. Lee(KAERI)
- P04D03 The Design of Annular Fuel Arrays for a High-Power-Density PWR**
C. H. Shin, W. K. In, D. S. Oh, and T. H. Chun(KAERI)
- P04D04 Stress Analysis for Fuel Pellet with Missing Pellet Surface**
J. S. Lee, J. S. Yoo, H. K. Kim, K. J. Kim, and K. L. Jeon(KNF)
D. Mitchell and Y. Aleshin(Westinghouse)
- P04D05 A Comparative Study on Control Element Assembly Thermal Characteristics**
J. H. Kim, S. Y. Jeon, K. S. Lee, and H. K. Kim(KNF)
- P04D06 A Case Study of Fuel Failure Fission Product Escape Rate in Conjunction with Rod Power and Fuel defect Size Using the CHIRON and CADE Codes**
Ki Young Kim and Sung Tae Yang(KHNP)
- P04D07 A Fuel Performance Analysis of a 600 MW_{th} DB-MHR Fuel**
Kim Young Min, C. K. Jo, Y. H. Kim, J. M. Noh, and M. S. Cho(KAERI)
F. Venneri(Logos Technologies, Inc)
- P04D08 In-Research Reactor Tests for SCWR Fuel Verifications**
Kyu-Tae Kim(DGU)
Sung-Man Bae and Seung-Ryul Hong(KEPRI)
- P04D09 Stress Linearization and Strength Evaluation of the BEP's Flow Plates for a Dual Cooled Fuel Assembly**
JaeYong Kim, KyungHo Yoon, HeungSeok Kang, YoungHo Lee, KangHee Lee, and HyungKyu Kim(KAERI)

제 4 분과 E

핵연료 및 원자력재료(Nuclear Fuel and Materials)-Poster - 핵연료 III

좌 장 구양현(Y. H. Koo), 이병호(B. H. Lee)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P04E01 Mechanical Properties and Structures of Pyrolytic Carbon Coating Layer in HTR Coated Particle Fuel**
Young-Woo Lee, Young Min Kim, Woong Ki Kim, and Moon Sung Cho(KAERI)
- P04E02 Development of a Reinforced Support Grid with Truss Structure to Improve the Lateral Impact Load**
K. H. Yoon, H. K. Kim, J. Y. Kim, H. S. Kang, K. H. Lee, and Y. H. Lee(KAERI)
- P04E03 Temperature Calculation on Annular Fuel Pellet by Finite Difference Method**
Yong Sik Yang, Je Geon Bang, Dae Ho Kim, Sun Ki Kim, Ik Sung Lim, and Kun Woo Song(KAERI)
- P04E04 Design of Fuel Bundle Welding Equipment Using a Remote Mock-up Test**
Soo-Sung Kim, Geun-Il Park, and Jung-Won Lee(KAERI)
- P04E05 Load Effect in High Temperature on Dimensional Change of Annular Pellet**
Dong-Joo Kim, Young Woo Rhee, Jong Hun Kim, Jae Ho Yang, Ki Won Kang, and Keon Sik Kim(KAERI)
- P04E06 Uranium Deposition on the Liquid Cadmium Electrode Depending on the Stirring Methods**
Si-Hyung Kim, Seungwoo Paek, Yongju Jung, Joon-Bo Shim, Sang-Woon Kwon, Kwang-Rag Kim, and Do-Hee Ahn(KAERI)
Dal-Seong Yoon(UST)
- P04E07 Development of System Dynamics Model for Evaluating the Economics of an Advanced CANDU Fuel**
Jong Yeob Jung and Joo Hwan Park(KAERI)
- P04E08 Density Measurement of Outer Pyrolytic Carbon Layers of Simulated Coated Particles by Using a Density Gradient Column**
Woong Ki Kim, Young Woo Lee, Young Min Kim, Yeon Ku Kim, Seung Chul Oh, Kyung Chai Jeong, and Moon Sung Cho(KAERI)
- P04E09 Core Material Preparation of TRISO Coated Particle in HTGR Fuel**
Jeong Kyung Chai, Kim Yeon Ku, Oh Seung Chul, Kim Woon Ki, Kim Young Min, Lee Young Woo, and Cho Moon Seoung(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 4 분과 F

핵연료 및 원자력재료(Nuclear Fuel and Materials)-Poster - 원자력재료 I

좌 장 주기남(Choo Kee-Nam), 권준현(Kwon Junhyun)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P04F01 Creep-Fatigue Life with Hold Time for Modified 9Cr-1Mo**
Kim Dae Whan and Kim Yong Wan(KAERI)
Oh Tae Young and Baik Kyeong Ho(CNU)
- P04F02 Design and Thermal Analysis of an LBE Capsule Mockup**
Y. H. Kang, S. Y. Chon, S. J. Park, M. H. Choi, M. S. Cho, and K. N. Choo(KAERI)
- P04F03 Effect of Irradiation Condition on the Isochronal Annealing of Fe: Kinetic Monte Carlo Simulation Approach**
Gyeong-Geun Lee and Junhyun Kwon(KAERI)
- P04F04 Order-disorder Reaction in Ni₂Cr Alloy**
SungSoo Kim(KAERI)
- P04F05 Evolution of Radiation Induced Dislocation Loop in Low Carbon Mn-Ni-Mo Steel**
Hyung-Ha Jin, Chansun Shin, and Junhyun Kwon(KAERI)
- P04F06 Fretting Wear Investigation of Alloy 690 Against Flexible Material Remained inside Secondary Environment in Steam Generator**
Jeong-Keun Lee and Chi-Yong Park(KEPRI)
- P04F07 Relationship between Microstructure and Ductility Dip Cracking Resistance of Alloy 600/690 Weld Metals**
Jae Yong Ryu and Chang Hee Lee(HYU)
Min Chul Kim, Ho Jin Lee, and Keoung Ho Kim(KAERI)
Kwang Soo Park and Deog Nam Shim(Doosan Heavy Co.,Ltd)
- P04F08 Irradiation Tests of High Temperature Materials for Gen IV VHTR Program in HANARO**
K. N. Choo, M. S. Cho, Y. T. Shin, W. S. Ryu, and Y. K. Kim(KAERI)
- P04F09 Irradiation Test Plan for Alloy 690 Steam Generator Tube Material of SMART in HANARO**
K. N. Choo, M. S. Cho, J. S. Park, W. J. Lee, and Y. K. Kim(KAERI)

제 4 분과 G

핵연료 및 원자력재료(Nuclear Fuel and Materials)-Poster - 원자력재료 II

좌 장 김동진(Kim Dong-Jin), 송근우(K. W. Song)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P04G01 Evaluation of the Temper Embrittlement in SA508 Gr. 4N Low Alloy Steel with Ni, Cr Contents Variation**
Sang Gyu Park and Dang Moon Wee(KAIST)
Min-Chul Kim and Bong Sang Lee(KAERI)
- P04G02 An Analysis of Safety and Integrity for the Thermal Media of a Capsule for High-Temperature in HANARO**
M. S. Cho, K. N. Choo, Y. T. Shin, J. M. Sohn, S. J. Park, Y. H. Kang, and Y. K. Kim(KAERI)
- P04G03 Effect of Microstructural and Environmental Factors on IASCC of PWR Core Internals by Statistical Analysis**
Sung Woo Kim, Seong-Sik Hwang, and Hong Pyo Kim(KAERI)
- P04G04 Annealing Effect on Corrosion Behavior of the Beta-Quenched HANA Alloy**
Hyun-Gil Kim, Il-Hyun Kim, Byung-Kwan Choi, Sang-Yoon Park, Jeong-Yong Park, and Yong-Hwan Jeong(KAERI)
- P04G05 Determination of Dislocation Densities Using Transmission Electronic Microscopy and Positron Annihilation Spectroscopy**
Junhyun Kwon, Yong-Bok Lee, and Jung-Ki Shin(KAERI)
- P04G06 Heat Loss Effects of Laser Flash Method for Low Thermal Diffusivity Materials**
Daegy Park, Heemoon Kim, Seungje Baik, Kiha Kim, Sangbok Ahn, and Wooseok Ryu(KAERI)
- P04G07 Optimum Frequency for Eddy Current Testing Method to SMART SG Tubes**
Yoon-Sang Lee, Hyun-Kyu Jung, and Yun-hang Choung(KAERI)
- P04G08 The Design Concept of a Steam Generator Cassette Mock-Up for ISI of Helical Tubes in SMART Steam Generator**
Yun-hang Choung, Dong-ok Kim, Jin-seok Park, and Won-jae Lee(KAERI)
- P04G09 SCC Behavior of Alloy 690 in Leaded Aqueous Solution**
Dong-Jin Kim, Hyuk Chul Kwon, Seong Sik Hwang, and Hong Pyo Kim(KAERI)
- P04G10 Consideration of the Schmid Factor on Creep Behaviors of the HANA-6 Strip**
Yang-Il Jung, Yong-Nam Seol, Byoung-Kwon Choi, Jeong-Yong Park, and Yong-Hwan Jeong(KAERI)
Sun-Ig Hong(CNU)

Ⅲ. 분과별 논제 및 발표자

제 4 분과H

핵연료 및 원자력재료(Nuclear Fuel and Materials)
- 경년열화(Aging Issues)

좌 장 황성식(Hwang Seong-Sik), 장창희(Changheui Jang)

발표장소 가야금C

일 정

10. 30(금)

09:00	Cooling Effect on Ductility of Zircaloy-4 Cladding after a LOCA-simulated Test Il-Hyun Kim, Hyun-Gil Kim, Byung-Kwan Choi, Jeong-Yong Park, and Yong-Hwan Jeong(KAERI)
09:20	Crack Growth Rate of Zirconium Alloys with Temperature Young Suk Kim, Sung Soo Kim, and Dae Whan Kim(KAERI)
09:40	Positron Annihilation Lifetime Spectroscopy of Vacancy-Type Defects in Cold-Worked Stainless Steel 316 Jung-Ki Shin and Junhyun Kwon(KAERI)
10:00	Electron Irradiation Effects on the 316 Stainless Steel Yongbok Lee and Junhyun Kwon(KAERI)
10:20	Analysis of a NiO Precipitates in the Crud Using EPMA Yanghong Jung, Heemoon Kim, Byungok Yoo, and Sang-Bok Ahn(KAERI)
10:40	Coffee Break
11:00	Comparative Analysis of Electrochemical Noise Generated during SCC Initiation and Propagation of Nickel-based Alloys for SG Tubing Sung Woo Kim and Hong Pyo Kim(KAERI)
11:20	Grain Boundary Properties of PWSCC Cracks in Alloy 600 Yun Soo Lim, Hong Pyo Kim, Hai Dong Cho, and Han Hee Lee(KAERI)
11:40	Relation between PWSCC and Residual Stress on Alloy 600 Nozzle of a PWR Seong Sik Hwang, Yun Soo Lim, Jangyul Park, and Hong Pyo Kim(KAERI)

제 4 분과 I

핵연료 및 원자력재료(Nuclear Fuel and Materials)

- 핵연료집합체 및 기기건전성(Integrity of Fuel Assemblies and Components)

좌 장 허도행(Hur Do-Haeng), 정명조(Myung Jo Jhung)

발표장소 가야금D

일 정 | 10. 30(금)

09:00 Time-Dependent Residual Stress Measurements in a Severe Thermo-Mechanical Deformed Metal Using Neutron Diffraction

Wan Chuck Woo(KAERI)

Zhili Feng, Camden R. Hubbard, Stan. A. David, and Xun-Li. Wang(Oak Ridge National Lab.)

Hahn. Choo(Tennessee Univ.)

09:20 International Round-Robin Test Results for Dissimilar Metal Weld(DMW)

Sung-Sik Kang, Kyung-Jo Kim, and Hae-Dong Jung(KINS)

09:40 Data-Based Models Predicting Residual Stress in the Welding Zone of Dissimilar Metals and Their Uncertainty Analysis

Sim Won Lee, Man Gyun Na, and Jin Weon Kim(CSU)

Dong Hyuk Lim and In Ho Bae(KAERI)

10:00 Mechanical Characteristic Study for Mid Grid Number Effect on Small Size Fuel Assembly

Dong Geun Ha, Nam Gyu Park, Jung Min Suh, and Kyeong Lak Jeon(KNF)

10:20 Simulation of a Bow and Deposit Bridging between Steam Generator Tubes

Do Haeng Hur, Myung Sik Choi, Kyung Mo Kim, Jung Ho Han, and Deok Hyun Lee(KAERI)

10:40 Coffee Break

11:00 Dynamic Characteristics of Cylindrical Shells Considering FSI

Myung Jo Jhung and Yong Ho Ryu(KINS)

11:20 Diametral Creep Prediction of the Pressure Tubes in CANDU Reactors Using Fuzzy Neural Networks

Sung Han Lee, Young Gyu No, and Man Gyun Na(CSU)

Jae Yong Lee(KEPRI)

Changheui Jang and Donghoon Kim(KAIST)

11:40 Development of CANDU Spent Fuel Sipping System

Jong Y. Park, Yong C. Kim, and Tae Y. Choi(KNF)

12:00 Effect of Zr-O-N thin Film Deposited by Metalorganic Chemical Vapor Deposition as a FCCI Barrier Layer for U-Zr-X Metal Fuel

Seung Hyun Jee, Soo Ho Kim, and Young Soo Yoon(YSU)

Jong Hyuk Baek and Jun Hwan Kim(KAERI)

Seong Sik Kang(KINS)

Ⅲ. 분과별 논제 및 발표자

제 5 분과 A

원자력열수력 및 안전 (Thermal Hydraulics and Safety)

발표장소 거문고A

일 정 | 10. 29(목)

좌 장 김한철(Han-Chul KIM), 김동하(Dong-Ha Kim)

09:00 Comparison of MELCOR and MAAP Calculation Results in Evaluating Risk of Early Fatality for OPR-1000 Plant

Do Sam Kim, Han Chul Kim, and Key Yong Sung(KINS)

09:20 Validation of ISAAC Thermal Hydraulic Model Against the RD-14M Experiment B9401

Dong Ha Kim, Hyung Tae kim, Soo Yong Park, and Sang Baik Kim(KAERI)

09:40 Hydrogen Analysis for a Station Blackout at Wolsong 2, 3&4

Han-Chul Kim and Ku-Young Chung(KINS)

Dong-Ha Kim(KAERI)

10:00 An Effort for Resolving a Current Hydrogen Issue in APR1400 in Case of a High-pressure Severe Accident

Jongtae Kim, Kwang Soon Ha, Seong-Wan Hong, and Sang-Baik Kim(KAERI)

10:20 Thermal-Hydraulic Behavior of the ATLAS Facility during 5% DVI Line Break

Ki-Yong Choi, Seok Cho, Hyun-Sik Park, Kyoung-Ho Kang, Nam-Hyun Choi, Yeon-Sik Kim, and Won-Pil Baek(KAERI)

좌 장 방광현(Kwang-Hyun BANG), 송진호(Jin-Ho SONG)

10:40 Coffee Break

11:00 Cold Leg SBLOCA Simulation Test with the ATLAS

Seok Cho, Ki-Yong Choi, Hyun-Sik Park, Kyoung-Ho Kang, Nam-Hyun Choi, Yeon-Sik Kim, and Won-Pil Baek(KAERI)

11:20 Summary of LBLOCA Reflood Tests by Using the ATLAS

Hyun-Sik Park, Ki-Yong Choi, Seok Cho, Kyoung-Ho Kang, Nam-Hyun Choi, Yeon-Sik Kim, and Won-Pil Baek(KAERI)

11:40 Experimental Investigation of Natural Circulation in Regional Energy Reactor-10MW_{th}

Byeong-Il Jang and Gyoo-Dong Jeun(HYU)

Moo-Hwan Kim(POSTECH)

제 5 분과 B

원자력열수력 및 안전 (Thermal Hydraulics and Safety)

좌 장 방영석(Yeong-Seok Bang), 최철진(Chul Jin Choi)

발표장소 거문고B

일 정 | 10. 29(목)

09:00 Sensitivity of Debris Transport on Containment Floor in Particle Tracking Model

Young Seok Bang, Gil-Soo Lee, Deog-Yeon Oh, and Sweng Woong Woo(KINS)

09:20 Experimental Investigation of the Trapping Efficiency of an Intermediate Trap of ECCS Recirculation Strainer

Chang Hyun KIM(KHNP)

Jae Seon CHO(FNC)

09:40 Effect of Containment Spray on Chemical Effect during Long-Term Cooling after Loss of Coolant Accident

Chang Hyun KIM(KHNP)

Byung Gi PARK(SCH)

10:00 Investigation on Chemical Effects in Post-LOCA for OPR1000 Plant

Han-Na Song, Moon-Youl Choi, and Yong Tae Kim(PNU)

Manwoong Kim(KINS)

10:20 A New Methodology for Recirculation Pool Debris Transport Evaluation at Sump Clogging Issue

J. Y. Park and M. W. Kim(KINS)

10:40 Coffee Break

11:00 Evaluation of Wash-down Debris Transport during LOCA for Recirculation Sump Performance of OPR-1000 Plant

Soon Joon Hong(FNC)

Manwoong Kim and Ju Yeop Park(KINS)

11:20 Sump Pool Flow Simulation during Fill-up Phase of LOCA Using on CFD for OPR1000 Plant

Kyung Sik Choi, Jong Pil Park, and Ji Hwan Joeng(PNU)

Manwoong Kim(KINS)

Ⅲ. 분과별 논제 및 발표자

제 5 분과 C

원자력열수력 및 안전 (Thermal Hydraulics and Safety)

좌 장 정재준(Jae-Joon JEONG), 정지환(Ji-Hwan JEONG)

발표장소 거문고C

일 정 | 10. 29(목)

- 09:00 Notes on the Mesh Handler and Mesh Data Conversion**
Sang Yong Lee and Chan Eok Park(KOPEC)
- 09:20 On the Form of Momentum Equations for Multi-Dimensional Two-Phase Flow**
Jae Jun Jeong, Han Young Yoon, Ik Kyu Park, and Hyoung Kyu Cho(KAERI)
- 09:40 Implementations of Three Models to Affect Strongly on Lateral Void Distribution Estimation in the CUPID**
Ik Kyu Park, Hyoung Kyu Cho, Han Young Yoon, and Jae Jun Jeong(KAERI)
- 10:00 The Application Strategy of Iterative Solution Methodology to Matrix Equations in Hydraulic Solver Package, SPACE**
Young W. Na, Chan E. Park, and Sang Y. Lee(KOPEC)
- 10:20 A Unified Version of Staggered and Collocated Hydraulic Solvers for the SPACE Code**
Chan Eok Park, Sang Yong Lee, and Eun Kee Kim(KOPEC)
- 10:40 Coffee Break**
- 11:00 Assessment of Boiling Heat Transfer Models for the SPACE Code**
K. D. Kim, K. Y. Choi, and S. K. Moon(KAERI)
K. C. Seo(ENESYS)
- 11:20 Interfacial and Wall Transport Models for SPACE-CAP Code**
Soon Joon Hong, Yeon Joon Choo, Tae Young Han, Su Hyun Hwang, and Byung Chul Lee(FNC)
Hoon Choi and Sang Jun Ha(KEPRI)
- 11:40 Development of a Non-condensable Gas Transport Model in the SPACE Code**
Myung Taek Oh, Chan Eok Park, and Gyu Cheon Lee(KOPEC)

제 5 분과 D

원자력열수력 및 안전 (Thermal Hydraulics and Safety)-Poster

좌 장 권태순(Tae-Soon KWON), 안승훈(Seung-Hoon Ahn)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

P05D01 Evaluation of the IRWST Design Load According to the Change of the POSRV

Y. J. Choi and B. H. Bae(KHNP)

C. H. Song(KAERI)

P05D02 Experimental and Analytical Study on the Lift Check Valve

Jaehyung Kim, C. S. Song, H. S. Kim, and S. C. Hong(KIMM)

W. H. Lee(SSV)

P05D03 Investigation of Viscosity of SiC Nanofluids for Nuclear Applications

Seung Won Lee, Sung Dae Park, Sa Ra Kang, and In Cheol Bang(UNIST)

P05D04 Experimental Study on Flow Dynamics of Air-Water Bubbly Flow in a Bundle Array

Seok-Kyu Chang, Bok-Deuk Kim, In-Cheol Chu, Dong-Jin Euh, and Chul-Hwa Song(KAERI)

P05D05 An Experimental Study on a Method of Computing Minimum Flow Rate

Yeon Sik Cho and Tae Hyun Kim(ENESYS)

Chang Hyun Kim(KHNP)

P05D06 Preliminary CFD Simulations for an Abnormal Phenomenon in the Liquid Zone Control System

Kwangho Lee(KEPRI)

Joon-suk Ji(KHU)

P05D07 Measurement of Air/Water Co-current Flow in a Large Slab

Dong-jin Euh, Byong-jo Yun, Byoung-uhn Bae, Chul-Hwa SONG, and Kyung-du Kim(KAERI)

P05D08 Preliminary Study on the Bubble Lift-off Diameter in a Vertical Subcooled Boiling Flow

In-Cheol Chu and Chul-Hwa Song(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 5 분과 E

원자력열수력 및 안전 (Thermal Hydraulics and Safety)-Poster

좌 장 최한림(Han-Lim CHOI), 설광원(Kwang-Won SEUL)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P05E01 Application of Water Packing Mitigation Scheme to the SPACE Code**
Jong Cheol Park, Chan Eok Park, and Gyu Cheon Lee(KOPEC)
- P05E02 Analysis of Condensation Phenomena in PAFS(Passive Auxiliary Feedwater System) Horizontal Heat Exchanger of APR+**
Byoung-Uhn Bae, Byong-Jo Yun, Sung-Won Bae, Ki-Yong Choi, and Chul-Hwa Song(KAERI)
Jong Cheon(KHNP)
- P05E03 Assessment of Flow Regime and Friction Modules in the SPACE Code**
Byoung Jae Kim, Soo Hyoung Kim, Kyung Doo Kim, Bub Dong Chung, and Hee Chel Kim(KAERI)
- P05E04 Development of a Code Analyzer for Thermal-hydraulic Analysis of Small Integral Reactor**
Yeon-Gun Lee, Jong-Won Kim, and Goon-Cherl Park(SNU)
- P05E05 FDS5 Simulation for OECD PRISME Fire Test of D00R PRS_D5**
Kyu Bok Lee(KOPEC)
Park, JongSeuk(KINS)
- P05E06 The Assessment of Fuel Channel Behavior in LOCA for CANDU NPP**
Kim Yun Ho and Choi Hoon(KEPRI)
- P05E07 The Development for Advanced Direct Vessel Injection in APR+**
Suk-Ho Lee, Chun-Jong, and Han-Gon Kim(KHNP)
- P05E08 Modeling of Control System and Protection System for the SKN1 Simulator V&V**
Jeong Kwan Suh, Myeong Soo Lee, Jin Hyuk Hong, and Do Hyun Hwang(KEPRI)
Su Hyun Hwang(FNC)
- P05E09 Development of the Verification and Validation Matrix for Safety Analysis Code SPACE**
Yo-Han Kim, Sang Jun Ha, and Chang-Keun Yang(KEPRI)

제5분과F

원자력열수력 및 안전 (Thermal Hydraulics and Safety)-Poster

좌 장 박찬억(Chan-Eok PARK), 최기용(Ki-Yong CHOI)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P05F01 Containment Behavior after End Fitting Failure Accident in CANDU-6 Plant**
Hoon Choi, Yun-ho Kim, and Kwangho Lee(KEPRI)
Sung-min Kim(KHNP)
- P05F02 CFD Analysis of a Very High Temperature Helium Heater in the VHTR Simulated Experimental Loop**
C. Yoon, S. D. Hong, J. M. Noh, Y. W. Kim, and J. H. Chang(KAERI)
- P05F03 Application of the MARS/CANDU Code to Safety Analyses of the Wolsong NPP's**
C. Yoon and B. D. Chung(KAERI)
S. H. Ahn and M. W. Kim(KINS)
- P05F04 Application of the RETRAN Safety Analysis Model to Increase the Safety Margin during Overpressure Transients**
Jong-Gwan Yoo and Tae-Hwa Hong(KHNP)
- P05F05 Preparation of Input Deck using MULTID Component to Model 3-Dimensional Reactor Pressure Vessel for KORI 2**
Doohyuk Kang and Jaeseung Suh(ENESYS)
Seunghoon Ahn and Yongjin Cho(KINS)
- P05F06 Analytical Validation of the Heat Conduction Model of the Core Heat Transfer Model in the TASS/SMR**
Seong Wook Lee, Hee Cheol Kim, Young Jong Chung, and Kyoo Hwan Bae(KAERI)
- P05F07 Comparison between Hydrodynamic Forces Derived from a Force-Balanced Method and a Momentum-Balanced Method**
Dong Keon Kim, Hyung Seok Kim, and Won Tae Kim(ENESYS)
- P05F08 Temperature behavior of Transmitter Room of HWR for the Accident Conditions of the Loss of Coolant in the Primary Circuit**
Seyun Kim, Dong Hyuk Lee, and Jae Yong Lee(KEPRI)
- P05F09 A Comparative Analysis for Control Rod Drop Accident in RETRAN DNB and CETOP DNB Model**
Chang-Keun Yang, Yo-Han Kim, and Sang-Jun Ha(KEPRI)
- P05F10 3D Flow Field in Hold-up Volume Tank of Advanced Pressurized Reactor 1400**
T. W. Kim, Y. S. Bang, B. G. Huh, and S. W. Woo(KINS)

Ⅲ. 분과별 논제 및 발표자

제 5 분과 G

원자력열수력 및 안전 (Thermal Hydraulics and Safety)-Poster

좌 장 황문규(Moon-Kyu HWANG), 하상준(Ha Sang-Jun)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P05G01 Validation of the Fuel Heat Transfer Model of the TASS-SMR Code with the Experimental Data**
Seong Wook Lee, Soo Hyung Kim, Young Jong Chung, and Kyoo Hwan Bae(KAERI)
- P05G02 Simplification of MATRA Code Input Parameters and Development of MATRA GUI**
Jeong-Hun Cha, Kyong-Won Seo, Hyuk Kwon, Byung-Marn Koh, and Dae-Hyun Hwang(KAERI)
- P05G03 Simulation of RD-14M Small Break LOCA Experiments by CATHENA Code**
Hyoung Tae Kim, Joo Hwan Park, and Sang Baik Kim(KAERI)
- P05G04 Comparison of Fuel Temperature Characteristics between Standard 37-element and CANFLEX-Fuel Bundles**
Jun Ho Bae, Yonghee Kim, Gyuhong Roh, and Joo-Hwan Park(KAERI)
- P05G05 Modification and Validation of the MARS Reflood Model Using FLECHT-SEASET 31504 Test**
Dong Gu Kang, Seung Hoon Ahn, and Yong Jin Cho(KINS)
Tong Soo Choi(KNF)
- P05G06 Development of CFD Analysis Methodology of Hydraulic Load Evaluation in POSRV Piping System**
Tae-hyeon. Kim, Jong-pil. Park, Won-tae. Kim, and Byung-sub. Han(ENESYS)
Young-jo. Choi(KHNP)
- P05G07 Analysis of the Natural Circulation Characteristics in the Primary Loop of the VISTA Facility for SMART by using the MARS Code**
Hyun-Sik Park, Ki-Yong Choi, Seok Cho, Sung-Jae Yi, Choon-Kyung Park, and Moon-Ki Chung(KAERI)
- P05G08 Pre-test Calculation of PKL III G3.1 Test**
Seung Wook Lee and Bub Dong Chung(KAERI)
- P05G09 Preliminary Assessment of the Interfacial Source Terms in SPACE Code**
Sunwon Bae, Jeong Woo Kim, Su Hyong Kim, and Kyung Du Kim(KAERI)

제 5 분과 H

원자력열수력 및 안전 (Thermal Hydraulics and Safety)-Poster

좌 장 박래준(Rae-Joon PARK)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P05H01 Dryout on Outer Spherical Vessel Lower Head with Streamlined Gap**
Sang W. Noh, Kyoung M. Kang, and Kune Y. Suh(SNU)
- P05H02 Development of the Ulchin 34 Melcor1.8.6 Model for Phenomenological Uncertainty Analysis in Level 2 PSA**
Gunhyo Jung and Jinyoung Lee(FNC)
Kwngil Ahn and Sooyong Park(KAERI)
- P05H03 An Evaluation of Triggering Timing for the TROI Tests**
Ik Kyu Park, Jong Hwan Kim, and Seong Wan Hong(KAERI)
- P05H04 Estimation of Electrical Power and Radio Frequency of an Induction Heater for Corium Melting Using a Cold Crucible**
Jong-Hwan Kim, Hwan-Yeol Kim, and Seong-Wan Hong(KAERI)
- P05H05 Evaluation on Entry Condition of the Severe Accident Management Guidance for OPR1000**
Rae-Joon Park and Seong-Wan Hong(KAERI)
- P05H06 Preliminary Analysis of the Total Loss of Feed Water for an Integral Type Reactor by Using SCDAP/RELAP5**
Rae-Joon Park, Kyoo-Whan Bae, Sang-Baik Kim, and Youngho Jin(KAERI)
- P05H07 Development of COCAT Code to Simulate the Corium Cooling Phenomena from the Bottom Injection**
Jong-Hwa Park, Hwan-Yeol Kim, Jong-Tae Kim, and Seong Wan Hong(KAERI)
- P05H08 Evaluation Methodology of External Corium Cooling System**
Kwang Soon Ha, Hwan Yeol Kim, Jongtae Kim, and Jong Hwa Park(KAERI)
- P05H09 Temperature Measurement of Molten Melt with High Melting Point in a Cold Crucible**
S. W. Hong, J. H. Kim, K. S. Ha, B. T. Min, J. H. Park, and S. H. Hong(KAERI)
- P05H10 Evaluation of Void Fraction Measurement Technique in TROI Experiments**
S. H. Hong, K. S. Ha, J. H. Kim, and S. W. Hong(KAERI)
- P05H11 Determination of Flame Acceleration Conditions within RCFC Ducts**
Young Seung LEE(KHNP)
Keo Hyoung LEE(FNC)

Ⅲ. 분과별 논제 및 발표자

제 5 분과 I

원자력열수력 및 안전 (Thermal Hydraulics and Safety)-Poster

좌 장 강대일(Daeil-II KANG), 임혁순(Hyuk-Soon Lim)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P05I01 A Preliminary Uncertainty Analysis of Phenomenological inputs Employed in MAAP Code Using the SAUNA System**
S. H. Park, S. Y. Park, K. R. Kim, and K. I. Ahn(KAERI)
- P05I02 Development of Common Cause Failure Analysis Program for Analyzing the ICDE CCF Events**
Dae Il Kang, Sang Hoon Han, and Mee Jung Hwang(KAERI)
- P05I03 Risk Assessment of Emergency Diesel Generator(EDG) Allowed Outage Time Extension**
Hyuk-Soon Lim and Doo-Hyun Kim(CNU)
- P05I04 Generation Risk Assessment Using Fault Trees and Turbine Cycle Simulation: Case Studies**
Gyunyoung Heo(KHU)
Jin Kyun Park(KAERI)
- P05I05 A Comparative Risk Assessment of Extended Integrated Leak Rate Testing Intervals**
Ji-Yong Oh, Seok-Won Hwang, and Byung-Sik Lee(KHNP)
- P05I06 Insights from the Probabilistic Safety Assessment Application to Surface Operations at the Preclosure Facilities**
Meejeong Hwang and Jong Tae Jung(KAERI)
- P05I07 The Alternative Design Features for Safety Enhancement in Shutdown Operation**
Hae Cheol Oh, Myung Ki Kim, Bag Soon Chung, and Mi Ro Seo(KEPRI)
- P05I08 Core Damage Event Tree Analysis for SFR-600 Level 2 PSA**
Soo Yong Park, Tae Woon Kim, Sang Hoon Han, and Kwi Seok Ha(KAERI)
- P05I09 The Application of RMTS, SFCP to APR+**
Taejin Kim, EuiJong Lee, and SangSeob Lee(KHNP)

제 5 분과 J

원자력열수력 및 안전 (Thermal Hydraulics and Safety)

좌 장 이재영(Jae Young LEE), 설광원(Kwang-Wan SEUL)

발표장소 거문고A

일 정 | 10. 30(금)

09:00 Experimental Investigation of Thermal Mixing Phenomena in an IRWST during a TLOFW Accident

C. K. Park, Y. J. Youn, H. G. Jun, and C. H. Song(KAERI)
K. K. Lee and H. J. Ko(KOPEC)

09:20 Experimental Study on Local Liquid Velocity and Temperature for Subcooled Boiling Flow in a Vertical Annulus

Byoung-Uhn Bae, Byong-Jo Yun, Dong-Jin Euh, and Chul-Hwa Song(KAERI)

09:40 Measurement of Subcooled Boiling Flow Characteristics in a Large Slab

Dong-Jin Euh, Byong-jo Yun, Byoung-uhn Bae, Chul-Hwa SONG, and Kyung-du Kim(KAERI)

10:00 An Experimental Study of Fullerene (C₆₀) Nano-fluids on Pool Boiling Conditions

Ai Melani, Shin Byongsu, and Soon Heung Chang(KAIST)

10:20 Identification of Two-phase Flow Pattern by Wavelet Analysis Technique Using Void Fraction Signals

Dong-Jin Euh and Chul-Hwa Song(KAERI)
Van-Thai Nguyen(UST)

10:40 Coffee Break

11:00 Preliminary Design of Large Scale Sodium Thermal-Hydraulic Test Facility

Tae-Ho Lee, Tae-Joon Kim, Jae-Hyuk Eoh, Hyeong-Yeon Lee, Jae-Han Lee, Ji-Young Jeong, Su-Ki Park, Ji-Woong Han, Yong-Hwan Yoo, and Yong-Bum Lee(KAERI)

11:20 Thermal-hydraulic Characteristics of the Printed Circuit Heat Exchanger(PCHE) in a Helium-Water Test Loop

In Hun Kim and Hee Cheon NO(KAIST)

11:40 OECD/NEA Experts Activities on the Application of CFD Codes to Nuclear Reactor Safety Problems: Issues and Future Direction

Chul-Hwa SONG(KAERI)
Han-Chul KIM(KINS)

Ⅲ. 분과별 논제 및 발표자

제 5 분과K	원자력열수력 및 안전 (Thermal Hydraulics and Safety)
좌 장 김길유(Kilyoo Kim), 최중수(Jongsoo Choi)	발표장소 거문고B

일 정 | 10. 30(금)

09:00	Implementation Status of Risk-Informed Application in KHNP Hyuk-Soon Lim, Myung-Su Kim, and Doo-Young Lee(KHNP)
09:20	Reliability of Multiple Redundant Systems in Consideration of Common Cause Failure Hyun Gook Kang and Seung-Cheol Jang(KAERI)
09:40	A Preliminary Study for the Analysis of PSA Success Criteria for Kori Units 3&4 Yeon Kyoung Bae and Ji-Yong Oh(KHNP) Jong Hyun Kim(PSI)
10:00	A Study on a Component RAW for a Supporting System Initiating Event Kilyoo Kim and SeungCherl Jang(KAERI)
10:20	Insights from Guideline for Performance of Internal Flooding Probabilistic Risk Assessment(IFPRA) Sun Yeong Choi and Joon-Eon Yang(KAERI)
10:40	Coffee Break
11:00	Cutset Quantification Error Evaluation for Shin-Kori 1&2 PSA Model Jongsoo Choi(KINS)
11:20	Advantages of a Dynamic RGGG Method in Qualitative and Quantitative Analysis Seung Ki Shin and Poong Hyun Seong(KAIST)
11:40	Development of New Framework for the Integrated Risk Assessment of All Modes/All Hazards Joon-Eon YANG, Sang-Hoo HAN, Kwang-II Ahn, Woo-Sik JUNG, and Ho-Gon LIM(KAERI)

제 5 분과 L

원자력열수력 및 안전 (Thermal Hydraulics and Safety)

좌 장 김인구(In-Koo KIM), 정법동(Bub-Dong CHUNG)

발표장소 거문고C

일 정 | 10. 30(금)

09:00 A Coupled Calculation of System Thermal-hydraulics and Three-dimensional Reactor Kinetics for a 12-Finger CEA Drop Event

J. J. Jeong, S. W. Lee, B. D. Chung, and J. Y. Cho(KAERI)
G. C. Lee and S. G. Chi(KOPEC)

09:20 TRACE5-patch01 Assessment of POSTECH Local Condensation Experiment

Young Jin Cho, Joo sung Kim, and Seung Hoon Ahn(KINS)

09:40 Study of the Possibility of Blocking the Safety Injection Signal Caused by High Differential Pressure between the Main Steam Lines

J. B. Lee(KHNP)

10:00 Discussion on RELAP5 and RETRAN3D Modeling for Passive Condensate Cooling Tank of Passive Auxiliary Feedwater System in APR+

Soon Il Chung, Min Ki Kim, and Soon Joon Hong(FNC)
Sang Hee Kang, Jong Cheon, and Han Gon Kim(NHNP)

10:20 MARS Assessment of RBHT Experimental Data

Gwang Hyeok Seo and Gyoo Dong Jeun(HYU)
Yong Jin Cho and Seung Hoon Ahn(KINS)

10:40 Coffee Break

11:00 MARS Code Assessment for the CCFL in the Nearly Horizontal Pipe

Seong-Su Jeon, Ji-Han Chun, and Goon-Cherl Park(SNU)

11:20 Safety Margin Assessment due to Ageing-Induced Thermal-hydraulic Effects for CANDU Reactors

Yong Won Choi and Un Chul Lee(SNU)

11:40 CFD Analysis of One-sided Heating on the First Wall of TBM

Jun-Soo Lee, Jin-Hwa Yang, and Goon-Cherl Park(SNU)

Ⅲ. 분과별 논제 및 발표자

제 6 분과 A

방사선이용 및 방호 (Radiation Utilization and Protection)

좌 장 김희령(Hee Ryoung Kim), 이갑복(Gab Bock Lee)

발표장소 은하수

일 정 | 10. 29(목)

09:40 Application Test of Element Correction Factors and Dose Conversion Factors for Extremity Dosimetry at Korean Nuclear Power Plants

Tae Young Kong and Hee Geun Kim(KEPRI)

Yong Min Ahn, Sang Gu Lee, Teag Min Jung, and Mi Kyung Yang(KHNP)

10:00 Research for Skin Radiation Damage Extent Assessment Methods

Ji Seok KIM and Kun-Woo CHO((KINS)

Jong Hwi JEONG and Jai Ki LEE(HYU)

10:20 The Radiation Level around the Research Reactor at the Daeduk Site

Hee Reyoung Kim, Young Hyun Cho, Wanno Lee, Kun Ho Chung, Mun Ja Kang, Chang Woo Lee, and Geun Sik Choi(KAERI)

10:40 Coffee Break

11:00 Oceanic Diffusion Coefficient around Wolsong Nuclear Power Plant Site

Gab-Bock Lee, Yang-Geun Chung, and Yang-Hee Yang(KEPCO)

11:20 Development of HYPERGAM for Ambient Gamma Radiation Monitoring

B. G. Park, N. S. Jung, and H. D. Choi((SNU)

C. S. Park(KINS)

11:40 Evaluation of Dose Distribution Using a Glass Dosimeter and a Gafchromic EBT Film in Gamma Irradiation Devices

Seungwoo Park, Haijo Jung, Kum Bae Kim, Sang Hun Shin, Kihong Son, Chang Yeol Lee, and Young Hoon Ji(KIRAMS)

제 6 분과 B

방사선이용 및 방호 (Radiation Utilization and Protection)-Poster

좌 장 김장렬(Jang-Lyul Kim), 하장호(Jang Ho Ha)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P06B01 Monte-Carlo Evaluations for Response of the Gamma-ray Spectrometer with Various Locations on Calibration Pads**
Suk-Hoon Kim and Ju-Youl Kim(FNC)
Hyeong-Ki Shin(KINS)
- P06B02 High Yield F-18 Target for KORTON-13 Cyclotron**
W. K. LEE, J. Y. SONG, J. Y. PARK, K. I. JUNG, and S. K. CHAE(SAMMach)
- P06B03 A Prototype of Radiation Imaging Detector Using Double-sided Silicon Strip Sensor**
H. O. Kim, D. H. Kah, H. J. Hyun, J. B. Bae, H. Park, and H. J. Kim(KNU)
- P06B04 Evaluation of Radiation dose on People Adjacent to Implant Patients during Brachytherapy for Prostate Cancer Using ^{192}Ir**
Junghoon Kim, SeongJin Ko, SeSik Kang, and Changsoo Kim(CUP)
- P06B05 Protective Activity of N-acetyl-L-cysteine(NAC) Against Cellular Oxidative Stress Induced by Radiation**
Min Han, Kyung Man Hyun, and Jin Kyu Kim(KAERI)
Mohammad Nili(DRRI)
Rouben Aroutiounian(Yerevan State Univ.,)
- P06B06 Effect of Mercuric Nitrate on Repair of Radiation-induced DNA Damage**
Agnieszka Panek and Antonina Cebulska-Wasilewska(HNINP)
Min Han and Jin Kyu Kim(KAERI)
- P06B07 An Overview of Effects of Space Radiation on the Electronics**
Sun-Tae Hwang, Dong-Kwan Shin, Young-Jong Son, and Jin-Hong Kim(TEKCIVIL)
- P06B08 Transfer Factors of ^{85}Sr and ^{137}Cs for Rice in Three Paddy Soils from the Wolsung Area**
Kwang-Muk Lim, Yong-Ho Choi, In Jun, Doo-Won Park, and Dong-Kwon Keum(KAERI)
- P06B09 Development of Active Portal Monitoring System for HANARO**
Kwang Pyo Hong, Jeong Hun Han, Dong Seok Park, Seung Wook Lee, Kye Hong Lee, and In Cheol Lim(KAERI)
- P06B10 Calculation of Measurement Uncertainty for The Scan Minimum Detectable Concentrations**
T. Y. Lee and B. H. Kim(KAERI)

Ⅲ. 분과별 논제 및 발표자

제6분과C

방사선이용 및 방호 (Radiation Utilization and Protection)-Poster

좌 장 한문희(Moonhee Han), 최선주(Sun Ju Choi)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P06C01 Progress of Neutron Discrimination System for Sonoluminescence**
Chan Kyu Kim and Gyuseong Cho(KAIST)
Hyunduk Kim(KIRAMS)
Ho-Young Kwak and Ilgon Ko(CAU)
- P06C02 DNAA Application for the Collected Environmental Samples**
Jong Hwa Moon, Jong Myoung Lim, Sun Ha Kim, and Yong Sam Chung(KAERI)
Gil Hoon Ahn(KINAC)
- P06C03 Investigation of Distribution of Elements in a Korean Ginseng by Using a Neutron Activation Method**
Yuna Lee, Gwang-Min Sun, Yong Sam Chung, and Young-Jin Kim(KAERI)
- P06C04 Simulation of Compton Suppression Gamma-ray Spectrometer by MCNPX**
Hoang Sy Minh Tuan and Gwang Min Sun(KAERI)
- P06C05 Characteristic Elemental Composition of Oil Pigments Using Instrumental Neutron Activation Analysis**
Yong-Sam Chung, Sun-Ha Kim, Kwang-Min Sun, Jong-Myung Lim, Jong-Hwa Moon, and Young-Jin Kim(KAERI)
Sung-Jin Lim, Ken Kim, and Yu-Na Song(NMCA)
- P06C06 Irradiation Effects of Electron Beam on Optical Fiber**
Jin Kyu Kim and Gyuseong Cho(KAIST)
Honggu Choi and Kyunghwan Oh(YSU)
Ho Jin Cho(Nucron Co. Ltd.,)
- P06C07 Development of Quantification Software Using Multi-analytical Methods for an Instrumental Neutron Activation Analysis: KAERI-NAA**
Gwang-Min Sun, Yuna Lee, and Jong-Hwa Moon(KAERI)
- P06C08 Construction of a Fast Neutron Generation Facility**
N. S. Jung, J. H. Kim, B. G. Park, and H. D. Choi(SNU)
- P06C09 A New Approach for Evaluating Charge Transport Properties of Semiconductor Detectors**
Kyung-O KIM and Jong Kyung KIM(HYU)
Soon Young KIM(ITRS)
Jang-Ho HA(KAERI)
- P06C10 Quadratic Regression-based Non-uniform Response Correction for Radiochromic Film Scanners**
Hae Sun Jeong and Chan Hyeong Kim(HYU)
Youngyih Han(SKKU)
Oyeon Kum(KNU)

제 7 분과 A

양자공학 및 핵융합기술 (Quantum Engineering and Nuclear Fusion)

좌 장 이동원(Lee, Dong Won), 권혁중(Kwon, Hyeok-Jung)

발표장소 은하수B

일 정 | 10. 29(목)

09:00 Qualification Test for Korean Mockups of ITER Blanket First Wall

Suk-Kwon Kim, Dong Won Lee, Young-Dug Bae, Bong Guen Hong, H. K. Jung, Y. I. Jung, J. Y. Park, Y. H. Jeong, B. K. Choi, and B. Y. Kim(KAERI)

09:20 Generation of Laser-accelerated Electron Beams at KAERI for Nuclear Applications

S. H. Park, K. Lee, Y.-H. Cha, J. Y. Lee, Y. W. Lee, J.-H. Mun, and Y. U. Jeong(KAERI)
H. -Y. Lee(KAIST)
G. -N. Kim(KNU)

09:40 Preliminary Study on 50MHz Heavy Ion RFQ without Pre-Bunchers

Yong-Sub Cho, Ji-Ho Jang, Han-Sung Kim, and Hyeok-Jung Kwon(KAERI)

10:00 An Economic Analysis of ITER-PWR Fusion Hybrid

Jae U. Seo and Kune Y. Suh(SNU)

10:20 Development of 14.5 GHz Electron Cyclotron Resonance Ion Source for Multi-charged Ion Beams

Byung-Hoon Oh, Sang-Ryul In, Kwang-Won Lee, Seung Ho Jeong, Chang Seog Seo, Jung-Tae Jin, and Dae-Sik Chang(KAERI)

10:40 Coffee Break

11:00 PEFP SRF Prototype Cavity Fabrication and Vertical Test

Han-Sung Kim, Hyeok-Jung Kwon, and Yong-Sub Cho(KAERI)
Sun An(PAL)

11:20 Status of Design of PEFP Beam Lines

Bum-Sik Park, Yong-Sub Cho, Hyeok-Jung Kwon, Ji-Ho Jang, In-Seok Hong, Han-Sung Kim, Sang-Pil Yun, Hwa-Ryun Lee, Kye-Ryung Kim, and Byung-Ho Choi(KAERI)

11:40 Development of Operation Scenario for Spherical Tokamak at SNU

Choongki Sung, Y. S. Park, Hyunyeong Lee, J. Kang, and Y. S. Hwang(SNU)

Ⅲ. 분과별 논제 및 발표자

제 7 분과 B

양자공학 및 핵융합기술 (Quantum Engineering and Nuclear Fusion)-Poster

좌 장 홍봉근(Hong, Bong Guen), 황용석(Hwang, Yong Suk)

발표장소 1층 로비

일 정 | 10. 29(목), 13:00-15:00

P07B01 Characteristics of Arc Discharge of a JAEA Plasma Generator for KSTAR NB Ion Source

S. H. Jeong, T. S. Kim, D. H. Chang, B. R. Kim, C. S. Seo, J. T. Jin, K. W. Lee, and B. H. Oh(KAERI)
K. Watanabe, M. Dairaku, H. Tobar, M. Kashiwagi, T. Inoue, and M. Hanada(JAEA)

P07B02 RAMI Analysis of Neutral Beam Heating&Current Drive System for ITER

Doo-Hee Chang(KAERI)
Sangil Lee(NFRI)

P07B03 Analysis and High Heat Flux Test with the Preliminary First Wall Qualification Mock-ups for the ITER Blanket First Wall

Dong Won Lee, Young Dug Bae, Suk Kwon Kim, Hee Yun Shin, Bong Guen Hong, Hyun Kyu Jung, Yang Il Jung, Jeong Yong Park, Byung Kwon Choi, and Yong Hwan Jeong(KAERI)

P07B04 Coupling of Neutronic Analysis in Tokamak Reactor System Analysis

B. G. Hong(KAERI)

P07B05 Characterization of X-ray Tube Using a Carbon Nanotube(CNT) Fiber

Hyun-Kyu Jung and Yoon-Sang Lee(KAERI)
Do-Yun Kim(VSI)
Soon-Hyung Hong(KAIST)

P07B06 A Study on Sector Sub-assembly Tool for Assembly of 40℃ Sector

Nam Kyoung, Park Hyunki, and Kim Dongjin(NFRI)
Lee Jaehyuk and Kim Kyungkyu(SFA Eng Corp)
Im Kihak and Robert Shaw(ITER)

P07B07 Volume Change of ZrCo Hydride

DaeSeo Koo, YongKyu Kim, Jaeun Lee, and Hongsuk Chung(KAERI)

P07B08 Activation of ZrCo for Hydriding Reaction

JaeEun Lee, YoungKyu Kim, Daeseo Koo, and Hongsuk Chung(KAERI)

제 7 분과 C

양자공학 및 핵융합기술 (Quantum Engineering and Nuclear Fusion)-Poster

좌 장 조용섭(Cho, Yong-Sub), 차형기(Cha, Hyungki)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P07C01 Arc Energy Limiting Mechanism of the High Voltage Converter Modulator**
D. I. Kim, H. J. Kwon, H. S. Kim, Y. G. Song, and Y. S. Cho(KAERI)
- P07C02 Proton Fraction Measurement of the PEPF Proton Injector**
H. J. Kwon, H. S. Kim, D. I. Kim, I. S. Hong, J. H. Jang, and Y. S. Cho(KAERI)
- P07C03 Simulation of an Extraction System on a Proton Source for a Proton Linac**
I. S. Hong, H. J. Kwon, J. H. Jang, and Y. S. Cho(KAERI)
- P07C04 Neutron Generation from Deuterated Methane Clusters with an Intense Femtosecond Laser**
Sungmo Nam, Jaemin Han, Yong Joo Rhee, Yong-Ho Cha, Duck-Hee Kwon, Sungman Lee, and Hyungki Cha(KAERI)
- P07C05 Dynamic Aperture of PEPF RCS**
J. H. Jang, Y. S. Cho, H. J. Kwon, and H. S. Kim(KAERI)
- P07C06 The Preliminary Design of Prototype Target Stack and the Investigation of Radionuclide Inventory at the 100 MeV Isotope Production Facilities at PEPF**
Sang-pil Yoon, In-seok Hong, and Yong-sub Cho(KAERI)
- P07C07 Simulation of an Extraction System on a Proton Source for a Proton Linac**
I. S. Hong, H. J. Kwon, J. H. Jang, and Y. S. Cho(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 8 분과 A

원자력발전소 건설 및 운영 (Nuclear Power Plant Construction and Operation)

좌 장 정대율(Chung Dae-Yul), 양준영(Yang Jun-Young)

발표장소 가야금B

일 정 | 10. 29(목)

- 09:00 PWSCC Potential on the Drain Tubes of WEC Model 51F Steam Generators in Domestic Plants**
B. I. Chang, M. S. Song, K. S. Yoon, and I. Y. Kim(KOPEC)
- 09:20 Temperature Load Assessment of CANDU Containment Building at Severe Accident Condition**
In-Kil Choi and Soo-Yong Park(KAERI)
- 09:40 The Study on Future Failure Rates of Nuclear Turbine**
Hye-young Shin and Young-sheop Park(KHNP)
- 10:00 Development of Weld Overlay Technology for Dissimilar Welds in Pressurizer Nozzles**
K. S. Park, J. G. Byeon, and J. B. Lee(Doosan Heavy Co.,Ltd)
- 10:20 Study on the Axial Force and Assembly Torque Value of Bolted Joint**
Dong-il Kim, Nak-jeom Kim, Sang-hoon Choi, and Kyung-sub Kim(KPS)
- 10:40 Coffee Break**
- 11:00 FIV Estimation for the Reactor Internal Structure of SMART**
J. W. Lee, K. H. Jeong, J. S. Park, and W. J. Lee(KAERI)
- 11:20 Performance Criteria and Evaluation of Upgraded Fuel Handling Equipment for Operating OPR1000**
Chang Sang-Gyoon, Kim Beom-Shig, Hwang Jeong-ki, and Kim In-Yong(KOPEC)
Kim Man-Su(KHNP)

제 8 분과 B

원자력발전소 건설 및 운영 (Nuclear Power Plant Construction and Operation)-Poster

좌 장 이경진(Lee Kyung-Jin), 김용학(Kim Yong-Hak)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P08B01 The Design Life Calculation of Non-metallic Parts in Mechanical Components Using Canadian Analysis Practic**
Kyung-Heum Park, Sun-Chul Jeong, and Kyung-Nam Jang(KEPRI)
- P08B02 Development of Cable Indenting Mini-Robot and Aynalzing Method**
Kyung-Nam Jang, Jong-Soeg Kim, Sun-Chul Jeong, and Kyung-Heum Park(KEPRI)
- P08B03 The Full Structural Weld Overlay Procedure of PZR Nozzles for KORI Unit 1**
Jang Wook Lee, Hong Seok Cho, Ki Hyun Cho, and Sang Hoon Choi(KPS)
- P08B04 New Method for Mitigating the Tensile Residual Stresses Induced on the Inside Wall of Butt Welded Pipes**
Ho-Jin Lee, Kang-Soo Kim, Ki-Baik Kim, Kwang-Mo Kim, and Bong-Sang Lee(KAERI)
- P08B05 A Numerical Analysis on the Correlation between the Core Exit Temperature Distribution and Hot Leg RTD Temperature**
H. C. Jang, B. J. Lee, Y. J. Choe, and E. K. Kim(KOPEC)
- P08B06 Application of a Parametric Sensitivity and Uncertainty Analysis Method on Economic Evaluation of SSC Improvement Plan**
EunSub Yun and Myung-Hwan Boo(KHNP)
- P08B07 Small Bore Piping Socket Weld Evaluation System**
Lee Dong Min, Cho Hong Seok, Choi Sang Hoon, Cho Ki Hyun, and Lee Jang Wook(KPS)
- P08B08 Effect of Corrosion Products on Crud Depositon on the Surface of Fuel Cladding by Wire Heating Method**
Mun Hwan Kim and Chang Whan Won(CNU)
Jong Hwan Kim, Sang hyun Kim, and Wan Young Maeng(KAERI)
- P08B09 Corrosion Behavior of Structural Material in Closed Cooling Water System of Nuclear Power Plant**
Hyo-Dong Yeon, Sanghyun Kim, Eun-Hee Lee, Byung-Seon Choi, and Wan-Young Maeng(KAERI)
- P08B10 Property of the lithium Formate Powder for EPR Dosimetry**
Sung In Bok, An Jin Hee, Choi Hoon, and Lim Young Khi(RHRI)

Ⅲ. 분과별 논제 및 발표자

제 8분과 C

원자력발전소 건설 및 운영

(Nuclear Power Plant Construction and Operation)-Poster

좌 장 김종석(Kim Jong-Seok), 이종호(Lee Jong-Ho)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

P08C01 ESR Signal Fading of PTFE/ESR Dosimetry

An Jin Hee, Choi Hoon, Lee Byung Il, and Lim Young Khi(RHRI)

P08C02 Automation of LP ECC for Wolsong 1

Jong Soo Kwon, Jae Hee Yun, Jung Yang Lee, Yoon Hee Lee, and Kil Young Jung(KOPEC)
Gil Woong Jeong(KHNP)

P08C03 Performance Test Procedure for Fuel Test Loop

Sung Ho Ahn, Jong Min Lee, Su Ki Park, Dae Young Chi, Bong Sik Sim, Chung Young Lee, Young Ki Kim,
and Kye Hong Lee(KAERI)

P08C04 Optimum Finite Element Mesh to Include Stress Concentration Effect in Fatigue Analysis

J. G. Lee(KHNP)
H. S. Lee and S. B. Han(GNEC)

P08C05 Study for Obsolescence Problem of EQ Equipment

Jong-Seog Kim, Sun-chul Jeong, Kyung-Heum Park, and Kyung-Nam Jang(KEPRI)

P08C06 A Study on the Efficiency behavior of Limitorque Actuators for Motor Operated Valves

Shincheul Kang, YangSeok Kim, Daewoong Kim, Dohwan Lee, and Sungkeun Park(KEPRI)

P08C07 Comparison of Equations for Predicting Primary Water Stress Corrosion Crack Growth Rates in a Surge Nozzle Weld on the Hot Leg Side

Kyung-Hwan Na, Eunsub Yun, and Young Sheop Park(KHNP)

P08C08 Paint Test for Centifugal Pump Cavitation

Tae Seok Kang and Do Hwan Lee(KEPRI)
Min Ho Cho and Rae Hyuk Jung(M&D Corp.,)

제 8 분과 D

원자력발전소 건설 및 운영 (Nuclear Power Plant Construction and Operation)-Poster

좌 장 김태영(Kim Tae-Young), 이경진(Lee Kyung-Jin)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P08D01 A Seismic Fragility Evaluation for Electrical Cabinet in NPP through a Shaking Table Test**
Min Kyu Kim and In-Kil Choi(KAERI)
- P08D02 Experimental Study on Shear Behavior of SC Structures under Out of Plane Load**
D. S. Park, K. J. Lee, K. W. Ham, and Y. P. Suh(KEPRI)
- P08D03 Experimental Study on Application of Coupler at SC(Steel plate Concrete) Structures**
K. W. Ham, K. J. Lee, and D. S. Park(KEPRI)
- P08D04 Development of Maintenance System for Supporting Structures&Facilities in NPP**
Myung-Sug Cho and Jae-Myung Noh(KEPRI)
Jong-Suk Lee and Do-Gyeum Kim(KICT)
- P08D05 Study on OBE Exceedance Criteria for Application of Reg.guide 1.12(rev. 2) to Korea**
Se-Moon Park and Sung-II Cho(KHNP)
Kwan-Hee Yun(KEPRI)
- P08D06 Periodic Safety Review of Tendon Pre-stress of Concrete Containment Building for a CANDU-Type Nuclear Power Plant**
Kwang-Ho Joo and Woo-Sang Lim(KHNP)
- P08D07 The Application of Aircraft Crash Design Requirements to APR+ Design**
Hyungkeun Moon, Sanghoon Noh, and Haein Jung(KHNP)
- P08D08 Improvement of Structural Life Management System(SLMS) for N.P.P. Structures**
Myung-Sug Cho and Jae-Myung Noh(KEPRI)
Jong-Suk Lee and Do-Gyeum Kim(KICT)
- P08D09 Analysis of an NPP Structure Subjected to Vibrations Induced from Airplane Crashes**
Sang Hoon Noh, Yong Soo Kim, and Chong Hak Kim(KHNP)
- P08D10 Experimental Study on the Structural Behavior of HSC Slab under out of Plane Load**
K. W. Ham, K. J. Lee, and D. S. Park(KEPRI)

Ⅲ. 분과별 논제 및 발표자

제 8분과 E

원자력발전소 건설 및 운영 (Nuclear Power Plant Construction and Operation)

좌 장 정일석(Jeong IL-Seok, 김진원(Kim Jin-Won)

발표장소 가야금B

일 정 | 10. 30(금)

09:00 Modal Parameter Identification of a CANDU Reactor Building Using Ambient Vibration Measurements

Sanghyun Choi and Daehyork Kim(KRC)
Sooyoung Park and Keunhoo Jung(HHU)
Chang-Hun Hyun, Moon-Soo Kim, and Sang-Yun Kim(KINS)

09:20 The Comparison of Activation Energy between Raw CSM and Commercial CSM Using TGA

Sun-Chul Jeong, Kyung-Heum Park, Kyung-Nam Jang, and Jong-Seog Kim(KEPRI)

09:40 A Study on the Main Steam Safety Valve Opening Mechanism by Flashing on NPPs

Kim BaeJoo(KHNP)

10:00 A Study on Effect of Local Wall Thinning in Carbon Steel Elbow Pipe on Elastic Stress Concentration

Jong Sung Kim and Jae Seok Seo(SCNU)

10:20 Assessment of Structural Integrity after the Small Improvement of Reactor Coolant Pump

Jung woo Lee, Min su Park, Sang hoon Choi, Gyung sub Kim, and Sung ho Park(KPS)

10:40 Coffee Break

11:00 Leak Detection of High Pressure Feedwater Heater Using Empirical Models

Song kyu Lee and Eun kee Kim(KOPEC)
Gyunyoung Heo(KHU)
Sang Ha An(KAIST)

제 8 분과 F

원자력발전소 건설 및 운영 (Nuclear Power Plant Construction and Operation)

좌 장 백용락(Beak Young-Lak), 송영철(Song Young-Chul)

발표장소 은하수B

일 정 | 10. 30(금)

- 09:00 A Tsunami Fragility Assessment for Nuclear Power Plants in Korea**
Min Kyu Kim and In-Kil Choi(KAERI)
Keum-Seok Kang(KEPRI)
- 09:20 A Parametric Study for Estimating the Effective Prestress Force of the Grouted Tendon**
J. B. Jang, H. P. Lee, K. M. Hwang, and Y. C. Song(KEPRI)
- 09:40 LMM for Dynamic Response of a Structure Excited by Ground Acceleration**
Yong-Woo Kim(SCNU)
Myung Jo Jhung(KINS)
- 10:00 A Study on Seismic Source Map and b-value for Reducing Uncertainty of Seismic Hazard**
Hyun-Me Rhee, Jeong-Moon Seo, and In-Kil Choi(KAERI)
- 10:20 Failure Mode Estimation of Wolsong Unit 1 Containment Building with Respect to Severe Accident Condition**
Daegi Hahm and In-Kil Choi(KAERI)
- 10:40 Coffee Break**
- 11:00 Directivity Pulse Effect on the Response Spectrum of Near-Fault Ground Motion**
Jung Han Kim(KAERI)
Jae Kwan Kim(SNU)
- 11:20 Structural Integrity Analysis of CEA Change Platform**
Jin Hwa Shin, Byeong Taek Park, Jun Beom Park, Jong Ha Jung, and Byeong Wook Noh(Doosan Heavy Co.,Ltd)
- 11:40 Estimation of Cumulative Absolute Velocity Using Empirical Green's Function Method**
Dong-Hee Park, Kwan-Hee Yun, and Chun-Joong Chang(KEPRI)
Se-Moon Park(KHNP)

Ⅲ. 분과별 논제 및 발표자

제 9 분과 A

원자력정책, 인력 및 협력 (Nuclear Policy, Human Resources and Cooperation)

좌 장 임채영(LIM, Chae Young), 조성연(Seong Youn Jo)

발표장소 은하수B

일 정 | 10. 29(목)

09:00 e-Cluster Building and Using for Nuclear Industry Human Resources

Hur, Jung-hoon and Suh, Jang-soo(KHNP)

09:20 Preliminary Research on the Verification Task of North Korea's Plutonium Declaration

Hyun-Chul Kim and Il-Jin Park(KINAC)

제 9 분과 B

원자력정책, 인력 및 협력 (Nuclear Policy, Human Resources and Cooperation)-Poster

좌 장 양맹호(Yang Maeng-Ho), 문주현(Joo Hyun Moon)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

P09B01 Application of Spent Fuel Attribute Tester(SFAT) in National Safeguards Inspection

Jae Beom Park, Seung Ho Ahn, Jae Whan Park, and Jin Kyun Yeo(KINAC)

P09B02 Causal Loop-based Modeling on System Dynamics for Risk Communication

Chang-Ju Lee(KINS)

Kyung-Min Kang(KAERI)

P09B03 Control and Management of Small Quantity Nuclear Material(SQNM) on Safeguards

Jaehwan Park, Byung Woo Shin, and Jae Beom Park(KINAC)

P09B04 Practical Means to Promote Information Sharing Pertaining to the Suppression of Acts of Nuclear Terrorism

Ickhyun SHIN(KINAC)

P09B05 Application of Satellite Imagery on Clandestine Nuclear Activities

Seong Youn Jo and Jin Kyun Yeo(KINAC)

P09B06 Evaluation on General Performance of Infrared Sensor Using a Test-Bed Approach

Jounghoon Lee(KINAC)

P09B07 Methodology Study on the Enhanced Cooperation under Integrated Safeguards in the ROK

Jong Kyu Jeon, Jin Kyun Yeo, and Wan Ki Yoon(KINAC)

P09B08 Strategic Approaches to Developing Regulatory Infrastructure for Countries to Embark on Nuclear Power Program

Young-Sung Choi, Young-Joon Choi, and Jae-Cheon Lee(KINS)

Ⅲ. 분과별 논제 및 발표자

제 10 분과 A

원자력계측제어 및 자동원격
(Nuclear I&C and Automatic Remote Systems)

좌 장 성승환(Seung Hwan Seong), 이정권(Jeong-Kweon Lee)

발표장소 은하수C

일 정

10. 29(목)

09:00	Evaluation of Power Maneuvering Capability for KALIMER-600 Seong-Hwan Seong, Han-Ok Kang, and Seong-O Kim(KAERI)
09:20	Computational Hydraulic Analysis of APR1400Reactor Coolant Pump Ja Y. Gu and Kune Y. Suh(PHILOSOPHIA) Kune Y. Suh(SNU)
09:40	Linearization of Valve Flow Characteristics for Steam Turbine Control Koo S. Kim(PHILOSOPHIA) Kune Y. Suh(SNU)
10:00	Computational Analysis of Supercritical Carbon Dioxide Turbine Jong K. Kim(PHILOSOPHIA) Kune Y. Suh(SNU)
10:20	Wireless Technology Application to Nuclear Power Plants Jeong-Kweon Lee, See-Chae Jeong, Ki-Hoon Jeong, Do-Young Oh, and Jae-Hack Kim(KOPEC)
10:40	Coffee Break
11:00	Optimization of Periodical Maintenance Frequency of Components in NPP M. Khalaquzzaman and Poong Hyun Seong(KAIST) Hyun Gook Kang and Man Cheol Kim(KAERI)
11:20	An Integrated Approach of Model Checking and Temporal Fault Tree for System Safety Analysis Kwang Yong Koh and Poong Hyun Seong(KAIST)

제 10 분과 B

원자력계측제어 및 자동원격 (Nuclear I&C and Automatic Remote Systems)-Poster

좌 장 서용석(Y. S. Suh), 윤덕주(Duck Joo Yoon)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

- P10B01 NSSS-BOP Model Integration of OPR1000 Simulator**
Do Hyun Hwang, Myeong Soo Lee, Jin Hyuk Hong, and Jung Kwan Suh(KEPRI)
- P10B02 Analysis of Waste Heat Transport System Using Absorptive Cycle**
Hyeonmin Kim and Gyunyoung Heo(KHU)
- P10B03 Steam Generator Level Optimization by Adjusting the Differential Pressure of Main Feedwater System for Kori 3&4 and Yonggwang 1&2 Upated NPP**
Duck Joo Yoon and Jae Yong Lee(KEPRI)
Kyung Jin Lee and Byung Chul Lee(FNC)
- P10B04 UNARM of the LANL and System Upgrade**
Chul-Yong Lee, Hee-Sung Shin, and Ho-Dong Kim(KAERI)
- P10B05 Development of a Validation Tool for the SPADES of SKN 1&2**
See Chae Jeong, Suk Whun Sohn, Ki Hoon Jeong, and Jae Hong Ha(KOPEC)
- P10B06 Development and Site Acceptance Test of Integrated NIMS**
Doo-Byung Yoon, Jin-Ho Park, Young-Chul Choi, and Sung-Hwan Shin(KAERI)
- P10B07 Development of FPGA-Based Control Board**
Yoon Hee Lee, See Chae Jeong, Woong Seock Choi, Chang Jae Lee, Jin Kwon Jeong, and Jae Hong Ha(KOPEC)
- P10B08 Feasibility of Wireless Sensor Applications for Nuclear I&C Systems**
Kyemin Oh and Gyunyoung Heo(KHU)
- P10B09 Cyber Threat and Vulnerability Analysis for Digital Assets of NPPs**
Oh Eung-Se and Seo In-Yong(KEPRI)
Kim See-Hong(KHNP)
- P10B10 Development of Protocol for the B-NSDN(Broadband-Nuclear Safety Data Network)**
Kwang Seop Son, Dong Hun Kim, and Lee Jang Soo(KAERI)

Ⅲ. 분과별 논제 및 발표자

제 10 분과 C

원자력계측제어 및 자동원격 (Nuclear I&C and Automatic Remote Systems)-Poster

좌 장 이철용(Chul-Yong Lee), 손광섭(Kwang Seop Son)

발표장소 1층 로비

일 정 | 10. 29(목) 13:00-15:00

P10C01 Test Facilities for SMART MMIS

Yong Suk Suh, Jong Yong Keum, Jun Ku Lee, Kwang Il Jeong, Jong Bok Lee, and Sang Moon Suh(KAERI)

P10C02 Performance Evaluation of a Network the Switch for SMART Safety I&C Systems

Kwang-Il Jeong, Kwan-Woong Kim, Jun-Ku Lee, Jong-Yong Keum, and Yong-Suk Suh(KAERI)

P10C03 Coolant Leak Monitoring Using Tunable Diode Laser Absorption Spectroscopy

Taek-Soo Kim, Hyunmin Park, Kwanghoon Ko, Gwon Lim, Yong-Ho Cha, Jaemin Han, Doyoung Jeong, Kyung-min Jeong, Yong-Chil Seo, Chang-Hoi Kim, Sung-Uk Lee, and Seungho Kim(KAERI)

P10C04 Development of Scheduler for Executing Safety-Critical Software Based On Single CPU Board

Gi Ho Cho, Hee Seok Park, and Je Yun Park(KAERI)
Chang Hwan Cho and Young Rok Sim(SEC Ltd.)

P10C05 A Study on Automatic Seismic Trip System for Nuclear Power Plants

Chang Jae Lee, Jae Cheong Jung, and Seung Min Baek(KOPEC)
Young Kook Kim(KHNP)

P10C06 Stepwise Grouping Algorithm for Statistical Learning Framework

Sang Ha An and Soon Heung Chang(KAIST)
Gyunyoung Heo(KHU)
Ho Joon Seo and Su Young Kim(BNF)

P10C07 A Study on a Large Scale I&C Upgrade of OPR1000 Plants

Chanho Sung, Hyeontae Kang, and Jaeki Lee(KHNP)

P10C08 Development of a Pin Hall Remote Inspection System based on Auto-Recognition of the Hall Center

Yoo-Rark Choi, Jae-Cheol Lee, and Young-Soo Choi(KAERI)

P10C09 Survey of Cyber Security Methods for the Nuclear Power Plants

Yoo-Rark Choi, Jae-Cheol Lee, Young-Soo Choi, and Seok-Boong Hong(KAERI)

P10C10 Study on Technical Requirements and Guidelines for Safety-Critical Software Maintenance

Young-Mi Kim and Choong-Heui Jeong(KINS)

제 10 분과 D

원자력계측제어 및 자동원격 (Nuclear I&C and Automatic Remote Systems)

좌 장 정연섭(Jung Yeonsub), 이준승(Lee June Seung)

발표장소 은하수C

일 정 | 10. 30(금)

- 09:00 Challenges to a Man-Machine Interface System in Nuclear Power Plants**
Yeonsub Jung(KHNP)
- 09:20 Role Allocations and Communications of Operators during Emergency Operation in Advanced Main Control Rooms**
June Seung LEE(KHNP)
- 09:40 Modeling of Communication in a Computational Situation Assessment Model**
Hyun-Chul Lee(KAERI)
Poong-Hyun Seong(KAIST)
- 10:00 Empirical Study of Making Effective Augmented-Reality Based Training Instruction**
Ho-Bin Yim and Poong-Hyun Seong(KAIST)
- 10:20 Consideration of Evaluation of Communication Using Work Domain Analysis (WDA) in Nuclear Power Plants**
In Seok Jang and Poong Hyun Seong(KAIST)
Jin Kyun Park(KAERI)
- 10:40 Coffee Break**
- 11:00 Design of Mobile Device Display for Nuclear Power Plant Maintenance Considering the Level of Expertise**
In Kim and Poong Hyun Seong(KAIST)
- 11:20 A Study on the Organizational Components Affecting the Communication-Related Events in Nuclear Power Plant**
Seung Min LEE, In Seok JANG, and Poong Hyun SEONG(KAIST)

Ⅲ. 분과별 논제 및 발표자

제 10 분과 E

원자력계측제어 및 자동원격
(Nuclear I&C and Automatic Remote Systems)

좌 장 김만철(Man Cheol Kim), 이형수(Hyung-Soo Lee)

발표장소 은하수

일 정

10. 30(금)

09:00	SDS No.2 Low Steam Generator Level and High/Low HTS Pressure Trip Instrumentation Improvement for Wolsong 1 NPP Refurbishment Seog Hwan Jeong, Jin Kwon Jeong, Jun Yang Lee, and Seung Min Baek(KOPEC) Ho Won Lee(KHNP)
09:20	A Review of Various Performance Shaping Factors for Use in Advanced Control Rooms Seung Woo Lee, Jun Su Ha, and Poong Hyun Seong(KAIST) Jae Hyuk Park and Ja Kyung Kim(KOPEC)
09:40	Some Insights into Fault Detection Coverage of Digital I&C Systems Man Cheol Kim(KAERI)
10:00	Development of Qualified Indication and Alarm System-Non Safety Hyung-soo Lee, Deok-in Kim, Dae-jae Kim, and Jung-jin Park(Doosan Heavy Co.,Ltd)
10:20	Extended Kalman Filter Computation for Nuclear Power Plant Failure Detection B. Halimi and Kune Y. Suh(SNU)
10:40	Coffee Break
11:00	Modeling of Nuclear Electric Propulsion System for Naval Application B. Halimi and Kune Y. Suh(SNU)
11:20	Digital Applied Technology for Construction Period Reduction of Nuclear Power Plants Young M. You(PHILOSOPHIA) Kune Y. Suh(SNU)