

KOREAN NUCLEAR SOCIETY

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| 일 정 | 2014. 5. 28(수) ~ 5. 30(금)

| 장 소 | 제주 국제컨벤션센터

2014 춘계학술발표회



사단법인 한국원자력학회
KOREAN NUCLEAR SOCIETY

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❖ 전체 행사일정표

▶ 등록 및 접수 : 3층 로비

• 5.28(수) 12:30~17:30 • 5.29(목) 08:30~17:30 • 5.30(금) 08:30~17:00

회의장명		5.28(수)		5.29(목)		5.30(금)	
한라홀A	3층	(A)원자로계통설계 -원전 펌프시스템 설계 (B)소동냉각고속로의 고유안전성	09:00~12:00 13:00~18:00	• 5(A)원자력열수력 및 안전 구두발표 • 개회식 및 특별강연(한라홀 A+B)	09:00~12:40 15:30~18:00	-	-
한라홀B	3층	(K)장기 가동원전의 안전성 강화	13:30~17:30	• 5(B)원자력열수력 및 안전 구두발표 • 개회식 및 특별강연(한라홀 A+B)	09:00~12:20 15:30~18:00	-	-
삼다홀A	3층	(F)국소 열수력 실험/평가의 Uncertainty 및 Scalability 워크숍 (H)후쿠시마 사고 교훈을 반영한 국내 중대사고 대처전략 개발 현황	09:00~12:00 13:30~18:00	• 5(C)원자력열수력 및 안전 구두발표	09:00~12:40	• 5(K)원자력열수력 및 안전 구두발표	09:00~12:40
삼다홀B	3층	(G)2014 원전 안전해석코드 개발 워크숍	09:00~18:00	• 5(D)원자력열수력 및 안전 구두발표	09:00~13:00	• 5(L)원자력열수력 및 안전 구두발표	09:00~12:20
202A	2층	-	-	• 7(A)양자공학 및 핵융합기술 구두발표	09:00~12:20	-	-
202B	2층	-	-	• 10(A)원자력계측제어 및 자동원격 구두발표	09:00~12:00	-	-
203	2층	(D)원전해체 기술개발 주요 현안 및 사업활성화	13:00~18:00				
300	3층	2014년 청년지부 총회	18:00~19:00	• 5(E)원자력열수력 및 안전 구두발표 • 원자력열수력 및 안전 연구부회 모임	09:00~12:20 13:30~14:30	• 5(O)원자력열수력 및 안전 구두발표 • 초·중·고 교사초청 원자력 교육 토론회	09:00~12:00 15:30~19:30
301A	3층	(L)원자력 소통 이대로 괜찮은가?	14:00~18:00	• 1(A)원자로시스템기술 구두발표 • 원자로시스템기술 연구부회 모임	09:00~12:20 13:30~14:30	• 1(C)원자로시스템기술 구두발표 • S(A)학생/청년 Competition Session	09:00~12:20 13:30~16:10
301B	3층			• 1(B)원자로시스템기술 구두발표 • 원자력계측제어 및 자동원격 연구부회 모임	09:00~13:00 13:30~14:30	• 10(C)원자력계측제어 및 자동원격 구두발표 • S(B)학생/청년 Competition Session	09:00~12:20 13:30~16:10
302	3층	(M)건전성 평가와 진단을 통한 원전 성능 및 사고시 안전성 증진	13:00~17:40	• 9(A)원자력정책,인력 및 협력 구두발표 • 원자력정책,인력 및 협력 연구부회 모임	09:00~12:40 13:30~14:30	• 2(C)핵자료, 원자로물리 및 계산과학 구두발표 • S(C)학생/청년 Competition Session	09:00~12:20 13:30~17:10
303A	3층	(C)핵자료, 원자로물리 및 계산과학 연구 현황	13:00~17:50	• 2(A)핵자료, 원자로물리 및 계산과학 구두발표 • 원자로물리및계산과학 연구부회 모임	09:00~12:40 13:30~14:30	• 5(M)원자력열수력 및 안전 구두발표	09:00~12:20
303B	3층			• 2(B)핵자료, 원자로물리 및 계산과학 구두발표 • 양자공학 및 핵융합기술 연구부회 모임	09:00~12:40 13:30~14:30	• 5(N)원자력열수력 및 안전 구두발표	09:00~13:00
304	3층			• 3(A)방사성폐기물관리 구두발표 • 방사성폐기물관리 연구부회 모임	09:00~11:00 13:30~14:30	• 3(B)방사성폐기물관리 구두발표	09:00~12:00
400	4층	(원로워크숍)후쿠시마 원전사고 이후 원자력안전 정책동향	17:00~18:30	• 8(A)원전건설 및 운영기술 구두발표	09:00~12:20	• 4(G)핵연료 및 원자력재료 구두발표	09:00~12:40
401A	4층	(E)국내 PWR 핵연료 기술개발의 현황 및 전망	13:00~18:00	• 6(A)방사선이용 및 방호 구두발표 • 방사선이용 및 방호 연구부회 모임	09:00~12:00 13:30~14:30	• 6(H)방사선이용 및 방호 구두발표	09:00~12:20
401B	4층			• 8(B)원전건설 및 운영기술 구두발표 • 원전건설 및 운영기술 연구부회 모임	09:00~13:00 13:30~14:30	• 8(C)원전건설 및 운영기술 구두발표	09:00~12:20
402A	4층	(I)Add Specials to Classical RadiationTherapy (방사선치료의 창조적 접근)	13:00~18:00	• 4(A)핵연료 및 원자력재료 구두발표 • 핵연료 및 원자력재료 연구부회 모임	09:00~12:20 13:30~14:30	• 4(H)핵연료 및 원자력재료 구두발표	09:00~12:40
402B	4층	(J)원자력 분야에서의 양성자빔/이온빔 이용 현황 및 전망	13:00~18:00	• 4(B)핵연료 및 원자력재료 구두발표	09:00~12:40	• 4(I)핵연료 및 원자력재료 구두발표	09:00~12:40
3층 로비	3층	-	-	• 포스터발표(1분과~10분과)	13:00~15:00	-	-
406 (델리지아 별실)	3층	-	-	• 청년/학생지부 간담회	13:30~14:30	-	-
탐라홀B+C	5층	-	-	• 참가자 중식 장소 • 참가자 만찬 장소	12:00~13:30 18:00~19:30	• 참가자 중식 장소	12:00~13:30
오션뷰	5층	-	-	• 제68차 평의원회	11:30~13:00	-	-

I. 행사일정 안내

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❖ 연구부회 워크숍 [5월 28일(수)]

코드	워크숍명	일정	참가비
A	원자로계통설계-원전 펌프시스템 설계	09:00~12:00	□ 무료
B	소동냉각고속로의 고유안전성	13:00~18:00	□ 30,000원
C	핵자료, 원자로물리 및 계산과학 연구 현황	13:00~17:50	□ 무료
D	원전해체 기술개발 주요 현안 및 사업활성화	13:00~18:00	□ 50,000원
E	국내 PWR 핵연료 기술개발의 현황 및 전망	13:00~18:00	□ 30,000원
F	국소 열수력 실험/평가의 Uncertainty 및 Scalability 워크숍	09:00~12:00	□ 50,000원
G	2014 원전 안전해석코드 개발 워크숍	09:00~18:00	□ 무료
H	후쿠시마 사고 교훈을 반영한 국내 중대사고 대처전략 개발 현황	13:30~18:00	□ 30,000원
I	Add Specials to Classical RadiationTherapy(방사선치료의 창조적 접근)	13:00~18:00	□ 70,000원
J	원자력 분야에서의 양성자빔/이온빔 이용 현황 및 전망	13:00~18:00	□ 30,000원
K	장기 가동원전의 안전성 강화	13:30~17:30	□ 무료
L	원자력 소통 이대로 괜찮은가?	14:00~18:00	□ 30,000원
M	건전성 평가와 진단을 통한 원전 성능 및 사고시 안전성 증진	13:30~17:40	□ 무료
*	[원로워크숍] 후쿠시마 원전사고 이후 원자력안전 정책 동향	17:00~19:00	□ 무료

❖ 학술발표회

5월 29일(목)	5월 30일(금)
08:30 등록 및 접수	09:00 분과별 학술발표
09:00 분과별 학술발표	10:40 Coffee Break
10:40 Coffee Break	11:00 분과별 학술발표
11:00 분과별 학술발표	12:00 중식(탐라홀 B+C, 5층)
11:30 제68차 평의회(오션뷰, 5층)	13:30 학생/청년 Competition Session
12:00 중식(탐라홀 B+C, 5층)	15:30 초·중·고 교사초청 원자력 교육토론회(300호, 3층)
13:00 분과별 포스터발표(3층 로비)	
13:30 연구부회 모임	
15:30 학술발표회 개회식(한라홀 A+B, 3층)	
• 국민의례	
• 개회사: 김종경 학회장	
• 우수논문상 시상	
• 장학증서 수여	
• 학생/청년 Competition Session 시상	
• 제1회 원자력과 사회소통상 시상	
16:00 특별강연(I)	
16:40 휴 식	
17:00 특별강연(II)	
18:00 만찬(탐라홀 B+C, 5층)	

❖ 특별강연

- [I] 한미 원자력 협력의 현황과 과제(한미 원자력협정 개정을 중심으로) 박노벽(외교부 원자력협력대사)
- [II] The UAE Nuclear Energy Program : The Golden Model for Emerging Countries
..... Ayman Abdulla Al Ghafri(President of ENEC Korea Office)

❖ 등록비

구 분	사전등록(마감: '14.5.15)	현장등록
학생	50,000원	50,000원
정/평생회원	100,000원	120,000원
비회원	120,000원	140,000원

Ⅱ. 워크숍 및 토론회 안내

Ⓐ 원자로계통설계-원전 펌프시스템 설계

- 일 시 : 2014년 5월 28일(수) 09:00~12:00
- 장 소 : 제주 국제컨벤션센터, 3층 한라홀A
- 주 최 : 한국원자력학회 원자로시스템기술 연구부회

• 일 정

일 정	내 용
오전 9:00~9:30	원전 계통설계 개요, 정장규 상무 (KEPCO-E&C)
오전 9:30~11:00	펌프 및 관련계통 설계 기초, 이국행 차장 (KEPCO-E&C)
오전 11:00~12:00	원전 NSSS 주요펌프 특성, 김정만 부장 (KEPCO-E&C)

• 기타사항

등록비 : 무료

문의처 : 이보욱 / 한국원자력연구원 / 042-868-2986 / bwrhee@kaeri.re.kr

정장규 / 한국전력기술 / 042-868-4013 / ckchung@kepcO-enc.com

B 소듐냉각고속로의 고유안전성

- 일 시 : 2014년 5월 28일(수) 13:00~18:00
- 장 소 : 제주 국제컨벤션센터, 3층 한라홀A
- 주 최 : 한국원자력학회 원자로시스템기술 / 원자력열수력 및 안전 연구부회 공동주최

• 일 정

일 정	내 용
13:00-13:05	인사말(연구부회장)
13:05-13:15	PGSFR 개발 현황 및 계획, 백종혁(KAERI)
13:15-13:45	후쿠시마 원전사고로 되돌아보는 원자력의 핵심 안전 현안, 양준언(KAERI)
13:45-14:15	PGSFR 계통과도 안전해석, 하귀석(KAERI)
14:15-14:45	Intrinsic Safety Characteristics of Metal Fueled SFR, G.S. Srinivasan(IGCAR, India)
14:45-15:00	Break
15:00-15:30	Licensing Framework for Advanced Reactors in the U.S.A., T. Sofu(ANL, USA)
15:30-16:00	SFR 규제검증기술 개발현황 및 기술현안 도출, 신안동(KINS)
16:00-16:30	소듐 화재, 소듐-물 반응 특성 및 방호대책, 정지영(KAERI)
16:30-17:00	SFR 사고사례 및 극복방안, 유재운(KAERI)
17:00-18:00	패널토의

• 기타사항

등록비 : 3만원 (식사 제공 없음)

문의처 : 김태완 / 소듐냉각고속로개발사업단 / 042-868-8791 / twkim3@kaeri.re.kr

백종혁 / 소듐냉각고속로개발사업단 / 042-868-8823 / jhbaek@kaeri.re.kr

김영균 / 소듐냉각고속로개발사업단 / 042-868-2966 / ygkim@kaeri.re.kr

II. 워크숍 및 토론회 안내

㉠ 핵자료, 원자로물리 및 계산과학 연구 현황

- 일 시 : 2014년 5월 28일(수) 13:00~17:50
- 장 소 : 제주 국제컨벤션센터, 3층 303
- 주 최 : 한국원자력학회 원자로물리 및 계산과학 연구부회

• 일 정

일 정	내 용
13:00~13:30	등록
13:30~14:10	악티나이드 및 구조재 핵종에 대한 중성자 핵반응 평가 및 실험, 김형일, KAERI
14:10~14:50	Monte Carlo vs. Deterministic Methods (Lagrangian vs. Eulerian Formulations) in the Neutron Transport Analysis, 심형진, SNU
14:50~15:30	새로운 핵연료 U-Mo를 이용한 연구로 노심 설계, 서철교, KAERI
15:30~15:50	휴식
15:50~16:30	A Consistent Analysis of SFR Burner Cores using Thorium Blankets, 홍서기, KHU
16:30~17:10	장주기 무봉산 노심설계를 위한 혁신형 가연성 독봉 개념설계, 신호철, KHNP-CRI
17:10~17:50	Development of Micro-Physics Simulator and Its Application to Nuclear Education, Masahiro Tatsumi, Nuclear Engineering Ltd, Japan

• 기타사항

등록비 : 무료 (저녁식사 제공)

문의처 : 노재만 / 한국원자력연구원 / 010-2872-9697 / jmnoh@kaeri.re.kr

D 원전해체 기술개발 주요 현안 및 사업활성화

- 일 시 : 2014년 5월 28일(수) 13:00~18:00
- 장 소 : 제주 국제컨벤션센터, 2층 203
- 주 최 : 한국원자력학회 방사성폐기물관리 연구부회

• 일 정

일 정	내 용
~13:00	등록
13:00~13:30	인사말씀, 김창락, 방사성폐기물관리연구부회 부회장&김용수, 한양대/원전해체제염 복원안전연구센터 센터장
13:30~14:00	원전해체 안전규제 기술개발 현안 및 해결방안, 김용수, 한양대
14:00~14:30	해체폐기물 관리 동향 분석, 김창락, KINGS
14:30~14:50	Coffee Break
14:50~15:20	원전해체 사업환경분석 및 국내외 사업활성화 전망, 노성래, KHNP
15:20~16:00	해체 핵심 기반 기술개발, 문제권, KAERI
16:00~16:20	Coffee Break
16:20~17:00	폐증기발생기 제염,해체 기술개발 현황, 이선호, 두산중공업(주)
17:00~17:30	해체 심사 체계 및 경험, Dr. Schmollack, TUV Rheinland
17:30~18:00	Discussions
18:00~	Reception

• 기타사항

등록비 : 5만원 (저녁식사 제공)

문의처 : 이경호 / (주)에이치앤에너지테크 / 010-5608-0492 / lkhsj00@unitel.co.kr

II. 워크숍 및 토론회 안내

E 국내 PWR 핵연료 기술개발의 현황 및 전망

- 일 시 : 2014년 5월 28일(수) 13:00~18:00
- 장 소 : 제주 국제컨벤션센터, 4층 401
- 주 최 : 한국원자력학회 핵연료 및 원자력재료 연구부회

• 일 정

일정	내 용
13:00~13:25	등록
13:25~13:30	인사말, 송근우 (한국원자력학회 핵연료 및 원자력재료 연구부회 회장)
13:30~13:55	핵연료용 지르코늄 신합금 개발현황, 김윤호 (한전원자력연료)
13:55~14:20	사고저항성 핵연료 피복관 기술개발 현황, 김현길 (한국원자력연구원)
14:20~14:45	핵연료 부품 시험기술 및 해석방법 개발현황, 박남규 (한전원자력연료)
14:45~15:10	핵연료제조 레이저 용접기술 현황, 윤광호 (한전원자력연료)
15:10~15:35	Break
15:35~16:00	국내외 원전운영사의 Fuel Reliability Database(FRED) 참여현황 및 적용, 김용덕 (한수원 중앙연구원)
16:00~16:25	ROPER-연료봉 성능해석코드 개발, 유종성 (한전원자력연료)
16:25~16:50	PCI 완화 UO ₂ 소결체 기술개발 현황, 양재호 (한국원자력연구원)
16:50~17:15	신규 LOCA 안전기준에 대한 기술현안, 이강문 (한전원자력연료)
17:15~17:40	핵연료 연소성능이 안전해석에 미치는 영향, 이주석 (한국원자력안전기술원)
17:40~18:00	Wrap Up
18:00	석식

• 기타사항

등록비 : 3만원 (석식 제공)

문의처 : 전상윤 / 한전원자력연료 / 042-868-1150 / syjeon@knfc.co.kr

김재익 / 한전원자력연료 / 042-868-1403 / jikim@knfc.co.kr

F 국소 열수력 실험/평가의 Uncertainty 및 Scalability 워크숍

- 일 시 : 2014년 5월 28일(수) 09:00~12:00
- 장 소 : 제주 국제컨벤션센터, 3층 삼다홀A
- 주 최 : 한국원자력학회 원자력열수력 및 안전 연구부회 (실험분과)

• 일 정

일정	주 제	발표자
~09:20	접수	
09:20~09:40	열유체 실험의 Uncertainty 평가 방법	KAERI (권태순)
09:40~10:00	원자로 열수력의 Scaling과 Scalability	KAERI (문상기)
10:00~10:20	상세 유동측정기술 적용사례 및 Uncertainty 정량화기법	KAERI (어동진)
10:20~10:40	ATLAS DSP의 User Uncertainty 평가	KAERI (최기용)
10:40~11:00	ATLAS 주증기관파단사고 모의실험의 Up-scalability 평가	KHNP-CRI (윤범수)
11:00~11:20	열수력 모델과 코드 계산의 Uncertainty 평가	KAERI (허재석/김경두)
11:20~11:40	계통코드의 1D 모델과 3D 모델 적용성 비교평가	KEPCO-NF (성해정)
11:40~12:00	주증기관파단사고의 CFD 해석 적용성 평가	KHNP-CRI (임상규)
12:00~	점 심	

• 기타사항

등록비 : 5만원

문의처 : 권태순 / 한국원자력연구원 / 042-868-8717 / tskwon@kaeri.re.kr

II. 워크숍 및 토론회 안내

G 2014 원전 안전해석코드 개발 워크숍

- 일 시 : 2014년 5월 28일(수) 09:00~18:00
- 장 소 : 제주 국제컨벤션센터, 3층 삼다홀B
- 주 최 : 한국원자력학회 원자력열수력 및 안전 연구부회, 한국수력원자력 중앙연구원
- 일 정

일 정	내 용
제1부 SPACE 코드 사용자 교육	
09:00~09:10	SPACE 코드 사용자 교육 인사말 (원자로안전연구소장, KHNP)
09:10~09:20	SPACE 코드 사용자그룹 가입 안내 (양창근, KHNP)
09:20~10:20	SPACE 코드 입문 (이동혁/김세윤, KHNP)
10:20~10:30	휴 식
10:30~12:00	SPACE 코드 실습 (김태완, KINGS)
제2부 안전해석코드 개발 워크숍	
13:00~13:10	행사 안내 (최훈, KHNP)
13:10~13:20	환영사 (한수원중앙연구원장, KHNP)
13:20~13:30	격려사 (열수력안전연구부회장, 한국원자력학회)
13:30~13:50	원전 안전해석코드 개발 현황 (하상준, KHNP)
13:50~14:10	SPACE 코드 Hydraulic Solver (박찬익, KEPCO E&C)
14:10~14:30	SPACE 코드 검증 결과 (김요한, KHNP)
14:30~14:50	CAP 코드 개발 및 검증 결과 (홍순준, FNC)
14:50~15:10	SPACE 코드 이용 증기발생기 설계 적용 (김종인, 두산중공업)
15:10~15:30	SPACE LBLOCA 최적평가모델 개발 (최동수, KEPCO NF)
15:30~15:50	휴 식
15:50~16:20	SPACE 코드 개발 및 개선 방향 (김경두, KAERI)
16:20~16:50	설계확장조건에 대한 안전해석 주요 현안 (안승훈, KINS)
16:50~17:20	원전 계통설계코드 장기 발전 방향 (정재준, 부산대)
17:20~17:50	실용적 수치원자로 개발과 검증 (주한규, 서울대)

• 기타사항

준비물 : SPACE 코드 사용자 교육 참석자는 노트북 지참 요망

등록비 : 무료 (사전등록자 석식제공)

문의처 : 김요한/한수원 중앙연구원/042-870-5212/johnkim@khnp.co.kr

윤범수/한수원 중앙연구원/042-870-5217/bsyoun0@khnp.co.kr

H 후쿠시마 사고 교훈을 반영한 국내 중대사고 대처전략 개발 현황

- 일 시 : 2014년 5월 28일(수) 13:30~18:00
- 장 소 : 제주 국제컨벤션센터, 3층 삼다홀A
- 주 최 : 한국원자력학회 원자력열수력 및 안전 연구부회 · 중대사고연구회

• 일 정

시 간	내 용
13:20	인사말
13:30	중대사고 대처전략 측면에서 후쿠시마 사고 교훈, 송진호, KAERI
14:00	후쿠시마 사고 이후 국내 원전의 후속조치 진행 현황, 김형택, KHNP
14:30	노내 중대사고 대처전략 기술쟁점 및 개선방안, 박종운, 동국대
15:00	휴식
15:30	노외 노심용융물 제어관련 기술쟁점 및 개선방안, 윤선희, KEPCO E&C
16:00	중대사고 및 PSA 규제 요건화 현황, 정대욱, KINS
16:30	휴식, 패널토의 준비
17:00	패널토의 (진행: 방광현, 해양대)
18:00	종료

• 기타사항

등록비 : 3만원 (석식 제공)

문의처 : 김환열 / 한국원자력연구원 / 중대사고·중수로안전연구부 / 042-868-8946 / hykim1@kaeri.re.kr

II. 워크숍 및 토론회 안내

① Add specials to classical radiation therapy (방사선치료의 창조적 접근)

- 일 시 : 2014년 5월 28일(수) 13:00~18:00
- 장 소 : 제주 국제컨벤션센터, 4층 402A
- 주 최 : 한국원자력학회 방사선이용 및 방호 연구부회
- 일 정

일 정	내 용	좌 장
13:10~13:20	개회사 (엄홍덕, 한국원자력의학원)	
13:20~13:30	환영사 (조성기, 한국원자력연구원 첨단방사선연구소)	
좌장 : 강창모 (한국원자력의학원)		
13:30~14:10	Cancer Metabolism and Potential Applications for Radiation Therapy	박인철, 한국원자력 의학원
14:10~14:50	Epigenetic approach for radiation therapy	현진원, 제주대
14:50~15:00	Coffee Break	
좌장 : 황상구 (한국원자력의학원)		
15:00~15:40	Exploitation of novel molecular target for hepatocellular carcinoma radiosensitization	이윤한, 연세대
15:40~16:20	The p53-Bcl-mitochondria axis as a potential target for radiation-associated tumor metastasis	엄홍덕, 한국원자력의학원
16:20~16:30	Coffee Break	
좌장 : 송지영 (한국원자력의학원)		
16:30~17:10	Radio-and Chemo-Immunotherapy with Dendritic cells and NK cells for Treatment of Human Cancers	강치덕, 부산대
17:10~17:50	Comprehensive Understanding of Radioresistance Based on Multi-omics Approaches	윤부현, 부산대
17:50	폐회사 및 기념 촬영	

• 기타사항

- 35분 발표, 5분 질의응답
- 등록비 : 7만원 (저녁식사 제공)
- 문의처 : 송지영 / 한국원자력의학원 / 02-970-1308 / immu@kirams.re.kr

J 원자력 분야에서의 양성자빔/이온빔 이용 현황 및 전망

- 일 시 : 2014년 5월 28일(수) 13:00~18:00
- 장 소 : 제주 국제컨벤션센터, 4층 402B
- 주 최 : 한국원자력학회 양자공학 및 핵융합 기술 연구부회

• 일 정

일 정	내 용
13:00~13:30	등 록
13:30~13:40	인사말 : 연구부회장
13:40~14:05	양성자가속기 이용현황 및 향후 운영계획 : 정명환 (한국원자력연구원)
14:05~14:30	이온가속기 이용현황 및 향후 운영계획 : 이찬영 (한국원자력연구원)
14:30~14:50	양성자가속기이용자협의회 현황 : 노승정 (단국대학교)
14:50~15:15	가속기를 활용한 원자력소재 재료열화 연구 현황 : 진형하 (한국원자력연구원)
15:15~15:40	이온빔을 이용한 표면처리 기술 : 김종국 (재료연구소)
15:40~16:00	휴 식
16:00~16:25	고에너지 중/양성자 빔을 이용한 반도체 메모리 소자의 신뢰성 평가 및 개선 : 백상현 (한양대학교)
16:25~16:50	가속기를 이용한 동위원소 생산/연구 현황 및 전망 : 허민구 (한국원자력연구원)
16:50~17:15	방사성동위원소이용 신개념치료기술개발 플랫폼구축사업 소개 : 유국현 (한국원자력의학원)
17:15~17:40	가속기 기반 콤팩트 중성자원 : 주정명 (현대중공업)
17:40~17:50	맺음말
18:30~	만 찬

• 기타사항

– 20분 발표, 5분 질의응답

등록비 : 3만원 (발표자료집 및 저녁 포함)

문의처 : 김계령 / 한국원자력연구원 / 054-705-3737 / kimkr@kaeri.re.kr

Ⅱ. 워크숍 안내

K 장기 가동원전의 안전성 강화

- 일 시 : 2014년 5월 28일(수) 13:30~17:30
- 장 소 : 제주 국제컨벤션센터, 3층 한라홀B
- 주 최 : 한국원자력학회 원전건설 및 운영기술 연구부회
- 일 정

시 간	내 용
13:30~14:00	등록 및 접수
	개막행사
14:00~14:05	개회사 (건설/운영연구부회장)
14:05~14:10	환영사 (설비개선실장)
14:10~14:15	인사말 (한국원자력연구원 백원필 박사)
	주제발표 I
14:15~14:30	□ 월성1호기 계속운전 심사현황 (KINS/어근선PM)
14:30~14:45	□ 계속운전 제도개선 방안 (KINS/김대식APM)
14:45~15:00	Break
	주제발표 II
15:00~15:15	□ 중대사고 대처능력 (미래와 도전/이병철 대표)
15:15~15:30	□ PAR 검증기준 및 검증체계 (KHNP/중앙연구원 김창현 박사)
15:30~15:45	□ 스트레스테스트 추진현황 (KHNP/중앙연구원 김제헌 팀장)
15:45~16:00	Break
	주제발표 III
16:00~16:15	□ 국내 · 외 계속운전 기술동향 (한기/정성규 부장)
16:15~16:30	□ 원전기기 건전성에 미치는 잔류응력영향 (순천대/김종성 교수)
16:30~16:50	Break
16:50~17:30	패널토의(좌장 : 백원필)

• 기타사항

등록비 : 무료

문의처 : 윤봉요 / 한수원 중앙연구원 / 042-870-5622 / bongyo@khnp.co.kr

L 원자력 소통 이대로 괜찮은가?

- 일 시 : 2014년 5월 28일(수) 14:00~18:00
- 장 소 : 제주 국제컨벤션센터, 3층 301
- 주 최 : (사)한국여성원자력전문인협회, 한국원자력학회 원자력정책, 인력 및 협력 연구부회
- 일 정

일 정	내 용
13:30~14:00	등 록
사회 : 김선경 (한국수력원자력(주))	
14:00~14:20	개회식 - 개회사 / 박세문, (사)한국여성원자력전문인협회 회장 - 환영사 / 박원재, 한국원자력학회 원자력정책, 인력 및 협력 연구부회장 - 축 사 / 이종인, 한국원자력환경공단 이사장
주 제 발 표	
14:20~14:50	언론인이 보는 방사선에 대한 국민의식, 이은정 (KBS)
14:50~15:20	저선량 방사선의 인체 영향에 대한 과학적 이해, 남선영 (한수원 방사선보건연구원)
15:20~15:30	Coffee Break
15:30~16:00	의료 방사선의 양면성, 양승오 (동남권원자력의학원)
16:00~16:30	체험에서 얻어진 커뮤니케이션 스킬, 한은옥 (한국원자력안전아카데미)
16:30~17:00	원자력 이해증진 교육의 방향, 김인수 (소명여자고등학교)
17:00~17:10	Coffee Break
패 널 토 의	
17:10~18:00	Moderator : 이영일 (한국원자력안전기술원) - 후쿠시마 사태의 교훈 : 방사선에 대한 왜곡된 인식, 성진실 (연세의료원 연세암병원) - 주제발표자 및 패널 특별주제 발표자 6인
18:00~	만 찬

• 기타사항

등록비 : 3만원 (저녁식사 제공)

문의처 : 김종선 / (사)한국여성원자력전문인협회 / 010-2485-0444 / wink@winkorea.or.kr

II. 워크숍 및 토론회 안내

M 건전성 평가와 진단을 통한 원전 성능 및 사고시 안전성 증진

- 일 시 : 2014년 5월 28일(수) 13:00~17:40
- 장 소 : 제주 국제컨벤션센터, 3층 302
- 주 최 : 한국원자력학회 원자력계측제어 및 자동원격 연구부회
- 일 정

일 정	내 용
사회 : 허균영	
13:00~13:30	등록
13:30~13:40	연구부회장 인사 (김국헌)
13:40~14:10	원자력 발전소 온라인 감시/진단 연구 현황 (나만균)
14:10~14:40	원자력 발전소 안전필수기기의 건전성 평가기술 개발 (성풍현)
14:40~15:10	원전 열효율 감시 및 진단, 현황과 이슈 (허균영)
15:10~15:30	휴식
15:30~15:55	극한환경 제어기기 개발 (김창회)
15:55~16:20	모바일 원격 제어실 개발 (장통일)
16:20~16:45	중대사고 회복 자동화 연구 (허섭)
16:45~17:10	전원상실 사고 대비 에너지 하비스팅 기술현황 (김정택)
17:10~17:40	패널 토론 (패널리스트: 성풍현, 허균영, 김창회, 김정택, 허섭), 사회 나만균
18:00~20:00	저녁식사

• 기타사항

등록비 : 무료 (저녁식사 제공)

문의처 : 나만균 / 조선대학교 / 062-230-7168 / magyna@chosun.ac.kr

N 초·중·고 교사초청 원자력 교육 토론회

- 일 시 : 2014년 5월 30일(금) 15:30~19:30
- 장 소 : 제주 국제컨벤션센터, 3층 300
- 주 최 : 한국원자력학회, 경희대 원자로센터
- 후 원 : 제주특별자치도교육청
- 일 정

일 정	내 용	발표자	소 속
1) 개회식 - 사회 : 이기복 (한국원자력연구원 정책연구부장, 학회 홍보협력이사)			
15:30~15:40	개회사 및 참석자 소개	사회자	
15:40~15:45	환영사	미정	
2) 주제발표 - 사회 : 이기복			
15:45~16:05	과학교사 모임의 교육활동 사례	정성현	전국과학교사모임 대표
16:05~16:25	후쿠시마 원전사고에 의한 한국의 환경방사능 영향	조건우	한국원자력안전기술원
3) 패널토의 - 좌장 : 김명현 (경희대학교 교수, 원자로센터장)			
16:30~16:50	토론을 통한 원자력교육 방안	신원호	영광 백수중학교 교사
16:50~17:10	과학동아리 원자력탐구반 운영 경험	이용태	서울 동북고등학교 과학교사
17:10~17:30	원자력 체험교실의 참가 경험	정영곤	부산 사하중학교 교감
17:30~18:10	질의 응답 및 종합 토론	좌장	
4) 폐회식 - 사회 : 이기복			
18:10~18:15	격려사	고영림	제주도교육청 장학관
18:15~18:20	폐회 및 안내	사회자	
5) 만찬 - 사회 : 김명현			
18:20~19:30	저녁 만찬		

• 기타사항

문의처 : 이민한 / 경희대 원자로센터 / 031-201-2059 / hiqq22@khu.ac.kr

• 홈페이지 안내

전국 초·중·고 원자력체험교실 ▶ <http://neec.khu.ac.kr>
원자력에 관심있는 전국 초중고 교사선생님들의 커뮤니티 공간
원자력 / 방사선관련 학습자료 및 관련 기사 등 공유

경희대학교원자로센터 ▶ <http://rrec.khu.ac.kr>
원자력 체험교실 직무연수과정 신청 및 접수

Ⅲ. 개회식 및 특별강연 일정

- 일 시 : 2014년 5월 29일(목) 15:30~18:00
- 장 소 : 제주 국제컨벤션센터, 3층 한라홀 A+B

• 일 정

일 정	내 용
15:30	국민의례
	개회사 : 김종경 학회장
	2013년도 추계학술발표회 우수논문상 시상
	2014년도 장학증서 수여
	2013년도 추계학술발표회 학생/청년 Competition Session 시상
	제1회 원자력과 사회소통상 시상
16:00	[특별강연 1] 한미 원자력협력의 현황과 과제(한미 원자력협정 개정을 중심으로) (박노벽/외교부 원자력협력대사)
16:40	휴식
17:00	[특별강연 2] The UAE Nuclear Energy Program : The Golden Model for Emerging Countries (Ayman Abdulla Al Ghafri/President of ENEC Korea Office)
18:00	만찬(5층 탐라홀 B+C)

IV. 분과별 논제 및 발표자

제 1 분과 A

원자로시스템기술(Reactor System Technology)

- 경중수로 및 연구로 설계기술(Water Cooled & Research Reactor Design Technology)

좌 장 김현일(Hyeonil Kim), 김영인(Young-In Kim)

발표장소 301A

일 정 | 5. 29(목)

- 09:00 Comparison of Two-Temperature Homogenized Model and Conventional Volumetric-Average Thermal Conductivity Model in Fully Ceramic Microencapsulated Fuel**
Yoonhee Lee and Nam Zin Cho(KAIST)
- 09:20 Preliminary Comparisons of Thermal Hydraulic Characteristics of Core Using from 10 by 10 Fuel Assembly to 20 by 20 Fuel Assembly for SMART**
Min-Gil Kim, Youho Lee, and Jeong Ik Lee(KAIST)
- 09:40 Nonlinear Magnetic Circuit Analysis of SMART Control Rod Drive Actuator**
Myounggyu Noh, Myung Ju Gi, Myounggon Kim, and Young-Woo Park(CNU)
Jaeseon Lee and Jong-Wook Kim(KAERI)
- 10:00 Determination of the Design Speed of the Primary Cooling Pump in the Research Reactor**
Hyun-Gi Yoon, Kyoung-Woo Seo, Dae-Young Chi, and Cheol Park(KAERI)
- 10:20 MELCOR Severe Accident Analysis on the SMART Reactor**
Tae Woon Kim, Young Ho Jin, Young In Kim, and Keung Koo Kim(KAERI)
Ziao Wang and Shripad Revankar(Purdue Univ.,)
- 10:40 Coffee Break**
- 11:00 Conceptual Design of a Nuclear Reactor Dedicated for Desalination**
Yong Hun Jung, Jang Sik Moon, and Yong Hoon Jeong(KAIST)
- 11:20 Preliminary Study on Conceptual Design Analysis of PCCS for SMART**
Hae Seong Lee, Soon Joon Hong, Yeon Joon Choo, and Jeong Hee Ha(FNC Tech.)
Chun Tae Park, Young In Kim, and Keung Koo Kim(KAERI)
- 11:40 Thermal Sizing of Printed Circuit Steam Generator for Integral Reactor**
Han-Ok Kang, Hun Sik Han, Young-In Kim, and Keung Koo Kim(KAERI)
- 12:00 A Calculation on Core Transient during On-Power Loading of Irradiation Targets on a Research Reactor**
Hyeonil Kim, Suki Park, SooHyung Yang, and Cheol Park(KAERI)

IV. 분과별 논제 및 발표자

제 1 분과 B

원자로시스템기술(Reactor System Technology)

- 소듐냉각고속로 설계기술 I (Sodium Cooled Fast Reactor Design Technology I)

좌 장 김성균(Sung Kyun Kim), 김대희(De Hee Kim)

발표장소 301B

일 정 | 5. 29(목)

- 09:00 Preliminary Requirement of Hot Pool Free Surface Level from PGSFR Reactor Head**
Gyeong-Hoi Koo and Hyeong-Kook Joo(KAERI)
- 09:20 Design Study of Supercritical CO₂ Integral Experiment Loop(SCIEL)**
Yoonhan Ahn, Jaekyoung Lee, and Jeong Ik Lee(KAIST)
Jae Eun Cha(KAERI)
- 09:40 Off Design Performance of Compressors of 150MWe S-CO₂ Cycle for Sodium Cooled Fast Reactor**
Jekyoung Lee, Yoonhan Ahn, Hwa Young Jung, Seong Gu Kim, and Jeong Ik Lee(KAIST)
- 10:00 Unbalance Force Analysis of Primary Pump Shaft in PGSFR**
Sung-Kyun Kim and Gyeong-Hoi Koo(KAERI)
- 10:20 Conceptual Design of Ultra-long-life Core Fast Reactor (UCFR) with Ga-based Passive Decay Heat Removal System (PDHRS)**
Sarah Kang and In Cheol Bang(UNIST)
- 10:40 Coffee Break**
- 11:00 On the Effects of Temperature and Loading Frequency on the Fatigue Crack Growth Rate of G91 Steel**
Jong-Bum Kim and Chang-Gyu Park(KAERI)
Jong-Hoon Lee and Byeong-Soo Lim(SKKU)
Bum-Joon Kim(Osan Univ.,)
- 11:20 Analysis of Design Basis Events in a Preliminary Specific Design of PGSFR**
Kwi Lim, Lee and Kwi Seok, Ha(KAERI)
- 11:40 Effectiveness of Blockage Index for the Detection of Blockage in an SFR Subassembly**
Hae-Yong Jeong and Moon-Ghu Park(Sejong Univ.,)
Seung-Hwan Seong and Jae-Ho Jeong(KAERI)
- 12:00 Preliminary Design of IHTS Cold Trap for PGSFR**
Jewhan LEE and Tae-Ho LEE(KAERI)
- 12:20 Performance Test of a Diffusion Bonded Waveguide Sensor for Under-Sodium Visualization**
Sang-Hwal Kim, Hoe-Woong Kim, Chang-Gyu Park, Jong-Bum Kim, and Young-Sang Joo(KAERI)
- 12:40 Numerical Study for Turbulent Heat Transfer in Helical Wired Sub-channel Flow Regime of Duct-less Assembly in SFR**
Byung-Hyun You and Yong Hoon Jeong(KAIST)

제 1 분과 C

원자로시스템기술(Reactor System Technology)

- 고온가스 냉각로 계통기술(High Temperature Gas Cooled Reactor System Technology)

좌 장 박재원(Jae-Won Park), 이성남(Sung Nam Lee)

발표장소 301A

일 정 | 5. 30(금)

- 09:00 Polymer Masking Chemical Machining of Alloy 617 for Process- and Intermediate- Heat Exchangers**
Jae-Won Park, Jae-Un Kim, Min-Hwan Kim, and Yong-Wan Kim(KAERI)
- 09:20 Improvement of Fluid Energy Model of the CORONA Code**
Sung Nam Lee, Nam-il Tak, Min-Hwan Kim, and Jae Man Noh(KAERI)
- 09:40 Conceptual Design of S-CO₂ Brayton Cycle Radial Turbomachinery for KAIST Micro Modular Reactor**
Seongkuk Cho, Seong Gu Kim, Jekyoung Lee, and Jeong Ik Lee(KAIST)
- 10:00 Preliminary Design of KAIST Micro Modular Reactor with Dry Air Cooling**
Seung Joon Baik, Seong Jun Bae, Seong Gu Kim, and Jeong Ik Lee(KAIST)
- 10:20 Studies of S-CO₂ Power Plant Pipe Design**
Kim, Minseok, Ahn, Yoonhan, and Lee, Jeong Ik(KAIST)
- 10:40 Coffee Break**
- 11:00 Integrity Surveillance Test for HTGR Graphite Core Components by Small Specimens**
Se-Hwan Chi and Min-Hwan Kim(KAERI)
- 11:20 Oxidation and Explosion Characteristics of Nuclear Graphite Powder**
Eung-Seon Kim, Min-Hwan Kim, and Yong-Wan Kim(KAERI)
Yi-Hyun Park and Seung-Yon Cho(NFRI)
- 11:40 Full Scale Thermo-hydraulic Simulation of a Helium-Helium Printed Circuit Heat Exchanger**
Injun Lee, Sungyull Hong, Cheolho Bai, and Jaesool Shim(YU)
Chansoo Kim, Sungdeok Hong, and Minhwan Kim(KAERI)
- 12:00 Passive Decay Heat Removal System Options for S-CO₂ Cooled Micro Modular Reactor**
Jangsik Moon, Yong Hoon Jeong, and Jeong Ik Lee(KAIST)

IV. 분과별 논제 및 발표자

제 1 분과 D

원자로시스템기술(Reactor System Technology) - Poster

- 경중수로 및 고온가스 냉각로 기술 (Water Cooled Reactor and High Temperature Gas Cooled Reactor Technology)

좌 장 홍성덕(Sung-Deok Hong), 최한림(Han Rim Choi)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P01D01 Analysis of 2.5% Reactor Inlet Header Break Accident in Wolsong-1**
Ji-hun Kim, Jin hyuck Kim, and Namduk Suh(KINS)
- P01D02 Development of Outer-Iteration Free Scheme for MATRA Code**
Hyuk Kwon, S. J. Kim, J. P. Park, and D. H. Hwang(KAERI)
- P01D03 Implementation of Preconditioned Krylov Subspace Method in MATRA Code for Whole Core Analysis of SMART**
Hyuk Kwon, S. J. Kim, J. P. Park, and D. H. Hwang(KAERI)
- P01D04 Diverse Design Features of EU-APR1400 for Residual Heat Removal Function with Open RCS**
Hyeong Do Kweon, Keun Sung Lee, Yong Soo Kim, and Sung Hwan Kim(KHNP CRI)
- P01D05 Improvement of Emergency Cooldown Tank in Terms of Long-term Cooling**
Joo Hyung Moon, Young-In Kim, and Keung Koo Kim(KAERI)
- P01D06 Preliminary Overview of a Helium Cooling System for the Secondary Helium Loop in VHTR-based SI Hydrogen Production Facilities**
Youngjoon shin, Mintaek Cho, Dahee Kim, Taehoon Lee, Kiyong Lee, and Yongwan Kim(KAERI)
- P01D07 Preliminary Study of the Supercritical CO₂ Hybrid Cycle for the HTGR Application**
Seong Jun Bae, Yoonhan Ahn, and Jeong Ik Lee(KAIST)
- P01D08 Effect of Ion Beam Bombardment on Vacuum Sublimation of Low Density Films**
Jae-Un Kim, Jae-Won Park, Min-Hwan Kim, Sung-Deok Hong, and Yong-Wan Kim(KAERI)
- P01D09 Macroscopic High-temperature Structural Analysis on an Alloy800HT PCHE Prototype**
Keenam Song and M-H Kim(KAERI)
D-P Shin(AD solution)
- P01D10 3D Analysis of the VHTR Lower Plenum Standard Problem Using Unsteady Reynolds Averaged Navier-Stokes and Large Eddy Simulations Models**
Hyeon-Kyeong Choi(SET&Co., Ltd.)
Jong-Woon Park(DU)
- P01D11 TRISO Manufacturing Process Management Using a Control Chart**
Tae Hoon Lee, Ki young Lee, and Young Joon Shin(KAERI)
Min Koo Lee(CNU)
- P01D12 Observation of Compressive Deformation Behavior of Nuclear Graphite by Digital Image Correlation**
Hyun-Ju Kim, Eung-Seon Kim, Min-Hwan Kim, and Yong-Wan Kim(KAERI)

P01D13 MELCOR Simulation on Steady-State and D-LOFC of HTGR with RCCS

Seong-Su Jeon and Su-Hyun Hwang(FNC Tech.)

Chang-Yong Jin, Chang-Wook Huh, and Joog-Seuk Park(KINS)

P01D14 Pressure Drop Experiments on a Flow Channel Filled with Catalysts for Nuclear Hydrogen Production System

Sung-Deok Hong, C. S. Kim, M. H. Kim, and Y. W. Kim(KAERI)

D. U. Seo and G. C. Park(SNU)

IV. 분과별 논제 및 발표자

제 1 분과 E

원자로시스템기술(Reactor System Technology) - Poster - 소듐냉각고속로 설계기술 II (Sodium Cooled Fast Reactor Design Technology II)

좌 장 이재한(Jae-Han Lee), 최치웅(Chiwoong Choi)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

P01E01 Development of Advanced Printed Circuit Heat Exchanger Analysis Code for Various Flow Paths

Seongmin Son, Youho Lee, and Jeong Ik Lee(KAIST)

P01E02 Analysis of Power Ramp Rate and Minimum Power Controllability of the MMS Model for a Plant Dynamics Analysis of a Prototype SFR

Eui Kwang Kim, Dehee Kim, Hyung-Kook Joo, and Tae-Ho Lee(KAERI)

P01E03 Large Eddy Simulation of Fluid Flow and Heat Transfer in the Upper Plenum of Fast Reactor

Dong-Eun Kim, Seok-Ki Choi, and Tae-Ho Lee(KAERI)

Sung-Ho Ko(CNU)

P01E04 CFD Analysis of Printed Circuit Heat Exchanger for the Supercritical CO₂ Brayton Cycle

Seong Gu Kim, Yoonhan Ahn, Jekyoung Lee, and Jeong Ik Lee(KAIST)

Yacine Addad(Khalifa Univ.)

P01E05 Design of DC Conduction Pump for PGSFR Active Decay Heat Removal System

Dehee Kim, Jonggan Hong, and Tae-Ho Lee(KAERI)

P01E06 Preliminary Reactor Head Bolt Design of Prototype Sodium-Cooled Fast Reactor

In-Su Han and Gyeong-Hoi Koo(KAERI)

P01E07 Preliminary Validation of the MATRA-LMR Code Using Existing Sodium-Cooled Experimental Data

Sun Rock Choi and Sang-Ji Kim(KAERI)

P01E08 Structural Analysis of the Pantograph Type IVTM in PGSFR

S. H. Kim and G. H. Koo(KAERI)

P01E09 A Comparative Study of MATRA-LMR/FB with CFD on THORS Bundle 2B Test

Won-Pyo Chang, Jin Yoo, Chi-Woong Choi, and Kwi-Suk Ha(KAERI)

P01E10 Preliminary Safety Analysis of Anticipated Transient without Scram (ATWS) Events for the Prototype GEN-IV SFR (PGSFR) Using MARS-LMR

Chiwoong Choi and Kwiseok Ha(KAERI)

P01E11 Feasibility Test of Commercial CFD Code for Thermal-Hydraulic Analysis of Wire-wrapped Fuel Pin Bundle in SFR

Chiwoong Choi and Kwiseok Ha(KAERI)

Haeyong Jeong(Sejong Univ.)

-
- P01E12 Preliminary Studies of Na_2CO_3 Elimination from Na/ CO_2 Reaction in S- CO_2 Power Cycle Coupled to SFR System**
Hwa-Young Jung and Jeong Ik Lee(KAIST)
Myung-Hwan Wi(KAERI)
- P01E13 Sensitivity Analysis for DHRS Heat Exchanger Performance Tests of PGSFR**
Jonggan Hong, Jae-Hyuk Eoh, Dehee Kim, Tae-Ho Lee, and Ji-Young Jeong(KAERI)
- P01E14 Thermal-hydraulic Analysis in the Pool of PGSFR including the Shielding**
Jung Yoon and Tae-ho Lee(KAERI)
- P01E15 Objective Provision Trees of Reactivity Control Safety Function for Sodium-Cooled Fast Reactor**
Bongsuk Kang and Huichang Yang(TUV)
Namduk Suh(KINS)
- P01E16 Design of Annular Linear Induction Pump for High Temperature Liquid Lead Transportation**
Jae Sik Kwak and Hee Reyoung Kim(UNIST)
- P01E17 Perspectives on Validation and Uncertainty Evaluation of SFR Nuclear Design Code**
Moo-Hoon BAE, Yong Won CHOI, Andong SHIN, and Namduk SUH(KINS)
- P01E18 The Evaluation of PHTS Integrity by the SG SWR Event in PGSFR**
Sang-Jun Ahn, Kwi-SeoK Ha, and Hyung-Kook Joo(KAERI)
- P01E19 Development of Procedures of Leak Before Break Assessment for Sodium Cooled Fast Reactor**
S.Y.Lee and G.H.Koo(KAERI)
K.D.Bae and Y.J.Kim(KU)
- P01E20 An Evaluation of the Fluid-elastic Instability for Intermediate Heat Exchanger of Prototype Sodium-cooled fast Reactor**
Jae-Hun Cho, Sung-kyun Kim, and Gyeong-Hoi Koo(KAERI)
- P01E21 Preliminary Mechanical Design of FHX for PGSFR**
Jin-yup Choo, G.H Kim, and S.K Kim(KAERI)
- P01E22 Dynamic Characteristic Tests for a Submerged Cantilevered Cylindrical Structure**
Chang-Gyu Park, Young-Kyu Lee, Hoe-Woong Kim, and Jong-Bum Kim(KAERI)
- P01E23 Development Status of TRACE Model for PGSFR Safety Evaluation**
Andong SHIN, Yong Won Choi, Ji-hun Kim, and Moohoon BAE(KINS)
- P01E24 Methodology for Extraction of Remaining Sodium of Used Sodium Containers**
Minhwan Jung, Jongman Kim, Youngil Cho, and Ji-Young Jeong(KAERI)
- P01E25 High Temperature Stress Analysis on 61-pin Test Assembly for Reactor Core Sub-channel Flow Test**
Dong-Won Lee, Hyungmo Kim, and Hyeong-Yeon Lee(KAERI)
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- P01E26 Development and Applicability Demonstration of a Remote Inspection Module for Inspection of Reactor Internals in an SFR**
Hoe-Woong Kim, Young-Sang Joo, Chang-Gyu Park, and Jong-Bum Kim(KAERI)
Jin-Ho Bae(NFRI)
- P01E27 Feasibility Study on Two-phase Thermosiphon for External Vessel Cooling Application of SFR**
Jae Young Choi, Sub Lee Song, and Soon Heung Chang(KAIST)
- P01E28 Dynamic Characteristics of a Perforated Cylindrical Test Structure**
Young-Kyu Lee, Chang-Gyu Park, Hoe-Woong Kim, and Jong-Bum Kim(KAERI)
- P01E29 Electromagnet Tests on Primary Control Rod Drive Mechanism of a Prototype Gen-IV SFR**
Lee, Jae-Han and Koo, Gyeong-Hoi(KAERI)

제 1 분과 F

원자로시스템기술(Reactor System Technology) - Poster

- 연구용 원자로 계통 기술(Research Reactor System Technology)

좌 장 박수기(Su-ki Park), 박재관(Jaekwan Park)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P01F01 Concept Design of a Gravity Core Cooling Tank as a Passive Residual Heat Removal System for a Research Reactor**
Kwon-Yeong Lee, Dae-Young Chi, Seong Hoon Kim, Kyoungwoo Seo, and Juhyeon Yoon(KAERI)
- P01F02 Conceptual Design of Electrical System for KJRR**
Hagtae Kim, Jun-Yeon Kim, and Seung-Gyu Doo(KAERI)
Yong-Su Cho(Daewoo E&C)
- P01F03 Experimental Study on Hydraulic Rotation Device for Neutron Transmutation Doping**
Ki-Jung Park, Han-Ok Kang, Yongsoo Park, Seong Hoon Kim, and Cheol Park(KAERI)
- P01F04 Temperature Estimation of a Plate Type Target Cooled by Natural Convection in the Air**
Jonghark Park, Deasung Jo, and Heetaek Chae(KAERI)
- P01F05 Geometric Optimization of Hydraulic Rotation Device for Neutron Transmutation Doping**
Yongsoo Park, Han-Ok Kang, Ki-Jung Park, Seong Hoon Kim, and Cheol Park(KAERI)
- P01F06 Preliminary Numerical Study of Hot Water Layer Temperature on Flow Stratification in Pool of Open-pool Type Research Reactor**
Yong-Seok Choi, Hyun-Gi Yoon, Kyoung-Woo Seo, Seong-Hoon Kim, and Dae-Young Chi(KAERI)
- P01F07 A CHF Model in Narrow Gaps under Saturated Boiling**
Suki Park, Hyeonil Kim, and Cheol Park(KAERI)
- P01F08 CFD Analysis of Siphon Break in a Research Reactor**
Hong Beom Park, Kyoungwoo Seo, Seong Hoon Kim, and Dae Young Chi(KAERI)
- P01F09 Structural Integrity Assessment for SSDM Hydraulic Cylinder of JRTR**
Sanghaun Kim, Jin Haeng Lee, Yeong-Garp Cho, and Yeon-Sik Yoo(KAERI)
- P01F10 Development of NTD Hydraulic Rotation System for Kijang Research Reactor**
Han-Ok Kang, Ki-Jung Park, Yongsoo Park, Seong Hoon Kim, and Cheol Park(KAERI)
- P01F11 Study on the Purification Half-life in an Open-pool Research Reactor**
Jungwoon Choi, Seong-Hoon Kim, Dae-Young Chi, and Cheol Park(KAERI)
- P01F12 Numerical Research on LVDT Sensor for Electromagnet Rigidity Measurement of Bottom Mounted CRDM**
Hyung Huh, Jin-Haeng Lee, and Yeong-Garp Cho(KAERI)

IV. 분과별 논제 및 발표자

제 2분과 A

핵자료, 원자로물리 및 계산과학(Nuclear Data, Reactor Physics and Computational Science)

- 방법론 및 검증(Methods and Benchmarks)

좌 장 박문규(Moon Ghu Park), 심형진(Hyung Jin Shim)

발표장소 303A

일 정 | 5. 29(목)

- 09:00 Comparison of Fuel Axial Expansion Characteristics between the BFS-109-2A Experiment Model and the Target Uranium Core Model**
Sunghwan Yun and Sang Ji Kim(KAERI)
- 09:20 A New Jacobian Matrix Method for Assessing Similarity between Critical Experiments and Real Reactor**
Sunghwan Yun and Sang Ji Kim(KAERI)
- 09:40 Nodal Equivalence Theory Based on Functionalized Discontinuity Factors**
Woosong Kim and Yonghee Kim(KAIST)
- 10:00 Non-overlapping Local/Global(NLG) Iteration Scheme for 2D Transient Method of Characteristics(MOC)**
Bumhee Cho and Nam Zin Cho(KAIST)
- 10:20 A Development of Multi-response CADIS Method for the Optimization of Variance Reduction in Monte Carlo Simulation**
Do Hyun KIM, Song Hyun KIM, Chang Ho SHIN, and Jong Kyung KIM(HYU)
- 10:40 Coffee Break**
- 11:00 Variance Bias Analysis for The Gelbard's Batch Method**
Jae Uk Seo and Hyung Jin Shim(SNU)
- 11:20 Development of an On-The-Fly Doppler Broadening Module in McCARD**
Soo Min Kang and Hyung Jin Shim(SNU)
Luiz C. Leal(ORNL)
- 11:40 An Experiment of Robust Parallel Algorithm for the Eigenvalue Problem of a Multigroup Neutron Diffusion based on Modified FETI-DP**
Jonghwa Chang(KAERI)
- 12:00 Generation of Optimal Basis Functions for Reconstruction of Power Distribution**
Moon-Ghu Park(Sejong Univ..)
- 12:20 An Inverse Function Least Square Fitting Approach of the Buildup Factor for Radiation Shielding Analysis**
Chang Je Park(Sejong Univ.)
Sari Alkhateeb, Gyuhong Roh, and Byungchul Lee(KAERI)

제 2 분과 B

핵자료, 원자로물리 및 계산과학(Nuclear Data, Reactor Physics and Computational Science)

- 산업 응용(Industrial Applications)

좌 장 김용희(Yonghee Kim), 김종운(Jong Woon Kim)

발표장소 303B

일 정 | 5. 29(목)

- 09:00 A Proposal of Estimation Methodology to Improve Calculation Efficiency of Sampling-based Method in Nuclear Data Sensitivity and Uncertainty Analysis**
Myung Sub SONG, Song Hyun KIM, and Jong Kyung KIM(HYU)
Jae Man NOH(KAERI)
- 09:20 Sensitivity and Uncertainty Analysis for UAM Pin-Cell Benchmark by McCARD**
Ho Jin Park and Jin Young Cho(KAERI)
Hyung Jin Shim(SNU)
- 09:40 Status of Verification and Validation of Physics Codes in COSINE Code Package**
Yixue Chen, Yeshuai Sun, Zhanquan Liu, Hui Yu, Changhui Wang, Yuhang Yan, and Xiaoyu Hu(SNPSDC)
- 10:00 A Preliminary Study on Time Projection Chamber Simulation for Fission Cross Section Measurements with Geant4**
Jong Woon Kim and Young-Ouk Lee(KAERI)
Jae Cheon Kim(IFS)
- 10:20 Rhodium SPND's Error Reduction Using Extended Kalman Filter combined with Time Dependent Neutron Diffusion Equation**
Jeong Hun Lee, Tong Kyu Park, and Seong Su Jeon(FNC Tech.)
- 10:40 Coffee Break**
- 11:00 Evaluation of Bias for SCALE 6.1 MAVRIC Sequence Calculation Using Measurement Data of Neutron Flux on Ex-Core Detector**
Hyo Chul Ahn, Myeong Hoon Lee, and Yong IL Kim(KEPCO E&C)
- 11:20 A Novel Burnable Absorber Concept for PWR: BigT(Burnable Absorber-Integrated Guide Thimble)**
Mohd-Syukri Yahya and Yonghee Kim(KAIST)
Chang Kyu Chung(KEPCO E&C)
- 11:40 Application of the BigT Burnable Absorber to an OPR1000 Core**
HwanYeal Yu and Yonghee Kim(KAIST)
HyeongHeon Kim(KEPCO E&C)
- 12:00 Detailed Monte Carlo Evaluation of the Power Coefficient of Reactivity of CANDU Reactor**
Mohammad Abdul Motalab, Donny Hartanto, and Yonghee Kim(KAIST)
- 12:20 Uncertainty Margin of Void Packet Determination for Ultrasonic Test in NPP**
Seung-Chan Lee and Je-Jung Sung(KHNP CRI)
Jong-Chan Lee and Jong-Uk Kim(FNC Tech.)

IV. 분과별 논제 및 발표자

제 2 분과 C

핵자료, 원자로물리 및 계산과학(Nuclear Data, Reactor Physics and Computational Science)

- 산형로 및 미래 시스템(Advanced Reactors and Future Systems)

좌 장 홍서기(Ser Gi Hong), 조창근(Chang Keun Jo)

발표장소 302

일 정 | 5. 30(금)

- 09:00 Electromagnetic Study on HCCR TBM for ITER Major Disruption Scenarios**
Duck Young Ku, Youngmin Lee, Seungyon Cho, and Mu-Young Ahn(NFRI)
- 09:20 Physical Investigation for Neutron Consumption and Multiplication in Blanket Module of Fusion-Fission Hybrid Reactor**
M. Tariq Siddique and Myung Hyun Kim(KHU)
- 09:40 Analysis on Radioactive Waste Transmutation in Light Water Cooled Hyb-WT**
Seong-Hee HONG and Myung Hyun KIM(KHU)
- 10:00 Neutronics Study of the KANUTER Space Propulsion Reactor**
Paolo Venneri, Seung Hyun Nam, and Yonghee Kim(KAIST)
- 10:20 Preliminary Core Analysis of a Micro Modular Reactor**
Chang Keun Jo and Jongwa Chang(KAERI)
Francesco Venneri(USNC)
Ayman Hawari(NCSU)
- 10:40 Coffee Break**
- 11:00 Effects of Radial Reflector Material on the Performances of Small LWR Core Using ThO₂-UO₂ and FCM Fuels**
Gonghoon Bae and Ser Gi Hong(KHU)
- 11:20 Option Study for SFR Transmutation Reactor Core**
Tae-Yang NOH and Myung Hyun KIM(KHU)
- 11:40 Calculation of Excore Detector Responses upon Control Rods Movement in PGSFR**
Pham Nhu Viet HA, Min Jae LEE, Chang Moo KANG, and Sang Ji KIM(KAERI)
- 12:00 A Consistent Comparative Study of Advanced Sodium-cooled Fast Burner Cores loaded with Thorium and Uranium-based Metallic Fuels**
WuSeung You and Ser Gi Hong(KHU)

제 2 분과 D

핵자료, 원자로물리 및 계산과학 (Nuclear Data, Reactor Physics and Computational Science) - Poster

좌 장 이현철(Hyun Chul Lee), 구본승(Bon Seung Koo)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P02D01 Application of SCALE 6.1 MAVRIC Sequence for Activation Calculation in Reactor Primary Shield Concrete**
Yong IL Kim(KEPCO E&C)
- P02D02 Verification of the DEFENS Code through the CANDU Problems with Rectangular Geometry**
Eun Hyun Ryu and Yong Mann Song(KAERI)
- P02D03 Massive Parallelism of Monte-Carlo Simulation on Low-End Hardware Using Graphic Processing Units**
Joe Mwangi Mburu and Chang Joo Hah(KINGS)
- P02D04 Performance Test of Core Protection and Monitoring Algorithm with DLL for SMART Simulator Implementation**
BonSeung Koo, DaeHyun Hwang, and KeungKoo Kim(KAERI)
- P02D05 Nuclide Inventory Calculation Using MCNPX for Wolsung Unit 1 Reactor Decommissioning**
Mohamad Hairie Rabir, Kyoung Ho Noh and Chang Joo Hah(KINGS)
- P02D06 Measurement of Production Cross Sections of Neodymium induced by Proton Beam**
Sung-Chul Yang, Kwangsoo Kim, and Guinyun Kim(KNU)
Tae-Yung Song and Young-Ouk Lee(KAERI)
- P02D07 Measurement of $^{27}\text{Al}(\gamma, 2\text{pn})^{24}\text{Na}$ Reaction Cross-sections with 55-, 60-, 65- MeV Bremsstrahlung Employing MCNPX Simulation**
S. G. Shin, Y. Kye, and M. H. Cho(POSTECH)
W. Namkung(PAL)
G. N. Kim and K. Kim(KNU)
M. W. Lee and Y. R. Kang(DIRAMS)
- P02D08 Measurement of Isomeric Ratio for $^{198}\text{Pt}(\text{g}, \text{n})^{197}\text{Pt}$ with End-point Bremsstrahlung Energies of 55-, 60- and 65- MeV at Pohang Neutron Facility**
Y. U. Kye, S. G. Shin, and M. H. Cho(POSTECH)
W. Namkung(PAL)
G. N. Kim and K. S. Kim(KNU)
M. W. Lee(DIRAMS)
S. C. Yang(KAERI)
N. V. Do and P. D. Khue(IP)
H. Naik(BARC)
- P02D09 Verification of Burned Core Modeling Method for Monte Carlo Simulation of HANARO**
Dong-Keun Cho and Myong-Seop Kim(KAERI)

-
- P02D10 Use of Exponential Approximation on Numerical Analysis of Discrete Ordinates Equation**
Kyung-O KIM, Hae Sun JEONG, Hong-Chul KIM, Gyuhong ROH, and Byungchul LEE(KAERI)
- P02D11 Assessment of the Influence of Thermal Scattering Library on Monte-Carlo Calculation**
Gwanyoung Kim and Swengwoong Woo(KINS)
- P02D12 Thermal Analysis Study of Irradiation Capsule**
Sung Ryul Kim, Man Soon Cho, Kee Nam Choo, and Young Hwan Kang(KAERI)
- P02D13 Measurements of Isomeric Yield Ratios for $^{133m,g}\text{Ce}$ and $^{137m,g}\text{Ce}$ at 55-, 60-, and 65-MeV Bremsstrahlung**
H. J. Kim, M. W. Lee, D. H. Jeong, J. K. Kim, K. M. Yang, and Y. R. Kang(DIRAMS)
T. I. Ro(DAU)
S. G. Shin and Y. Kye(POSTECH)
G. N. Kim(KNU)
- P02D14 Comparison of the Reactor Physics Characteristics between the Standard and Modified 37-Element Fuel for CANDU6**
Young Ae Kim, Hwan Soo Lee, and Eun Ki Lee(KHNP CRI)
- P02D15 A Sensitivity Study on the Radiation Shield of KSPR Space Reactor**
S. Cerba, Hyun Chul Lee, Hong Sik Lim, and Jae Man Noh(KAERI)
- P02D16 An Analysis of Spherical Particles Distribution Randomly Packed in a Medium for the Monte Carlo Implicit Modeling**
Jae Yong LEE, Song Hyun KIM, Chang Ho SHIN, and Jong Kyung KIM(HYU)
- P02D17 Generation of Incremental Cross Sections for Modified 37-element Fuel of CANDU6**
Hwan-Soo LEE and Young-Ae KIM(KHNP CRI)
- P02D18 A Study on the Construction of Experimental System to Verify Criticality Control Performance of Neutron Absorber based on Artificial Rare Earth Compound**
Jae Hyun KIM, Song Hyun KIM, Ji Sung PARK, Chang Ho SHIN, and Jong Kyung KIM(HYU)
Hwan Seo PARK and Jung Hun CHOE(KAERI)
- P02D19 A Proposal on the Geometry Splitting Strategy to Enhance the Calculation Efficiency in Monte Carlo Simulation**
Gi Yeong HAN, Song Hyun KIM, Do Hyun KIM, Chang Ho SHIN, and Jong Kyung KIM(HYU)
- P02D20 Uncertainty Analysis of Few Group Cross Sections Based on Generalized Perturbation Theory**
Tae Young Han, Hyun Chul Lee, and Jae Man Noh(KAERI)
- P02D21 Recent Update on RAON Neutron Science Facility for Neutron-induced Cross-section and Various Application**
Jae Cheon Kim, Jae Bum Son, and Gi Dong Kim(IFS)
Yong-Kyun Kim(HYU)
- P02D22 Neutronic Analysis of HTTR Core Using DeCART Code**
Chang Joon Jeong, Hyun Chul Lee, and Jae Man Noh(KAERI)
-

P02D23 The Progress in the Development a New Point Kernel Shielding Code Based on the Iterative Scheme for Treating the Stratified Shields

Sari F. Alkhatib(UST)

Chang Je Park(Sejong Univ.)

Gyuhong Roh and Byungchul Lee(KAERI)

P02D24 Burnup Effect on Nuclear Fuel Cycle Cost Using an Equilibrium Model

S. R. Youn(UST)

S. K. Kim and W. I. Ko(KAERI)

IV. 분과별 논제 및 발표자

제 3 분과 A

방사성폐기물관리(Radioactive Waste Management)
- 원전 해체 및 제염(NPP Decommissioning and Decontamination)

좌 장 최병선(Byung-Seon Choi), 이성철(Seong-Cheol Lee)

발표장소 304

일 정 | 5. 29(목)

- 09:00

Process Simulation of Seamless Remote Cutting System for Reactor Pressure Vessels
Dongjun Hyun, Sung-Uk Lee, Yong-Chil Seo, Geun-Ho Kim, Jonghwan Lee, Kwan-Seong Jeong, Byung-Seon Choi, and Jeikwon Moon(KAERI)
- 09:20

Case Study on Large Component Removal in Decommissioning of Commercial NPPs in USA
Seong-Cheol Lee and Chang-Lak Kim(KINGS)
- 09:40

Survey on Dismantling Technologies of Nuclear Power Plants
Poong Eil Juhn(KAEEA)
Kune Y. Suh(SNU)
- 10:00

Characterization for Soil Fixation by Polyelectrolyte Complex
Yong Suk Choi, Sang Woon Kwon, Hee-Man Yang, Kune Woo Lee, Bum-Kyoung Seo, and Jei Kwon Moon(KAERI)
- 10:20

Magnetite Dissolution Performance of HYBRID-II Decontamination Process
Seon-Byeong Kim, Woo-Sung Lee, Hui-Jun Won, Jei-Kwon Moon, and Wang-Kyu Choi(KAERI)
- 10:40

Foam Decontamination Containing Silica Nanoparticles of Various Structures
In-Ho Yoon, Chorong Kim, Chong-Hun Jung, Han-Beom Yang, Sang Yoon Park, Jei-Kwon Moon, and Wang-Kyu Choi(KAERI)
Suk Bon Yoon(KHNP)

제 3 분과 B

방사성폐기물관리(Radioactive Waste Management)

- 방사성폐기물 및 사용후핵연료 관리와 방사화학 (Radwaste & SF Management and Radiochemistry)

좌 장 서기석(Ki Seok Seo), 하영경(Yeong-Keong Ha)

발표장소 304

일 정 | 5. 30(금)

- 09:00 Development of Accident Scenario for Interim Spent Fuel Storage Facility Based on Fukushima Accident**
Dongjin Lee, Kwangsoon Choi, HyungJoon Yoon, and JungSu Park(KEPCO E&C)
- 09:20 ATR-FTIR and UV-Vis Spectroscopic Studies of Aqueous U(IV)-oxalate Complexes under Mild Acidic Conditions**
Wansik Cha, Euo Chang Jung, Hye-Ryun Cho, Yang-Soon Park, and Yeong-Keong Ha(KAERI)
- 09:40 Simulation-based Investigation of Electric Power Generation by Using Gamma Radiation from Spent Nuclear Fuel**
Haneol Lee and Man-Sung Yim(KAIST)
- 10:00 Iodine Gas Trapping Using Granular Porous Bismuth**
Jae Hwan Yang, Jin Myeong Shin, Jang Jin Park, and Geun Il Park(KAERI)
Man-Sung Yim(KAIST)
- 10:20 Analysis of Discharged Gas from Incinerator Using Simulated Organic Solution**
Seungil Kim, Hyunki Kim, Jun Heo, and Dukwon Kang(HaJI Co.Ltd.)
Yunbok Kim and Youngbock Kwon(KORAD)
- 10:40 Coffee Break**
- 11:00 Safety Tests of Concrete Storage Cask for Spent Nuclear Fuel**
Sanghoon Lee, Sang-Soon Cho, Kyung-Sik Bang, and Ki-Seog Seo(KAERI)
- 11:20 Behavior of Iodine Aerosols**
Hee-Jung Im, Jei-Won Yeon, and Jin-Ho Song(KAERI)
- 11:40 A New Dynamic Model for Nuclear Fuel Cycle System Analysis**
Sungyeol Choi and Won Il Ko(KAERI)

IV. 분과별 논제 및 발표자

제3분과 C

방사성폐기물관리(Radioactive Waste Management) - Poster - 방사성폐기물 처리 및 처분(Radioactive Waste Treatment & Disposal)

좌 장 이연명(Youn-Myoung Lee), 조혜륜(Hye-Ryun Cho)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P03C01 The Lessons Learned from Andra's Experiences on the Leachate Collection System of the Surface Disposal Facility**
Keun-Pack CHANG, Hanjeong Na, Joon-Ho LEE, and Dong-Jae LEE(KEPCO E&C)
- P03C02 A Preliminary Assessment of a Deep Borehole Disposal of Spent Fuels**
Youn-Myoung Lee and Jongtae Jeon(KAERI)
- P03C03 Enhanced Earthquake-Resistance on the High Level Radioactive Waste Canister**
Young-Chul Choi, Chan-Hoon Yoon, Jea-Owan Lee, Jin-Sup Kim, and Heui-Joo Choi(KAERI)
- P03C04 Key Technologies Analyses to Develop a Deep Borehole Disposal Concept for HLW**
Jongyoul LEE, Heuijoo CHOI, Geonyoung KIM, Daeseok BAE, and Kyeongsoo KIM(KAERI)
- P03C05 Design and Performance Assessment of a Conceptual Cover Cap of Near Surface Repository for Short Lived Low and Intermediate Level Radioactive Waste**
Ruth Asaba and Chang-Lak Kim(KINGS)
- P03C06 Design of Performance Experiment for Gas Permeable Seal in LILW Disposal Facility**
Juyub Kim and Juyoul Kim(FNC Tech.)
Haeryong Jung and Jae-Chul Ha(KORAD)
- P03C07 Consideration of Criteria for a Conceptual Near Surface Radioactive Waste Disposal Facility in Kenya**
Stanley Werugia Nderitu and Chang-Lak Kim(KINGS)
- P03C08 Status of Drum Assay System for Disposal of Radioactive Waste Drums Stored at KAERI**
Won Hyuk Jang, Kyung Kil Kwak, Dae Seok Hong, and Ki Baek Shin(KAERI)
- P03C09 Thermal Dimensioning of SiC Canister Applied A-KRS**
In-Young Kim, Heui-Joo choi, and Malgobalgebitnala Yoo(KAERI)
- P03C10 Study on the Ozonation of Organic Wastes (1)**
Ki Hong Kim, Il Sik Kang, and Dae Seok Hong(KAERI)
- P03C11 Study on a Minimization of LiCl waste salt Generated from Pyrochemical Process**
Jung-Hoon Choi, Yung-Zun Cho, Hee-Chul Eun, Ki-Rak Lee, Hwan-Seo Park, and Geun-Il Park(KAERI)
- P03C12 Conditioning of Radioactive Wastes Prior to Disposal; Segregation and Repackaging**
Il Sik Kang, Ki Hong Kim, Dae Seok Hong, and Bum Chul Lee(KAERI)
- P03C13 Spectroscopic Speciation of Plutonium Reduced by Electrolysis**
Hye-Ryun Cho, Wansik Cha, Euo Chang Jung, and Kyuseok Song(KAERI)

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- P03C14 The Status of Monitoring of Carbon-14 Emissions from LWRs in Korea**
Sung Il Kim, Hai Yong Jung, Dae Sik Yook, Chan Woo Jeong, and Byung Soo Lee(KINS)
- P03C15 Vertical Distribution of ⁹⁰Sr Activities in the Soils of Jeju Island, Korea**
Chung Hun Han, Duk-Woo Kim, Lee Young Gyu, and Jae Woo Park(JNU)
- P03C16 Decommissioning Combustible Waste Treatment Using Oxygen-Enriched Incinerator**
Byung-Youn Min, Yoon-Ji Lee, Gyoung-Su Yun, Ki-Won Lee, and Jei-Kwon Moon(KAERI)
- P03C17 Computational Benchmark on Reductive Extraction Process in LiCl-KCl/Bi System**
Sungjune Sohn, Jaeyeong Park, and Il Soon Hwang(SNU)

IV. 분과별 논제 및 발표자

제 3 분과 D

방사성폐기물관리(Radioactive Waste Management) - Poster - 원전 해체 및 제염(NPP Decommissioning and Decontamination)

좌 장 원휘준(Hwi Joon Won), 김학수(Hak Soo Kim)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P03D01 Decontamination of Heavy Metal in Soil by Using Supercritical Carbon Dioxide**
Hyeon Kim and KwangHeon Park(KHU)
- P03D02 General Approach and Element for Estimating Decommissioning Cost**
Hak-Soo Kim and Hee-Geun Kim(KHNP CRI)
- P03D03 A Comparison of Electrokinetic Method and Electrokinetic-electrodialytic Method for Soil Decontamination**
Gye-Nam Kim, Seung-Soo Kim, Uk-Rang Park, Gyu-Seong Han, and Jei-Kwon Moon(KAERI)
- P03D04 Drawing the Optimal Design Factor of a Metal Filter for Capturing Radioactive Aerosol Using Particle Collection Modeling**
Seunguk Lee, Minchan Park, and Jaekeun Lee(EERI)
- P03D05 A study on the Decontamination of the Gravels Contaminated by Uranium**
Uk-Ryang Park, Gye-Nam Kim, Seung-Soo Kim, and Jai-Kwon Moon(KAERI)
- P03D06 The Evaluation of Crevice Corrosion of Inconel-600 and 304 Stainless Steel in Reductive Decontamination Solutions**
Jun-Young Jung, Sang-Yoon Park, Hui-Jun Won, Wang-Kyu Choi, and Jei-Kwon Moon(KAERI)
So-Jin Park(CNU)
- P03D07 Possibility of Localized Corrosion of PWR Primary Side Materials in Oxidative Decontamination Condition**
Sang Yoon Park, Jun Young Jung, Hui-Jun Won, Seon Byeong Kim, Wang-Kyu Choi, and Jei-Kwon Moon(KAERI)
- P03D08 Development of Training System to Prevent Accidents During Decommissioning of Nuclear Facilities**
KwanSeong Jeong, JeiKwon Moon, ByungSeon Choi, Dongjun Hyun, Jonghwan Lee, IkJune Kim, GeunHo Kim, and JaeSeok Seo(KAERI)
- P03D09 Highly Water Soluble Nanoparticles as a Draw Solute in Forward Osmosis for the Treatment of Radioactive Liquid Waste**
Hee-Man Yang, Hye Min Choi, Sung-Chan Jang, Bum-Kyoung Seo, Kune Woo Lee, and Jei Kwon Moon(KAERI)
- P03D10 Dissolution of Simulated Iron Oxide by HYBRID Solution**
H. J. Won, W. S. Lee, S. B. Kim, S. Y. Park, D. S. Hwang, W. K. Choi, and J. K. Moon(KAERI)
- P03D11 Radiological Assessment of the Dose Distribution Around the Steam Generator**
Geun-Ho Kim, Byung-Seon Choi, Kwan-Seong Jeong, Dongjun Hyun, Jonghwan Lee, IkJune Kim, JaeSeok Seo, and Jeikwon Moon(KAERI)

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- P03D12 Development of Nuclear Decontamination Technology Using Supercritical Fluid**
Wonyoung Jung, Kwangheon Park, Jihye Park and Donghee Lee(KHU)
- P03D13 Study of Soil Decontamination Method Using Supercritical Carbon Dioxide and TBP**
Jihye Park, Kwangheon Park, and Wonyoung Jung(KHU)
- P03D14 Decomposition Reaction of Hydrazine in a High Radiation Field**
Woo-Seong Lee, Hui-Jun Won, Seon-Byeong Kim, Sang-Yoon Park, Wang-Kyu Choi, and Jei-Kwon Moon(KAERI)
- P03D15 A Prediction on the Unit Cost Estimation for Decommissioning Activities Using the Experienced Data from DECOMMIS**
Seung Kook Park, Hee Seong Park, Yoon Dong Choi, Chan Ho Song, and Jei Kwon Moon(KAERI)
- P03D16 Boron Removal in Radioactive Liquid Waste by Forward Osmosis Membrane**
Doo-Seong Hwang, Hei Min Choi, Kune Woo Lee, and Jei-Kwon Moon(KAERI)
- P03D17 Effect of Chemical Reagents in Foam Decontamination**
Han Beom Yang, In-Ho Yoon, Chong-Hun Jung, and Wang-Kyu Choi(KAERI)

IV. 분과별 논제 및 발표자

제3분과 E

방사성폐기물관리(Radioactive Waste Management) - Poster - 사용후핵연료 관리(Spent Fuel Management)

좌 장 박병기(Byunggi Park), 정성환(Seong Hwan Chung)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P03E01 Development of High-Temperature Transport System for Molten Salt in Pyroprocessing**
Sung Ho Lee, In Tae Kim, and Sung Bin Park(KAERI)
- P03E02 Probabilistic Estimates of Nuclear Fuel Cycle Cost for Pyro-SFR Recycling and Direct Disposal Using a Dynamic Model**
S. K. Kim and W. I. Ko(KAERI)
- P03E03 Open Pool Fire Test of Dual Purpose Cask for Spent Fuel**
K. S. Bang, S. H. Yu, S. H. Lee, J. C. Lee, and K. S. Seo(KAERI)
- P03E04 Process Faults Analysis and Design Considerations for Pyroprocess Hot Cell Safety**
G.S. You, W.M. Choung, J.H. Ku, S.I. Moon, and H.D. Kim(KAERI)
- P03E05 Comparison of Activation Analysis Codes between CINDER'90 and ORIGEN-S**
Jeong Dong Kim, Hong Yeop Choi, Yong Deok Lee, and Ho-Dong Kim(KAERI)
- P03E06 Shielding Structure Analysis for LSDS Facility**
Choi Hong Yeop, Kim Jeong Dong, Lee Yong Deok, and Kim Ho Dong(KAERI)
- P03E07 Salt Separation from Uranium Deposits in Integrated Crucible**
S. W. Kwon, K. M. Park, J. H. Chang, J. G. Kim, and S. B. Park(KAERI)
- P03E08 Discrete Event System Based Pyroprocessing Modeling and Simulation: Oxide Reduction**
H. J. Lee, W. I. Ko, S. Y. Choi, S. K. Kim, J. M. Hur, E. Y. Choi, H. S. Im, K. I. Park, and I. T. Kim(KAERI)
- P03E09 Identification of Safety SSCs and ACs for Pyroprocess Facility**
Seong-In Moon, Gil-Sung You, Seok-Jun Seo, Won-Myung Chong, Jeong-Hoe Ku, and Ho-Dong Kim(KAERI)
- P03E10 Performance Test of the Salt transfer and Pellet Fabrication of UCl₃ Making Equipment for Electrorefining**
M.S.WOO, H.J.JIN, G.I.PARK, and S.B.PARK(KAERI)
- P03E11 Importance of Computer Model Validation in Pyroprocessing Technology Development**
Y. E. Jung, Hui Li, and M. S. Yim(KAIST)
- P03E12 A Study of Integrity Evaluation System for Spent Fuel and Selection of the Representative Spent Fuel**
J. G. Kim, S. K. Lee, and C. J. Lim(KEPCO NF)
J. K. Kim and S. J. Lee(KORAD)
- P03E13 CFD Simulation of Heat and Fluid Flow for Spent Fuel in a Dry Storage**
Wang-Kee In, Young-Kyun Kwack, Dong-Hak Kook, and Yang-Hyun Koo(KAERI)

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- P03E14 A Study of Functional Simulation for Reliability of the Device Design**
Hee Seong Park, Jae Won Lee, Seung Kook Park, and Jei kwon Moon(KAERI)
- P03E15 Structural Evaluation and Analysis Under Normal Conditions for Spent Fuel Concrete Storage Cask**
Taechul Moon, Chang-yeal Baeg, and Sitae Yoon(KORAD)
Insoo Jung(KONES)
- P03E16 Thermal Analysis of Conceptual Multi-Purpose Dry Cask for Spent Nuclear Fuel**
Byoungcheol Hwang, Chanwoo Kim, Mooneon Lee, Hyunsun Park, and Moohwan Kim(POSTECH)
- P03E17 Feasibility Study on Fiber-optic Radiation Sensor for Remote Gamma-ray Spectroscopy**
Hyesu Jeon, Kyoung Won Jang, Sang Hun Shin, Seon Geun Kim, Seunghan Hong, Hyeok In Sim, Jaeseok Kim, Jaeseok Jang, Guwon Kwon, Wook Jae Yoo, and Bongsoo Lee(KKU)
- P03E18 Electrochemical Behavior of the Lanthanide at Cd, Bi Electrodes in LiCl-KCl molten salt**
Beom-Kyu Kim, Ae-Ri Lee, Yong-Il Kim, and Byung Gi Park(SCHU)

IV. 분과별 논제 및 발표자

제 4 분과 A

핵연료 및 원자력재료(Nuclear Fuel and Materials)

-핵연료(Fuel)

좌 장 천진식(Jin Sik Cheon), 류호진(Ho Jin Ryu)

발표장소 402A

일 정 | 5. 29(목)

- 09:00** **Influence of Fuel-Matrix Interaction on the Deformation of U-Mo Dispersion Fuel**
Ho Jin Ryu(KAIST)
Yeon Soo Kim(ANL)
- 09:20** **Coating Thickness Measurement of the Simulated TRISO-Coated Fuel Particles Using an Image Plate and a High Resolution Scanner**
Woong Ki Kim, Yeon Ku Kim, Kyung Chai Jeong, Young Woo Lee, Bong Goo Kim, Sung Ho Eom, Young Min Kim, Sung Hwan Yeo, and Moon Sung Cho(KAERI)
- 09:40** **Assessment on Startup Ramp Rate and Threshold Power of OPR1000**
Kim Ki-Young, Kim Yong-Bae, Cha Gyun-Ho, and Kim Yong-Deog(KHNP CRI)
- 10:00** **Post Irradiation Examination on SMIRP-1 Fuel Rods**
Jin Sik Cheon, B.O. Lee, C.T. Lee, J.H. Kim, B.G. Kim, J.H. Kim, S.J. Oh, K.H. Kim, H.M. Kim, B.O. Yoo, Y.H. Jung, and C.B. Lee(KAERI)
- 10:20** **Impacts of Fuel Rod Performance to the Safety Analysis**
Joosuk Lee, Hyedong Jeong, and Swengwoong Woo(KINS)
- 10:40** **Coffee Break**
- 11:00** **Feasibility of Accident-Tolerant FCM Replacement Fuel for CANDUs**
Won Jae Lee and Chang Keun Jo(KAERI)
Francesco Venneri(USNC)
- 11:20** **Effect of Fiber Volume Fraction on Hoop Strength of SiC Triplex Tube**
Daejong Kim, Hyun-Guen Lee, Ji Yeon Park, and Weon-Ju Kim(KAERI)
- 11:40** **Microstructure and Hardness of ZrC Deposited on TRISO Coated Particles After Heat Treatment Above 1800°C**
Daejong Kim, Myung-Jin Ko, Hyun-Guen Lee, Ji Yeon Park, Weon-Ju Kim, Young-Bum Chun, and Moon Sung Cho(KAERI)
- 12:00** **Dependence of Corrosion Behavior of SiC Ceramics on PWR Water Chemistry**
Weon-Ju Kim, Daejong Kim, Ji Yeon Park, and Jeong-Yong Park(KAERI)

제 4 분과 B

핵연료 및 원자력재료(Nuclear Fuel and Materials)

- 재료(Materials)

좌 장 황성식(Seong Sik Hwang), 신찬선(Chansun Shin)

발표장소 402B

일 정 | 5. 29(목)

- 09:00 Specimen Size Effects on Mechanical Properties of Small-scale Mechanical Testing**
Chansun Shin(MJU)
Sangyeob Lim, Hyung-ha Jin, and Junhyun Kwon(KAERI)
Taehong Ahn(POSCO)
Peter Hosemann(UCLA)
- 09:20 Microstructural Change of Proton Irradiated 316 Stainless Steels**
Seong Sik Hwang, Yun Soo Lim, Sung Woo Kim, Min Jae Choi, Hyung Ha Jin, and Han Ok Lee(KAERI)
- 09:40 Effect of Grain Size on Void Swelling in Irradiated Materials: A Phase-field Approach**
Kunok Chang, Gyeong-Geun Lee, and Junhyun Kwon(KAERI)
- 10:00 Influence of Sc Addition on Tensile, Creep and Impact Properties of RAFM steel**
Y.B. Chun, S.H. Kang, S. Noh, C.H. Han, B.K. Choi, K.B. Kim, D.W. Lee, T.K. Kim, Y.H. Jeong, and C.K. Rhee(KAERI)
S. Cho(NFRI)
- 10:20 MD-portal Materials Database: Effective Materials Property Information Management in Nuclear Energy Systems**
Gyeong-Geun Lee, Soyeon Kil, and Junhyun Kwon(KAERI)
- 10:40 Coffee Break**
- 11:00 Time-dependent Creep Crack Growth Behavior of Alloy 617 at 800°C**
Woo-Gon Kim, Min-Hwan Kim, and Yong-Wan Kim(KAERI)
Jae-Young Park and I.M.W. Ekaputra(PKNU)
- 11:20 High Temperature Creep Strength of Advanced Radiation Resistant Oxide Dispersion Strengthened Steels**
Sanghoon Noh and Tae Kyu Kim(KAERI)
- 11:40 Understanding of Early Stage Oxidation on Ni Using First Principles Calculation and Molecular Dynamics Simulation**
Kwang Beom Ko, Jong Jin Kim, and Ji Hyun Kim(UNIST)
- 12:00 Carbide Transformation in Haynes 230 during Long-term Exposure at High Temperature**
Ho Jung Lee, Hyunmyung Kim, Sunghoon Hong, and Changheui Jang(KAIST)
- 12:20 Dissimilar Joining of ODS and F/M Steel Tube by Friction Stir Welding**
Suk Hoon Kang, Sanghoon Noh, Jun Hwan Kim, and Tae Kyu Kim(KAERI)

IV. 분과별 논제 및 발표자

제 4 분과 C

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

좌 장 김용덕(Yong Deok Kim), 김태규(Tae Kyu Kim)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P04C01 Microstructure Evolution of Hot-rolled ODS Steel during Annealing**
Y.B. Chun, S.H. Kang, S. Noh, and T.K. Kim (KAERI)
- P04C02 Suppressed Superconducting Properties of Ti-Doped(Cu_{0.5}Ti_{0.5})Ba₂Ca₂Cu₃O_{10-δ} Superconductors**
Muhammad Arif, Abhinav Gairola, Kune Y. Suh(SNU)
- P04C03 Effect of Surface Roughness on Corrosion Behavior of Alloy 690TT in Simulated Primary Coolant of PWRs**
Myung Ji Seo, Hee-Sang Shim, Kyung Mo Kim, and Do Haeng Hur(KAERI)
Sun Ick Hong(CNU)
- P04C04 MD-portal: Highly Effective Website for Nuclear Materials Information Management**
Soyeon Kil, Gyeong-Geun Lee, and Junhyun Kwon(KAERI)
- P04C05 Corrosion Behavior and Microstructure of Zirconium-Yttrium Alloy**
Chung-Yong Lee, Min-Young Choi, Yoon-Ho Kim, and Yong-Kyoon Mok(KEPCO NF)
- P04C06 Development of a Quantitative Analysis Program for WDS-SEM**
Hyoung-Mun Kwon, Hang-Seok Seo, Wan-Ho Oh, and Dosik Kim(KAERI)
- P04C07 Solid-state Diffusion Bonding of Candidate Fe-base and Ni-base Alloys for the Application of S-CO₂ Cycle Heat Exchanger**
Injin Sah, Sunghoon Hong, and Changheui Jang(KAIST)
- P04C08 Low-Temperature and Long-Term Irradiation Testing of HANARO Instrumented Capsule**
Kee Nam Choo, Man Soon Cho, Cheol Yong Lee, Sung Woo Yang, Yoon-Taek Shin, Seng-Jae Park, Young Hwan Kang, and Sang Jun Park(KAERI)
- P04C09 The Effect of Discontinuous Cracks on Elastic and Inelastic Responses of Fracture Toughness and Creep Crack Growth Tests**
Nak-Hyun Kim and Gyeong-Hoi Koo(KAERI)
Yun-Jae Kim(KU)
Catrin M. Davies(ICL)
- P04C10 Vacuum Plasma Spraying W-coated Reduced Activation Structural Steels for Fusion Plasma Facing Components**
Sanghoon Noh and Tae Kyu Kim(KAERI)

제 4 분과 D

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

좌 장 이봉상(Bong Sang Lee), 장진성(Jinsung JANG)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

P04D01 Observation of TEM Microstructure for β -quenched Zr-Nb Alloys

Yeon-Soo Na, Tae-Sik Jung, Yong-Kyoon Mok, and Jae-Ik Kim(KEPCO NF)

P04D02 Simulation of Sputtering Damage of Tungsten Coating Layer on First Wall Materials of a Fusion Reactor

Hyunmyung Kim, Ho Jung Lee, and Changheui Jang(KAIST)

P04D03 Effect of Proton Irradiation on Irradiation Assisted Stress Corrosion Cracking in PWR

Han Ok Lee, Mi Jin Hwang, Sung Woo Kim, and Seong Sik Hwang(KAERI)

P04D04 Study on the Hot Extrusion Process of Advanced Radiation Resistant Oxide Dispersion Strengthened Steel Tubes

Byoungkwon Choi, Sanghoon Noh, Ki-baik Kim, Suk Hoon Kang, Young-bum Chun, and Tae Kyu Kim(KAERI)

P04D05 A Study on the Anti-Oxidation Effects of SiC/SiC by Plasma-Enhanced Chemical Vapor Deposition Process

DongHee Lee and KwangHeon Park(KHU)

P04D06 The Effect of Single and Double Quenching Heat Treatments on the Mechanical Properties of Low Alloy Steel

Kyeongpil Kim, Byung Jun Kim, Sanghui Lee, Jae-ho Jang, and Dae-Geun Nam(KITECH)

Gi-Chan Sung(Sehwa M&P Co., LTD)

P04D07 An Evaluation of Mechanical and High-temperature Corrosion Properties of Ni-Cr Alloy with Composition of Alloying Elements

Sujin Jung and Dong-Jin Kim(KAERI)

P04D08 Characterization of Nano-sized ODS Clusters in Mechanically Alloyed NiAl-(Y,Ti,O) Alloys

Yong Deog Kim and Yong Bae Kim(KHNP CRI)

Hyon-Jee L.vogt and Brian Wirth(UTK)

P04D09 Cyclic Hardening Behavior of Type 316H at Elevated Temperature

Ji-Hyun Yoon, Gyeong-Hoi Koo, and Bong-Sang Lee(KAERI)

Young-Choon Kim(UST)

P04D10 The Study on Bonding Test of Inconel 617 Heat Exchanger by Measuring Properties

Il Hwan Cho, Chan Ho Song, Seok Ho Yoon, and Sang Jin Park(KIMM)

IV. 분과별 논제 및 발표자

제 4 분과 E

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

좌 장 양용식(Yong Sik Yang), 정용진(Yong Jin Jeong)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P04E01 Fabrication of AA6061-T6 Plate Type Fuel Assembly Using Electron Beam Welding Process**
Soo-Sung Kim, Kyoung-Seok Seo, Don-Bae Lee, Jong-Man Park, Yoon-Sang Lee, and Chong-Tak Lee(KAERI)
- P04E02 Comparison of the Static Characteristics of 1x1 Spacer Grids**
Joung-Yeul Lee, Jae-Jun Lee, Hyeong-Koo Kim, and Yong-Hwan Kim(KEPCO NF)
- P04E03 Enhanced Thermal Conductivities of Mo Wire Reinforced Zirconium Oxide Pellets**
Joon Hui Kim, Soon H. Hong, and Ho Jin Ryu(KAIST)
- P04E04 Debris Filtering Test Procedure for PWR Fuels and a Series of Tests Results**
Ki-Wan Park, Nam-Gyu Park, and Jae-Ik Kim(KEPCO NF)
- P04E05 Effects of Transverse Power Distribution on Fuel Temperature**
Daeseong Jo, Jonghark Park, Chul Gyo Seo, and Heetaek Chae(KAERI)
- P04E06 Development of 3D FE Module for Fuel Rod considering Gap Model**
Chang-Hak Kang, Sung-Uk Lee, Sang-Kyu Seo, and Dong-Yol Yang(KAIST)
Hyo-Chan Kim and Yong-Sik Yang(KAERI)
- P04E07 Simulation of Missing Pellet Surface Thermal Behavior with 3D Dynamic Gap Element**
Hyo Chan Kim, Yong Sik Yang, and Yang Hyun Koo(KAERI)
Chang Hak Kang, Sung Uk Lee, and Dong Yol Yang(KAIST)
- P04E08 A Study on Cell Size of Irradiated Spacer Grid for PWR Fuel**
Y. G. Jin, G. S. Kim, W. S. Ryu, S. J. Baek, D. S. Kim, S. B. Ahn, Y. S. Choo, and Y. B. Chun(KAERI)
J. I. Kim, Y. H. Kim, and J. J. Lee(KEPCO NF)
- P04E09 Design of Coolant Flow Simulator for the Nuclear Fuel Test Rig**
Jintae Hong, Sung-Ho Heo, Chang-Young Joung, and Ka-Hye Kim(KAERI)
- P04E10 Prospectus of Fuel Assembly Damping Test in Flowing Water at KAERI**
Dongseok Oh, Changhwan Shin, Heoungseok Kang, and Kanghee Lee(KAERI)
- P04E11 Three-Point Bending Test for Metal-Ceramic Hybrid Fuel Cladding Tubes**
Yang-Il Jung, Sun-Han Kim, Dong-Jun Park, Jung-Hwan Park, Jeong-Yong Park, Hyun-Gil Kim, and Yang-Hyun Koo(KAERI)
- P04E12 Electrophoretic Deposition for the Fabrication of High-Performance Metal-Ceramic Hybrid Cladding**
Jung-Hwan Park, Yang-Il Jung, Dong-Jun Park, Hyun-Gil Kim, Jeong-Yong Park, Yang-Hyun Koo(KAERI)

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- P04E13 Development of X-ray Inspection System for Irradiated Fuel Rod in a Hotcell**
Heemoon Kim, Byung Ok Yoo, Dae Gyu Park, Sang Ryul Baek, Yang Hong Jung, Gil-Soo Kim, and Sang Bok Ahn(KAERI)
- P04E14 Sturdy on Orbital TIG Welding Properties for Nuclear Fuel Test Rod**
Chang-Young Joung, Jin-Tae Hong, Ka-Hye Kim, and Sung-Ho Huh(KAERI)
- P04E15 An Estimation of Gas Pressure in a UN TRISO of a 12x12 FCM Fuel Assembly**
Young Min Kim, C. K. Jo, M. S. Cho, and W. J. Lee(KAERI)
- P04E16 Oxidation of Uranium Dioxide in R.F Plasma**
Jinho Jeong, San Chae, and Yongsoo Kim(HYU)
Sanghwan Jeon, Kyungmin Kim, and Jihwan Ryu(HN Enertech)

IV. 분과별 논제 및 발표자

제 4 분과 F

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

좌 장 강흥석(Heung Seok Kang), 이병호(Byung-Ho Lee)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P04F01 Comparison of Laser Welding Conditions of Zircaloy-4 and Stainless Steel for Nuclear Fuel Irradiation Rig**
Ka-Hye Kim, Jintae Hong, Chang-Young Joung, and Sung-Ho Heo(KAERI)
- P04F02 Investigation of Uranium Extraction from Seawater by Electrosorption Technique**
Aznan Fazli Ismail and Man-Sung Yim(KAIST)
- P04F03 Electrochemical Impedance Response of the Surface Treated FMS in Liquid Sodium Environment**
Jeong Hyeon Lee, Sang Hun Shin, and Ji Hyun Kim(UNIST)
- P04F04 Kinetics of Zr-alloy Cladding Oxidation in a Mixture of Air and Steam at 1200°C**
Yunmock Jung, Kwangheon Park, and Kyungtae Kim(KHU)
- P04F05 Heat Generation Effects on U-Mo/Al through Abaqus FEM Simulation**
Tae-Won Cho, Gwan Yoon Jeong, Cheol Min Lee, and Dong-Seong Sohn(UNIST)
- P04F06 Temperature Variation in Radiant Heating Furnace for High Temperature Corrosion Test of Zirconium Alloy Tubes**
Je-Kyun Baek, Tae-Won Cho, Gwan Yoon Jeong, Cheol Min Lee, Byoung-Jin Cho, Ji-Hyeon Kim, Mi Jin Kim, and Dong-Seong Sohn(UNIST)
- P04F07 Rapid Cooling Heat Transfer of Rod-shaped Test Specimen for Nuclear Reactor Application**
Chi Young Lee, Chang Hwan Shin, Dong Seok Oh, Tae Hyun Chun, Wang Kee In, and Yang Hyun Koo(KAERI)
- P04F08 Morphology Control of Anodic ZrO₂ Layer for the Prevention of H₂ Production from Zr-4 Cladding**
Y. J. Park, J. W. Park, and S. O. Cho(KAIST)
- P04F09 Manufacture of a Dual-Cooled Fuel Assembly Mockup for Mechanical Characterization Tests**
Jae-Yong Kim, Hyung-Kyu Kim, Kyung-Ho Yoon, Kang-Hee Lee, and Heung-Seok Kang(KAERI)
- P04F10 Current Status of Nuclear Fuel Irradiation Test at HANARO**
Seong Woo Yang, Seung Jae Park, Yoon Taeg Shin, Kee Nam Choo, and Man Soon Cho(KAERI)
- P04F11 Oxidation Behavior of Fe-based Alloy under Normal Operation and Accident Conditions**
Dong Jun Park, Jung Hwan Park, Yang Il Jung, Hyun Gil Kim, Jeong Yong Park, and Yang Hyun Koo(KAERI)
- P04F12 Design of the Capsule (13M-01K) for Irradiation of Fuel Cladding Materials in HANARO**
Man Soon Cho, Kee Nam Choo, Seong Woo Yang, Young Hwan Kang, and Sang Jun Park(KAERI)

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- P04F13 Simulation and Analysis on Hoop Strength Test of Multilayered SiC Composite Fuel Cladding**
H. G. Lee, D. J. Kim, J. Y. Park, and W. -J. Kim(KAERI)
- P04F14 Mapping Program of Irradiated Nuclear Fuel for Radioanalytical Chemist**
Yeong-Keong Ha, Jaeil Park, Sun-Ho Han, and Kyuseok Song(KAERI)
Hyun-il Seo(Quantumsoft)
- P04F15 Effects of Critical Stresses on Hydride Reorientation and Mechanical Properties of Zirconium Alloy Claddings under Interim Dry Storage Conditions**
Ju-Jin Won and Kyu-Tae Kim(DU)
- P04F16 Evaluation of UO₂ Thermal Conductivity Using Molecular Dynamics Simulations**
Woongkee Kim, Massoud Kaviany, and J.H Shim(POSTECH)

IV. 분과별 논제 및 발표자

제 4 분과 G

핵연료 및 원자력재료(Nuclear Fuel and Materials) - 재료(Materials)

좌 장 허도행(Do Haeng Hur), 김동진(Dong Jin Kim)

발표장소 400

일 정 | 5. 30(금)

- 09:00 Effect of Pulse Energy and Density on Laser Peening of Inconel 600 without a Protective Coating**
Joung Soo Kim, Jong Wan Choi, and Chin-Man Chung(KAERI)
Weon Jin Han and Kwang Soo Park(DOOSAN)
- 09:20 The Effects of Heat Treatments on the $M_{23}C_6$ Carbide Evolution and Grain Boundary Serration in Alloy 690**
Yun Soo Lim, Dong Jin Kim, Seong Sik Hwang, and Sung Woo Kim(KAERI)
- 09:40 Relationship between Steam Generator Tube Noise and Eddy Current Inspection Capability of Stress Corrosion Cracks**
Do Haeng Hur, Myung Sik Choi, Hee-Sang Shim, and Deok Hyun Lee(KAERI)
One Yoo(KEPCO E&C)
- 10:00 On Neutron Irradiation Resistance of Ni-Mo-Cr Reactor Pressure Vessel Steels**
Chang-Hoon Lee(KIMS)
A. Kimura(Kyoto Univ.)
Min-Chul Kim and Bong-Sang Lee(KAERI)
Hu-Chul Lee(SNU)
- 10:20 Oxide Property of SG Tube Materials Exposed to an Alkaline Environment as a Secondary Side of a PWR**
Dong-Jin Kim, Byung Hak Mun, Hong Pyo Kim, and Seong Sik Hwang(KAERI)
- 10:40 Coffee Break**
- 11:00 Application of Nano-Structured Coatings for Mitigation of Flow-Accelerated Corrosion in Secondary Pipe Systems of Nuclear Power Plants**
Seung Hyun Kim, Jong Jin Kim, Seung Chang Yoo, Jae Hoon Huh, and Ji Hyun Kim(UNIST)
- 11:20 Application of Bimodal Master Curve Approach on KSNP RPV Steel SA508 Gr. 3**
Jong-Min Kim, Min-Chul Kim, Kwon-Jae Chol, and Bong-Sang Lee(KAERI)
- 11:40 The Construction of a Magnetite Electrode for Measurement of the Electrochemical Property**
Myong-Jin Kim and Hong Pyo Kim(KAERI)
- 12:00 Effects of Heat Treatment on Microstructure and Mechanical Properties of Alloy 690**
Ju-Jin Won and Kyu-Tae Kim(DU)
- 12:20 Lattice Contraction Behavior due to Atomic Ordering in Alloy 600**
SungSoo Kim, Dae Whan Kim, and Young Suk Kim(KAERI)

제 4 분과 H

핵연료 및 원자력재료(Nuclear Fuel and Materials)

-핵연료(Fuel)

좌 장 김현길(Hyun Gil Kim), 김형규(Hyung-Kyu Kim)

발표장소 402A

일 정 | 5. 30(금)

- 09:00 Irradiation Growth Modeling of Polycrystalline Zirconium and Zircaloy for Nuclear Reactor**
Sang Il Choi and Ji Hyun Kim(UNIST)
Junhyun Kwon and Gyeong-Geun Lee(KAERI)
- 09:20 3D Layer Coating Technology on Zirconium Alloy Cladding Tube Applied to Accident Tolerant Fuel**
Hyun-Gil Kim, Il-Hyun Kim, Yang-Il Jung, Dong-Jun Park, Jung-Hwan Park, Jeong-Yong Park, and Yang-Hyun Koo(KAERI)
- 09:40 A Study on Sodium Effects on the Mechanical Properties of Ferritic-Martensitic Steels**
Sang Hun Shin and Ji Hyun Kim(UNIST)
Jun Hwan Kim(KAERI)
- 10:00 Comparison of Thermal Creep Strain Calculation Results Using Time Hardening and Strain Hardening Rules**
June-Hyung Kim, Jin-Sik Cheon, Byoung-Oon Lee, and Chan-Bock Lee(KAERI)
- 10:20 Influence of Dissolved Hydrogen Concentration on Crud Deposition Formed on Zirlo Fuel Cladding in Nuclear Primary Water**
Seung Heon Baek, Uh Chul Kim, Hee-Sang Shim, Kyung Soo Im, and Do Haeng Hur(KAERI)
- 10:40 Coffee Break**
- 11:00 Structural Analysis of Surface-Modified Oxidation-Resistant Zirconium Alloy Cladding for Light Water Reactors**
Youho Lee, Hee Cheon NO, and Jeong Ik Lee(KAIST)
- 11:20 Effect of Hydrogen Induced Blisters on Surface and Structural Properties of Zirconium**
Mohsin Rafique, San Chae, Qurat-ul-Ain Sahi, and Yong-Soo Kim(HYU)
- 11:40 Study on Monitoring Top end Plug Resistance Weldment of Nuclear Fuel Rod**
Taehyung Na, SangJae Han, and Woenchan Hwang(KEPCO NF)
Mihae Ko(Monitech Co.,)
- 12:00 Weld Joint Design for SFR Metallic Fuel Element Closures**
Jung Won Lee, Soo Sung Kim, Yoon Myeng Woo, Hyung Tae Kim, Ki Hwan Kim, and Kyung Ho Yoon(KAERI)
- 12:20 Asymptotic Method for Cladding Stress Evaluation in PCMI**
Hyung-Kyu Kim, Jae-Yong Kim, Kyung-Ho Yoon, Kang-Hee Lee, and Heung-Seok Kang(KAERI)

IV. 분과별 논제 및 발표자

제 4 분과 I

핵연료 및 원자력재료(Nuclear Fuel and Materials)

-핵연료(Fuel)

좌 장 양재호(Jae Ho Yang), 이영우(Young Woo Rhee)

발표장소 402B

일 정 | 5. 30(금)

- 09:00 Fuel Casting Development for Reducing Volatilization of Metallic Fuel**
Hoon Song, Jong-Hwan Kim, Young-Mo Ko, Yoon-Myung Woo, Ki-Hwan Kim, and Chan-Bock Lee(KAERI)
- 09:20 Optimization of UO₂ Granule Characteristics for UO₂-Mo Pellet Fabrication**
Dong-Joo Kim, Young Woo Rhee, Jong Hun Kim, Keon Sik Kim, Jang Soo Oh, Jae Ho Yang, and Yang-Hyun Koo(KAERI)
- 09:40 Low Loss Advanced Metallic Fuel Casting Evaluation**
Ki-Hwan Kim, Young-Mo Ko, Jong-Hwan Kim, Hoon Song, and Chan-Bock Lee(KAERI)
- 10:00 A Study on the Dimension Analysis of the End-of-Life Grid**
Jae-Jun Lee, Joung-Yeul Lee, Hyeong-Koo Kim, and Yong-Hwan Kim(KEPCO NF)
- 10:20 Constraints on the Required Number of Debris for the Nuclear Fuel Debris Trapping Efficiency Test**
Nam-Gyu Park, Ki-Wan Park, Jae-Ik Kim, and Kyeong-Lak Jeon(KEPCO NF)
- 10:40 Coffee Break**
- 11:00 Study on the Interface Between UO₂ and Zr at the Moment of Melting**
Young-Sang Youn, Jong-Goo Kim, Soon Dal Park, Yeong-Keong Ha, and Kyuseok Song(KAERI)
- 11:20 Effect of Two-Step Sintering on Densification and Grain Growth of Uranium Dioxide**
Young Woo Rhee, Dong Joo Kim, Keon-Sik Kim, Jong Hun Kim, Jang Soo Oh, Jae Ho Yang, and Yang Hyun Koo(KAERI)
- 11:40 Densification of Spark Plasma Sintered UO₂-SiC Composites with Varying SiC Volume Fractionous**
Sunghwan Yeo, Moon Sung Cho, Young-Woo Lee(KAERI)
- 12:00 Mitigation of Cr Evaporation in Cr-doped UO₂ Pellets by Controlling the Sintering Atmosphere**
Jang Soo Oh, Jae Ho Yang, Dong-Joo Kim, Jong Hun Kim, Young Woo Rhee, Keon Sik Kim, and Yang-Hyun Koo(KAERI)
- 12:20 Accident Tolerant LWR Fuel Pellets Development: Micro-cell and High-Density Pellets**
Jae Ho Yang, Dong-Joo Kim, Keon Sik Kim, Young-Woo Rhee, Jang-Soo Oh, Jong Hun Kim, and Yang-Hyun Koo(KAERI)

제 5 분과 A

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 임계열유속 : 실험, 모델 및 응용 (Critical Heat Flux: Experiment, Modeling and Applications)

좌 장 정용훈(Yong Hoon Jeong), 방인철(In Cheol Bang)

발표장소 한라홀A

일 정 | 5. 29(목)

- 09:00 Review of Critical Heat Flux Correlations for Upward Flow in a Vertical Thin Rectangular Channel**
Gil Sik Choi and Soon Heung Chang(KAIST)
- 09:20 Rayleigh-Taylor Instability for Viscous Thin Gas Films: Application to Critical Heat Flux and Minimum Film Boiling**
Byoung Jae Kim, Jong Hyuk Lee, and Kyung Doo Kim(KAERI)
- 09:40 Powerful Swirl Generation of Flow-driven Rotating Mixing Vane for Enhancing CHF**
Han Seo, Seok Bin Seo, Hyo Heo, and In Cheol Bang(UNIST)
- 10:00 Critical Heat Flux Enhancement regarding to the Thickness of Graphene Films Under Pool Boiling**
Jin Man Kim and Hyun Sun Park(POSTECH)
Youngjae Park and Hyungdae Kim(KHU)
Dong Eok Kim(KNU)
Moo Hwan Kim(KINS)
Ho Seon Ahn(INU)
- 10:20 Effects Of Nanoparticles-Coated Surface On Flow Boiling Chf Using FC-72**
Seok Bin Seo, Han Seo, Kyung Mo Kim, and In Cheol Bang(UNIST)
- 10:40 Coffee Break**
- 11:00 State of the Art of CHF Enhancement Using Graphene Oxide**
Sung Bo Moon, Seong Dae Park, and In Cheol Bang(UNIST)
- 11:20 Critical Heat Flux Measurement of SiC- and Cr-coated Plates, Bare Stainless Steel Plate and Zircaloy-4 Plate Under Atmospheric and Pool Boiling Conditions**
Dong Hoon Kam, Taeseung Lee, and Yong Hoon Jeong(KAIST)
Jong Hyuk Lee(KAERI)
- 11:40 Pool Boiling Behavior and Critical Heat Flux on Zircaloy and SiC Claddings in Deionized Water under Atmospheric Pressure**
Gwang Hyeok Seo, Gyoodong Jeun, and Sung Joong Kim(HYU)
- 12:00 Assessment of the Water CHF Look-up Table for Rod Bundles CHF Measurements**
HanBit Noh, KangHoon Kim, and KeeYil Nahm(KEPCO NF)
- 12:20 Effects of Liquid Metal Fin on Critical Heat Flux under IVR-ERVC Condition**
Seong Dae Park and In Cheol Bang(UNIST)

IV. 분과별 논제 및 발표자

제 5 분과 B

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 열수력 해석(A) (Thermal Hydraulic Analysis (A))

좌 장 하상준(Sang Jun Ha), 최동수(Tong Soo Choi)

발표장소 한라홀B

일 정 | 5. 29(목)

- 09:00 MARS-KS Code Analysis of the Pressure Wave Test 0 Performed at the PMK-2 Test Facility**
Xin-Guo Yu, Ki-Yong Choi, and Chul-Hwa Song(KAERI)
Istvan Trosztel, Ivan Toth, and Gyorgy Ezsolt(EK)
- 09:20 Improvement of Modeling Scheme of the Safety Injection Tank with Fluidic Device for Realistic LBLOCA Calculation**
Young Seok Bang, Ae-ju Cheong, and Sweng Woong Woo(KINS)
- 09:40 Assessment of Effect on LBLOCA PCT for Change in Upper Head Nodalization**
Dong Gu Kang, Byung Gil Huh, Seung Hun Yoo, Young-Seok Bang, Kwang-Won Seul, and Dae-Hyung Cho(KINS)
- 10:00 Axial Power Shape Consideration for the SPACE Realistic Evaluation Model**
Tong Soo Choi, Tae Beom Lee, and Jae Il Lee(KEPCO NF)
- 10:20 Development of a New Condensation Heat Transfer Model for the Nearly Horizontal Tube of the APR+ PAFS (passive Auxiliary Feed-water System)**
Tae-hwan Ahn, Jae-Jun Jeong, and Byong-Jo Yun(PNU)
Kyong-ho Kang and Yu-sun Park(KAERI)
Jong Cheon(KHNP CRI)
- 10:40 Coffee Break**
- 11:00 Development of Bubble Lift-off Diameter Model for Subcooled Boiling Flows**
Nhan Hien Hoang, In-Cheol Chu, Chul-Hwa Song, and Dong-Jin Euh(KAERI)
- 11:20 Development of Three Dimensional Two Phase Flow Model for the SPACE Code**
Chan Eok Park, Myung Taek Oh, Sang Yong Lee, and Shin Whan Kim(KEPCO E&C)
- 11:40 Uncertainty Evaluation of a Postulated LBLOCA for APR+ Using KINS Realistic Evaluation Methodology and MARS-KS**
Min Jeong Hwang, Ralph Marigomen, Tae Ho Yoo, Y. S. Kim, and S. K. Sim(En2T)
Young Seok Bang(KINS)
- 12:00 Assessment of APR-1400 ECCS Performance for Design Basis LOCA Redefinition Applying Combined Deterministic and Probabilistic Procedure**
Dong Gu Kang, Seung-Hoon Ahn, Soon Heung Chang, Byung-Gil Huh, Young-Seok Bang, and Kwang-Won Seul(KINS)

제 5 분과 C

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 열수력 해석(B) (Thermal Hydraulic Analysis (B))

좌 장 김경두(Kyung Doo Kim), 허병길(Byung Kil Huh)

발표장소 삼다홀A

일 정 | 5. 29(목)

- 09:00 Study of Strongly Heated Upward Turbulent Gas Flow Using ν^2 - f Turbulence Model**
Yohanes Setiawan Nietiadi and Jeong Ik Lee(KAIST)
Yacine Addad(Khalifa Univ.)
- 09:20 CFD Analysis of a Hybrid Heat Pipe for In-Core Passive Decay Heat Removal System**
Yeon Shin Jeong, Kyung Mo Kim, and In Cheol Bang(UNIST)
- 09:40 Nanofluid Applied Numerical Analysis of Subchannel in Square Rod Bundle for Fusion-Fission Hybrid System**
Jubair Ahmed Shamim, Palash Kumar Bhowmik, and Kune Y. Suh(SNU)
- 10:00 Numerical Analysis of Combined Valve Hydrodynamic Characteristics for Turbine System**
P. K. Bhowmik, J. A. Shamim, A. Gairola, M. Arif, and Kune Y. Suh(SNU)
- 10:20 Subchannel and Computational Fluid Dynamic Analyses of a Model Pin Bundle**
A. Gairola, M. Arif, and K.Y.Suh(SNU)
- 10:40 Coffee Break**
- 11:00 CFD Verification of 5x5 Rod Bundle with Mixing Vane Spacer Grids**
Park Sung-Kew, Jang Hyung-Wook, Lim Jong-Seon, Park Eung-Jun, and Nahm Kee-Yil(KEPCO NF)
- 11:20 Numerical Study of Steady Sheet Cavitation in Venturi Nozzle**
S.P.Salaisargunan, Mei-Shan Jin, Cong-Tu Ha, and Warn-Gyu Park(PNU)
- 11:40 SALOME PLATFORM and TetGen for Polyhedral Mesh Generation**
Sang Yong Lee, Chan Eok Park, and Kim Shin Whan(KEPCO E&C)
- 12:00 Review of the Computer Code Validation Methodology and Proposal for Its Improvement**
Soon Joon HONG and Yeon Jun CHOO(FNC Tech.)
Namduk SUH(KINS)
- 12:20 Assessment of CUPID1.7 Code with PSBT Subchannel Test**
Y. J. Cho and H. Y. Yoon(KAERI)

IV. 분과별 논제 및 발표자

제 5 분과 D

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 중대사고 실험 및 해석(Severe Accident: Experiment and Analysis)

좌 장 방광현(Kwang Hyun Bang), 박래준(Rae-Joon Park)

발표장소 삼다홀B

일 정 | 5. 29(목)

- 09:00** **Evaluation and Selection of a Multi-Dimensional Code for H₂ Combustion and Explosion Analysis in the Containment of a Nuclear Power Plant**
Hyung Seok Kang, Sang-Baik Kim, and Seong-Wan Hong(KAERI)
- 09:20** **MELCOR Analysis on the SBO Accident with Operator Recovery Actions for APR1400**
VoThi Huong, J. H. Song, T. W Kim, and D. H. Kim(KAERI)
- 09:40** **Three-Layer Modeling of Corium on a Reactor Vessel Lower Plenum**
Jae-ho Bae and Jong-Woon Park(DU)
- 10:00** **An Experimental Study on the Breakup of Simulant Melt Jet Released from the Submerged Reactor Vessel Lower Head**
Hyoung-Tak Kim and Kwang-Hyun Bang(KMOU)
- 10:20** **Two-Phase Flow Effect on the Ex-Vessel Corium Debris Bed Formation in Severe Accident**
Eunho Kim, Jin Ho Park, Moo Hwan Kim, and Hyun Sun Park(POSTECH)
Weimin Ma and Sevostian V. Bechta(KTH)
- 10:40** **Coffee Break**
- 11:00** **Parameter Dependence of Steam Explosion Load and Proposal of a Simple Model**
Kiyofumi Moriyama, Hyeongmin Joo, and Hyun Sun Park(POSTECH)
Moo Hwan Kim(KINS)
- 11:20** **Study on MELCOR Modeling for Plant-level SFP Severe Accident Analysis**
Jun Heo and Won-Tae Kim(Aritec Co., Ltd.)
Kwang-II Ahn(KAERI)
- 11:40** **Analysis on Fission Product Inventory with the Consideration of Axial Power Distribution**
Hae Sun Jeong and Kwang Soon Ha(KAERI)
- 12:00** **Containment Performance Analysis of APR1400 in LBLOCA**
Young H. Seo and Young Tea Moon(KEPCO E&C)
- 12:20** **Study of Iodine Behavior in the Gas Phase during a Severe Accident**
Han-Chul Kim, Yeong-Hun Cho, and Myung-Hyun Ryu(KINS)
- 12:40** **Application Results of MAAP 5.0.2 to Domestic APR1400 Nuclear Power Plant**
Mi Ro Seo and Hyeong Taek Kim(KHNP CRI)

제 5 분과 E

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 화재 안전, 인적 신뢰도 및 외부사건 PSA(Fire Safety, Human Reliability, and External Event PSA)

좌 장 정대욱(Dae Wook Chung), 정우식(Woo Sik Jung)

발표장소 300

일 정 | 5. 29(목)

- 09:00 Benchmark Study of the Fire Modeling Analysis Guidelines**
JongSeuk PARK and KyuSik DO(KINS)
ChoongYeol SONG(KHNP)
- 09:20 Modeling Human Failure Event of F&B Operation in a PSA and Its Impact to the Risk of a Nuclear Power Plant**
Wondea Jung(KAERI)
- 09:40 Evaluation of a Main Control Room Fire Risk**
Dae Il Kang, Kilyoo Kim, and Seung-Cheol Jang(KAERI)
- 10:00 A Study on Multiple Initiating Events in Fire PSA**
Kilyoo Kim, Daell Kang, and Seung-Cheol Jang(KAERI)
- 10:20 Method to Calculate Accurate Top Event Probability in a Seismic PSA**
Woo Sik Jung(Sejong Univ.)
- 10:40 Coffee Break**
- 11:00 Development of Probabilistic Risk Assessment Procedure of Nuclear Power Plant under Aircraft Impact Loadings**
Daegi Hahm, Sangshup Shin, Jin Hee Park, and In-Kil Choi(KAERI)
- 11:20 A Statistical Analysis of Typhoon-related Hazards Using Extreme Value Theory**
Yochan Kim and Seung-cheol Jang(KAERI)
Tae-jin Lim(Soongsil Univ.)
- 11:40 Visualizing Team Characteristics from the HRA Perspective - Its Feasibility**
Jinkyun Park(KAERI)
- 12:00 Evaluation Result of PIRT Methodology for Fire Modeling**
Moon-Hak Jee and Hyeong-Taek Kim(KHNP CRI)

IV. 분과별 논제 및 발표자

제 5 분과 F

원자력열수력 및 안전(Thermal Hydraulics and Safety)-Poster - 열수력 실험(Thermal Hydraulic Experiment)

좌 장 조형규(Hyoung Kyu Cho), 박현식(Hyun Sik Park)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P05F01 Pool Boiling Heat Transfer from Two Horizontal Tubes in Vertical Alignment**
Myeong-Gie Kang(ANU)
- P05F02 Effects of Elevation Angle on Pool Boiling Heat Transfer on Tandem Tubes**
Myeong-Gie Kang(ANU)
- P05F03 Pressure Drop of Chamfer on Spacer Grid Strap**
Euijae Kim, KangHoon Kim, KyoungHong Kim, and KeeYil Nahm(KEPCO NF)
- P05F04 Transient Heat Transfer Behavior during Reflood Phase in a 2x2 Ballooned Rod Bundle**
Kihwan Kim, Byung-Jae Kim, Young-Jung Youn, Hae-Seob Choi, and Sang-Ki Moon(KAERI)
- P05F05 Experimental Investigation on Characteristics of the Interfacial Wave for the Droplet Generation in a Horizontal Rectangular Channel**
Byoung-Geon Bae and ByoungJo Yun(PNU)
Kyoung-Do Kim and Byoung-Uhn Bae(KAERI)
- P05F06 Reactor Coolant Pump (RCP) Performance Test with Installation of Flow Straightner**
B. U. Bae, Y. S. Kim, S. Cho, S. Kim, Y. J. Cho, H. J. Chung, B. D. Kim, Y. J. Youn, J. K. Park, and H. S. Choi(KAERI)
- P05F07 An Experimental Study on the Convective Heat Transfer in Narrow Rectangular Channels for Downward Flow to Predict Onset of Nucleate Boiling**
Jung-Hyun Song, Juhyang Lee, and Yong Hoon Jeong(KAIST)
Soon Heung Chang(HGU)
- P05F08 The Performance Test for Reactor Coolant Pump (RCP) Adopting Variable Restriction Orifice Type Control Valve**
S. Kim, B. U. Bae, Y. J. Cho, B. D. Kim, Y. J. Youn, J. K. Park, H. S. Choi, W. J. Jeon, T. S. Kwon, Y. S. Kim, and S. Cho(KAERI)
- P05F09 Preliminary Test of a Small Heat Pipe for Hybrid Control Rod In-core Passive Decay Heat Removal System**
In Guk Kim and In Cheol Bang(UNIST)
- P05F10 Analysis of Steam Condensation in a Finned Tube of Air-Water Combined Cooling System**
Tae-Soon Kwon, S.W. Bae, K.H. Kim, Y.S. Park, and H.S. Park(KAERI)
- P05F11 Preliminary Single-Phase Mixing Test Using Wire Mesh System in a Wire-wrapped 37-rod Bundle**
Hwang Bae, Hyungmo Kim, Dong Won Lee, Hae Seob Choi, Sun Rock Choi, Seok-Kyu Chang, Seok Kim, Dong-Jin Euh, and Hyeong-Yeon Lee(KAERI)

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- P05F12 Measurement of Flow Distribution at Subchannels in a Wire-Wrapped 37-Rod Bundle for a Sodium Cooled Fast Reactor**
Hyungmo Kim, Seok-Kyu Chang, Dong Won Lee, Hae Seob Choi, Dong-Jin Euh, and Hyeong-Yeon Lee(KAERI)
- P05F13 An Experimental Study on Flow Boiling Critical Heat Flux Characteristics of Suddenly Expanded Region**
Yong Jin Kim, Sub Lee Song, and Soon Heung Chang(KAIST)
Sang Ki Moon(KAERI)
- P05F14 Head Loss Test for the APR1400 Sump Strainer**
Suh Jeong-kwan and Lee Jae-yong(KHNP CRI)
- P05F15 Premature and Stable Critical Heat Flux for Downward Flow in a Narrow Rectangular Channel**
Juhyun Lee, Soon Heung Chang, and Yong Hoon Jeong(KAIST)
Daeseong Jo(KAERI)
- P05F16 An Experimental Study on Flow Boiling CHF Characteristics of Partially Narrowed Tube**
Sub Lee Song, Yong Jin Kim, and Soon Heung Chang(KAIST)
Sang Ki Moon(KAERI)
- P05F17 An Experimental Study on Heat Transfer Mechanisms in Microlayer of a Boiling Bubble**
Seung Hyuck Chung, Satbyoul Jung, and Hyungdae Kim(KHU)
- P05F18 A Feasibility Study of Application in NPPs Using Magnetite-water Nanofluid**
Jong Hyuk Lee(KAERI)
Dong Hoon Kam and Yong Hoon Jeong(KAIST)
- P05F19 Experimental Investigation on the Thermal Mixing Characteristics of the Wire Wrapped 37 Rods Using a Laser Induced Fluorescence Technique**
S. Kim, H. S. Choi, S. R. Choi, H. M. Kim, H. Bae, S.-K. Chang, D.-J. Euh, and H.-Y. Lee(KAERI)

IV. 분과별 논제 및 발표자

제 5 분과 G

원자력열수력 및 안전(Thermal Hydraulics and Safety)-Poster - 열수력 해석(Thermal Hydraulic Analysis)

좌 장 윤병조(Byong-Jo Yun), 배성원(Sung-won Bae)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

P05G01 Numerical Investigation of Pressure Losses in Axisymmetric Sudden Expansions with a Chamfer

Youngmin Bae, Young-In Kim, and Keung Koo Kim(KAERI)

P05G02 Prediction of Flow Rate in a Passive Residual Heat Removal System with Various Water Levels

Hun Sik Han, Young In Kim, and Keung Koo Kim(KAERI)

P05G03 CFD Analysis on a Core Outlet Flow through the Fuel Alignment Plate of SMART

Y.I. Kim, Y.M. Bae, and K.K. Kim(KAERI)

P05G04 APR1400 MSLB Accident Analysis Using the SPACE Code

Bum-soo Youn, Dong-hyuk Lee, and Se-yun Kim(KHNP CRI)

P05G05 Computational Studies on the Performance of Flow Distributor in Tank

Soo Jai Shin, Young In Kim, Seungyeob Ryu, and Youngmin Bae(KAERI)

P05G06 A Simple Free Surface Tracking Model for Multi-dimensional Two-Fluid Approaches

Seung-Jun Lee and Han Young Yoon(KAERI)

P05G07 Enhancement of Pre- and Post-Processing Capability of the CUPID Code

Jongtae Kim, Ik Kyu Park, and Han-Young Yoon(KAERI)

P05G08 Implementation of Wall Shear Stress Model for a Thin Liquid Film in CUPID

Je Hee Lee and Hyoung Kyu Cho(SNU)

Han Young Yoon(KAERI)

P05G09 Development of Wolsong Unit 2 Containment Analysis Model

Choi Hoon(KHNP CRI)

Ko Bong jin and Park Young Chan(Act Co., Ltd.)

P05G10 Safety Analysis for Sub-channel Blockage in the PGSPR

Jin Yoo, Won-Pyo Chang, and Ki-Suk Ha(KAERI)

P05G11 Thermal Sizing of Heat Exchanger Tubes for Air Natural Convective Cooling System of Emergency Cooling Tank

Myoung Jun Kim and Hee Joon Lee(KMU)

Joo Hyung Moon, Youngmin Bae, Young-In Kim(KAERI)

P05G12 Porous Media Approach of a CFD Code to Analyze a PWR Component with Tube or Rod Bundles

Ik Kyu Park, Jae Ryong Lee, and Han Young Yoon(KAERI)

Hyoung Kyu Cho(SNU)

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- P05G13 Implicit Wall Heat Flux Model for the SPACE Code**
Seung Wook Lee, Jong Hyuk Lee, and Kyung Doo Kim(KAERI)
- P05G14 Validation of Two-group IAT (Interfacial Area Transport) Model for Droplet Field in SPACE Code**
B. U. Bae, S. W. Lee, S. W. Bae, and K. D. Kim(KAERI)
- P05G15 Numerical Analysis for the Accident at Spent Fuel Bay Cooling and Purification System of Wolsong NPP Unit 1**
Sook Kwan Kim, Kyoung Hyun Kim, Koo Sam Kim, and Sang Koo Han(ACT Co., Ltd.)
- P05G16 Preliminary Analysis of a Steam Line Break Accident with the MARS-KS Code for the SMART Design with Passive Safety Systems**
Doo-Hyuk Kang, Yung-Joo Ko, and Jae-Seung Suh(SE&T)
Hwang Bae, Sung-Uk Ryu, Sung-Jae Yi, and Hyun-Sik Park(KAERI)
- P05G17 Effect of EntryExit Length on Flow Distribution in the Test Bundle**
Byeong Il Jang, Beom Jun Jang, Hong Ju Kim, KangHoon Kim, Kee Yil Nahm, and Sang Weon Park(KEPCO NF)
- P05G18 Sensitivity Analysis on the Interfacial Drag in SPACE Code to Simulate UPTF Separate Effect Test about Loop Seal Clearance Phenomenon**
Suk-Ho Lee, Sang-Gyu Lim, Guk-Jong You, and Young-Sheop Park(KHNP CRI)
- P05G19 Thermal-hydraulic Analysis of a Heavy-water Reactor Moderator Tank Using the CUPID Code**
Su Ryong Choi and Jae Jun Jeong(PNU)
Hyoung Tae Kim and Han Young Yoon(KAERI)
- P05G20 Static Instability Analysis of the Natural Circulation Flow in a Passive Containment Cooling System**
Sung Hwan Bae, Byung Jo Yun, and Jae Jun Jeong(PNU)
Dong Wook Jerng(CAU)
- P05G21 Preliminary Study of S-CO₂ Cycle Simulation Using MARS**
Jay Cho and Jeong Ik Lee(KAIST)
- P05G22 Effect of Heat Transfer at the Upper Guide Structure on Natural Circulation**
Abdullah A. Rawashdeh(UST)
Young J. Chung(KAERI)
- P05G23 Sensitivity of Sump Water Temperature to Containment Integrity**
Misuk Jang and Seoung Rae Kim(NESS)
- P05G24 Manometer Behavior Analysis Using CATHENA, RELAP and GOTHIC Codes**
Yang Hoon Kim, Kee Soo Han, Bok Ja Moon, and Misuk Jang(NESS)
- P05G25 Parallelization of Subchannel Analysis Code MATRA**
Seong-Jin Kim, Dae-Hyun Hwang, and Hyouk Kwon(KAERI)
- P05G26 Preliminary Coupling of MATRA Code for Multi-physics Analysis**
Seong-Jin Kim, Jin-Young Cho, Yong-Sik Yang, Hyouk Kwon, and Dae-Hyun Hwang(KAERI)
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- 05G27 Safety Assessment for Transient Event Occurred during the ASTS Test of Hanbit Unit 2**
Chang-Keun Yang, Yo-han Kim, and Sang-Jun Ha(KHNP CRI)
- 05G28 Internal Flow Behaviors in Containment**
Tae-Soon Kwon, S.W. Bae, K.H. Kim, Y.S. Park, and H.S. Park(KAERI)
- 05G29 Feed and Bleed Operation Analysis during Total Loss of Feedwater Accident for Supporting the PSA of APR+**
Sang Hee kang, Sun Heo, and Han Gon Kim(KHNP CRI)
- 05G30 Parallel Computing Characteristics of CUPID Code Under MPI and Hybrid Environment**
Jae Ryong Lee and Han Young Yoon(KAERI)
Byoung Jin Jeon and Hyoung Gwon Choi(SNU)
- 05G31 Numerical Simulation for Flow Distribution in ACE7 Fuel Assemblies Affected by a Spacer Grid Deformation**
Jong-Pil Park(KAERI)
Ji Hwan Jeong(PNU)
- 05G32 Quenching Front Search Model of the SPACE Code**
Seung Wook Lee, Sung Won Bae, Byung Jae Kim, and Kyung Doo Kim(KAERI)
- 05G33 Preliminary Numerical Analysis of Convective Heat Transfer Loop Using MARS Code**
Yongjae I, Gwang Hyeok Seo, Gyoodong Jeun, and Sung Joong Kim(HYU)
- 05G34 Assessment on Heat Transfer Prediction Capability of SPACE Code for PASCAL**
Seong-Su Jean, Kyung-Jin Lee, and Soon-Joon Hong(FNC Tech.)
Jong Cheon and Han-Gon Kim(KHNP CRI)
- 05G35 Sensitivity Test for Benchmark Analysis of EBR-II SHRT-17 Using MARS-LMR**
Chiwoong Choi and Kwiseok Ha(KAERI)
- 05G36 OECD/NEA Main Steam Line Break Benchmark Problem Exercise I Simulation Using the SPACE Code with the Point Kinetics Model**
Yo-Han Kim, Seyun Kim, and Sang-Jun Ha(KHNP CRI)

제 5 분과 H

원자력열수력 및 안전(Thermal Hydraulics and Safety)-Poster - 중대사고(Severe Accident)

좌 장 김성중(Sung Joong Kim), 박중화(Jong Hwa Park)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P05H01 CHF Enhancement Through Pressurized Intermediate Layer in IVR-ERVC Strategy**
Seong Dae Park and In Cheol Bang(UNIST)
- P05H02 Analysis of the CNSC Staffs Action Plan to Reflect Lessons Learned from Fukushima Accident**
Sang-Kyu Ahn, Young Gill Yune, Hyung-Joon Ahn, Byung-Jik Kim, and Jin-Ho Lee(KINS)
- P05H03 Preliminary Analysis of Two Phase Natural Circulation in the Cooling Channel of the Core Catcher**
R. J. Park, K. S. Ha, and B. W. Rhee(KAERI)
- P05H04 Multi-dimensional Analysis Method of Hydrogen Combustion in the Containment of a Nuclear Power Plant**
Jongtae Kim and Seong-Wan Hong(KAERI)
Gun Hong Kim(Kyungwon E&C)
- P05H05 An Experimental Observation of Fuel Coolant Interaction Using ZrO_2 Under Conditions of a Reactor Submerged by Water**
S.W. Hong, S. H. Hong, Y. S. Na, and K. S. Ha(KAERI)
- P05H06 An Investigation of Spray Performance to Remove Gaseous Iodine- Approach to Mitigate the Consequences of Severe Accident**
Irfan Younus and Man Sung Yim(KAIST)
- P05H07 Sensitivity Analysis of Ex-Vessel Steam Explosion Using TEXAS-V Code for APR1400**
Sung Chu Song, Yong Jin Cho, Bok-ki Min, and Taesuk Hwang(KINS)
- P05H08 Reactor Core Failure Analysis for Feasibility Study of IVR-ERVC Strategy**
Kukhee Lim, Yongjin Cho, and Taesuk Hwang(KINS)
- P05H09 Introduction to Large-sized Test Facility for Validating Containment Integrity under Severe Accidents**
Young Su Na, Seong-Wan Hong, Seong-Ho Hong, and Beong-Tae Min(KAERI)
- P05H10 A Comparative Study on the Effect of Heat Transfer BC between Debris and Lower Head of Reactor Vessel in Severe Accident**
JongRea Cho, KwangHyun Bang, JiHoon Bae, and Changsung Kim(KMOU)
- P05H11 Study on MELCOR Modeling for Emergency External Water Injection Scenario of SBO in APR1400**
Jun Heo and Won-Tae Kim(Aritec Co., Ltd)
Han-Chul Kim and Sung-Han Lee(KINS)

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- P05H12 Scoping Experiments for Pressure Drop Measurement for the Ex-Vessel Debris Bed Coolability in Severe Accidents**
Jin Ho Park, Eun Ho Kim, and Hyun Sun Park(POSTECH)
Moo Hwan Kim(KINS)
Weimin Ma and Sevostian V. Bechta(KTH)
- P05H13 Evaluation of Heat Flux on the External Reactor Vessel Wall Under a Severe Accident**
Jae Hoon Jung, Sang Mo An, Kwang Soon Ha, and Hwan Yeol Kim(KAERI)
- P05H14 Performance Tests for Bubble Blockage Device**
Kwang Soon Ha, Kyung Jin Wi, and Rae Joon Park(KAERI)
Han Seong Wan(HCTech)
- P05H15 The Prediction of Critical Heat Flux(CHF) on the Outer Wall of System-Integrated Modular Advanced Reactor**
You-Jin Yeon, Gyeong-Ho Nam, and Sang-Nyung Kim(KHU)
- P05H16 Experimental Study on the Molten Corium Interaction with Structure by Induction Heating Technique**
Sang Mo An, Kwang Soon Ha, Beong Tae Min, Seong Ho Hong, and Hwan Yeol Kim(KAERI)
- P05H17 Hydraulic Modeling of Novel Combined Nozzle for Pool Scrubbing System**
Jeong Hee Ha, Woo Young Jung, and Doo Yong Lee(FNC Tech.)
- P05H18 Design of FCI Experiments to Understand Fuel Out-Pin Phenomena in the SFR**
Hyo Heo, Seong Dae Park, and In Cheol Bang(UNIST)
Dong Wook Jerng(CAU)
- P05H19 Molten Corium-Concrete Interaction Behavior Analyses for Severe Accident Management in CANDU Reactor**
Y. Choi, D. H. Kim, and Y. M. Song(KAERI)
- P05H20 Analysis Program for Evaluating the Failure Mode of Penetration Tube : PENTAP**
Jong-Hwa. Park, Hwan-Yearl Kim, and Kwang-Soon Ha(KAERI)

제 5 분과 I

원자력열수력 및 안전(Thermal Hydraulics and Safety)-Poster - 확률론적 안전성 평가(Probabilistic Safety Assessment)

좌 장 황태석(Taesusuk Hwang), 황석원(Seok Won Hwang)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P05I01 Pressure Load Analysis during Severe Accidents for the Evaluation of Late Containment Failure in OPR-1000**
S. Y. Park and K. I. Ahn(KAERI)
- P05I02 Comparison of Unavailability between Different Types of Reactors**
Taewook Kang, Namyong Kim, and Moosung Jae(HYU)
- P05I03 Development of Accident Scenarios and Quantification Methodology for RAON Accelerator**
Yongjin Lee and Moosung Jae(HYU)
- P05I04 Safety Assessment of CANDU Type Containment Building under Negative Internal Pressure**
Daegi Hahm, Youngho Jin, and In-Kil Choi(KAERI)
- P05I05 A study on the Electronic SAMG Framework**
S.H. Park, K.I. Ahn, and Y.H. Jin(KAERI)
- P05I06 Sensitivity Analysis Based on Numerical Results of Various Logic Tree Fault Parameters in the East-Sea Tsunami Simulation**
Chaewook Lim, Beomjin Park, and Seung-buhm Woo(Inha Univ.)
Min-Kyu Kim and Hyun-Me Rhee(KAERI)
- P05I07 A Methodology for Safety Culture Impact Assessment**
Kiyeon Han and Moosung Jae(HYU)
- P05I08 ATWS Frequency for the Analog I&C System of the OPR-1000 Reactor**
Seung-Cheol Jang(KAERI)
- P05I09 Unavailability of RPS and ESFAS for the OPR-1000 Reactor**
Seung-Cheol Jang, Yoon-Hwan Lee, and Seung-Jun Lee(KAERI)

IV. 분과별 논제 및 발표자

제 5 분과 J

원자력열수력 및 안전(Thermal Hydraulics and Safety)-Poster - 안전 현안(Current Safety Issues)

좌 장 강경호(Kyoung-Ho Kang), 서재승(Jae Seung Suh)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P05J01 Assessment of System Behavior and Actions Under Loss of Electric Power for CANDU**
San Ha Kang, Bok Ja Moon, and Seoung Rae Kim(NESS)
- P05J02 The Thermal-hydraulic Analysis for the Aging Effect of the Component in CANDU-6 Reactor**
Jun Ho Bae and Jong Yeob Jung(KAERI)
- P05J03 Considerations on Fail Safe Design for Design Basis Accident (DBA) vs. Design Extension Condition (DEC): Lesson Learnt from the Fukushima Accident**
Jun Su Ha(Khalifa Univ.)
Sung-yeop Kim(KAIST)
- P05J04 Analysis of Depressurization Performance in Containment of Wolsong NPP Unit 1 through Containment Filtered Venting System**
Sung-Han Lee, Jin-Hyuck Kim, and Nam Duk Suh(KINS)
Song-Won Cho(NSE)
- P05J05 The Maximum Coping Time Analysis of the ELAP for the OPR1000**
Sung Hyun Shin and Chang Joo Hah(KINGS)
Si Chae Jung and Chang Gyun Lee(KEPCO E&C)
- P05J06 Environmental Source Term Analysis in A Sample LOCA Sequence of OPR1000**
Tae-Woon KIM, Seok-Jung HAN, and Kwang-Il AHN(KAERI)

제 5 분과 K

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 열전달 : 실험, 모델 및 응용 (Heat Transfer: Experiment, Modeling and Applications)

좌 장 어동진(Dong Jin Euh), 이정익(Jeong Ik Lee)

발표장소 삼다홀A

일 정 | 5. 30(금)

- 09:00** **Influence of Tip Clearance on Forced Convection Heat Transfer of a Finned Plate in a Duct**
Hae-Kyun Park and Bum-Jin Chung(KHU)
- 09:20** **Influence of Pr on Natural Convection Heat Transfer of an Open Channel Finned Plate**
Seung-Hyun Hong and Bum-Jin Chung(KHU)
- 09:40** **Influence of Chimney Width in Natural Convection Heat Transfer on a Vertical Finned Plate**
Je-Young Moon, Jeong-Hwan Heo, and Bum-Jin Chung(KHU)
- 10:00** **Forced Convection Heat Transfer Experiments of the Finned Plate in a Duct**
Myeong-Seon Chae, Je-Young Moon, and Bum-Jin Chung(KHU)
- 10:20** **A comparison Study of Experimental and Direct Numerical Simulation Results Associated with Dynamics and Heat Transfer of a Boiling Bubble**
Satbyoul Jung and Hyungdae Kim(KHU)
Yasuo Ose(Yamato System Engineer Co., Ltd.)
Tomoaki Kunugi(Kyoto Univ.)
- 10:40** **Coffee Break**
- 11:00** **Pure Steam Condensation in a Vertical Tube Submerged at a Water Pool in a Passive Safety System**
Kyung Won Hwang, Joo Won Kang, Hyun Sun Park, and Moo Hwan Kim(POSTECH)
Kihwan Kim(KAERI)
- 11:20** **Condensation Heat Transfer on Micro and Nano Structured Superhydrophobic Surface**
DongHyun Kim, Kyung Won Hwang, Hyun Sun Park, and Moo Hwan Kim(POSTECH)
- 11:40** **Effects of Subcooling on Liquid Wetted Area Fraction of Heater Surface during Nucleate Boiling of Water in a Pool**
Youngjae Park and Hyungdae Kim(KHU)
- 12:00** **The Breakup of Droplets Impacting on a Hot Surface above the Leidenfrost Temperature**
Khaleel Sami Hamdan(UST)
Dong-Eok Kim(KNU)
Sang-Ki Moon(KAERI)
- 12:20** **High-Speed Detection of Onset of Nucleate Boiling of DI Water at Stainless Steel Heater Confined in Narrow Rectangular Vertical Channel**
Junkyu Han, Yongjae I, and Sung Joong Kim(HYU)

IV. 분과별 논제 및 발표자

제 5 분과 L

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 열수력 실험(Thermal Hydraulic Experiment)

좌 장 홍순준(Soon Joon Hong), 권태순(Tae-Soon Kwon)

발표장소 삼다홀B

일 정 | 5. 30(금)

- 09:00 A Study of Critical Flowrate in the Integral Effect Test Facilities**
Yeon-Sik Kim, Sung-Uk Ryu, Seok Cho, Sung-Jae Yi, and Hyun-Sik Park(KAERI)
- 09:20 Improvement in Performance Evaluation Factors for a Reactor Coolant Pump (RCP) Test**
Y. J. Cho, Y. S. Kim, S. Cho, S. Kim, B. U. Bae, H. J. Chung, B. D. Kim, Y. J. Youn, J. K. Park, H. S. Choi, W. J. Jeon, T. S. Kwon, and C. H. Song(KAERI)
- 09:40 PIV Measurement of Isothermal Flow in the Moderator Circulation Test (MCT) Facility**
Sunghyuk Im and Hyung Jin Sung(KAIST)
Han Seo and In Cheol Bang(UNIST)
Hyoung Tae Kim(KAERI)
- 10:00 A Counterpart Test of the VISTA-ITL SB-SIS-07 Using the FESTA (SMART-ITL) Facility for the SMART Design**
Hyun-Sik Park, Hwang Bae, Seong-Uk Ryu, and Sung-Jae Yi(KAERI)
Yung-Joo Ko(SE&T)
- 10:20 Thermal Performance of a Heat Pipe for Hybrid Control Rod in Advanced In-Core Decay Heat Removal System**
Kyung Mo Kim, Yeong Shin Jeong, and In Cheol Bang(UNIST)
- 10:40 Coffee Break**
- 11:00 Experimental Study for Natural Circulation Flow Regime Map of ATLAS**
Jongrok Kim, Ki-Yong Choi, Kyoung-Ho Kang, Yusun Park, Byoung-Uhn Bae, and Chul-Hwa Song(KAERI)
- 11:20 An SBLOCA Test of Pressurizer Safety Valve Line Break with SMART-ITL Facility**
Hwang Bae, Sung Uk Ryu, Yong-Cheol Shin, Yung-Joo Ko, Kyoung-Ho Min, Jong-Kuk Park, Sung-Jae Yi, and Hyun-Sik Park(KAERI)
Dong Eok Kim(KNU)
- 11:40 Neutron Imaging Study of Bubble Behaviors in Nanofluid through Engineered Orifices**
Seok Bin Seo and In Cheol Bang(UNIST)
Tae Joo Kim(KAERI)
- 12:00 Experimental CHF Study on the Pressure Effect in the 2-D Slice Test Section**
Hae Min Park and Yong Hoon Jeong(KAIST)

제 5 분과 M

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 열수력 해석(Thermal Hydraulic Analysis)

좌 장 윤한영(Hanyoung Yoon), 김태완(Tae Wan Kim)

발표장소 303A

일 정 | 5. 30(금)

- 09:00 Analysis of Long Term Core Cooling Capability of the APR1400 Considering LOCA Generated Debris**
Kwon Sun-guk, Shu Jeong-kwan, and Park Young-sheop(KHNP CRI)
- 09:20 Effect of Uncertainty Parameters in Blowdown and Reflood Models for OPR1000 LBLOCA Analysis**
Byung Gil Huh, Chang-Yong Jin, Kwang-Won Seul, and Taesuk Hwang(KINS)
- 09:40 RCS Core Cooling Response Evaluation for Potential Gas Accumulation Location of Accumulator Discharge Side in Westinghouse 3-Loop**
Seung-Chan LEE and Duk-Joo Yoon(KHNP CRI)
Jong-Chan LEE and Jong-Uk Kim(FNC Tech.)
- 10:00 Fuel Channel Integrity Evaluation under SBO for CANDU-6**
Eun kyung Jang, Bok Ja Moon, and Seoung Rae Kim(NESS)
- 10:20 Estimation of Aging Effects on LOHS for CANDU-6**
Yong Ki Yoon, Bok Ja Moon, and Seoung Rae Kim(NESS)
- 10:40 Coffee Break**
- 11:00 Analysis for Conceptual Design Combination of Passive Emergency Core Cooling System**
Soon Il Chung and Soon Joon Hong(FNC Tech.)
Sang Hee Kang and Han Gon Kim(KHNP CRI)
- 11:20 Thermal-hydraulic Evaluation of Passive Containment Cooling System of Improved APR+ during LOCAs**
Byong Guk Jeon and Hee Cheon NO(KAIST)
- 11:40 Limitation of Over-Pressurization due to Unexpected Decrease in RCS Heat Removal**
Ji Hwan Kim and Yong Soo Kim(KHNP CRI)
- 12:00 Evaluation of a Design Concept for the Combined Air-water Passive Cooling PAFS+**
Sung Won Bae and Tae-Soon Kwon(KAERI)

IV. 분과별 논제 및 발표자

제 5 분과 N

원자력열수력 및 안전(Thermal Hydraulics and Safety)

- 중대사고 관리 및 완화 설비(Severe Accident Management and Mitigation Features)

좌 장 이두용(Doo Yong Lee), 김환열(Hwan Yeol Kim)

발표장소 303B

일 정 | 5. 30(금)

09:00 Preliminary Design of Molecular Sieve for Removing Organic Iodide in Containment Filtered Venting System

Tong Kyu Park, So Eun Shin, and Byung Chul Lee(FNC Tech.)
Hong Hyun Kim and Kyung Jun Lee(Gemvax & KAEL Inc.)

09:20 Severe Accident Analysis for Containment Filtered Venting System Design

Young Suk Bang, Tong Kyu Park, Doo Yong Lee, and Byung Chul Lee(FNC Tech.)
Sang Won Lee and Hyeong Taek Kim(KHNP CRI)

09:40 Aerosol Characterization in Containment Air during Severe Accident

Min Young Kim and Sung Hoon Park(SCNU)
Young Suk Bang, Tong Kyu Park, Doo Yong Lee, and Byung Chul Lee(FNC Tech.)

10:00 Improved Design of PECS to Reduce Flow Instability for EU-APR1400

Do Hyun Hwang and Keun-Sung Lee(KHNP CRI)

10:20 Conceptual Design of Portable Filtered Air Suction Systems for Prevention of Released Radioactive Gas under Severe Accidents of NPP

Beom W. Gu, Su Y. Choi, Man S. Yim, and Chun T. Rim(KAIST)

10:40 Coffee Break

11:00 Analysis Method for Licensing Application of Passive Autocatalytic Recombiner System as a Hydrogen Mitigation System of OPR-1000

Chang-Hyun Kim, Je-Joong Sung, and Sang-Jun Ha(KHNP CRI)
In-Seon Yeo(KEPCO E&C)

11:20 Perspectives on Severe Accident Management by Depressurization and External Water Injection under Extended SBO Conditions

Wook-Cheol Seol and Jong-Woon Park(DU)

11:40 Improvement of Diagnostic Flow Chart in Severe Accident Management Guidance of OPR1000 Reflecting Fukushima Accident Experience

Youngho Jin and K.I. Ahn(KAERI)

12:00 Development of Korean EDMG

Yun-Jung Kim, Moon-Hak Jee, In-Hwan Kim, and Mun-Hee Park(KHNP CRI)
Moon-Oh Kim(ACT Co., Ltd.)

12:20 Numerical Analysis of a Passive Containment Filtered Venting System

Tae-Joon Kim, Hui-Un Ha, and Sun Heo(KHNP CRI)

12:40 Thermal Hydraulic Analysis on Containment Filtered Venting System

Young Suk Bang, Tong Kyu Park, Doo Yong Lee, and Byung Chul Lee(FNC Tech.)
Sang Won Lee and Hyeong Taek Kim(KHNP CRI)

제 5 분과 O

원자력열수력 및 안전(Thermal Hydraulics and Safety) - 확률론적 안전성 평가(Probabilistic Safety Assessment)

좌 장 나장환(Jang Hwan Na), 박진희(Jin Hee Park)

발표장소 300

일 정 | 5. 30(금)

- 09:00 Evaluation of Component Failure Data of the Operating Nuclear Power Plants in Korea Based on NUREG/CR-6928**
Ho-Jun Jeon, Jang-Hwan Na, and Tae-Young Shin(KHNP CRI)
- 09:20 Incorporating Level-2 PSA Feature of CONPAS into AIMS-PSA Software**
Sang Hoon HAN, Ho-Gon LIM, and Kwang Il AHN(KAERI)
- 09:40 Development of Outage Risk Indicator of NPPs for New Optimized Power Reactors**
Eden Kim, Su Won Lee, and Young Wook Chung(FNC Tech.)
Hyun Gyo Lee(KHNP CRI)
- 10:00 Re-evaluation of Station Blackout in Nuclear Power Plants**
Eun-Chan Lee and Tae-Young Shin(KHNP CRI)
- 10:20 Analysis of Loss of Offsite Power Events based on Domestic Operation Experience**
Park, Jin Hee, Kim Dong San, and S.C Jang(KAERI)
- 10:40 Coffee Break**
- 11:00 Effect Analysis of Digital I&C Systems on Plant Safety Based on Fault-Tree Analysis**
Seung Jun Lee and Wondea Jung(KAERI)
- 11:20 A Sensitivity Analysis of Interfacing Systems LOCA Frequency of Korea Standard Nuclear Power Plants**
Dong San Kim, Jin Hee Park, and Seung Cheol Jang(KAERI)
- 11:40 Concept Design and Risk Assessment of Nuclear Propulsion Ship**
Youngmi Gil, Seongjin Yoo, Yeontae Kim, June Oh, Yoonchul Byun, and Ilguk Woo(DSME)
Jiho Kim and Suh Choi(KAERI)

IV. 분과별 논제 및 발표자

제 6 분과 A

방사선 이용 및 방호(Radiation Utilization and Protection)

좌 장 서경석(Kyung-Suk Suh), 엄영랑(Young Rang Uhm)

발표장소 401A

일 정 | 5. 29(목)

- 09:00 Application of Translocation, γ -H2AX, and Sam68 as a Biological Indicators for the Assessment of Radiation Exposure in Nuclear Power Plant Workers**
Kwang Hee Yang, Hyung Sun Park, and Seon Young Nam(KHNP CRI)
- 09:20 Trend of Gross Beta Radioactivity in Air Particles and Rainwater of around the Domestic Nuclear Power Plants**
Jungmin Yeom, Daeyewn Shin, Soongpyung Kim, and Sundong Ju(CSU)
Youngsoo Oh, Byunggyu Kim, and Sunsik Kim(KHNP)
- 09:40 Quantitative Comparison of Y-90 and Ge-68 PET Imaging**
Sang-Keun Woo, Shin Hye Kwak, Jeong A Lee, Han Kyeol Song, Joo Hyun Kang, Sang Moo Lim, and Kyeoung Mi Kim(KIRAMS)
Su Young Jeong(Kangbuk Samsung Hospital)
- 10:00 Phase Analysis of Iron-Oxides by ^{57}Fe -Mössbauer Spectroscopy**
Young Rang Uhm, Kwang Jae Son, and Chang Kyu Rhee(KAERI)
Chul Sung Kim(KMU)
- 10:20 Study of Iron Valence State and Position in Sub-site by Mössbauer Spectroscopy**
Young Rang Uhm, Jae Cheong Lim, and Kwang Jae Son(KAERI)
Chul Sung Kim(KMU)
- 10:40 Coffee Break**
- 11:00 Study on the Production of Seed Core for Brachytherapy**
K. H Choi, J. H Lee, U. J Park, K. J Son, S. S Nam, K. D Jang, and J. S Lee(KAERI)
- 11:20 Feasibility Study of Radioactive Particle Tracking in a Draft Tube Column**
Jinho Moon, Jang Guen Park, Jongbum Kim, and Sung-Hee Jung(KAERI)
- 11:40 LEU-based Fission Mo-99 Process with Reduced Solid Wastes**
Seung-Kon Lee, Suseung Lee, Sung-Hee Jung, Soon-Bog Hong, Kyung-DuK Jang, Sang Mu Choi, Jun Sig Lee, and In-Cheol Lim(KAERI)

제 6 분과 B

방사선 이용 및 방호 (Radiation Utilization and Protection) - Poster - 방사선 방호 (Radiation Protection)

좌 장 장미(Mee Jang), 김종수(Jongsoo Kim)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P06B01 Estimation of the Uncertainty of N-type HPGe**
Hana SEO and Gil Hoon Ahn(KINAC)
- P06B02 Design and Fabrication of an Integrated Circuit for Monitoring UV Radiation for Health Physics Application**
Mohammad Naziffard and Reyhaneh Faghi(Kashan Univ.)
Afshin Mahmoudieh Champiri(Shahid Chamran Univ.)
Enkhbat Norov(POSTECH)
Kune Y. Suh(SNU)
- P06B03 Validation of ^{32}P Cherenkov Radiation Measurment Method of Urine Samples for Life Science Workers**
Seokwon Yoon, Min-Jeong Pak, Seyoung Park, Jaeryong Yoo, and Wi-Ho Ha(KIRAMS)
Han-Ki Jang(KARA)
- P06B04 Natural Radioactivity in Building Materials and Activity Concentration Index I**
Mee Jang, Kun Ho Chung, Young Yong Ji, Chang Jong Kim, Mun Ja Kang, and Guen Sik Choi(KAERI)
- P06B05 Optically Stimulated Luminescence of Common Plastic Materials for Accident Dose Reconstruction**
I. Chang, J. I. Lee, and J. L. Kim(KAERI)
K. S. Chung(GNU)
- P06B06 A study on the Development of Quality Assurance Development and Dose Distribution for Medical Linear Accelerator**
S. J. Noh(Inje Univ.)
M.W.Lee, D.H.Jung, H.J. Lim, H. Kim, H.J Kim, and Y.R Kang(DIRAMS)
- P06B07 Assessment of the Radioprotection Efficacy of Antioxidant Substances in Foods in regard to Clonogenic Cell Survival**
Hyo-Sung park, Min-Ho Lee, and Eun-Hee Kim(SNU)
- P06B08 Effect of the Changes of Respiratory Tract Model on the Uranium Bioassay Data**
Tae-Eun Kwon, Siwan Noh, Mee-Ryeong Kim, and Jai-Ki Lee(HYU)
Jong Il Lee and Jang Lyul Kim(KAERI)
- P06B09 Review of Scattering Corrections for Calibration of Neutron Survey Meters**
Sang In Kim, Na Rae Lee, Jung Bok Lee, Bong Hwan Kim, and Jang Lyul Kim(KAERI)
- P06B10 Characterization of Airborne Particles in Korea Potassium Chloride Industry**
Cheol Kyu Choi, Ha Yan Lim, Si Young Kim, Jae Woo Park, and Kwang Pyo Kim(KHU)
Won Chul Choi(KINS)

P06B11 A Game Theoretic Approach to Nuclear Security Analysis against Insider Threat

Kyo-Nam Kim, So Young Kim, and Man-Sung Yim(KAIST)

Erich Schneider(UTA)

P06B12 Preliminary Study for Radioactivity Evaluation of MSR Compard with LWR

Geun Hyeong Lee and Hee Reyoung Kim(UNIST)

제 6 분과 C

방사선 이용 및 방호 (Radiation Utilization and Protection) - Poster

- 방사선 차폐 / 비상대책 / 환경영향 (Radiation Shielding / Emergency / Preparedness / Environment)

좌 장 노규홍(Gyuhong Roh), 조성기(Seong Ki Jo)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

P06C01 Shielding Design of Cold Neutron Triple-axis Spectrometer Using MCNP6

J. M. Ryu, K. P. Hong, J. M. Sungil Park, Y. H. Choi, and K. H. Lee(KAERI)

P06C02 Development of Nuclide Recognizing Prompt Radiation Distribution Monitoring System

UK Jae. Lee, Dong Han. Yoo, and Hee Reyoung. Kim(UNIST)

P06C03 Application of Emergency Action Levels from Potential Release at Research Reactor HANARO

Jongsoo Kim, Goan Yub Lee, Hae Choi Lee, and Bong Suk Kim(KAERI)

P06C04 Soil-to-Rice Transfer of ⁹⁹Tc to Paddy Soils Contaminated in Two Different Ways

Yong-Ho Choi, Kwang-Muk Lim, In Jun, Byung-Ho Kim, and Dong-Kwon Keum(KAERI)

P06C05 Improvement of Off-site Dose Assessment Code for Operating Nuclear Power Plant

Juyub Kim, Juyoul Kim, and Kwangyoung Shin(FNC Tech.)

Songjae You and Jongyi Moon(KINS)

P06C06 Risk Analysis of Fukushima Accident Using MACCS2

Seunghee Lee, Juyoul Kim, Sukhoon Kim, and Juyub Kim(FNC Tech.)

P06C07 Radioactive Materials Monitoring on Superficial Layer Soils in Gyeongsangnam-Do

Seung-Jin Lee, Jin-Hee Na, Jong-Hwa Jeong, Ki-Jin Nam, and Geun-Sun Lee(GIHE)

P06C08 Assessment of Radiological Effect during the Growing Season of Rice at Different Times

Ju-young Jeon, Hyung Jun Ryu, HyeonJun Choi, and Jai-ki lee(HYU)

P06C09 Characterization of Local Wid Patterns around the Kori Nuclear Power Plant Using Cluster Analysis and WRF Meteorological Modeling

Hye-Yeon An, Yoon-Hee Kang, and Yoo-Keun Kim(PNU)

Jin-Hee Bang(Environmental Health Center, UUH)

Sang-Keun Song(JNU)

P06C10 New Approach for Extracting Depth of Structure Crack by Computer Vision

YOUM. MIN KYO, MIN. BYUNG IL, PARK. KI HYUN, and SUH. KYUNG SUK(KAERI)

IV. 분과별 논제 및 발표자

제 6 분과 D

방사선 이용 및 방호(Radiation Utilization and Protection) - Poster

- 방사선 생명의학 / 중성자 이용 (Radiation BioMedical/Neutron Application)

좌 장 문명국(Myung Kook Moon), 안지연(Jiyeon Ahn)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P06D01 Chromosome Aberrations in Human Lymphocytes Irradiated with Ionizing Radiation**
Tae Ho Ryu, Jin Hong Kim, and Jin Kyu Kim(KAERI)
- P06D02 Synthesis of Core/Shell $\text{MnFe}_2\text{O}_4/\text{Au}$ Nanoparticles for Advanced Proton Treatment**
Jeong Chan Park(KAERI)
- P06D03 Overexpression of Matrix Metalloproteinase-12 (MMP-12) Correlates with Radiation-Induced Lung Fibrosis**
MYUNG GU JUNG, Ye Ji Jeong, and Hae-June Lee(KIRAMS)
Su-Jae Lee(HYU)
- P06D04 In vitro Evaluation of a Bombesin Antagonistic Analogue Conjugated with DOTA-Ala(SO_3H)-Aminooctanoyl for Targeting of the Gastrin-releasing Peptide Receptor**
Jae Cheong Lim, Eun Ha Cho, Jin Joo Kim, So Young Lee, and Sang Mu Choi(KAERI)
- P06D05 Effect of Chronic Exposure to Acidic Environment on Radiosensitivity of Gliosarcoma Cells**
So-Ra KIM and Eun-Hee KIM(SNU)
- P06D06 Coniferyl Aldehyde Ameliorates Radiation Intestine Injury via Endothelial Cell Survival**
Ye Ji Jeong, Myung Gu Jung, Yoon-Jin Lee, and Hae-June Lee(KIRMS)
Yun-Sil Lee(Ewha Woman's Univ.)
Young-Gyu Ko(KU)
- P06D07 Application of Instrumental Neutron Activation Analysis for the Analysis of Six Fish Species**
J. H. Moon, M. Oh, S. H. Kim, and Y. S. Chung(KAERI)
- P06D08 Neutron Measurement Using Stilbene Detector in 2013 KSTAR Campaign**
Jaebum Son, Jeongsoo Kang, Yun Ho Kim, Yong Kyun Kim, and Kyu-Sun Chung (HYU)
- P06D09 Bio-REF: Neutron Reflectometer, Dedicated to the Study of Bio-related Thin Film Systems**
Kwangpyo Hong, Kyehong Lee, Jimyung Ryu, Jeonghun Han, Sangwon Kim, and Cheongsoo Kim(KAERI)
Jumi Lee and Kwanwoo Shin(Sogang Univ.)
- P06D10 Monte Carlo Calculation for Landmine Detection using Prompt Gamma Neutron Activation Analysis**
Seungil Park, Seong Bong Kim, and Suk Jae Yoo(NFRI)
Sung Gyun Shim and Moohyun Cho(POSTECH)
Seung-hoon Han and Byeongok Lim(Samsung Thales)

제 6 분과 E

방사선 이용 및 방호 (Radiation Utilization and Protection) - Poster - 방사성 동위원소 생산 및 이용(Radioisotope Production and Application)

좌 장 전권수(Kwon Soo Chun), 김계령(Kye Ryung Kim)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P06E01 Active Radiation Level Measurement on New Laboratory Instrument for Evaluating the Antibacterial Activity of Radioisotope**
Eun-Ha Joh and Jang Guen Park(KAERI)
- P06E02 The Effect of pH on the Particle Size of Electroplated Cobalt**
Sang Mu Choi, Keun Yung Park, Young Rang Uhm, and Kwang Jae Son(KAERI)
- P06E03 Reducing Renal Uptake of ^{177}Lu Labeled CCK Derivative Using Basic Amino Acids**
So-Young LEE, Jae-Cheong LIM, and Eun-Ha JOH(KAERI)
- P06E04 Safety Issues Related to Production of Fission-based Mo-99 by Using Low Enriched Uranium(LEU)**
Muhmood ul Hassan and Ho Jin Ryu(KAIST)
- P06E05 Electroplating Ni-63 Metal Ions in Chloride Bath on the Cu-plate**
Kwon Mo Yoo, Young Rang Uhm, Kwang Jae Son, and Keun Yung Park(KAERI)
- P06E06 Magnetic Properties and Residual Stress of Electroplated Ni**
Jin Joo Kim, Keun Yung Park, Young Rang Uhm, and Kwang Jae Son(KAERI)
- P06E07 Radioiodination of Antibody Protein Using FCCS12026, a Novel Linker for Increasing Stability Against Deiodination In Vivo**
Dan Bee Choi, Byoung Soo Kim, Eun Jung Kim, and Tae-Hyun Choi(KIRAMS)
Se-Ho Park(KU)
- P06E08 Prediction of ^{211}AT Production Using the Monte Carlo Code MCNPX**
Gyehong Kim, Kwonsoo Chun, Byungil Kim, and Inkong Yu(KIRAMS)
Sungho park(Asan Medical Center)
- P06E09 Dosimetric Characteristics for A New Electronic Brachytherapy Source Based on Carbon Nanotube Field Emitter**
Woo Sang Ahn, Wonsik Choi, Byung Chul Cho, and Seong Soo Shin(Asan Hospital)
Sung Ho Park(Ulsan University Hospital)
Sung Oh Cho(KAIST)
- P06E10 Development of Copper-based Adsorbent for the Separation and Recovery of Gaseous Iodine from Fission Mo-99 Production**
Suseung Lee, Seung-Kon Lee, Yong Bae Park, Ul Jae Park, Kwon Mo Yoo, Kang Hyuk Choi, and Jun Sig Lee(KAERI)

IV. 분과별 논제 및 발표자

제 6 분과 F

방사선 이용 및 방호 (Radiation Utilization and Protection) - Poster - 방사선 기기 기술(Radiation Instrument Technology)

좌 장 김호경(Ho Kyung Kim), 김한수(Han Soo Kim)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P06F01 Electrophoretic Deposition of Ni Nanoparticles on Ni-plate**
Keun Yung Park, Young Rang Uhm, and Kwang Jae Son(KAERI)
Deok-Yong Park(HNU)
- P06F02 Development of a Gamma Spectrometer Using a Large NaI Scintillator and SiPMs**
Chankyu Kim, Hyunjun Yoo, Yewon Kim, Giyeon Kim, Hyoungtaek kim, Jongyul Kim, and Dong Uk Kang(KAIST)
- P06F03 Performances of Dose Measurement of Commercial Electronic Dosimeters Using Geiger Muller Tube and PIN Diode**
Hyunjun Yoo, Chankyu Kim, Yewon Kim, Giyeon Kim, and Gyuseong Cho(KAIST)
- P06F04 Comparison of Spectral Responsibility on Silicon PIN Photodiode Radiation Detectors due to Surface Encapsulation**
Han Soo KIM, Manhee Jeong, Young Soo KIM, Dong Jin KIM, Woo Jin Cho, and Hyo Jeong Choi(KAERI)
Jang Ho HA and Seung Yeon CHO(Yonsei Univ.)
Dong Hoon LEE(KRISS)
- P06F05 Plastic Scintillator for an Electronic Personal Dosimeter**
Yewon Kim, Hyunjun Yoo, Chankyu Kim, Kyungjin Park, Eunjoong Lee, and Gyuseong Cho(KAIST)
- P06F06 THGEM for Multi-Proposal 2-D Image Detection**
Chang HwY Lim, Myung-Kook Moon, Suhyun Lee, and Young-Hyun Choi(KAERI)
Jongyul Kim(KAIST)
Jong-Won Park(KRISO)
- P06F07 Simulation Study for High Resolution Alpha Particle Spectrometry with Mesh Type Collimator**
Seunghoon Park, Sung-Woo Kwak, Han-Byeol Kang, Jnng-Ki Shin, and Il-Jin Park(KINAC)
- P06F08 Contribution of External Gamma Rays to SPND at HANARO**
B.G. Park, D.K Cho, M.S. Kim, and G.D. Kang (KAERI)
- P06F09 Micron-scale Dose Profiling for Hard X-ray Microbeam Exposure**
Ki-Man Lee and Eun-Hee Kim(SNU)
- P06F10 Status of the DIAC at KAERI**
Doh-Yun Jang, Dae-Sik Chang, Cheol Ho Lee, and Byung-Hoon Oh(KAERI)
Sun-Chan Jeong(HEARO)
- P06F11 Measurement of Detector Efficiency for the CZT Monitoring System**
KANG HWA YOO, KANG SEO KON, and KIM JEONG-IN(KHNP)

P06F12 Verification of MCNP Simulation According to Various Widths of Shielding Using by CZT Semiconductor Detectors

JOO SORIN, PARK GYEONGSEOK, and KIM HYEONDAE(ENESYS)

KANG HWA YOON, LEE BYOUNG-IL, KIM JEONG-IN, and KANG SEO KON(KHNP)

P06F13 Gamma Irradiation Performance Tests of the Bipolar Junction Transistor(BJT) for Medical Dosimetry Purposes

Mohammad Nazififard and Reyhaneh Faghihi (Kashan Univ.)

Kune Y. Suh(SNU)

Enkhbat Norov(POSTECH)

IV. 분과별 논제 및 발표자

제 6 분과 G

방사선 이용 및 방호 (Radiation Utilization and Protection) - Poster - 방사선 가공(Radiation Processing and Application)

좌 장 이재상(Jae Sang Lee), 김범석(Bom Sok Kim)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P06G01 The Measurement Uncertainty Estimation of the Portable Radiation Monitor**
Ha-Seok Chai, Jae-duck Park, Hoon Son, and Sang-hoon Seo(Iljin Radiation Engineering Co.)
- P06G02 Fabrication of Faraday Cup Array for the Measurement of 2-Dimensional Proton Beam Profile**
Myung-Hwan Jung, Bom Sok Kim, and Kye-Ryung Kim(KAERI)
- P06G03 Fabrication of Rubrene Thin Film Transistor on Polystyrene Irradiated by Electron Beam**
Jae Joon Kim, Ji won Park, and Sung Oh Cho(KAIST)
Hyeok Moo Lee(LG CRPBTC)
Jung hwi Lee and Hwa Sung Lee(HNU)
- P06G04 Cell Adhesion Selectivity of Stent Material to Improve Bio-functionality by Ion Beam Modification**
Jae-Sang Lee, Jung-Chan park, Myung-Hwan Jung, and Yong-Ki Kim(KAERI)
Jun-Kyu Park(Bio Alpha Co.)
- P06G05 Characteristics Measurements of CdW0₄ Crystal and Photo PIN Diode for X-ray Scanner**
K.H. Kang, H.J. Hyun, H.B. Jeon, B.B Kim, H. Park, and S. Uozumi(KNU)
M.K Moon(KAERI)
- P06G06 The Application of Alanine/ESR Dosimetry in Nuclear Power Plants**
Hoon Choi and Byung Ill Lee(KHNP)
- P06G07 Development of an X-ray System for High-resolution and Tomography Imaging with a Laboratory X-ray Source at Pusan National University**
Youngju Kim, Ohsung Oh, and Seung Wook Lee(PNU)
Jongyul Kim and Myungkook Moon(KAERI)
- P06G08 Comparison of Methods of Projection and Backprojection for CT Simulation**
Ohsung Oh, Youngju Kim, Myungkook Moon, and Seung Wook Lee(PNU)
- P06G09 Ion Beam Induced Luminescence of Germano-silicate Optical Fiber Preform**
Hyun-Kyu Jung, Jong-Yeol Kim, and Nam-Ho Lee(KAERI)
Young-Woong Kim and Won-Taek Han(GIST)
Nikola Markovic and Milko Jakšić(RBI)
- P06G10 Design and Fabrication of Titanium Target for Portable Neutron Generator**
Cheol Ho Lee, Byung- Hoon Oh, Dae-Sik Chang, Doh-Yun Jang, Sang Yeol In, Jae-Won Park, and Kwang-Pyo Hong(KAERI)

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- P06G11 Semi-empirical Determination of Detection Efficiency for Voluminous Source by Effective Solid Angle Method**
M.Y. Kang, J.H. Kim, and H.D. Choi(SNU)
G.M. Sun(KAERI)
- P06G12 Pulse Discrimination of Background and Gamma-ray Source by Digital Pulse Shape Discrimination in a BF_3 Detector**
Jinhyung Kim, J.H. Kim, and H.D. Choi(SNU)
- P06G13 Feasibility Study on the Radiation Damage of Nuclear Materials Induced by High-Energy Proton Beam**
Kye-Ryung Kim, BumSeok Kim, and Myung-Hwan Jung(KAERI)
- P06G14 Optimization of Design of an AC-type Single-sided Silicon Strip Detector**
H.B. Jeon, B.B. Kim, H. Park, H.J. Hyun, K.H. Kang, and S. Uozumi(KNU)

IV. 분과별 논제 및 발표자

제 6 분과 H

방사선 이용 및 방호(Radiation Utilization and Protection)

좌 장 김종운(Jong Woon Kim), 객성우(Sung-Woo Kwak)

발표장소 401A

일 정 | 5. 30(금)

- 09:00 Development of Reference Source Terms for EU-APR1400**
ByungIl Kim, ChongHui Lee, DongSu Lee, HeeJin Ko, and SangHo Kang(KEPCO E&C)
- 09:20 Development of the Calculation Module for Uncertainty of Internal Dose Coefficients**
Siwan Noh, Tae-Eun Kwon, Mee-Ryeng Kim, and Jai-Ki Lee(HYU)
Han-Ki Jang and Tai Jin Park(KARA)
- 09:40 A Cylindrical Shielding Design Concept for the Prototype Gen-IV Sodium-cooled Fast Reactor**
Sunghwan Yun and Sang Ji Kim(KAERI)
- 10:00 Preliminary Shielding Assessment for the IFF System in the RAON Heavy-ion Facility**
Cheol Woo LEE and Young-Ouk LEE(KAERI)
Jong Won KIM and Mijung KIM(IFS)
- 10:20 Numerical Simulation of a Tracer Experiment at the Wolsong Nuclear Site**
Hyojoon Jeong, Eunhan Kim, Misun Park, Haesun Jeong, Wontae Hwang, and Moonhee Han(KAERI)
- 10:40 Coffee Break**
- 11:00 A Preliminary Study on the Resuspension of Radionuclides in Desert Environment**
Sung-yeop Kim, Soon Heung Chang, and Man-Sung Yim(KAIST)
Philip A. Beeley(Khalifa Univ.)
- 11:20 Effects of Fiber-optic Plates on Image Quality of CMOS X-ray Detectors**
Seungman Yun, Jong Chul Han, and Ho Kyung Kim(PNU)
- 11:40 Status of Development of Antineutrino Detector for Short Baseline Experiment at the HANARO Research Reactor**
Gwang-Min sun and Boyoung Han(KAERI)
Hongjoo Kim and Jooyoung Lee(KNU)
Kyungkwang Joo, Sun-heang So, Sook Hyung Song, In Sung yeo, and Ba Ro Kim(CNU)
Jinyu Kim and Kyungju Ma(Selong Univ.,)
Eun-Ju Jeon, Yeonduk Kim, Jaison Lee, Jeong-yeon Lee, Kang-soon Park, and HyangKyu Park(IFS)
Siyeon Kim and Youngju Ko(CAU)
- 12:00 Simulation of Induced Current and Charge Signal Formation on a Position-Sensing CZT Detector with Delay-Line Electrode Scheme**
Geehyun Kim(Sejong Univ.,)
Manhee Jeong(KAERI)
Mark D. Hammig(Univ of Michigan)

제 7 분과 A

양자공학 및 핵융합기술 (Quantum Engineering and Nuclear Fusion)

좌 장 김한성(Hansung Kim), 윤재성(Jae Sung Yoon)

발표장소 202A

일 정 | 5. 29(목)

- 09:00 Initial Operation Results of the KOMAC 100MeV Proton Linac**
Kyung-Tae Seol, Hyeok-Jung Kwon, Han-Sung Kim, Dae-il Kim, Young-Gi Song, and Yong-Sub Cho(KAERI)
- 09:20 Design Study on the Helium Beam Irradiation System Based on the RFQ**
Hyeok-Jung Kwon, Yong-Sub Cho, Han-Sung Kim, Kyung-Tae Seol, Young-Gi Song, Sungkyun Park, and Gyu-Sub Eom(KAERI)
- 09:40 Beam Simulator for KOMAC 100 MeV Proton Linac**
Sung-Kyun Park, Young-Gi Song, Hyeok-lung Kwon, and Yong-Sub Cho(KAERI)
- 10:00 Design and Fabrication of the ESQ Triplet for RAON LEBT**
Yonghwan Kim and In-seok Hong(IFS)
- 10:20 Design and Thermal-hydraulic Analysis of the Integrated Model of the KO HCCR TBM**
D. W. Lee, H. G. Jin, E. H. Lee, J. S. Yoon, S. K. Kim, and C. W. Lee(KAERI)
M. Y. Ahn and S. Cho(NFRI)
- 10:40 Coffee Break**
- 11:00 Microstructure and Mechanical Properties in the Weld Heat Affected Zone of 9Cr-2W-VTa Reduced Activation Ferritic/martensitic Steel for Fusion**
Joonoh Moon, Chang-Hoon Lee, Tae-Ho Lee, Min-Ho Hwang, and Min-Gu Park(KIMS)
Hyoung Chan Kim(NFRI)
- 11:20 Recent Progress on Atomic Data for Fusion Plasma in KAERI Nuclear Data Center**
Duck-Hee Kwon, In Hyuk Hwang, Yong-Joo Rhee, and Young-Ouk Lee(KAERI)
- 11:40 A Methodology of the Cryogenic Proper Cryogenic Adsorbent Selection for He-3 Separation in Low Tritium Level by Using Modified Langmuir Equation**
Kyu-Min Song, Byung-Wook Ko, and Soon-Hwan Sohn(KHNP CRI)
Hyungoo Kang, Minho Chang, and Sehoon Yun(NFRI)
- 12:00 Current Status of the High Heat Flux Test Facility for the Plasma Facing Components**
Suk-Kwon Kim, Hyung Gon Jin, Eo Hwak Lee, Jae-Sung Yoon, and Dong Won Lee(KAERI)
Seungyon Cho(NFRI)

IV. 분과별 논제 및 발표자

제 7 분과 B

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

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

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P07B01 Current Status of Metal Ion Beam Accelerator and Preliminary Study for Irradiation Accuracy Improvement**
Chan-Young Lee, Sun-mog Yeo, Kye-Ryung Kim, and Jae-Sang Lee(KAERI)
- P07B02 The Improvement of Ion Beam Uniformity of 300mm Bucket Type Ion Source for In-line Etching Process**
Bom Sok Kim, Chan Young Lee, and Jae Sang Lee(KAERI)
- P07B03 Simulation and Field Measurement of Quadrupole Magnets for KOMAC 20MeV Beam line**
B. H. Chung, H. S. Kim, Y. G. Song, H. J. Kwon, and Y. S. Cho(KAERI)
- P07B04 Current Injector R & D for RISP SC linac**
I. S. Hong, Y.H. Kim, S. J. Choi, B. H. Choi, and D. Jeon(IFS)
- P07B05 Basic Design Study on 1-MV Electrostatic Accelerator for Ion Irradiation**
Yong-Sub Cho, Kye-Ryung Kim, and Chan-Young Lee(KAERI)
- P07B06 Software Redundancy for Machine Interlock System of KOMAC**
Yong-Gi Song, Kyung-Tae Seol, Hyeok-Jung Kwon, and Yong-Sub Cho(KAERI)
- P07B07 Variation Tendency of the Align Network for the 100MeV Proton Linac**
Dae-il Kim, Hyeok-Jung Kwon, Han-Sung Kim, Dong-Hyuk Seo, and Yong-Sub Cho(KAERI)
- P07B08 Modification of KOMAC Microwave Ion Source**
Gyu-Sub Eom, Dae-il Kim, Hyeok-Jung Kwon, Han-Sung Kim, and Yong-Sub Cho(KAERI)
- P07B09 Engineering Design of Electrostatic Quadrupole for ISOL Beam Lines**
H. S. Kim, H. J. Kwon, and Y. S. Cho(KAERI)
- P07B10 The Feasibility Test of the Flat Panel Detector as a Beam Profile Monitor for the External Proton Beam at KOMAC**
Sangpil Yoon, Yongsu Cho, Hyeokjung Kwon, Hansung Kim, and Kyungtae Seol(KAERI)
- P07B11 Analysis of Vacuum and Residual Gas in the Chamber to Generate 10 ns Proton Beam Pulse**
K. M. park, H. S. Kim, H. J. Kwon, and Y. S. Cho(KAERI)
- P07B12 Re-Normalization Method of Doppler Lidar Signal for Error Reduction**
Nak-Gyu Park, Sung-Hoon Baik, Seung-Kyu Park, and Dong-Lyul Kim(KAERI)
Duk-Hyeon Kim(HNU)
- P07B13 Remote Detection of Iodine By Using Differential Absorption Lidar**
Dong-Lyul Kim, Seung-Hoon Baik, Seung-Kyu Park, Nak-Gyu Park, and Yong-Jin Ahn(KAERI)

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- P07B14 Mid-Infrared Light Source for $^{14}\text{CO}_2$ Detection**
Kwang-Hoon Ko, Min-Ho Kim, Yonghee Kim, Taek-Soo Kim, Lim Lee, Hyunmin Park, Yong-Ho Cha, Gwon Lim, Jaemin Han, and Do-Young Jeong(KAERI)
- P07B15 Characteristics of Heating and Hydriding Temperature in Depleted Uranium**
Daeseo Koo, Jungmin Lee, Jongchul Park, and Hongsuk Chung(KAERI)
- P07B16 Thermal Analysis on Conceptual K-DEMO Breeding Blanket on Parallel Flow Configuration**
Il-Woong Park, Jeong-Hun Lee, Geon-Woo Kim, Goon-Cherl Par, and Hyoung-Kyu Cho(SNU)
Kihak Im, Keeman Kim, and Hyoung Chan Kim(NFRI)
- P07B17 Development of Fabrication Procedure and Welding Performance Test for ITER HCCR TBM**
J. S. Yoon, E. H. Lee, S. K. Kim, D. W. Lee, K. I. Shin, and H. G. Jin(KAERI)
S. Cho(NFRI)
- P07B18 Analysis of Hydriding and Dehydriding Modeling Characteristics in Metal Hydrides**
Jongcheol Park, Daeseo Koo, Jung-min Lee, and Hongsuk Chung(KAERI)
- P07B19 Status of the Design Tool Development for ITER TBM and Fusion Reactor System in Korea**
Hyung Gon Jin, Dong Won Lee, Eo Hwak Lee, Jae Sung Yoon, and Snk Kwon Kim(KAERI)
Mu-Young Ahn and Seungyon Cho(NFRI)
- P07B20 Present Activities of the Helium Supply System for ITER HCCR TBM**
E. H. Lee, S. K. Kim, J. S. Yoon, H. G. Jin, and D. W. Lee(KAERI)
Si-Woo Lee(JTM)
Seungyon Cho(NFRI)
- P07B21 Study on the Deposition Rate Depending on Substrate Position by Using Ion Beam Sputtering Deposition**
Yong-Gi Kim, Bom-Sok Kim, and Jae-Sang Lee(KAERI)
- P07B22 ITER Licensing Process Follow-up : A Part of K-DEMO Safety Study**
Myoung-suk Kang, Kyemin Oh, and Gyunyoung Heo(KHU)
Hyoen Gon Lee(NFRI)

IV. 분과별 논제 및 발표자

제 8 분과 A

원전 건설 및 운영 기술 (Nuclear Power Plant Construction and Operation Technology)

- 발전소 건설 및 설계/제작(NPP's Conctrurion & Design/Fabrication)

좌 장 정대율(Dae Youl Jung), 박진호(Jin Ho Park)

발표장소 400

일 정 | 5. 29(목)

- 09:00 Evaluation of Wall Perfophance with Aspect Ratio of 1.0 and 550MPa Bars**
Kim, Seok-Chul, Lee, Byung-Soo, Bang, Chang-joon, and Yim, Sang-joon(KHNP CRI)
- 09:20 A Comparison of AOP Classification Based on Difficulty, Importance, and Frequency by Cluster Analysis and Standardized Mean**
Sun Yeong Choi and Wondea Jung(KAERI)
- 09:40 Structural Analysis of Taper-Threaded Rebar Couplers**
Seok Jae Chu(Ulsan Univ.,)
Hyuk Mo Kwon and Sang Hwan Seo(Sammi Precision Co., Ltd)
- 10:00 Beam Test for Evaluating Applicability of High - Strength Reinforcement in Structure of Nuclear Facility**
Sang-Jun Yim, Byung-Soo Lee, and Chang-Joon Bang(KHNP CRI)
- 10:20 V-Model Based Configuration Management Program for New-Build Nuclear Power Plant**
Kyungik AN(PartDB Co., Ltd)
Yoon Sang CHO(KHNP)
Kent R. FREELAND(IAI)
- 10:40 Coffee Break**
- 11:00 Floor Response Evaluation for Auxiliary Building Subjected to Aircraft Impact Loading**
Sangshup shin, Daegi Hahm, and In-Kil Choi(KAERI)
- 11:20 Some Considerations about the RIERA Approach and Missile-Structure Interaction Analysis Method in Aircraft Impact Assessment on Nuclear Power Plants**
Byeong Moo Jin and Young Jin Kim(Daewoo E&C Co., Ltd)
Se Jin Jeon(Ajou Univ.)
- 11:40 Behavior of Concrete Expansion Anchors Subjected to Installation Torque and Vertical Loading**
Sang Hoon Noh, Hyun Uk Kim, and Kwang Ho Joo(KHNP CRI)
- 12:00 Design of Electric Power System for EU-APR1400 according to EUR**
Yong Soo Kim, Dong Hwan Kim, and Yong Soo Kim(KHNP CRI)

제 8 분과 B

원전 건설 및 운영 기술 (Nuclear Power Plant Construction and Operation Technology)

- 원전 경년열화, 운전/정비, 수화학 (NPP's Aging Management, Operation/Maintenance, Waterchemistry)

좌 장 권원택(Won Taek Kwon), 맹완영(Wan Young Maeng)

발표장소 401B

일 정 | 5. 29(목)

- 09:00** **Operational Strategy of CBPs for Load Balancing of Operators in Advanced Main Control Room**
Seunghwan Kim, Yochan Kim, and Wondea Jung(KAERI)
- 09:20** **A Study of the Equality of Cable Insulations by Comparing Aging Trend Using an Oxidation Induction Time Measurement Test**
Kyuug-Heum park, Keug-Jin Bhang, and Sun-Chul Jeong(KHNP CRI)
- 09:40** **Letdown Line Break Analysis with CVCS Design Improvement for HBN 5&6**
Sang Seob Lee, Min Soo Park, and Gyu Cheon Lee(KEPCO E&C)
Dong Soo Song and Seung Chan Lee(KHNP CRI)
- 10:00** **Evaluation on Irradiation Aging Effects for Reactor Vessel Internals**
J.S. Yang, S.J. Oh, S.Y. Won, S. M. Jeong, and J. G. Lee(KHNP CRI)
- 10:20** **A Shear Horizontal Waveguide Technique for Monitoring of High Temperature Pipe Thinning**
Yong-Moo Cheong, Hong-Pyo Kim, and Duck-Hyun Lee(KAERI)
- 10:40** **Coffee Break**
- 11:00** **Dedication for Safety-Related Fuses Use in Class-1E Power System**
Young-hee, Hong(KHNP CRI)
- 11:20** **Misunderstanding and Understanding of Primary Water Stress Corrosion Cracking of Structural Components in the Primary System of PWRs**
Young Suk Kim, Sung Soo Kim, and Dae Whan Kim(KAERI)
- 11:40** **Current Status of Long Range Pipeline Inspection Method for Nuclear Power Plant**
Jaesun Lee and Younho Cho(PNU)
Paul Jackson(Plant Integrity Ltd.,)
- 12:00** **Dispersant Application during SG Wet Layup at SK Unit 1**
Hyuk-Chul Kwon, Doo-Ho Lee, and Ki-Bang Sung(KHNP CRI)
- 12:20** **Thermodynamic Assessment of Silica Precipitation in the Primary Coolant of PWR Plants**
DooHo Lee, Hyukchul Kwon, and Kibang Sung(KHNP CRI)
- 12:40** **Development of Evaluation Technology for Prevention of Two-Phase FAC on Carbon Steel**
Kyung Mo Kim, Hee-Sang Shim, Eun Hee Lee, and Do Haeng Hur(KAERI)

IV. 분과별 논제 및 발표자

제 8 분과 C

원전 건설 및 운영 기술 (Nuclear Power Plant Construction and Operation Technology)

- 원전 내진 및 구조 (NPP's Structural Engineering)

좌 장 이진우(Jin Woo Lee), 김민규(Min Kyu Kim)

발표장소 401B

일 정 | 5. 30(금)

09:00 Design of Seismic Test Rig for Control Rod Drive Mechanism of Jordan Research & Training Reactor

Jong-Oh Sun, Gyeongho Kim, Yeon-Sik Yoo, Yeong-Garp Cho, and Jong In Kim(KAERI)

09:20 Effect of Variation in the Stiffness of Lead Rubber Bearing on Seismic Response of Base-Isolated NPP Structures

Junhee Park, Young-Sun Choun, and In-Kil Choi(KAERI)

09:40 Site Response Assessment Using Borehole Aeismic Records

Park, Dong-Hee, Chang, Chun-Joong, and Choi, Weon-Hack(KHNP CRI)

10:00 Draft for KINS Regulatory Guide on Seismic Isolation System of Nuclear Power Plant Structures

Sei-Hyun Lee, Chang-Hun Hyun, Hohyun Cho, Moon-Soo Kim, and Changbock Im(KINS)

Sanghyun Choi(Univ. of Transportation)

Kee-Jeung Hong(KMU)

10:20 Coffee Break

10:40 Effects on the Floor Response Spectra by the Nonlinear Behavior of a Seismic Base Isolation System

Hyung-Kui Park, Jung Han Kim, and In-Kil Choi(KAERI)

11:00 A Study on the Development of Prototype Seismic Isolation Device for NPP

Hong-Pyo Lee, Myung-Sug Cho, Sunyong Kim, Yong-Hee Lee, and Kyung-Hun Kang(KHNP CRI)

11:20 Parametric Study of SC Panel Subjected to Impact Loading

Hyuk-Kee Lee and Seung-Eock Kim(Sejong Univ.)

11:40 Numerical Simulation of Soft Missile Impact on Reinforced Concrete Slab

Thai Duc-Kien and Kim Seung-Eock(Sejong Univ.)

12:00 Constitutive Model of ASTM A992 Steel at Elevated Temperature for Application in Nuclear Power Plants

Jinwoo LEE(KEPCO E&C)

Michael D. Engelhardt(UTA)

제 8 분과 D

원전 건설 및 운영 기술(Nuclear Power Plant Construction and Operation Technology)-Poster

- 원전 건설 및 내진/구조 (NPP's Construction and Structural Engineering)

좌 장 이재곤(Jae Gon Lee), 민병호(Byung Ho Min)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P08D01 Sensitivity Analyses of RPV Integrity under an IVR-ERVC Condition**
Tae Hyun Kim, Seung Hyun Kim, and Yoon-Suk Chang(KHU)
- P08D02 Basic Study of Establishment of Quality Assurance Processes to Develop an Integrated Quality Assurance System for Nuclear Power Plant Construction**
Lim, Byung-Ki, Moon, Byeong-Suk, and Lee, Jae Kyoung(KHNP CRI)
- P08D03 Accelerated Thermal Aging Studies on Natural Rubber in Seismic Isolation Bearings**
Young-Sun Choun, Junhee Park, and In-Kil Choi(KAERI)
- P08D04 Evaluation of Ultimate Pressure Capacity of a Prestressed Concrete Containment Building with Steel or Polyamide Fiber Reinforcement**
Young-Sun Choun and Daegi Hahm(KAERI)
- P08D05 Evaluation of Shear Resisting Capacity of a Prestressed Concrete Containment Building with Steel or Polyamide Fiber Reinforcement**
Young-Sun Choun and Junhee Park(KAERI)
- P08D06 Vertical Seismic Responses of Seismically Isolated APR1400 Structures Supported by Laminated Rubber Bearings**
Sung Gook Cho, Sung Min Yun, Gihwan So, and Wooki Park(Innose Tech Co. LTD.)
- P08D07 The Service Life Evaluation for Concrete Structure of NPP**
Lee Choon Min(Tuv Sud Kocen Ltd.)
Kim Seong Soo(Daejin Univ.)
Bae Sung Hwan(KHNP)
Yoon Eui Sik(KINS)
- P08D08 Evaluation on Tensile Strength and Applicability of Tapered Rolled Thread Coupler**
Jin-Hwan Cheung, Hyoung-Suk Choi, and Chi-Young Jung(PNU)
Tae-Jin Kim(KCL)
Sang-Hwan Seo(Sammi Precision Co. Ltd.,)
- P08D09 An Experimental Study on the Effect of γ -Irradiation of Seismic Isolation Device**
Hong-Pyo Lee, Myung-Sug Cho, Sunyoung Kim, Yong-Hee Lee, and Kyung-Hun Kang(KHNP CRI)
- P08D10 Maximum Directional Earthquake Responses and Its Implication for the Seismic Design**
Jung Han Kim and In-Kil Choi(KAERI)
Jae Kwan Kim(SNU)
- P08D11 SSI Analysis for Base-Isolated Nuclear Power Plants Using Iterative Approach**
S.R.Han, M.J.Nam, C.G.Seo, and S.H.Lee(KEPCO E&C)
- P08D12 Performance Characteristic Test of Scale Model Lead Rubber Bearings for NPP**
Min Kyu Kim, Jung Han Kim, and In-Kil Choi(KAERI)

IV. 분과별 논제 및 발표자

제 8 분과 E

원전 건설 및 운영 기술(Nuclear Power Plant Construction and Operation Technology)-Poster

- 원전 운전/정비(NPP's Operation & Maintenance Technology)

좌 장 염학기|(Hak Ki Yeom), 윤봉요(Bong Yo Youn)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P08E01 Sludge Removal and Retrieval of Foreign Objects in SG of Kori Nuclear Power Plant, Unit 4**
Woo-Tae Jeong(KHNP CRI)
Sang-Tae Kim, Young-Kug Kim, and Seok-Chul Kang(Sae-an ENG)
- P08E02 Removal of Secondary Side Deposit and Foreign Objects in SG of Yonggwang Nuclear Power Plant, Unit 2**
Woo-Tae Jeong(KHNP CRI)
Sang-Juug Yun, Yong-Seok Choi, Tae-Hwa Kim, and Hong-Chang Seo(Sae-an ENG)
- P08E03 Application Case Study on Gamma Ray Imaging Technology for Nuclear Power Plant Decommissioning**
Sang-Guk Lee and Woo-Tae Jeong(KHNP CRI)
- P08E04 Some Insights from Containment Integrated Leakage-Rate Test Experience**
Tae H. Kim(KINS)
- P08E05 Method and Experience of Equipment Qualification(EQ) for Cable in NPP**
Sun-chul Jeong, Keug-Jin Bhang, and Kyung-Heum Park(KHNP CRI)
- P08E06 Analysis of the Possibility of Required Resources Estimation for Nuclear Power Plant Decommissioning Applying BIM**
In-Su Jung(KICT)
Woo-Jung Kim(KHNP)
- P08E07 Direction for the Estimation of Required Resources for Nuclear Power Plant Decommissioning based on BIM via Case Study**
In-Su Jung(KICT)
Woo-Jung Kim(KHNP)
- P08E08 Direction of Technology Development for Nuclear Power Plants at the O&M Phase**
In-Su lung, Hwan-Pyo Park, and Young-Hyun Kim(KICT)
- P08E09 Study on VDI-2048 for Plant Efficiency Calculation**
Hanseol Lee and Gyunyoung Heo(KHU)
- P08E10 Core Quadrant Power Tilt Induced by Control Rods Axial Position Mismatch**
Seung-beom Son, Chang-hee Lee, Hae-seuk Woo, and Yil-sup Jung(KEPCO NF)
Yong-hee Kim(KAIST)
- P08E11 Preliminary Tsunami Hazard Analysis for the Uljin NPP Site Using Tsunami Propagation Analysis Results**
Hyun-Me Rhee, Min-Kyu Kim, and In-Kil Choi(KAERI)
Dong-Hoon Sheen(CNU)
- P08E12 Technology Trend in the Maintenance of Nuclear Power Plants**
Kyungsup Yoon and Unjang Lee(Orion Enc)

제 8 분과 F

원전 건설 및 운영 기술(Nuclear Power Plant Construction and Operation Technology)-Poster

- 원전 경년열화, 설계/제작, 수화학 (NPP's Aging Management, Design/fabrication, Waterchemistry)

좌 장 강영복(Yeong Bog Kang), 이진호(Jin Ho Lee)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

P08F01 Performance Verification for Safety Injection Tank with Fluidic Device

Seok Jeong Yune and Da Yong Kim(KEPCO E&C)

P08F02 Development and Application of Ultrasonic Cleaning System in Nuclear Power Industry

Woo-Tae Jeong and Sang-Guk Lee(KHNP)

P08F03 A Study on the Stress History Condensation Method for a Fatigue Monitoring System

HanOk Ko, MyungJo Jhung, and KiHyoung Lee(KINS)

P08F04 Screening in Reactor Vessel Internals for Aging Degradation Mechanisms

Ki-Hyoung Lee, Han-Ok Ko, and Myung Jo Jhung(KINS)

P08F05 Development of Aging Management Standard Guidelines for HVAC Facilities of NPPs in Korea

Se Youl Won, Jae Gon Lee, and Seung Jin Oh(KHNP CRI)

P08F06 FAC and Current Status of Two-phase FAC Test Facilities

E. H. Lee, K. M. Kim, H. S. Shim, and D. H. Hur(KAERI)

P08F07 Study on On-line Trace Analysis Technique for SG Tube Leakage Monitoring

Seban Lee, Jongsuk Park, Seungil Kim, Youngsoo Jo, and Dukwon Kang(HaJI Co, Ltd.)

P08F08 Effect of Neutron Radiation on Moment-Curvature Response of Reinforced Concrete Beam

Tae-Hyun Kwon, Jun Yeon Kim, Man-Soon Cho, and Sangik Wu(KAERI)

Kyoungsoo Park(YSU)

P08F09 Influence of the pH and Temperature on Carbon Steel in the Secondary System of Nuclear Power Plants

Dong Seok Lim, Hee Kwon Ku, Byung Il Kwon, and Jae Seon Cho(FNC Tech.)

P08F10 Development of Information Datasheets of Nuclear Power Plant (NPP) Equipment Using cfiXLM Schema

Jaiho Lee and Eunhye Song(KHNP CRI)

P08F11 A Study on the Alternative Fracture Toughness Requirements against PTS Events

Sin-Ae Lee and Yoon-Suk Chang(KHU)

IV. 분과별 논제 및 발표자

제 9 분과 A

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

좌 장 이영일(Youngael Lee), 유동한(Donghan Yu)

발표장소 302

일 정 | 5. 29(목)

- 09:00 A Review on the New Direction of IAEA Safeguards Policy - State Level Concept**
Seong Youn Jo, Min Su Kim, and Ki Hyun Kim(KINAC)
- 09:20 A Study on the Development of National Guide for Implementing Nuclear Security Culture in ROK**
Moonsung Koh, Youngwook Lee, and Hosik Yoo(KINAC)
Jaeyoung Lee(TECHNOVALUE Inc.)
- 09:40 Review on 18th Revision of "Notice on Export and Import of Strategic Items"**
Jihye Jeon and Chansuh Lee(KINAC)
- 10:00 Approach for Establishing a National Nuclear Forensics System**
JaeK wang Kim and SangCheol Hyung(KINAC)
- 10:20 Development of Automatic Quality Check Software Application to Improve Mailbox Declaration at Nuclear Fuel Fabrication Plants**
Min-Su KIM, Hye Won SHIM, and Seong Yeon Jo(KINAC)
Kwang Yeol LEE and Myoung Jin BAN(Neo Soft Tech.)
- 10:40 Coffee Break**
- 11:00 Modeling Nuclear Proliferation: Expanding Input Variable Sets**
Chulmin Kim, Hyeon Seok Park, and Man-Sung Yim(KAIST)
- 11:20 A Study on Securing Uranium Enrichment Supply Assurance in Korea**
Jungmin Kang(KAIST)
- 11:40 Analysis of Factors Affecting Public Trust in Nuclear Safety and Ways to Build a System Incorporating Public Trust in Nuclear Safety**
Seong-Kyung Cho and Gye-Bong Lee(MyongJi Univ.)
Gi-Hyung Lee, Gye-Hwi Lee, and Jin-A Jeong(KINS)
- 12:00 A Study on the Adolescents Perception and Knowledge of Nuclear Energy Issues**
Eunjee Jang and Youngmi Nam(KAERI)
Kyongwon Han(RadWorks)
- 12:20 Emergency Evacuation Simulation for Radiological Emergency; A Case Study of Gijang**
Gyu M. Lee, Kyoungseok Na, Jae Jun Jeong, Seokyoung Ahn, and Seonghee Park(PNU)

제 9 분과 B

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

좌 장 김정민(Jungmin kang), 권은하(Eun-Ha Kwon)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

P09B01 Review of the GIF PR&PP Evaluation Case Study for Application to Pyroprocessing

H. M. Kim, S. K. Ahn, E. H. Kwon, and H. D. Kim(KAERI)

P09B02 The Role of the ROK SP in IAEA's Long Term Strategic Plan

Na Young LEE and Jin Ho CHUNG(KINAC)

P09B03 Physical Protection Training & Test Facility of International Nuclear Nonproliferation and Security Academy

Hyungmin Seo(KIANC)

P09B04 A Giant Step for Developing Countries, Lessons Learned from Feasibility Studies

Byoung Youp Lee(KHNP)

Young Gon Cho(SMU)

P09B05 Acquisition Path Analysis for a SFR Fuel Manufacturing Facility

H.L. Chang, E.H. Kwon, S.K. Ahn, W.I. Ko, and H.D. Kim(KAERI)

P09B06 Improvements by Assessment Zone Evaluation for CCTV systems at the Nuclear Power Plant

Woo-jin Kim and Jae-Kwang Kim(KINAC)

P09B07 A Study on Research Trend in Nuclear Forensics

Kyungmin Kim, Hobin Yim, Seungmin Lee, Yunjeong Hong, and Jae Kwang Kim(KINAC)

P09B08 Introduction to Technology Export License of Nuclear Facility

Hana SEO, Chansuh LEE, and Dong-hoon SHIN(KINAC)

P09B09 Comparative Study on Research Reactor Operation Requirements of IAEA and Korea

Young Gill Yune, Won Joon Chang, and Jin-Ho Lee(KINS)

P09B10 A Study on Establishment of Unacceptable Radiological Consequence (URC) for Physical Protection Against Sabotage

Jung Myung-tak, Moonsung Koh, Youngwook Lee, and Kwang Ho Jo(KINAC)

P09B11 Development of an Origin Trace Method based on Bayesian Inference and Artificial Neural Network for Missing or Stolen Nuclear Materials

Yim Ho Bin, Lee Seung Min, Kim Kyung Min, Hong Yoon Jeong, and Kim Jae Kwang(KINAC)

P09B12 The Analysis of Evaluation Methodologies for Proliferation Resistance

Jaejin Lee, Sunyoung Chang, and Hosik Yoo(KINAC)

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- P09B13 Development of Export Control Comprehensive Management Models for Nuclear Power Plants and Other Projects**
Chansuh Lee, Hana Seo, and Sundo Choi(KINAC)
- P09B14 Design of a Clean Room for Quality Control of an Environmental Sampling in KINAC**
Jong-Ho Yoon, Gil Hoon Ahn, Hana Seo, Ki-Tek Han, and Il Jin Park(KINAC)
- P09B15 Research on the Re-establishment of the Classification Criteria of Strategic Items**
Seong Mi Han, Seung-hyo Yang, and Dong Hoon shin(KINAC)
- P09B16 Examination of the Current Approaches to State-Level Nuclear Security Evaluation**
Chan Kim, So Young Kim, and Man-Sung Yim(KAIST)
- P09B17 Exploring Quantitative Framework to Evaluate Nuclear Transparency**
Jee-Min Ha, Man-Sung Yim, and Hyeon Seok Park(KAIST)
- P09B18 Development of Regulatory Expectations for Licensee's Safety Culture**
Su Jin Jung, Jang Jin Oh, and Young Sung Choi(KINS)
- P09B19 Change in Knowledge of Korean Elementary, Middle, and High School Students in the Fundamental Education on the Nuclear Power Generation**
JaeRok Kim, SeungKoo Lee, YoonSeok Choi, and EunOk Han(KANS)
- P09B20 The Status of Development on a Web-Based Nuclear Material Accounting System at KAERI**
Byung-Doo Lee, In-Chul Kim, Seung-Ho Lee, and Hyan-Jo Kim(KAERI)

제 10 분과 A

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

좌 장 정연섭(Yeon-Sub Jung), 이철권(Cheol-Kwon Lee)

발표장소 202B

일 정 | 5. 29(목)

- 09:00 Transversal of Procedure Elements in a Computerized Procedure System**
Yeonsub Jung(KHNP CRI)
- 09:20 A Study on Issues and Solutions about Logic Functions Applied to Computerized Procedure System in APR1400**
Nokyu Seong, Sungjin Lee, and Yeonseob Jung(KHNP CRI)
- 09:40 A Study of the Behavior Characteristics for K-type Thermocouple**
Songhae Ye, Yongsik Kim, and Sooil Lee(KHNP CRI)
Sungjin Kim(Woojin Inc)
Joon Lyou(CNU)
- 10:00 Performance Evaluation of MMXRF for Screening Environmental Swipe Samples**
Ki-tek Han, Jong-ho Yoon, Hana Seo, and Gil Hoon Ahn(KINAC)
- 10:20 Evaluation of the Automatic Density Compensation for Pressurizer Level Measurement**
Insoo Jeong, Seohong Min, and Myunghoon Ahn(KEPCO E&C)
- 10:40 Coffee Break**
- 11:00 A Framework for Cyber Security Test**
Kyung-Soo Han, Jae-Gu Song, Sung-Min Jung, Jung-Woon Lee, and Cheol-Kwon Lee(KAERI)
- 11:20 Resistance Type In-Core Corium Detection Instrument**
Seung J. Yoo, Bo H. Choi, Su Y. Choi, and Chun T. Rim(KAIST)
- 11:40 Preliminary Conceptual Design for Safety Parameter Display System of PGSFR**
Hyun-Ju Jo, Seung-Hwan SEONG, Wan-Su Kim, Dong-Hoon Kim, Kwang-Seop Son, and Gwi-Sook Jang(KAERI)

IV. 분과별 논제 및 발표자

제 10 분과 B

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

좌 장 허섭(Seop Hur), 이명균(Myeong-Kyun Lee)

발표장소 3층 로비

일 정 | 5. 29(목) 13:00-15:00

- P10B01 A Mock-up Design for Control Room of the Research Reactor**
Goo-Hyun Ryu, Dong-Jin Lee, Ju-Hong Park, Youn-Sang Lee, and Min-Gyu Kim(PONUTech Co.)
- P10B02 A Study of BUS Architecture Design for Controller of Nuclear Power Plant Using FPGA**
Dongil Lee, Donghwa Yun, Sungjae Hwang, Myeongyun Kim, and Dongyun Lee(PONUTech Co.)
- P10B03 Demonstration Facility for Engineering-Scale Pyroprocessing**
K. H. Kim, J. K. Lee, B. S. Park, S. H. Kim, D. S. Ryu, J. H. Han, S. N. Yu, and I. J. Cho(KAERI)
- P10B04 A Study of Cyber Security Activities for Development of Safety-related Controller**
Myeong-Kyun Lee, Seung-Hwan Song, Kwan-Woo Yoo, and Dong-Hwa Yun(PONUTech Co.)
- P10B05 Security Controls for NPP I&C Systems**
Y.M. Kim and C.H. JEONGL(KINS)
T.H. Kim(Formal Works Inc.)
- P10B06 Implementation of Simulator Functions with Stimulated Commercial MMI for Full Scope Simulators**
Yeong Cheol Shin and Sung Kon Kang(KHNP CRI)
Jun Mo Park and Jang Hwan Kim(ZITTO Co.,)
- P10B07 Technical Cybersecurity Controls for Nuclear Facilities**
Jin-Seok Oh and Jae-Cheol Ryou(CNU)
Young-Mi Kim and Choong-Hei Jeong,(KINS)
- P10B08 Analysis of Gamma Ray Intensity on the S/C Vent Pipes Area in the Unit 2 Reactor Building of the Fukushima Daiichi Nuclear Power Plant**
Jai Wan Cho, Young Soo Choi, and Kyung Min Jeong(KAERI)
- P10B09 Some Qualitative Requirements for Testing of Nuclear Emergency Response Robots**
Heung-seop Eom, Jai Wan Cho, Youngsoo Choi, and Kyungmin Jeong(KAERI)
- P10B10 Robot Vision to Monitor Structures in Invisible Fog Environments Using Active Imaging Technology**
Seung-Kyu Park, Nak-Kyu Park, Sung-Hoon Baik, Young-Soo Choi, and Kyung-Min Jeong(KAERI)
- P10B11 Review of Operation & Maintenance Support Systems for Research Reactors**
Kyungho Jin and Gyunyoung Heo(KHU)
Jaekwan Park(KAERI)
- P10B12 Control Method of Boron Concentration for Daily Load-following Operation**
Keuk-Jong Yu and Young-Sheop Park(KHNP CRI)

-
- P10B13 Development of a Temperature Compensation Method for the Radiation Detector of a Radiation Monitoring System**
Ki Sun Park and Jae Jun Jeong(PNU)
- P10B14 Image Acquisition of Robust Vision Systems to Monitor Blurred Objects in Hazy Smoking Environments**
Yong-Jin Ahn, Seung-Kyu Park, Sung-Hoon Baik, Dong-Lyul Kim, Sung-Mo Nam, and Kyung-Min Jeong(KAERI)
- P10B15 Design of Safety Parameter Monitoring Function in a Research Reactor Facility**
Jaekwan Park and Yongsuk Suh(KAERI)
- P10B16 An Approach to Enhancement of the Safety Culture of Nuclear Power Plants**
Yong Hee Lee(KAERI)
- P10B17 Analysis Approach for Common Cause Failure on Non-safety Digital Control System**
Yun Goo Kim and Eungse Oh(KHNP CRI)

IV. 분과별 논제 및 발표자

제 10 분과 C

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

좌 장 김사길(Sa-Kil Kim), 이성진(Sung-Jin Lee)

발표장소 301B

일 정 | 5. 30(금)

- 09:00 Human Error Recovery Failure Probability When Using Soft Controls in Computerized Control Rooms**
Inseok Jang, Ar Ryum Kim, and Poong Hyun Seong(KAIST)
Wondea Jung(KAERI)
- 09:20 A Study on the Operator Decision Support for Feed-and-Bleed Operation**
Bo Gyung Kim, Sang Ho Kim, and Hyun Gook Kang(KAIST)
Ho Joon Yoon(Khalifa Univ.)
- 09:40 Development of the Device to Remove the Foreign Objects from the Inner Tube Bundle in the OPR 1000 Steam Generator**
Younghee Lee, Yuk heo, and Kibong Lee(KHNP)
- 10:00 Development of Work Verification System for Cooperation between MCR Operators and Field Workers in Nuclear Power Plants**
Seung Min Lee and Poong Hyun Seong(KAIST)
Hyun Chul Lee(KAERI)
- 10:20 Determination of Optimal Flow Paths for Safety Injection According to Accident Conditionst**
Kwae Hwan Yoo, Ju Hyun Kim, Dong Yeong Kim, and Man Gyun Na(CSU)
Seop Hur and Chang-Hwoi Kim(KAERI)
- 10:40 Coffee Break**
- 11:00 Safety Cultural Competency Modeling in Nuclear Organizations**
Sa Kil Kim, Yeon Ju Oh, Meiling Luo, and Yong Hee Lee(KAERI)
- 11:20 Software Enhancement of SKN 3&4 Tagout Management System for MCR Operators**
Sungjin Lee, Nokyu Seong, and Yeonsub Jung(KHNP CRI)
- 11:40 Methodology for Evaluating Safety System Operability Using Virtual Parameter Network**
Sukyoung Pak and Gyunyoung Heo(KHU)
Jung Taek Kim(KAERI)
Tae Wan Kim(KINGS)
- 12:00 Diagnosis of Feedwater Heater Performance Degradation Using Fuzzy Approach**
Hyeonmin Kim, Yeon Kwan Kang, and Gyunyoung Heo(KHU)
Seok Yoon Song(KHNP)

일 정 | 5. 30(금)

- 13:30 Experiments on Heat Transfer Performance Assessment of Multi-Pod Heat Pipe in Presence of Non-condensable Gas**
Gyeong-Ho Nam and Sang-Nyung Kim(KHU)
- 13:50 Scaling Analysis of Natural Circulation Flow Loop**
Kyung Jin Wi(CNU)
Kwang Soon Ha and Rae Joon Park(KAERI)
- 14:10 CFD Simulation on the Main Steam Line Break Accident with the ATLAS (SLB-GB-02T) in Terms of Thermal Mixing and Asymmetry Effects**
Sang-Gyu Lim, Han-Gon Kim, and Young-Sheop Park(KHNP CRI)
- 14:30 Investigation of Critical Heat Flux Enhancement for Porous and Non-porous Structures without Surface Wettability Improvement**
Han Seo and In Cheol Bang(UNIST)
- 14:50 Preliminary Thermo-hydraulic Core Design Analysis of Korea Advanced Nuclear Thermal Engine Rocket for Space Application**
Seung Hyun Nam, Jeong Ik Lee, and Soon Heung Chang(KAIST)
- 15:10 Methodology Development for Availability Improvement of Standby Equipment**
Sung Min Shin, In Seop Jeon, and Hyun Gook Kang(KAIST)
- 15:30 Thermal Load Analysis of Multilayered Corium in the Lower Head of Reactor Pressure Vessel during Severe Accident**
Seok Won Whang and Hyun Sun Park(POSTECH)
Tae Suk Hwang(KINS)
- 15:50 Sensitivity Study of Film Condensation Model in CUPID**
Moonhee Cho and Hyun Sun Park(POSTECH)
Han Young Yoon(KAERI)

IV. 분과별 논제 및 발표자

학생 / 청년

Competition Session B

좌 장 심형진(Hyung Jin Shim), 박제호(Jea-Ho Park)

발표장소 301B

일 정 | 5. 30(금)

- 13:30 p-CMFD Acceleration and Nonoverlapping Local/Global Iterative Methods with 2-D/1-D Fusion Kernel for Whole-Core Transport Calculation**
Seungsu Yuk and Nam Zin Cho(KAIST)
- 13:50 An Optimization Study of LWR Fuel Assembly Design for TRU Burning Using FCM and $\text{UO}_2\text{-ThO}_2$ Fuel Pins**
DaeHee Hwang and Ser Gi Hong(KHU)
- 14:10 A New Equivalence Theory Method for Doubly Heterogeneous Fuel**
Sooyoung Choi and Deokjung Lee(UNIST)
- 14:30 STREAM Solutions for the Two-Dimensional C5G7 MOX Benchmark Problem**
Chidong Kong and Deokjung Lee(UNIST)
- 14:50 A New Monte Carlo Neutron Transport Code at UNIST**
Hyunsuk Lee, Chidong Kong, and Deokjung Lee(UNIST)
- 15:10 The Miniature X-ray Tube based on CNT Emitters and Its Applications**
Hyunjin Kim, Hyunnam Kim, and Sungoh Cho(KAIST)
- 15:30 Optimization Study of Ultra-long Cycle Fast Reactor Core**
Taewoo Tak and Deokjung Lee(UNIST)
- 15:50 Molten Salt Breeder Reactor Analysis Based on Unit Cell Model**
Yongjin Jeong, Sooyoung Choi, and Deokjung Lee(UNIST)

일 정 | 5. 30(금)

- 13:30 Investigation of Microstructural Changes of Type-II Boundary by Thermal Aging**
Seung Chang Yoo, Kyoung Joon Choi, and Ji Hyun Kim(UNIST)
- 13:50 Analysis Current of HT9 Creep Correlations and Modification**
Cheol Min Lee and Dong-Seong Sohn(UNIST)
Jin Sik Cheo(KAERI)
- 14:10 Simulation about Self-absorption of Ni-63 Nuclear Battery Using Monte Carlo Code**
Tae Ho Kim and Ji Hyun Kim(UNIST)
- 14:30 Radioactivity Determination of Sealed Beta-Emitting Sources by Surface Dose Measurements and Monte Carlo Simulations**
CHANG HEON CHOI, SUNG-JOON YE, and SEONG MOON JUNG(SNU)
- 14:50 Experiments for Evaluating Application of Bayesian Inference to Situation Awareness of Human Operators in NPPs**
Seongkeun Kang and Poong Hyun Seong(KAIST)
- 15:10 Modelling of U-Mo/Al Dispersion Fuel Fission Induced Swelling and Creep**
Gwan Yoon Jeong and Dong Seong Sohn(UNIST)
Yeon Soo Kim(ANL)
- 15:30 Evaluation of the Sensitization of 316L Stainless Steels After the Post Weld Heat Treatment**
Junho Lee and Changheui Jang(KAIST)
Kyoung Soo Lee(KHNP)
- 15:50 Formation of Silicide Coating Layer on U-Mo Powder**
Ji Min Nam, Sunghwan Kim, and Kyu Hong Lee(KAERI)
- 16:10 Tomographic Image of Prompt Gamma Ray from Boron Neutron Capture Therapy: A Monte Carlo Simulation Study**
Do-Kun Yoon and Tae Suk Suh(Catholic Univ.)
Key Jo Hong(Stanford Univ.)
- 16:30 Single Photon Image from PET with Insertable Collimator for Boron Neutron Capture Therapy**
Joo-Young Jung and Tae Suk Suh (Catholic Univ.)
Key Jo Hong(Stanford Univ.)
- 16:50 Development of Advanced Operation Validation System Using Support Vector Regression Algorithm**
Seung Geun Kim and Poong Hyun Seong(KAIST)

V. 행사장안내

1. 행사장 교통안내 (공항→제주국제컨벤션센터(ICC JEJU))

제주 국제컨벤션 센터 : 서귀포시 중문관광로 224 대표번호 : 064-735-1000

▣ 렌트카 이용시

경로	이용노선
1코스 (1135번 도로 : 50분)	공항 → 신제주 → 제주경마장 → 평화로 → 중문관광단지 → ICC JEJU
2코스 (1139번 1110도로 : 45분)	공항 → 신제주 → 한라수목원 → 신비의 도로 → 어리목 → 탐라대학교 → ICC JEJU
3코스 (1131번 516도로 : 70분)	공항 → 삼성혈 → 제주대학교 → 성판악 → 돈내코유원지 → 16번 도로 → 중문관광단지 → ICC JEJU

▣ 공항리무진 버스 이용시 (600번 제주공항→중문관광단지)

운행일정	06:20~22:00
소요시간	약 18분 간격(ICC JEJU까지 소요시간 : 50분)
운행구간 (*삼영교통 600번)	공항 → 제주더호텔 → 여미지식물원 → 하얏트호텔 → 신라호텔 → 한국콘도 → <u>ICC JEJU</u> → 뉴경남호텔 → 서귀포 칼호텔
승차지점	* 공항 : 현관 1층 게이트 왼쪽 리무진 버스 승차장(*삼영교통 600번) * ICC JEJU : 정문국기게양대 20M 지나 로터리 정류장에 정차
이용요금	공항에서 ICC JEJU까지 4,500원(편도/성인)
문의사항	삼영교통 064-746-3036

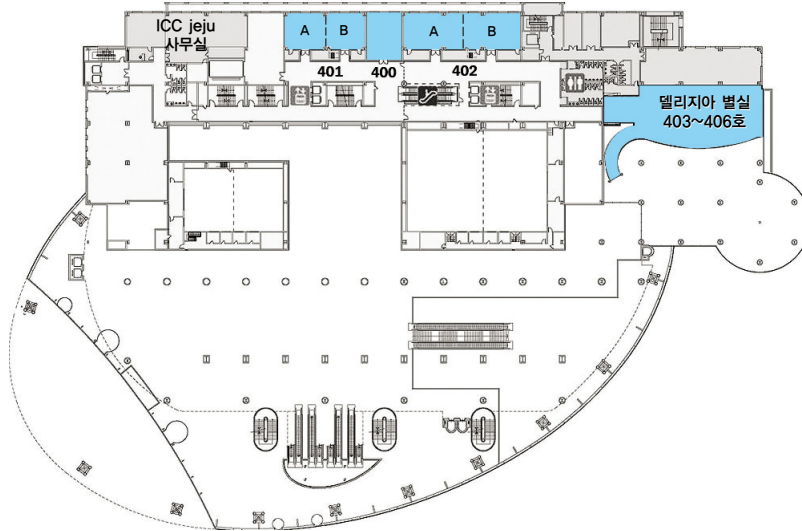
▣ 택시 이용시

승차지점	이용요금	소요시간
공항 장거리 승차장에서 출발	약 3만원	약 45분

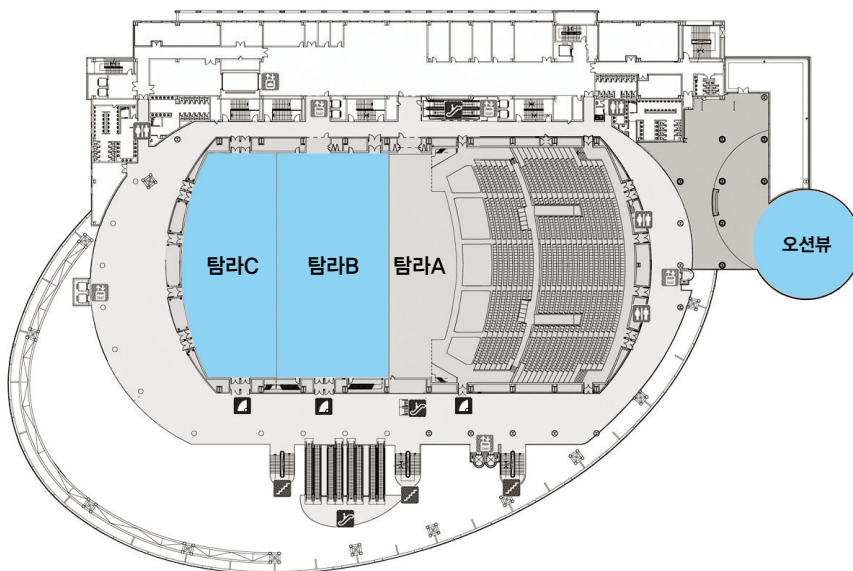
2. 항공예약

항공편 문의 및 예약	(주)보람21여행사 T. 02-2248-7040 손민주 대리
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Ⅵ. 연구부회 모임 일정 안내

각 연구부회별 사업계획 등의 연구부회 활성화 방안을 논의하기 위한 자리를 아래와 같이 마련 하였습니다. 해당하는 연구부회 모임에 많은 참석과 관심을 부탁드립니다.

• 일 시 : 2014년 5월 29일(목) 13:30~14:30

[연구부회별 모임 장소]

구분	연구부회명	모임 장소	위치
1	원자로시스템기술	301A	3층
2	원자로물리 및 계산과학	303A	3층
3	방사성폐기물관리	304	3층
4	핵연료 및 원자력재료	402A	4층
5	원자력열수력 및 안전	300	3층
6	방사선이용 및 방호	401A	4층
7	양자공학 및 핵융합기술	303B	3층
8	원전건설 및 운영기술	401B	4층
9	원자력정책, 인력 및 협력	302	3층
10	원자력계측제어 및 자동원격	301B	3층

VII. 행운권(경품) 행사 안내

www.kns.org

우리 학회에서는 2014 춘계학술발표회 행사와 더불어 회원분들을 위하여 아래와 같이 행운권(경품) 행사를 마련하였사오니, 많은 참여 바랍니다.

▶ 추첨 일정

구분	일시	장소	비고
1차	2014. 5. 29(목) 18:30	탐라홀 B+C	만찬시
2차	2014. 5. 30(금) 12:40	탐라홀 B+C	중식시

▶ 대 상 자 : 학술발표회 등록 회원(사전등록 및 현장등록)

▶ 운영방법 : 추첨을 통하여 추첨시 참석한 회원에게 경품 지급