방사선산업학회지

ISSN 1976-2402
제19권 제3호 2025년 9월

논 문

209 **Ionizing Radiation Increases Axl Protein Degradation in A549 Lung Adenocarcinoma Cells through an Autophagolysosomal Pathway**
Hyo Jin Choi, Gyeong Han Jeong, Hanui Lee, Kon-Young Ji, Byung Yeoup Chung, Hyoung-Woo Bai, and Eun-Hee Lee

221 **감마선 및 전자선 조사에 따른 옻나무 추출물 내 우루시올 제거 및 플라보노이드 성분 변화 비교**
송하연 · 변의백

231 **Functional Roles of Dnl4, DNA Ligase IV, in DNA Damage Stress in a Radiation-resistant Fungus, *Cryptococcus neoformans***
Kwang-Woo Jung, Moon-Soo Chung, Byung Yeop Chung, Jin-Hong Kim, Gyeong Han Jeong, Hyoung-Woo Bai, So-Yeun Woo, and Seung Sik Lee

241 **감마선 조사에 따른 커피박에서 생리활성 물질의 추출 수율 및 활성 비교**
Dan He · 최종일

247 **감마선 조사가 냉동 떡갈비의 품질 특성에 미치는 영향**
조민지 · 염서준 · 김상수 · 송범석 · 박종흠 · 김도영 · 김재경

257 **Formulation of Curcumin Nanoemulsions via Chitosan Coating and Gamma Irradiation**
Do-Yeong Kim and Jae-Kyung Kim

267 **Anti-inflammatory Effects of Dielectric Barrier Discharge Plasma Induced Phloridzin against Lipopolysaccharide-stimulated RAW 264.7 Macrophages**
So-Yeun Woo, Gyeong Han Jeong, Hanui Lee, Seung Sik Lee, Jin-Hong Kim, Sungbeom Lee, Kwang-Woo Jung, Moon-Soo Chung, Byung Yeoup Chung, and Hyoung-Woo Bai

275 **Proposal for Establishing Major Monitoring Radionuclides and Lower Limits of Detection for Radioactive Effluents from the Decommissioning of Nuclear Power Plants in Korea from a Regulatory Perspective**
Jaeok Park, Tae Young Kong, Hoyeon Lee, Changju Song, Seungho Jo, Jiyeon Jun, Jinho Son, and Jiung Kim

285 **Current Status of KEPIC Development for the Decommissioning of Nuclear Power Plants**
Jiyeon Jun, Tae Young Kong, Hee Geun Kim, Hoyeon Lee, Changju Song, Seungho Jo, Jaeok Park, Kyungheum Kim, Wonhyeok Jeong, Byeonghoon Song, Taejun Chung, Gwansub Song, Seokhee Chung, and Seonkyung Lee

297 **감마선 동시조사법을 이용한 Styrene의 RAFT 중합 거동 연구**
손준용 · 박종석

305 **정상조건에서의 방사성폐기물 해상운반 시 일반인 운반 위험도 평가모델 내 입력인자 민감도 분석**
김재현 · 오가은 · 이동규 · 김광표

315 **원전 해체 후 부지 재이용을 위한 복원활동 ALARA 평가 방법론 분석**
민혜빈 · 한창희 · 손건우 · 김광표

방사선산업학회지

ISSN 1976-2402
제19권 제3호 2025년 9월

323 **Analysis of the Procedures for Eddy Current Testing in Steam Generators of Korean Pressurized Water Reactors**
Changju Song, Tae Young Kong, Yongkwon Kim, and Kunkyu Choi

331 **국내외 비발전용 원자력시설 방사능방재 규제체계 비교 분석을 통한 국내 규제체계 한계점 도출**
이동규 · 이신동 · 김재현 · 김광표

339 **A Study on the Quality Assurance Procedures of Radioactive Certified Reference Materials from the U.S. National Institute of Standards and Technology**
Seungho Jo, Tae Young Kong, Changju Song, Jaeok Park, Hoyeon Lee, and Jiyeon Jun

기술논문

347 **국제표준규격의 ^{137}Cs 감마선장에서 전리함선량계 종류에 따른 공기커마율 측정 및 평가 결과의 유효성 검증**
목성윤 · 계용욱 · 김효진 · 이지은 · 장희진 · 이창근 · 조월순 · 백정화 · 안 현 · 강영록

353 **경수로 사용후핵연료 재포장시설 내 주요 설비 개념설계**
이상환 · 신창민 · 강현구 · 김승현 · 윤상혁 · 문태철

365 **국내 환경을 기반으로 한 토양-작물간 전이계수 측정 및 분석**
정미선 · 장지선 · 박동국 · 정해룡

373 **경수로 사용후핵연료 재포장시설의 캐니스터 뚜껑 절단 설비에 대한 연구**
신창민 · 강현구 · 이상환 · 문태철

Journal of
Radiation Industry

ISSN 1976-2402
Vol. 19, No. 3 September 2025

Original articles

209 **Ionizing Radiation Increases Axl Protein Degradation in A549 Lung Adenocarcinoma Cells through an Autophagolysosomal Pathway**
Hyo Jin Choi, Gyeong Han Jeong, Hanui Lee, Kon-Young Ji, Byung Yeoup Chung, Hyoung-Woo Bai, and Eun-Hee Lee

221 **Comparison of Urushiol Removal and Flavonoid Component Changes in Rhus verniciflua Stokes Extract by Gamma and Electron Beam Irradiation**
Ha-Yeon Song and Eui-Baek Byun

231 **Functional Roles of Dnl4, DNA Ligase IV, in DNA Damage Stress in a Radiation-resistant Fungus, *Cryptococcus neoformans***
Kwang-Woo Jung, Moon-Soo Chung, Byung Yeop Chung, Jin-Hong Kim, Gyeong Han Jeong, Hyoung-Woo Bai, So-Yeun Woo, and Seung Sik Lee

241 **Effect of Gamma Irradiation of Spent Coffee Grounds on Extraction Yield and Activity of Extractant**
Dan He and Jong-il Choi

247 **The Effect of Gamma Irradiation on the Quality Characteristics of Frozen *Tteokgalbi***
Min-Ji Cho, Seo-Joon Yeom, Sang-Su Kim, Beom-Seok Song, Jong-Heum Park, Do-Yeong Kim, and Jae-Kyung Kim

257 **Formulation of Curcumin Nanoemulsions via Chitosan Coating and Gamma Irradiation**
Do-Yeong Kim and Jae-Kyung Kim

267 **Anti-inflammatory Effects of Dielectric Barrier Discharge Plasma Induced Phloridzin against Lipopolysaccharide-stimulated RAW 264.7 Macrophages**
So-Yeun Woo, Gyeong Han Jeong, Hanui Lee, Seung Sik Lee, Jin-Hong Kim, Sungbeom Lee, Kwang-Woo Jung, Moon-Soo Chung, Byung Yeoup Chung, and Hyoung-Woo Bai

275 **Proposal for Establishing Major Monitoring Radionuclides and Lower Limits of Detection for Radioactive Effluents from the Decommissioning of Nuclear Power Plants in Korea from a Regulatory Perspective**
Jaeok Park, Tae Young Kong, Hoyeon Lee, Changju Song, Seungho Jo, Jiyeon Jun, Jinho Son, and Jiung Kim

285 **Current Status of KEPIC Development for the Decommissioning of Nuclear Power Plants**
Jiyeon Jun, Tae Young Kong, Hee Geun Kim, Hoyeon Lee, Changju Song, Seungho Jo, Jaeok Park, Kyungheum Kim, Wonhyeok Jeong, Byeonghoon Song, Taejun Chung, Gwansub Song, Seokhee Chung, and Seonkyung Lee

297 **RAFT Polymerization of Styrene by γ-Ray Simultaneous Irradiation**
Joon-Yong Sohn and Jong-Seok Park

305 **Sensitivity Analysis for Factor of the Public Dose Assessment Model in Incident-Free Maritime Transportation of Radioactive Waste**
Jae Hyeon Kim, Ga Eun Oh, Dong Gyu Lee, and Kwang Pyo Kim

Journal of
Radiation Industry

ISSN 1976-2402
Vol. 19, No. 3 September 2025

315 Analysis of ALARA Evaluation Methodology for Nuclear Power Plant Decommissioning and Site Remediation
Hye Bin Min, Chang Hee Han, Geon Woo Son, and Kwang Pyo Kim

323 Analysis of the Procedures for Eddy Current Testing in Steam Generators of Korean Pressurized Water Reactors
Changju Song, Tae Young Kong, Yongkwon Kim, and Kunkyu Choi

331 Identifying the Limitations of the Korean Regulatory Framework through a Comparative Analysis of Radiological Emergency Preparedness Systems for Non-Power Nuclear Facilities
Dong Gyu Lee, Shin Dong Lee, Jae Hyeon Kim, and Kwang Pyo Kim

339 A Study on the Quality Assurance Procedures of Radioactive Certified Reference Materials from the U.S. National Institute of Standards and Technology
Seungho Jo, Tae Young Kong, Changju Song, Jaeok Park, Hoyeon Lee, and Jiyeon Jun

Technical articles

347 Method Validation of the Measurement and Assessment Results of Air Kerma Rate by Type of Ionizing Chamber in ^{137}Cs Gamma Field of International Standard
Seoung Yun Mok, Yong Uk Kye, Hyo Jin Kim, Ji Eun Lee, Hee Jin Jang, Chang Geun Lee, Wol Soon Jo, Jeong Hwa Baek, Hyun An, and Yeong-Rok Kang

353 Conceptual Design of Key Equipment in Encapsulation Plant for PWR Spent Nuclear Fuel
Sang-Hwan Lee, Chang-Min Shin, Hyungoo Kang, Seung-Hyun Kim, Sanghyuk Yun, and Tae-Chul Moon

365 Measurements and Analysis for the Soil-Plant Concentration Ratio of a Radionuclide in the Korean Environment
Mi-Seon Jeong, Jiseon Jang, Dong-Kuk Park, and Haeryong Jung

373 A Study on Canister Lid Cutting Equipment of Repackaging Facility for PWR Spent Nuclear Fuel
Chang-Min Shin, Hyun-Goo Kang, Sang-Hwan Lee, and Tae-Chul Moon