

ISSN 0126–1568, E-ISSN 2356–5322  
Accreditation No.: 204/E/KPT/2022

# atom indonesia

<https://atomindonesia.brin.go.id/>

**VOL. 50**  
**NO. 3**  
**DECEMBER 2024**

## C o n t e n t s

<b>Editorial</b> .....	i
The Impact of Different Light-Reflecting Materials Compositions of (LaBr <sub>3</sub> :Ce) Scintillation Detector on Spent Nuclear Fuel Gamma Spectrum <b>R. A. El-Tayebany</b> .....	213
Characterizing Photon Beam Properties of a TrueBeam STx Linear Accelerator: An Evaluation of Geant4/GATE Monte Carlo Simulation Tool Performance <b>P. H. Lam, P. T. Dung, P. Q. Trung</b> .....	221
Radiation Dose Calculation Analysis During The Dismantling of Disused Sealed Radioactive Sources at CNESTEN: MCNP Code Simulation Results <b>B. El Azzaoui, O. Kabach, R. Outayad, M. Y. Messous, K. Bergaoui, K. Nbaoui, J. Kadiri, E. Chakir, E. Alibrahmi, A. Kharchaf</b> .....	231
The Modelling and Analysis of iPWR-Type SMR Core Dynamics: Control Rods, Reactivity Feedback, and Thermal-Hydraulic Effects <b>G. Septawijaya, S. Sukarman, S. Bakhri, M. Subekti</b> .....	239
Comparison of the Thermo-Hydraulic Response of MELCOR 1.8.6 and 2.1 for SBO Accident for APR 1400 Reactor <b>F. Ghaderinia, M. Rahgoshay, J. Jafari, F. S. Dauria</b> .....	249
Ground-Based Gamma-Ray Spectrometer Application on Drone-Borne: Suitability and Height Attenuation <b>H. Syaeful, A. G. Muhammad, Y. Rachael, F. Pratiwi, I. Rosianna, N Ngadenin, F. D. Indrastomo, R. C. Ciputra, I. G. Sukadana, T. B. Adimedha, A. J. Karunianto</b> .....	259
Dose Response of Hp(0.07) on TLD-700 and TLD-900 Based Ring Dosimeters to the Sr-90 Exposure <b>E. B. Jumpeno, R. Anggraeni, M. Muharani Putri, S. N. Barokah, F. N. Adisti</b> .....	267
Assessment of the Level of Radioactivity in the Soil in Urban Areas and Building Materials of Arlit City (Agadez-NIGER) <b>M. O. Sidibé, A. O. Manga, S. Soumana, O. K. Adukpo</b> .....	273
Radiation Dose Prediction for Cervical Cancer Patients Using IMRT Technique with a Machine Learning Model Based on Support Vector Regression (SVR) <b>R. F. Mushaddaq, D. S. K. Sihono, P. Prajitno</b> .....	281
Estimation of Organ Dose, Effective Dose, and Cancer Risk in Abdominal CT Scan Patients <b>S. S. Putri, S. H. Intifadhah, E. R. Putri</b> .....	289
Acknowledgment .....	295