

## DAFTAR PUSTAKA

- [1] W. Rohman B, “Kajian Pengaruh Kerapatan Moderator Terhadap Reaktivitas Reaktor Kartini,” PPI-PDIPTN, Jun. 2009, pp. 1–4.
- [2] BATAN, “Laporan Analisis Keselamatan,” Yogyakarta, Nov. 2019.
- [3] S. Syarip and S. Sutanto, “Pengenalan Sistem Pembangkit Daya Konvensional dan PLTN Neutron Collimator Design of the DECAY-13 Cyclotron for SAMOP View project Technical Meeting View project,” 2022. [Online]. Available: <https://www.researchgate.net/publication/360641732>
- [4] A. R. Yavar, H. Khalafi, Y. Kasesaz, S. Sarmani, R. Yahaya, A.K. Wood, K.S. Khoo, “Verification of MCNP Simulation of Neutron Flux Parameters at TRIGA MK II Reactor of Malaysia,” *Appl. Radiat. Isot.*, vol. 70, no. 10, pp. 2488–2493, Oct. 2012, doi: 10.1016/j.apradiso.2012.06.015.
- [5] D. Chiesa, Massimiliano Clemenza, Massimiliano Nastasi, Stefano Pozzi, Ezio Previtali, Giuseppe Scionti, Monica Sisti, Michele Prata, Andrea Salvini, Antonio Cammi, “Measurement and simulation of the neutron flux distribution in the TRIGA Mark II reactor core,” *Ann. Nucl. Energy*, vol. 85, pp. 925–936, Apr. 2015, doi: 10.1016/j.anucene.2015.07.011.
- [6] M. H. B. Rabir, Abi Muttaqin B. Jalal Bayar, Na'im Syauqi B. Hamzah, Muhammad Khairul Ariff B. Mustafa, Julia Bt. Abdul Karim, Muhammad Rawi B. Mohamed Zin, Yahya B. Ismail, Mohd Huzair B. Hussain, Mat Zin B. Mat Husin, Roslan B. Md Dan, Ahmad Razali B. Ismail, Nurfazila Bt. Husain, Zareen Khan B. Abdul Jalil Khan, Shaiful Rizaide B. Mohd Yakin, Mohamad Fauzi B. Saad, Zarina Bt. Masood., “Measurement and Simulation of Thermal Neutron Flux Distribution in The RTP core,” in *IOP Conference Series: Materials Science and Engineering*, Institute of Physics Publishing, Feb. 2018, p. 298. doi: 10.1088/1757-899X/298/1/012029.
- [7] B. Rohman, “Koefisien Reaktivitas Temperatur Bahan Bakar Reaktor Kartini,” Jakarta, 2009.
- [8] A. R. Antariksawan, P. I. Wahyono, and Taxwim, “Steady state and LOCA analysis of Kartini reactor using RELAP5/SCDAP code: The role of passive system,” in *Journal of Physics: Conference Series*, Institute of Physics Publishing, Mar. 2018. doi: 10.1088/1742-6596/962/1/012048.
- [9] S. Mubarika, M. Munir, and K. Sofjan Firdausi, “Analisis dan Penentuan Distribusi Fluks Neutron Thermal Arah Aksial dan Radial Teras Reaktor Kartini dengan Detektor Swadaya,” *J. Sains Mat.*, vol. 14, no. ISSN 0854-0675, pp. 155–159, Oct. 2006.
- [10] L. Snoj, A. Trkov, R. Jaćimović, P. Rogan, G. Žerovnik, and M. Ravnik, “Analysis of neutron flux distribution for the validation of computational methods for the optimization of research reactor utilization,” *Appl. Radiat. Isot.*, vol. 69, no. 1, pp. 136–141, Jan. 2011, doi: 10.1016/j.apradiso.2010.08.019.
- [11] A. R. Yavar, S. B. Sarmani, A. K. Wood, S. M. Fadzil, M. H. Radir, and K. S. Khoo, “Determination of fast neutron flux distribution in irradiation sites of the Malaysian Nuclear Agency research reactor,” *Appl. Radiat. Isot.*, vol. 69, no. 5, pp. 762–767, May 2011, doi: 10.1016/j.apradiso.2011.01.005.
- [12] F. Molina, P. Aguilera, J. Romero-Barrientos, H. F. Arellano, J. Agramunt, J. Medel,



- J. R. Morales, M. Zambraa., “Energy distribution of the neutron flux measurements at the Chilean Reactor RECH-1 using multi-foil neutron activation and the Expectation Maximization unfolding algorithm,” *Appl. Radiat. Isot.*, vol. 129, pp. 28–34, Nov. 2017, doi: 10.1016/j.apradiso.2017.08.001.
- [13] R. Adeli, Y. Kasesaz, S. P. Shirmardi, and A. Ezaty, “Thermal and epithermal neutron flux distributions measurement in thermal column of TRR using an experimental-simulation method,” *Appl. Radiat. Isot.*, vol. 133, pp. 100–104, Mar. 2018, doi: 10.1016/j.apradiso.2017.12.021.
- [14] Widarto, “Analisis dan Penentuan Distribusi Fluks Neutron Saluran Tembus Radial Untuk Pendayagunaan Reaktor Kartini,” *Ganendra*, vol. 1, pp. 1–7, 2002, Accessed: Dec. 05, 2023. [Online]. Available: <https://jurnal.batan.go.id/index.php/ganendra/article/view/211>
- [15] A. M. El-Badry and A. S. Hassan, “Sensitivity Of Developed Self-Powered Neutron Detector,” 2000.
- [16] K. Mueck and F. Bensch, “Cadmium Correction Factors of Several Thermal Neutron Foil Detectors,” Fxreamon Press, 1973.
- [17] T. Sutondo, B. Tenaga, N. Nasional, and S. Syarip, “Prosiding Seminar PENGEMBANGAN SOFTWARE CPEM SEBAGAI SARANA PENDIDIKAN EKSPERIMEN FISIKA REAKTOR PADA REAKTOR KARTINI Neutronic design of the SAMOP system View project,” 2011. [Online]. Available: <https://www.researchgate.net/publication/235696691>
- [18] L. Vermeeren, W. Leysen, L. Pichon, V. Salou, and G. Helleux, “THERMOCOAX rhodium SPND sensitivity dispersion and validation of the sensitivity calculation model,” *EPJ Web Conf.*, vol. 225, p. 04015, 2020, doi: 10.1051/epjconf/202022504015.
- [19] Syarip, *Pengenalan Kinetika dan Pengendalian Reaktor Nuklir*, 2nd ed. Yogyakarta: Pustaka Pelajar, 2019.
- [20] M. Angelone, A. Klix, M. Pillon, P. Batistoni, U. Fischer, and A. Santagata, “Development of self-powered neutron detectors for neutron flux monitoring in HCLL and HCPB ITER-TBM,” *Fusion Eng. Des.*, vol. 89, no. 9–10, pp. 2194–2198, 2014, doi: 10.1016/j.fusengdes.2014.01.077.
- [21] J.-S. S. and S.-Y. P. Bon-Seung Koo, Kyung-Hoon Lee, “Nuclear Characteristics of SPNDs and Preliminary Calculation of Hybrid Fixed Incore Detector with Monte Carlo Code,” pp. 24–25, 2013.
- [22] K. Cha, K. Noh, and S. Moon, “Lifetime Evaluation of Rhodium Self-Powered Neutron Detector (SPND) at the Peripheral Area of the Core,” pp. 30–31, 2014.
- [23] Y. Sang, Bangjie Deng, Qingmin Zhang, Ruizhi Shao, Bin Sun, Liangzhi Cao, Yunzhao Li, “Development and verification of a simulation toolkit for Self-Powered Neutron Detector,” *Ann. Nucl. Energy*, vol. 150, Jan. 2021, doi: 10.1016/j.anucene.2020.107784.
- [24] Wanno Lee, Kwanghyun Kim, Choi Yuseon, “A study on the sensitivity of self-powered neutron detector (SPND),” no. June 2016, pp. 772–776, 2003, doi: 10.1109/nssmic.1999.845782.
- [25] JAEA, “No Title.” [Online]. Available: [https://www.ndc.jaea.go.jp/jendl/j5/fig1/n\\_079-Au-197\\_f1.jpg](https://www.ndc.jaea.go.jp/jendl/j5/fig1/n_079-Au-197_f1.jpg)
- [26] E. J. Maunders, “Effective cadmium cut-off energies in cylindrical geometry for fissile and 1 V detectors,” *J. Nucl. Energy. Parts A/B. React. Sci. Technol.*, vol. 19,



- no. 12, pp. 959–969, 1965, doi: 10.1016/0368-3230(65)90073-X.
- [27] S. Pom, F. Hardeman, P. Robouch, N. Etxebarria, G. Arana, and S. Pomme, “Neutron Activation Analysis With Ko-Standardisation : General Formalism And Procedure,” 1997.
  - [28] H. Zhang, B. Zhong, L. Xu, H. Shen, and J. Li, “Next Event Estimation For Neutron Transport Monte Carlo Simulations In Moving Objects,” *Ann. Nucl. Energy*, vol. 201, no. 2, p. 110407, 2024, doi: 10.1016/j.anucene.2024.110407.
  - [29] J. K. Shultis and R. E. Faw, “An MCNP Primer,” *Structure*, vol. 66506, no. c, pp. 0–45, 2006, [Online]. Available: <http://www.mne.ksu.edu/~jks/MCNPprmr.pdf>
  - [30] A. Imran and M. Rasul, “Pengembangan Tempat Sampah Pintar Menggunakan Esp32,” *J. Media Elektr.*, vol. 17, no. 2, pp. 2721–9100, 2020, [Online]. Available: <https://ojs.unm.ac.id/mediaelektrik/article/view/14193>
  - [31] M. Tabata, C. Ratanaporncharoen, N. Ishihara, K. Masu, Mana Sriyudthsak, Y. Kitasako, M. Ikeda, J. Tagami, Y. Miyahara, “Surface analysis of dental caries using a wireless pH sensor and Raman spectroscopy for chairside diagnosis,” *Talanta*, vol. 235, no. June, p. 122718, 2021, doi: 10.1016/j.talanta.2021.122718.
  - [32] K. Instruments, *Instruction Manual Model 610C, 610CR Solid-State Electrometers*. U.S.A, 2001.
  - [33] K. Instruments, *Instruction Manual Model 261 Picoampere Source*. Ohio, 1974.
  - [34] N. A. A. Elsheikh, “Monte Carlo modelling of a neutron-induced gamma-ray sensor for landmine or explosive detection,” *J. Radiat. Res. Appl. Sci.*, vol. 11, no. 4, pp. 403–407, 2018, doi: 10.1016/j.jrras.2018.08.004.
  - [35] T. Van Hung, Y. Sakamoto, and H. Yasuda, “MM Calculation Of Neutron Flux Characteristics Of Dalat Reactor Using MCNP4a Code,” Japan, Sep. 1998. Accessed: Nov. 17, 2023. [Online]. Available: <https://www.osti.gov/etdeweb/servlets/purl/305104>
  - [36] P. Bhadane and A. Lal, “Beginners Approach to the Open Source Programming Case Study Arduino with ESP32,” *Int. J. Comput. Sci. Eng.*, vol. 6, no. 10, pp. 445–448, 2018, doi: 10.26438/ijcse/v6i10.445448.
  - [37] S. Nakamura, M. Takemori, T. Nakaichi, Y. Shuto, T. Kashihara, K. Iijima, T. Chiba, H. Nakayama, Y. Urigo, S. Nishina, Y. Kobayashi, H. Kishida, S. Imamichi, K. Takahashi, M. Masutani, H. Okamoto, T. Nishio, J. Itami, H. Igaki, “A method for delivering the required neutron fluence in an accelerator-based boron neutron capture therapy system employing a lithium target,” *Sci. Rep.*, vol. 14, no. 1, pp. 1–10, 2024, doi: 10.1038/s41598-024-62060-9.

