DAFTAR PUSTAKA

[1] M. A. Naafs, "The Global Impact of the Mo-99 Shortage," *Biomed. J. Sci. Tech. Res.*, vol. 4, no. 5, pp. 1–6, 2018, doi: 10.26717/bjstr.2018.04.001114.

[2] IAEA, "Non-HEU Production Technologies for Molybdenum-99 and Technetium-99m," *IAEA Nucl. Energy Ser. No. NF-T-5,4*, pp. 1–75, 2013.

[3] R. Vega, "Design of a Subcritical Aqueous Target System for Medical Isotope Production," Texas A&M University, 2014.

[4] IAEA, *Homogeneous Aqueous Solution Nuclear Reactors for the Production of Mo-99 and other Short Lived Radioistotopes, IAEA-TECDOC-1601*, Vienna, 2008.

[5] B. Delphito dan Syarip, "Neutronic analysis of critical assembly for moly-99 production reactor based on mixed Th-U fuels," *J. Phys. Conf. Ser.*, vol. 1436, 2020, doi: 10.1088/1742-6596/1436/1/012102.

[6] IAEA, *Thorium fuel cycle - Potential benefits and challenges, IAEA-TECDOC-1450*, Vienna, 2005.

[7] G. Zheng *dkk.*, "Feasibility study of thorium-fueled molten salt reactor with application in radioisotope production," *Ann. Nucl. Energy*, vol. 135, 2020, doi: 10.1016/j.anucene.2019.106980.

[8] A. M. Perry dan A. M. Weinberg, "Thermal Breeder Reactors," *Annu. Rev. Nucl. Sci.*, vol. 22, no. 1, pp. 317–354, 1972, doi: 10.1146/annurev.ns.22.120172.001533.

[9] M. Yusuf, A. Widiharto, dan Kusnanto, "Pengaruh Variasi Nilai Fraksi Mol Bahan Bakar Uranil Nitrat dan Thorium Nitrat Terhadap Kritikalitas dan Rasio Konversi Aqueous Homogeneous Reactor," skripsi, Universitas Gadjah Mada, 2019.

[10] A. Sagita, A. Widiharto, dan Kusnanto, "Analisis Neutronik Aqueous Homogeneous Reactor (AHR) Reaktor Subkritis Breeder untuk Memproduksi Mo-99 dengan Bahan Bakar Thorinil Sulfate (ThO2(SO4))),"

skripsi, Universitas Gadjah Mada, 2016.

[11] R. H. Chapman, I. Spiewak, M. L. Tobias, dan D. R. Vondy, "Design of a Small Aqueous Homogeneous Breeder Reactor," *Nucl. Sci. Eng.*, vol. 15, no. 4, pp. 347–353, 1963, doi: 10.13182/NSE63-A26450.

[12] T. K. Kim, W. S. Yang, T. A. Taiwo, dan R. N. Hill, "Assessment of Reduced Moderation Water Reactor fuel cycle," *Proc. PHYSOR 2004 -The Phys. Fuel Cycles Adv. Nucl. Syst. Glob. Dev.*, 2004.

[13] DOE Research and Development, "Shippingport Operations With the Light Water Breeder Reactor Core, WAPD-TM-1542," Pennsylvania, 1986. doi: DE-AC11-76PN00014.

[14] J. C. Clayton, "The Shippingport Presurrized Water Reactor and Light Water Breeder Reactor, WAPD-T-3007," Pennsylvania, 1993.

[15] L. Luzzi, V. Di Marcello, dan A. Cammi, *Multi-Physics Approach to the Modelling and Analysis of Molten Salt Reactors*. New York: Nova Science Publisher, Inc., 2012.

[16] A. J. Youker, S. D. Chemerisov, M. Kalensky, P. Tkac, D. L. Bowers, dan G. F. Vandegrift, "A Solution-Based Approach for Mo-99 Production: Considerations for Nitrate versus Sulfate Media," *Sci. Technol. Nucl. Install.*, 2013, doi: 10.1155/2013/402570.

[17] Syarip dan T. Sutondo, "Analytical Method of Atomic Density Determination of Uranyl Nitrate Solution," *J. Phys. Conf. Ser.*, vol. 1090, 2018, doi: 10.1088/1742-6596/1090/1/012036.

[18] B. Delphito dan Syarip, "Kajian Awal Analisis Neutronik Reaktor Produksi Isotop Molly Berbasis Thorium," *Pros. Semin. Keselam. Nukl. 2019*, 2019.

[19] B. D. Nugraha, A. W. Harto, dan Syarip, "Analisis Neutronik Reaktor Critical Assembly for Molybdenum-99 Production (CAMOLYP)," skripsi, Universitas Gadjah Mada, 2019.

[20] J. R. Lamarsh, *Introduction to Nuclear Reactor Theory*. New York: John Wiley & Sons, 1978.

[21] Mondjo, "Modul Bahan Ajar Pengantar Teknik Nuklir," Universitas Gadjah Mada, 2014.

[22] IAEA, "Evaluated Nuclear Data File (ENDF)," 2020. https://www-nds.iaea.org/exfor/endf.htm (diakses 1 September 2020).

[23] J. J. Duderstadt dan L. J. Hamilton, *Nuclear Reactor Analysis*. New York: John Wiley & Sons, 1976.

[24] W. M. Stacey, *Nuclear Reactor Physics*, 2nd ed. Weinheim: Wiley-VCH Verlag GmbH & Co. KGaA, 2007.

[25] S. Permana, N. Takaki, dan H. Sekimoto, "Breeding and void reactivity analysis on heavy metal closed-cycle water cooled thorium reactor," *Ann. Nucl. Energy*, vol. 38, pp. 337–347, 2011, doi: 10.1016/j.anucene.2010.10.009.

[26] Encyclopaedia Britannica, "Breeder reactor," 2018. https://www.britannica.com/technology/breeder-reactor (diakses 12 Juli 2020).

[27] Hyperphysics, "Fast Breeder Reactor." http://hyperphysics.phy-astr.gsu.edu/hbase/nucene/fasbre.html (diakses 12 Juli 2020).

[28] IAEA, "Cumulative Fission Yields." https://www-nds.iaea.org/sgnucdat/c3.htm#92-U-233 (diakses 12 Juli 2020).

[29] D. B. Pelowitz, Ed., "MCNPX User's Manual," no. April. Los Alamos National Laboratory, Oak Ridge, 2011.

[30] P. W. Mendius, C. D. Harmon, R. D. Busch, J. F. Briesmeister, dan R. A. Forster, *Criticality calculations with MCNP{sup TM}: A Primer*. United States, 1994.

[31] X-5 Monte Carlo Team, *MCNP – A General Monte Carlo N-Particle Transport Code, Version 5 Volume I: Overview and Theory*. Oak Ridge: Los Alamos National Laboratory, 2008.

[32] M. B. Chadwick *dkk.*, "ENDF/B-VII.1 Nuclear Data for Science and Technology: Cross Sections, Covariances, Fission Product Yields and Decay Data," *Nucl. Data Sheets*, vol. 112, no. 12, pp. 2887–2996, 2011, doi: 10.1016/j.nds.2011.11.002.

[33] G. Zerovnik, M. Podvratnik, dan L. Snoj, "On normalization of fluxes and reaction rates in MCNP criticality calculations," *Ann. Nucl. Energy J.*, vol.

63, pp. 126–128, 2014, doi: 10.1016/j.anucene.2013.07.045.

[34] M. H. Rabir, M. R. M. Zin, M. D. Usang, A. M. J. Bayar, dan N. Syauqi, "Neutron flux and power in RTP core-15," *AIP Conf. Proc. 1704*, no. 050018, 2016, doi: 10.1063/1.4940114.

[35] Organisation for Economic Cooperation and Development (OECD) Nuclear Energy Agency (NEA), *Reference Values for Nuclear Criticality Safety*. 2006.

[36] Japan Atomic Energy Research Institute (JAERI), *Nuclear Criticality Safety Handbook, version 2 (English Translation)*. Tokyo, 2001.

[37] T. Zagar dan M. Ravnik, "Fuel Element Burnup Determination in HEU - LEU Mixed TRIGA Research Reactor Core," *Int. Meet. Reduc. Enrich. Res. Test React. Las Vegas, Nevada*, 2000.

[38] M. D. Usang, M. S. Minhat, M. H. Rabir, dan M. M. Z. Rawi, "Temperature feedback of TRIGA MARK-II fuel," *AIP Conf. Proc.*, vol. 1704, 2016, doi: 10.1063/1.4940069.

[39] H. Suwarno, "Development of TRIGA fuel fabrication by powder technique," *Atom Indones.*, vol. 40, no. 3, pp. 113–119, 2014, doi: 10.17146/aij.2014.329.

[40] Sandmeyer Steel Company, "Alloy 316/316L." https://www.sandmeyersteel.com/316-316L.html (diakses 30 Juli 2020).