

## DAFTAR PUSTAKA

- [1] J. Global Cancer Observatory: Cancer Today *dkk.*, “Global Cancer Observatory: Cancer Today.” International Agency for Research on Cancer, 2020. Diakses: 4 Oktober 2022. [Daring]. Tersedia pada: <https://gco.iarc.fr/today/data/factsheets/cancers/39-All-cancers-fact-sheet.pdf>
- [2] M. Suzuki, “Boron neutron capture therapy (BNCT): a unique role in radiotherapy with a view to entering the accelerator-based BNCT era,” *Int J Clin Oncol*, vol. 25, no. 1, hlm. 43–50, Jan 2020, doi: 10.1007/s10147-019-01480-4.
- [3] “Southern TOHOKU BNCT Research Center,” *Southern TOHOKU Hospital Group*. <http://www.sthg-jp.com/motion.asp?siteid=100511&menuid=10491&lqid=1>
- [4] “PHITS User’s Manual Ver. 3.29.” Japan Atomic Energy Agency (JAEA), 12 September 2022.
- [5] Y. Sakurai *dkk.*, “Advances in boron neutron capture therapy (BNCT) at kyoto university - From reactor-based BNCT to accelerator-based BNCT,” *Journal of the Korean Physical Society*, vol. 67, no. 1, hlm. 76–81, Jul 2015, doi: 10.3938/jkps.67.76.
- [6] H. Tanaka *dkk.*, “Characteristics comparison between a cyclotron-based neutron source and KUR-HWNIF for boron neutron capture therapy,” *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, vol. 267, no. 11, hlm. 1970–1977, Jun 2009, doi: 10.1016/j.nimb.2009.03.095.
- [7] H. Tanaka *dkk.*, “Improvement of dose distribution in phantom by using epithermal neutron source based on the Be(p,n) reaction using a 30MeV proton cyclotron accelerator,” *Applied Radiation and Isotopes*, vol. 67, no. 7–8, hlm. S258–S261, Jul 2009, doi: 10.1016/j.apradiso.2009.03.096.
- [8] Y. Kiyanagi, Y. Sakurai, H. Kumada, dan H. Tanaka, “Status of accelerator-based BNCT projects worldwide,” dipresentasikan pada 25th International Conference on the Application of Accelerators in Research and Industry, Texas, USA, 2019, hlm. 050012. doi: 10.1063/1.5127704.
- [9] I. M. Ardana dan Y. Sardjono, “Optimization of a Neutron Beam Shaping Assembly Design for BNCT and Its Dosimetry Simulation Based on MCNPX,” *Tri Dasa Mega*, vol. 19, no. 3, hlm. 121, Okt 2017, doi: 10.17146/tdm.2017.19.3.3582.
- [10] M. D. R. Puspita, “Analisis Dosis Radiasi Terapi Kanker Serviks Dengan Boron Neutron Capture Therapy (BNCT) Berbasis Particle And Heavy Ion Transport Code System (PHITS).” 2021.
- [11] Kumada, H., Matsumura, A., Sakurai, H., Sakae, T., Yoshioka, M., & Kobayashi, “Project for the development of the linac based NCT facility in



- University of Tsukuba,” *Applied Radiation and Isotopes*, no. 4, hlm. 1–5, 2014.
- [12] T. Gutberlet dkk., “Sustainable neutrons for today and tomorrow—The Jülich High Brilliance neutron Source project,” *Neutron News*, vol. 31, no. 2–4, hlm. 37–43, Okt 2020, doi: 10.1080/10448632.2020.1819132.
- [13] IAEA, “Current status of neutron capture therapy.” IAEA-TECDOC-1223, Mei 2001.
- [14] S.-J. Hao, Y. Wan, Y.-Q. Xia, X. Zou, dan S.-Y. Zheng, “Size-based separation methods of circulating tumor cells,” *Advanced Drug Delivery Reviews*, vol. 125, hlm. 3–20, Feb 2018, doi: 10.1016/j.addr.2018.01.002.
- [15] TAE Life Sciences, “Developing targeted drugs for boron neutron capture therapy to treat refractory cancers.” <https://www.nature.com/articles/d43747-021-00008-y>
- [16] R. F. Barth, P. Mi, dan W. Yang, “Boron delivery agents for neutron capture therapy of cancer,” *Cancer Communications*, vol. 38, no. 1, hlm. 35, Des 2018, doi: 10.1186/s40880-018-0299-7.
- [17] E. B. Podgoršak, “Interactions of Neutrons with Matter,” dalam *Radiation Physics for Medical Physicists*, dalam Biological and Medical Physics, Biomedical Engineering. Berlin, Heidelberg: Springer Berlin Heidelberg, 2009, hlm. 429–449. doi: 10.1007/978-3-642-00875-7\_9.
- [18] J. G. Fantidis, “Beam shaping assembly study for BNCT facility based on a 2.5 MeV proton accelerator on Li target,” *J Theor Appl Phys*, vol. 12, no. 4, hlm. 249–256, Des 2018, doi: 10.1007/s40094-018-0312-1.
- [19] F. S. Rasouli, S. Farhad Masoudi, dan Y. Kasesaz, “Design of a model for BSA to meet free beam parameters for BNCT based on multiplier system for D–T neutron source,” *Annals of Nuclear Energy*, vol. 39, no. 1, hlm. 18–25, Jan 2012, doi: 10.1016/j.anucene.2011.08.025.
- [20] M. Monshizadeh, Y. Kasesaz, H. Khalafi, dan S. Hamidi, “MCNP design of thermal and epithermal neutron beam for BNCT at the Isfahan MNSR,” *Progress in Nuclear Energy*, vol. 83, hlm. 427–432, Agu 2015, doi: 10.1016/j.pnucene.2015.05.004.
- [21] P. Isyan, A. W. Harto, dan Y. Sardjono, “Conceptual Design of Collimator at Boron Neutron Capture Therapy Facility with 30 MeV Cyclotron and Target  $^9\text{Be}$  as Neutron Generator Using Monte Carlo N-Particle Extended Simulator,” *ijpna*, vol. 2, no. 1, hlm. 47, Feb 2017, doi: 10.24246/ijpna.v2i1.47-53.
- [22] W. B. Howard, “Accelerator-based boron neutron capture therapy,” *Med. Phys.*, vol. 25, no. 6, hlm. 1060–1060, Jun 1998, doi: 10.1118/1.598286.
- [23] G. Tyagi, A. Singhal, S. Routroy, D. Bhunia, dan M. Lahoti, “Radiation Shielding Concrete with alternate constituents: An approach to address



- multiple hazards,” *Journal of Hazardous Materials*, vol. 404, hlm. 124201, Feb 2021, doi: 10.1016/j.jhazmat.2020.124201.
- [24] B. J. McParland, “Photon Interactions with Matter,” dalam *Nuclear Medicine Radiation Dosimetry*, London: Springer London, 2010, hlm. 171–207. doi: 10.1007/978-1-84882-126-2\_6.
- [25] Ono K., “Experience of BNCT by KUR and Start of Clinical BNCT Trial by Small Cyclotron Based Neutron Generator in KURRI,” dipresentasikan pada International Symposium The Application of Nuclear Technology to Support National Sustainable Development, Salatiga, 2015.
- [26] D. Zhao dkk., “Design of a neutron shielding performance test system base on Am–Be neutron source,” *Radiation Physics and Chemistry*, vol. 193, hlm. 109954, Apr 2022, doi: 10.1016/j.radphyschem.2021.109954.
- [27] J. Park, S. Her, S. Cho, S. M. Woo, dan S. Bae, “Synthesis and characterization of Polyethylene/B4C composite, and its neutron shielding performance in cementitious materials: Experimental and simulation studies,” *Cement and Concrete Composites*, vol. 129, hlm. 104458, Mei 2022, doi: 10.1016/j.cemconcomp.2022.104458.

