

DAFTAR PUSTAKA

- AbuAlRoos, N. J., Baharul Amin, N. A., & Zainon, R. (2019). Conventional and new lead-free radiation shielding materials for radiation protection in nuclear medicine: A review. In *Radiation Physics and Chemistry* (Vol. 165, p. 1). Elsevier Ltd. <https://doi.org/10.1016/j.radphyschem.2019.108439>
- Ardana, I. M., & Sardjono, Y. (2017). OPTIMIZATION OF A NEUTRON BEAM SHAPING ASSEMBLY DESIGN FOR BNCT AND ITS DOSIMETRY SIMULATION BASED ON MCNPX. *JURNAL TEKNOLOGI REAKTOR NUKLIR TRI DASA MEGA*, 19(3), 121. <https://doi.org/10.17146/tdm.2017.19.3.3582>
- Baartman, R. (2023). Cyclotrons: Why/how are their dynamics different? *Journal of Instrumentation*, 18(03), 30–35. <https://doi.org/10.1088/1748-0221/18/03/T03005>
- Barth, R. F., Gupta, N., & Kawabata, S. (2024). Evaluation of sodium borocaptate (BSH) and boronophenylalanine (BPA) as boron delivery agents for neutron capture therapy (NCT) of cancer: an update and a guide for the future clinical evaluation of new boron delivery agents for NCT. *Cancer Communications*, 44(8), 893–909. <https://doi.org/10.1002/cac2.12582>
- Bilalodin, B., Wihantoro, W., Haryadi, A., & Abdullatif, F. (2023). DOSIMETRY ANALYSIS OF BORON NEUTRON CAPTURE THERAPY (BNCT) ON THYROID CANCER USING PHITS CODE WITH NEUTRON FROM 30 MeV CYCLOTRON. *Jurnal Teknologi*, 85(5), 2–6. <https://doi.org/10.11113/jurnalteknologi.v85.19454>
- Bogović Crnčić, T. (2020). Risk Factors for Thyroid Cancer: What Do We Know So Far? *Acta Clinica Croatica*, 1, 2–3. <https://doi.org/10.20471/acc.2020.59.s1.08>
- Bray, F., Laversanne, M., Sung, H., Ferlay, J., Siegel, R. L., Soerjomataram, I., & Jemal, A. (2024). Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*, 74(3), 229–263. <https://doi.org/10.3322/caac.21834>
- Burnet, N. G., Noble, D. J., Paul, A., Whitfield, G. A., & Delorme, S. (2018). Zielvolumenkonzepte in der Strahlentherapie und ihre Bedeutung für die Bildgebung. *Der Radiologe*, 58(8), 708–721. <https://doi.org/10.1007/s00117-018-0420-6>
- Cui, Y.-Y. (2019). Cancer, Mankind's Challenge. *Current Cancer Reports*, 1(1), 1–5. <https://doi.org/10.25082/CCR.2019.01.001>
- David Alesini. (2021). A linac (linear accelerator). 5–6. <https://doi.org/10.48550/arXiv.2103.16500>

- AbuAlRoos, N. J., Baharul Amin, N. A., & Zainon, R. (2019). Conventional and new lead-free radiation shielding materials for radiation protection in nuclear medicine: A review. In *Radiation Physics and Chemistry* (Vol. 165, p. 1). Elsevier Ltd. <https://doi.org/10.1016/j.radphyschem.2019.108439>
- Ardana, I. M., & Sardjono, Y. (2017). OPTIMIZATION OF A NEUTRON BEAM SHAPING ASSEMBLY DESIGN FOR BNCT AND ITS DOSIMETRY SIMULATION BASED ON MCNPX. *JURNAL TEKNOLOGI REAKTOR NUKLIR TRI DASA MEGA*, 19(3), 121. <https://doi.org/10.17146/tm.2017.19.3.3582>
- Baartman, R. (2023). Cyclotrons: Why/how are their dynamics different? *Journal of Instrumentation*, 18(03), 30–35. <https://doi.org/10.1088/1748-0221/18/03/T03005>
- Barth, R. F., Gupta, N., & Kawabata, S. (2024). Evaluation of sodium borocaptate (BSH) and boronophenylalanine (BPA) as boron delivery agents for neutron capture therapy (NCT) of cancer: an update and a guide for the future clinical evaluation of new boron delivery agents for NCT. *Cancer Communications*, 44(8), 893–909. <https://doi.org/10.1002/cac2.12582>
- Bilalodin, B., Wihantoro, W., Haryadi, A., & Abdullatif, F. (2023). DOSIMETRY ANALYSIS OF BORON NEUTRON CAPTURE THERAPY (BNCT) ON THYROID CANCER USING PHITS CODE WITH NEUTRON FROM 30 MeV CYCLOTRON. *Jurnal Teknologi*, 85(5), 2–6. <https://doi.org/10.11113/jurnalteknologi.v85.19454>
- Bogović Crnčić, T. (2020). Risk Factors for Thyroid Cancer: What Do We Know So Far? *Acta Clinica Croatica*, 1, 2–3. <https://doi.org/10.20471/acc.2020.59.s1.08>
- Bray, F., Laversanne, M., Sung, H., Ferlay, J., Siegel, R. L., Soerjomataram, I., & Jemal, A. (2024). Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*, 74(3), 229–263. <https://doi.org/10.3322/caac.21834>
- Burnet, N. G., Noble, D. J., Paul, A., Whitfield, G. A., & Delorme, S. (2018). Zielvolumenkonzepte in der Strahlentherapie und ihre Bedeutung für die Bildgebung. *Der Radiologe*, 58(8), 708–721. <https://doi.org/10.1007/s00117-018-0420-6>
- Cui, Y.-Y. (2019). Cancer, Mankind's Challenge. *Current Cancer Reports*, 1(1), 1–5. <https://doi.org/10.25082/CCR.2019.01.001>
- Current status of neutron capture therapy.* (2001).
- da Mota Borges, A. K., Ferreira, J. D., Koifman, S., & Koifman, R. J. (2019). Differentiated thyroid carcinoma: A 5-years survival study at a referral

- hospital in Brazil. *Revista de Saude Publica*, 53.
<https://doi.org/10.11606/S1518-8787.2019053001496>
- David Alesini. (2021). *A linac (linear accelerator)*. 5–6.
<https://doi.org/10.48550/arXiv.2103.16500>
- Dymova, M. A., Taskaev, S. Y., Richter, V. A., & Kuligina, E. V. (2020). Boron neutron capture therapy: Current status and future perspectives. *Cancer Communications*, 40(9), 406–421. <https://doi.org/10.1002/cac2.12089>
- Esmati, E., Aleyasin, A., Ghalehtaki, R., Jafari, F., Farhan, F., Aghili, M., Haddad, P., & Kazemian, A. (2023). The role of external beam radiation therapy in the management of thyroid carcinomas: A retrospective study in Iran Cancer Institute. *Cancer Reports*, 6(1). <https://doi.org/10.1002/cnr2.1652>
- Fantidis, J. G. (2018). Beam shaping assembly study for BNCT facility based on a 2.5 MeV proton accelerator on Li target. *Journal of Theoretical and Applied Physics*, 12(4), 249–256. <https://doi.org/10.1007/s40094-018-0312-1>
- Furuta, T., & Sato, T. (2021). Medical application of particle and heavy ion transport code system PHITS. *Radiological Physics and Technology*, 14(3), 215–225. <https://doi.org/10.1007/s12194-021-00628-0>
- Gonzales Ccoscco, A. E., Guzmán-Calcina, C. S., & Vega-Ramírez, J. L. (2023). MONTE CARLO SIMULATION OF 6, 10 AND 18 MV PHOTON BEAM DOSE DISTRIBUTION IN A BRAIN TUMOR. *MOMENTO*, 67, 22–38. <https://doi.org/10.15446/mo.n67.104270>
- Green, S., Phoenix, B., Nakamura, S., Liu, Y. H., Shu, D., Hu, N., Suzuki, S., Koivunoro, H., Kumada, H., & Tanaka, H. (2025). Accelerator neutron sources for BNCT: Current status and some pointers for future development. *Applied Radiation and Isotopes*, 217, 111–116. <https://doi.org/10.1016/j.apradiso.2025.111656>
- Grosu, A.-L., Sprague, L. D., & Molls, M. (2006). Definition of Target Volume and Organs at Risk. Biological Target Volume. In *New Technologies in Radiation Oncology* (1st ed., Vol. 1, pp. 167–177). Springer-Verlag. https://doi.org/10.1007/3-540-29999-8_13
- Gustafsson, J., Ljungberg, M., Alm Carlsson, G., Larsson, E., Warfvinge, C. F., Asp, P., & Sjögreen Gleisner, K. (2023). Averaging of absorbed doses: How matter matters. *Medical Physics*, 50(10), 6600–6613. <https://doi.org/10.1002/mp.16528>
- Gwon, H.-J., Hwang, S.-B., Kim, S., & Kim, K.-B. (2023). Evaluation of Parallel Computing on MPI Version PHITS Code. *Applied Sciences*, 13(6), 3782. <https://doi.org/10.3390/app13063782>
- Harrison, J. D., Balonov, M., Bochud, F., Martin, C., Menzel, H.-G., Ortiz-Lopez, P., Smith-Bindman, R., Simmonds, J. R., & Wakeford, R. (2021). ICRP

- Publication 147: Use of Dose Quantities in Radiological Protection. *Annals of the ICRP*, 50(1), 9–82. <https://doi.org/10.1177/0146645320911864>
- Harrison, J. D., & Streffer, C. (2007). The ICRP protection quantities, equivalent and effective dose: their basis and application. *Radiation Protection Dosimetry*, 127(1–4), 12–18. <https://doi.org/10.1093/rpd/ncm248>
- Ho, S. L., Yue, H., Tegafaw, T., Ahmad, M. Y., Liu, S., Nam, S. W., Chang, Y., & Lee, G. H. (2022). Gadolinium Neutron Capture Therapy (GdNCT) Agents from Molecular to Nano: Current Status and Perspectives. In *ACS Omega* (Vol. 7, Issue 3, pp. 2533–2553). American Chemical Society. <https://doi.org/10.1021/acsomega.1c06603>
- Hodapp, N. (2012). Der ICRU-Report 83: Verordnung, Dokumentation und Kommunikation der fluenzmodulierten Photonenstrahlentherapie (IMRT). *Strahlentherapie Und Onkologie*, 188(1), 97–100. <https://doi.org/10.1007/s00066-011-0015-x>
- Hu, N., Suzuki, M., Masunaga, S., Kashino, G., Kinashi, Y., Chen, Y.-W., Liu, Y., Uehara, K., Mitsumoto, T., Tanaka, H., & Ono, K. (2023). Experimentally determined relative biological effectiveness of cyclotron-based epithermal neutrons designed for clinical BNCT: *in vitro* study. *Journal of Radiation Research*, 64(5), 811–815. <https://doi.org/10.1093/jrr/rrad056>
- Hu, N., Tanaka, H., Takata, T., Endo, S., Masunaga, S., Suzuki, M., & Sakurai, Y. (2020). Evaluation of PHITS for microdosimetry in BNCT to support radiobiological research. *Applied Radiation and Isotopes*, 161, 8–13. <https://doi.org/10.1016/j.apradiso.2020.109148>
- Hutaria, V., Susilo, S., & Sardjono, Y. (2019). Neutron Characterization of BNCT Water Phantom Based on Kartini Research Reactor Using PHITS. *Indonesian Journal of Physics and Nuclear Applications*, 4(1), 16–21. <https://doi.org/10.24246/ijpna.v4i1.16-21>
- IAEA. (2023). *Advances in Boron Neutron Capture Therapy*. International Atomic Energy Agency. <https://www.iaea.org/publications/15339/advances-in-boron-neutron-capturetherapy>
- Indra, B., Qodir, N., Pramudhito, D., Legiran, L., Hafy, Z., & Yusran, A. M. I. (2025). Effectiveness of radioiodine therapy on preventing recurrence in differentiated thyroid carcinoma: a systematic review. In *Journal of the Egyptian National Cancer Institute* (Vol. 37, Issue 1). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1186/s43046-025-00293-z>
- International Atomic Energy Agency (IAEA). (2023). *Advances in Boron Neutron Capture Therapy* (Vol. 1). International Atomic Energy Agency.
- J. Mondal. (2022). Basic Theory of RF Electron Linear Accelerator. In *Bhabha Atomic Research Centre* (Vol. 2, pp. 230–231).

- Jalut, L. L. S., Rupiasih, N. N., & Sardjono, Y. (2020). Analisis Dosis Boron pada Teknik BNCT dengan Metode Simulasi Menggunakan Program PHITS (Particle and Heavy Ion Transport Code System). *Buletin Fisika*, 1, 1–7. <https://jurnal.harianregional.com/buletinfisika/id-47572>
- Jin, W. H., Seldon, C., Butkus, M., Sauerwein, W., & Giap, H. B. (2022). A Review of Boron Neutron Capture Therapy: Its History and Current Challenges. *International Journal of Particle Therapy*, 9(1), 71–82. <https://doi.org/10.14338/IJPT-22-00002.1>
- Kiyanagi, Y. (2018). Accelerator-based neutron source for boron neutron capture therapy. *Therapeutic Radiology and Oncology*, 2, 55–55. <https://doi.org/10.21037/tro.2018.10.05>
- Krane, K. S. ., & Halliday, David. (1988). *Introductory nuclear physics* (1st ed.). Wiley.
- Krstić, D., & Nikezić, D. (2007). *Input files with ORNL—mathematical phantoms of the human body for MCNP-4B*. <https://doi.org/10.17632/6d5wtzdc8x.1>
- KUMADA, H., NAITO, F., HASEGAWA, K., KOBAYASHI, H., KURIHARA, T., TAKADA, K., ONISHI, T., SAKURAI, H., MATSUMURA, A., & SAKAE, T. (2018). Development of LINAC-Based Neutron Source for Boron Neutron Capture Therapy in University of Tsukuba. *Plasma and Fusion Research*, 13(0), 240–246. <https://doi.org/10.1585/pfr.13.2406006>
- Kumar, R., Kumar, A., Kumar, S., Suman, S. K., & Biswas, N. R. (2022). Medical cyclotron. *Journal of Indira Gandhi Institute Of Medical Science*, 8(1), 10–15. https://doi.org/10.4103/jigims.jigims_45_21
- Lahkar, D. (2024). Determination of Planning Target Volume in Radiotherapy - A Review. *Journal of Medical Science and Clinical Research*, 12(02), 12–18. <https://doi.org/10.18535/jmscr/v12i02.03>
- Lechner, M. G., Praw, S. S., & Angell, T. E. (2019). Treatment of Differentiated Thyroid Carcinomas. *Surgical Pathology Clinics*, 12(4), 931–942. <https://doi.org/10.1016/j.path.2019.08.003>
- Lu, L., An, S., Guan, F., Wang, Z., & Zhao, Y. (2023). The performance research and optimization of the Beam Shaping Assembly (BSA) used for BNCT based on the cyclotron. *2023 IEEE Nuclear Science Symposium, Medical Imaging Conference and International Symposium on Room-Temperature Semiconductor Detectors (NSS MIC RTSD)*, 1–1. <https://doi.org/10.1109/NSSMICRTSD49126.2023.10338497>
- Maimanah, S., Maimanah, S., Susilo, S., & Sardjono, Y. (2019). Distribution of Water Phantom BNCT Cyclotron based Using PHITS. *Indonesian Journal of Physics and Nuclear Applications*, 4(1), 1–7. <https://doi.org/10.24246/ijpna.v4i1.1-7>

- Malouff, T. D., Seneviratne, D. S., Ebner, D. K., Stross, W. C., Waddle, M. R., Trifiletti, D. M., & Krishnan, S. (2021). Boron Neutron Capture Therapy: A Review of Clinical Applications. *Frontiers in Oncology*, *11*, 5–7. <https://doi.org/10.3389/fonc.2021.601820>
- Manabe, M., Nakamura, S., & Murata, I. (2016). Study on measuring device arrangement of array-type CdTe detector for BNCT-SPECT. *Reports of Practical Oncology & Radiotherapy*, *21*(2), 102–107. <https://doi.org/10.1016/j.rpor.2015.04.002>
- Méot, F. (2024). *Understanding the Physics of Particle Accelerators* (1st ed.). Springer International Publishing. <https://doi.org/10.1007/978-3-031-59979-8>
- Monti Hughes, A., & Hu, N. (2023). Optimizing Boron Neutron Capture Therapy (BNCT) to Treat Cancer: An Updated Review on the Latest Developments on Boron Compounds and Strategies. *Cancers*, *15*(16), 4091–4092. <https://doi.org/10.3390/cancers15164091>
- Naito, F. (2018). Introduction to accelerators for boron neutron capture therapy. *Therapeutic Radiology and Oncology*, *2*, 54. <https://doi.org/10.21037/tro.2018.10.11>
- Nakamura, R., Hino, M., Tanaka, H., Kuriyama, Y., & Iwashita, Y. (2022). Conceptual design of a target station using a 30-MeV cyclotron accelerator for the basic study of boron neutron capture therapy at KURNS. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, *1042*, 167–425. <https://doi.org/10.1016/j.nima.2022.167425>
- Nanda Karmaker, Kazi M. Maraz, Farhana Islam, Md. Marjanul Haque, Md. Razzak, M.Z.I. Mollah, M. R. I. Faruque, & Ruhul A. Khan. (2021). Fundamental characteristics and application of radiation. *GSC Advanced Research and Reviews*, *7*(1), 064–072. <https://doi.org/10.30574/gscarr.2021.7.1.0043>
- Nugroho, I. A. (2023). *PENGARUH KONSENTRASI BORON DAN ARAH PENYINARAN TERHADAP DOSIS DAN WAKTU TERAPI KANKER NASOFARING DENGAN BORON NEUTRON CAPTURE THERAPY MENGGUNAKAN PROGRAM PHITS*. Universitas Gadjah Mada.
- OECD Nuclear Energy Agency. (2020). *JANIS Book – Neutrons, B11/MT1*. Organisation for Economic Co-Operation and Development (OECD). <https://www.oecd-nea.org/janisweb/book/neutrons/B11/MT1/renderer/1981>
- Palani Selvam, T., Shrivastava, V., & Chinnaesakki, S. (2024). Interaction of Ionizing Radiation with Matter. In *Handbook on Radiation Environment, Volume 2* (Vol. 3, pp. 77–118). Springer Nature Singapore. https://doi.org/10.1007/978-981-97-2799-5_4

- Pan, Y.-Y., Yao, S.-F., Lin, K.-H., Chou, F.-I., Lee, J.-C., Tai, S.-K., Huang, W.-S., Lan, K.-L., Chao, Y., & Chen, Y.-W. (2020). Boron neutron capture therapy as salvage treatment for recurrent papillary thyroid carcinoma—a case report. *Therapeutic Radiology and Oncology*, 4, 21–21. <https://doi.org/10.21037/tro-20-10>
- Pansare, G. R., More, S. S., Pandit, T. P., & Papat, S. R. (2015). Mass Absorption Coefficient of Gamma Radiations for Aluminum, Copper, Lead and Plastic (LDPE) Material. In *International Journal of Chemical and Physical Sciences* (Vol. 4). www.ijcps.org
- Pietropaolo, A. (2023). The physical mechanisms of neutron detection. *Contemporary Physics*, 64(3), 194–223. <https://doi.org/10.1080/00107514.2024.2314817>
- Pitoia, F., Jerkovich, F., Trimboli, P., & Smulever, A. (2022). New approaches for patients with advanced radioiodine-refractory thyroid cancer. *World Journal of Clinical Oncology*, 13(1), 9–27. <https://doi.org/10.5306/wjco.v13.i1.9>
- Prete, A., Borges de Souza, P., Censi, S., Muzza, M., Nucci, N., & Sponziello, M. (2020). Update on Fundamental Mechanisms of Thyroid Cancer. *Frontiers in Endocrinology*, 11, 3–6. <https://doi.org/10.3389/fendo.2020.00102>
- Rachmansyah, R. (2022). *Optimasi Material Target pada Beam Shaping Assembly untuk Boron Neutron Capture Therapy Menggunakan Program PHITS* [Undergraduate Thesis (Skripsi)]. Universitas Gadjah Mada.
- Ramadhani, A. D. P., Susilo, S., Nurfatthan, I., Sardjono, Y., Widarto, W., Wijaya, G. S., & Triatmoko, I. M. (2020). DOSE ESTIMATION OF THE BNCT WATER PHANTOM BASED ON MCNPX COMPUTER CODE SIMULATION. *JURNAL TEKNOLOGI REAKTOR NUKLIR TRI DASA MEGA*, 22(1), 23. <https://doi.org/10.17146/tm.2020.22.1.5780>
- Sato, T., Iwamoto, Y., Hashimoto, S., Ogawa, T., Furuta, T., Abe, S.-I., Kai, T., Matsuya, Y., Matsuda, N., Hirata, Y., Sekikawa, T., Yao, L., Tsai, P.-E., Ratliff, H. N., Iwase, H., Sakaki, Y., Sugihara, K., Shigyo, N., Sihver, L., & Niita, K. (2024a). *PHITS Ver. 3.35 User's Manual*.
- Sato, T., Iwamoto, Y., Hashimoto, S., Ogawa, T., Furuta, T., Abe, S.-I., Kai, T., Matsuya, Y., Matsuda, N., Hirata, Y., Sekikawa, T., Yao, L., Tsai, P.-E., Ratliff, H. N., Iwase, H., Sakaki, Y., Sugihara, K., Shigyo, N., Sihver, L., & Niita, K. (2024b). Recent improvements of the particle and heavy ion transport code system – PHITS version 3.33. *Journal of Nuclear Science and Technology*, 61(1), 127–135. <https://doi.org/10.1080/00223131.2023.2275736>
- Sato, T., Niita, K., Iwamoto, Y., Hashimoto, S., Ogawa, T., Furuta, T., Abe, S., Kai, T., Matsuda, N., Okumura, K., Kai, T., Iwase, H., & Sihver, L. (2017). Recent Improvements of Particle and Heavy Ion Transport code System: PHITS. *EPJ*

Web of Conferences, 153, 06–08.
<https://doi.org/10.1051/epjconf/201715306008>

Sauerwein, W. A. G., Sancey, L., Hey-Hawkins, E., Kellert, M., Panza, L., Imperio, D., Balcerzyk, M., Rizzo, G., Scalco, E., Herrmann, K., Mauri, P., De Palma, A., & Wittig, A. (2021). Theranostics in Boron Neutron Capture Therapy. *Life*, 11(4), 330. <https://doi.org/10.3390/life11040330>

Seneviratne, D., Advani, P., Trifiletti, D. M., Chumsri, S., Beltran, C. J., Bush, A. F., & Vallow, L. A. (2022). Exploring the Biological and Physical Basis of Boron Neutron Capture Therapy (BNCT) as a Promising Treatment Frontier in Breast Cancer. *Cancers*, 14(12), 3009–3012. <https://doi.org/10.3390/cancers14123009>

Sfarti, A. (2018). The Relativistic Cyclotron Radiation in the Circular Rotating Frame of the Moving Heavy Particle. *Asian Journal of Research and Reviews in Physics*, 1–8. <https://doi.org/10.9734/ajr2p/2018/v1i124594>

Shalbi, S., Sazali, N., & Wan Salleh, W. N. (2020). A simulation on desired neutron flux for the boron neutron capture therapy (BNCT) purpose by using Monte Carlo N-Particle (MCNPX). *IOP Conference Series: Materials Science and Engineering*, 736(6), 062022–062025. <https://doi.org/10.1088/1757-899X/736/6/062022>

Shim, H., & Park, S. H. (2024). Study of accelerator-based epithermal neutron flux depending on Li and Be targets. *Applied Radiation and Isotopes*, 208, 111–298. <https://doi.org/10.1016/j.apradiso.2024.111298>

Shirazi, S. A. M. (2021). *A new investigation into the estimation of transferred energy from a neutron source to a human's body*. 5–11. <https://doi.org/10.1063/5.0063749>

Soppera, N., Dupont, E., & Bossant, M. (2020). *JANIS Book of proton-induced cross-sections OECD NEA Data Bank*. www.oecd-nea.org/janis.

Tanaka, H. (2022). Neutrons in Clinical Practice: BNCT. *Journal of Japan Society of Medical Physics*, 42(3), 143–148.

Torrise, L., Cutroneo, M., Torrise, A., & Havranek, V. (2021). Nuclear reactions for protontherapy intensification. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 486, 28–36. <https://doi.org/10.1016/j.nimb.2020.11.002>

Tsai, P. E., Lai, B. L., Heilbronn, L. H., & Sheu, R. J. (2018). Benchmark of neutron production cross sections with Monte Carlo codes. *Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms*, 416, 16–29. <https://doi.org/10.1016/j.nimb.2017.11.029>

Van Delinder, K. W., Khan, R., & Gräfe, J. L. (2020). Neutron activation of gadolinium for ion therapy: a Monte Carlo study of charged particle beams.

Scientific Reports, 10(1), 134–137. <https://doi.org/10.1038/s41598-020-70429-9>

Vasantachart, A., Olch, A. J., Jones, M., Marques, C., Ronckers, C., Constine, L. S., Maduro, J. H., de Boer, C., & Wong, K. (2023). A comprehensive review of 30 years of pediatric clinical trial radiotherapy dose constraints. *Pediatric Blood & Cancer*, 70(5). <https://doi.org/10.1002/pbc.30270>

Viegas, A. M. D., Postuma, I., Bortolussi, S., Guidi, C., Riback, J. S., Provenzano, L., Marcaccio, B., Rossini, A. E., Ferrari, C., Cansolino, L., Ferrari, M., Portu, A. M., & González, S. J. (2021). Detailed dosimetry calculation for in-vitro experiments and its impact on clinical BNCT. *Physica Medica*, 89, 282–292. <https://doi.org/10.1016/j.ejmp.2021.08.010>

Wang, S., Zhang, Z., Miao, L., & Li, Y. (2022). Boron Neutron Capture Therapy: Current Status and Challenges. *Frontiers in Oncology*, 12, 3–5. <https://doi.org/10.3389/fonc.2022.788770>

Wegner, M., Gargioni, E., & Krause, D. (2023). Classification of phantoms for medical imaging. *Procedia CIRP*, 119, 1140–1145. <https://doi.org/10.1016/j.procir.2023.03.154>

Wei, X., Wang, X., Xiong, J., Li, C., Liao, Y., Zhu, Y., & Mao, J. (2022). Risk and Prognostic Factors for BRAF^{V600E} Mutations in Papillary Thyroid Carcinoma. *BioMed Research International*, 2022(1), 3–8. <https://doi.org/10.1155/2022/9959649>

Yararbaş, Ü., & Özcan, Z. (2019). Papillary Thyroid Carcinoma and Microcarcinoma. In *Thyroid and Parathyroid Diseases* (pp. 183–186). Springer International Publishing. https://doi.org/10.1007/978-3-319-78476-2_29

Zhang, W., Hao, S., Wang, Z., Ding, T., & Zhang, G. (2024). 125I seed implantation for lymph node metastasis from radioactive iodine-refractory differentiated thyroid carcinoma: a study on short-term efficacy and dosimetry. *Frontiers in Oncology*, 14, 2–5. <https://doi.org/10.3389/fonc.2024.1325987>