

## DAFTAR PUSTAKA

- Academic press. (2022). *Microscope image processing* (F. Merchant & K. Castelman, Ed.; Second Edition).
- Akman, O., Kavas, H., Baykal, A., Toprak, M. S., Çoruh, A., & Aktaş, B. (2013). Magnetic Metal Nanoparticles Coated Polyacrylonitrile Textiles as Microwave Absorber. *Journal of Magnetism and Magnetic Materials*, 327, 151–158. <https://doi.org/10.1016/j.jmmm.2012.09.032>
- Anand, S., Pauline, S., & Prabagar, C. J. (2020). Zr Doped Barium Hexaferrite Nanoplatelets and RGO Fillers Embedded Polyvinylidenefluoride Composite Films for Electromagnetic Interference Shielding Applications. *Polymer Testing*, 86. <https://doi.org/10.1016/j.polymertesting.2020.106504>
- Ates, B., Koytepe, S., Ulu, A., Gurses, C., & Thakur, V. K. (2020). Chemistry, Structures, and Advanced Applications of Nanocomposites from Biorenewable Resources. Dalam *Chemical Reviews* (Vol. 120, Nomor 17, hlm. 9304–9362). American Chemical Society. <https://doi.org/10.1021/acs.chemrev.9b00553>
- Beheshti, K. A., & Yousefi, M. (2021). Magnetic and Microwave Absorption of BaMgxZrxFe12-2xO19 Polyaniline Nanocomposites. *Journal of Alloys and Compounds*, 859. <https://doi.org/10.1016/j.jallcom.2020.157861>
- Birajdar, A. A. (2023). *A Study of Initinal Permeability and Magnetic Properties of Ferrit Material*.
- Bonaguide, G., & Jarvis, N. (2019). *The VNA Applications Handbook*. Artech House. Artech House.
- Chen, Y., Pötschke, P., Pionteck, J., Voit, B., & Qi, H. (2020). *Multifunctional Cellulose/rGO/Fe<sub>3</sub>O<sub>4</sub> Composite Aerogels for Electromagnetic Interference Shielding*.
- Chung, D. D. L. (2020). Materials for Electromagnetic Interference Shielding. Dalam *Materials Chemistry and Physics* (Vol. 255). Elsevier Ltd. <https://doi.org/10.1016/j.matchemphys.2020.123587>

- Durmus, Z., Durmus, A., & Kavas, H. (2015). Synthesis and Characterization of Structural and Magnetic Properties of Graphene/Hard Ferrite Nanocomposites as Microwave-Absorbing Material. *Journal of Materials Science*, 50(3), 1201–1213. <https://doi.org/10.1007/s10853-014-8676-3>
- Elmahaishi, M. F., Azis, R. S., Ismail, I., & Muhammad, F. D. (2022). A Review on Electromagnetic Microwave Absorption Properties: Their Materials and Performance. *Journal of Materials Research and Technology*, 20, 2188–2220. <https://doi.org/https://doi.org/10.1016/j.jmrt.2022.07.140>
- Fauzi, A. (2016). PENGARUH WAKTU MILLING TERHADAP DAN UKURAN BUTIR FORSTERITE ( $Mg_2 SiO_4$ ) MINERAL SERPENTIN DARI KABUPATEN SOLOK SELATAN. Dalam *PILLAR OF PHYSICS* (Vol. 8).
- Gaeta, M., Cavallaro, M., Vinci, S. L., Mormina, E., Blandino, A., Marino, M. A., Granata, F., Tessitore, A., Galletta, K., D'Angelo, T., & Visalli, C. (2021). Magnetism of Materials: Theory and Practice in Magnetic Resonance Imaging. Dalam *Insights into Imaging* (Vol. 12, Nomor 1). Springer Science and Business Media Deutschland GmbH. <https://doi.org/10.1186/s13244-021-01125-z>
- Gairola, P., Gairola, S. P., Kumar, V., Singh, K., & Dhawan, S. K. (2016). Barium Ferrite and Graphite Integrated with Polyaniline as Effective Shield against Electromagnetic Interference. *Synthetic Metals*, 221, 326–331. <https://doi.org/10.1016/j.synthmet.2016.09.023>
- Ganapathe, L. S., Mohamed, M. A., Yunus, R. M., & Berhanuddin, D. D. (2020). Magnetite ( $Fe_3O_4$ ) Nanoparticles in Biomedical Application: From Synthesis to Surface Functionalisation. Dalam *Magnetochemistry* (Vol. 6, Nomor 4, hlm. 1–35). MDPI AG. <https://doi.org/10.3390/magnetochemistry6040068>
- Gao, Z., Dong, X., Li, N., & Ren, J. (2017). Novel Two-Dimensional Silicon Dioxide with in-Plane Negative Poisson's Ratio. *Nano Letters*, 17(2), 772–777. <https://doi.org/10.1021/acs.nanolett.6b03921>
- Godara, S. K., Dhaka, R. K., Kaur, N., Malhi, P. S., Kaur, V., Sood, A. K., Bahel, S., Bhadu, G. R., Chaudhari, J. C., Pushkarna, I., & Singh, M. (2021). Synthesis and Characterization of Jamun Pulp Based M-type Barium

- Hexaferrite via Sol-Gel Auto-Combustion. *Results in Physics*, 22. <https://doi.org/10.1016/j.rinp.2021.103903>
- Gorrasí, G., & Sorrentino, A. (2015). Mechanical milling as a technology to produce structural and functional bio-nanocomposites. Dalam *Green Chemistry* (Vol. 17, Nomor 5, hlm. 2610–2625). Royal Society of Chemistry. <https://doi.org/10.1039/c5gc00029g>
- Gunanto, Y. E., Izaak, M. P., Silaban, S. S., & Adi, W. A. (2018). Effect of milling time on microwave absorption ability on barium-hexaferrite nanoparticles. *Journal of Physics: Conference Series*, 1011(1). <https://doi.org/10.1088/1742-6596/1011/1/012058>
- Haiqal, A., Pamungkas Priambodo, D., & Faddakiri, F. A. (2024). Development of Perovskite Manganate-Based Materials as Microwave Absorbers (A Literature Study). *Geophysics, Instrumentation and Theoretical Physics-fizika*, 6(2023), 63–79. <https://doi.org/10.15408/fiziya.v6i2.36991>
- Handoko, E., Budi, S., Sugihartono, I., Marpaung, M. A., Jalil, Z., Taufiq, A., & Alaydrus, M. (2020). Microwave Absorption Performance of Barium Hexaferrite Multi-Nanolayers. *Materials Express*, 10(8), 1328–1336. <https://doi.org/10.1166/mex.2020.1811>
- Handoko, E., Iwan, S., Budi, S., Anggoro, B. S., Mangasi, A. M., Randa, M., Zulkarnain, J., Kurniawan, C., Sofyan, N., & Alaydrus, M. (2018). Magnetic and Microwave Absorbing Properties of BaFe<sub>12-2x</sub>CoxZnxO<sub>19</sub> (x = 0.0; 0.2; 0.4; 0.6) Nanocrystalline. *Materials Research Express*, 5(6). <https://doi.org/10.1088/2053-1591/aac4d7>
- Hodaei, A., Ataie, A., & Mostafavi, E. (2015). Intermediate Milling Energy Optimization to Enhance The Characteristics of Barium Hexaferrite Magnetic Nanoparticles. *Journal of Alloys and Compounds*, 640, 162–168. <https://doi.org/10.1016/j.jallcom.2015.03.230>
- Idayanti, N., Kristiantoro, T., Septiani, A., & Kartika, I. (2017). Magnetic Properties of Barium Ferrite after Milling by High Energy Milling (HEM). *MATEC Web of Conferences*, 101. <https://doi.org/10.1051/matecconf/201710101011>

- Jacobo, S. E., Bercoff, P. G., Herme, C. A., & Vives, L. A. (2015). Sr Hexaferrite/Ni Ferrite Nanocomposites: Magnetic Behavior and Microwave Absorbing Properties in the X-band. *Materials Chemistry and Physics*, 157, 124–129. <https://doi.org/10.1016/j.matchemphys.2015.03.026>
- Jiang, D., Murugadoss, V., Wang, Y., Lin, J., Ding, T., Wang, Z., Shao, Q., Wang, C., Liu, H., Lu, N., Wei, R., Subramania, A., & Guo, Z. (2019). Electromagnetic Interference Shielding Polymers and Nanocomposites - A Review. Dalam *Polymer Reviews* (Vol. 59, Nomor 2, hlm. 280–337). Taylor and Francis Inc. <https://doi.org/10.1080/15583724.2018.1546737>
- Kaur, T., Kumar, S., Bhat, B. H., & Srivastava, A. K. (2015). *Enhancement in Physical Properties of Barium Hexaferrite with Substitution*. <https://doi.org/10.1557/jmr>
- Kumar, S., Supriya, S., Pandey, R., Pradhan, L. K., Singh, R. K., & Kar, M. (2018). Effect of Lattice Strain on Structural and Magnetic Properties of Ca Substituted Barium Hexaferrite. *Journal of Magnetism and Magnetic Materials*, 458, 30–38. <https://doi.org/10.1016/j.jmmm.2018.02.093>
- Li, J., Zhou, D., Wang, P. J., Du, C., Liu, W. F., Su, J. Z., Pang, L. X., Cao, M. S., & Kong, L. B. (2021). Recent Progress in Two-Dimensional Materials for Microwave Absorption Applications. Dalam *Chemical Engineering Journal* (Vol. 425). Elsevier B.V. <https://doi.org/10.1016/j.cej.2021.131558>
- Majumder, D. D., Majumder, D. D., & Karan, S. (2013). Magnetic Properties of Ceramic Nanocomposites. Dalam *Ceramic Nanocomposites*. Elsevier Inc. <https://doi.org/10.1533/9780857093493.1.51>
- Marpaung, M. A., Sulaiman, F. H., & Jalil, Z. (2022). Influence of Ti-Al Substitution on Structure, Magnetic and Microwave Absorption Properties in Barium Hexaferrite. *Journal of Physics: Conference Series*, 2377(1). <https://doi.org/10.1088/1742-6596/2377/1/012007>
- Mathauer, K. (2020). *Diplomarbeit 3D Printing and in Situ Aligning of Anisotropic Polymer-Bonded Magnets*.
- Mathews, S. A., & Babu, D. R. (2021). Analysis of the Role of M-type Hexaferrite-Based Materials in Electromagnetic Interference Shielding. Dalam *Current*

*Applied Physics* (Vol. 29, hlm. 39–53). Elsevier B.V.  
<https://doi.org/10.1016/j.cap.2021.06.001>

- Mullick, S., Rana, G., Kumar, A., Sharma, G., & Mu Naushad. (2021). *Mullick, Shanta, et al. “Ferrites”: Synthesis, Structure, Properties and Applications.” Ferrite: Nanostructures with Tunable Properties and Diverse Applications* 112 (2021): 1-61. (Vol. 112).  
<https://doi.org/https://doi.org/10.21741/9781644901595-1>
- Munasir, Triwikantoro, Zainuri, M., & Darminto. (2015). Synthesis of SiO<sub>2</sub> Nanopowders Containing Quartz and Cristobalite Phases from Silica Sands. *Materials Science- Poland*, 33(1), 47–55. <https://doi.org/10.1515/msp-2015-0008>
- Muqoddam, M., Kartika, W., & Wibowo, S. A. (2020). Modul Digitalisasi Mikroskop. *Medika Teknika : Jurnal Teknik Elektromedik Indonesia*, 2(1).  
<https://doi.org/10.18196/mt.020113>
- Nguyen, T. X., Vuong, O. K. T., Nguyen, H. T., & Nguyen, V. Van. (2017). Preparation and Magnetic Properties of MnBi/Co Nanocomposite Magnets. *Journal of Electronic Materials*, 46(6), 3359–3366.  
<https://doi.org/10.1007/s11664-017-5345-8>
- Nikmah, A., Taufiq, A., & Hidayat, A. (2019). Synthesis and Characterization of Fe<sub>3</sub>O<sub>4</sub>/SiO<sub>2</sub> Nanocomposites. *IOP Conference Series: Earth and Environmental Science*, 276(1). <https://doi.org/10.1088/1755-1315/276/1/012046>
- Nikmanesh, H., Hoghoghifard, S., & Hadi-Sichani, B. (2019). Study of the Structural, Magnetic, and Microwave Absorption Properties of the Simultaneous Substitution of Several Cations in the Barium Hexaferrite Structure. *Journal of Alloys and Compounds*, 775, 1101–1108.  
<https://doi.org/10.1016/j.jallcom.2018.10.051>
- Prasongko, W. G., & Priyono, P. (2014). Pembuatan Material Magnetik Komposit BaFe<sub>9</sub>Mn<sub>0</sub>, 75Co<sub>0</sub>, 75Ti<sub>1</sub>, 5O<sub>19</sub>/Elastomer untuk Aplikasi Penyerap Gelombang Elektromagnetik. *Youngster Physics Journal*, 3(1), 71–76.

- Pullar, R. C. (2012). Hexagonal Ferrites: A Review of the Synthesis, Properties and Applications of Hexaferrite Ceramics. Dalam *Progress in Materials Science* (Vol. 57, Nomor 7, hlm. 1191–1334).  
<https://doi.org/10.1016/j.pmatsci.2012.04.001>
- Russell, C. L. (2018). 5 G wireless telecommunications expansion: Public health and environmental implications. *Environmental Research*, 165, 484–495.  
<https://doi.org/10.1016/j.envres.2018.01.016>
- Salem, M. M., Darwish, K. A., Hemed, O. M., Abdel Ati, M. I., Abd El-Hameed, A. S., Zhou, D., & Darwish, M. A. (2023). Exploring the Promising Frontiers of Barium Hexaferrite and Barium Titanate Composites for Electromagnetic Shielding Applications. *Applied Physics A: Materials Science and Processing*, 129(9). <https://doi.org/10.1007/s00339-023-06916-3>
- Sandoval, S. S., & Silva, N. (2023). Review on Generation and Characterization of Copper Particles and Copper Composites Prepared by Mechanical Milling on a Lab-Scale. Dalam *International Journal of Molecular Sciences* (Vol. 24, Nomor 9). Multidisciplinary Digital Publishing Institute (MDPI).  
<https://doi.org/10.3390/ijms24097933>
- Sari, N., & Andi Fadlly, T. (2021). Pengaruh Waktu Milling Terhadap Sifat Desorpsi Material Penyimpan Hidrogen MgH<sub>2</sub>-Ni Melalui Teknik Mechanical Alloying. *Serambi Engineering*, VI(3).
- Sembiring, T., & Susantika Perangin-angin, E. (2023). Fabrication and Characterization of SiO<sub>2</sub>-Fe<sub>3</sub>O<sub>4</sub> Using Co-Precipitation Method. *Journal of Technomaterial Physics Journal homepage*, 05(01), 1–007.  
<https://doi.org/10.32734/jotp.v5i1.9887>
- Shinde, V. S., & Dahotre, S. G. (2021). Comparative Study of Structural and Magnetic Properties of Ni and La Substituted Calcium Hexaferrite. *Ceramica*, 67(383), 301–307. <https://doi.org/10.1590/0366-69132021673833111>
- Shoaib, N. (2016). *Vector Network Analyzer (VNA) Measurements and Uncertainty Assessment*. PoliTO Springer Series. <https://doi.org/10.1007/978-3-319-44772-8>

- Tong, X. C. (2016). *Advanced materials and design for electromagnetic interference shielding*. CRC Press. <http://www.crcpress.com>
- Vaz, M. G. F., & Andruh, M. (2021). Molecule-Based Magnetic Materials Constructed from Paramagnetic Organic Ligands and Two Different Metal Ions. Dalam *Coordination Chemistry Reviews* (Vol. 427). Elsevier B.V. <https://doi.org/10.1016/j.ccr.2020.213611>
- Wanasinghe, D., & Aslani, F. (2019). A Review on Recent Advancement of Electromagnetic Interference Shielding Novel Metallic Materials and Processes. Dalam *Composites Part B: Engineering* (Vol. 176). Elsevier Ltd. <https://doi.org/10.1016/j.compositesb.2019.107207>
- Wang, X. X., Cao, W. Q., Cao, M. S., & Yuan, J. (2020). Assembling Nano-Microarchitecture for Electromagnetic Absorbers and Smart Devices. Dalam *Advanced Materials* (Vol. 32, Nomor 36). Wiley-VCH Verlag. <https://doi.org/10.1002/adma.202002112>
- William, W., Simbolon, T. R., Ginting, H., Sardjono, P., & Muljadi, M. (2016). PENGARUH WAKTU DRY MILLING TERHADAP KARAKTERISTIK DAN SIFAT MAGNET PERMANEN ND-FE-B. *Spektra: Jurnal Fisika dan Aplikasinya*, 1(1), 17–22. <https://doi.org/10.21009/SPEKTRA.011.03>
- Yao, G., Duan, M. C., Liu, N., Wu, Y., Guan, D. D., Wang, S., Zheng, H., Li, Y. Y., Liu, C., & Jia, J. F. (2019). Diamagnetic Response of Potassium-Adsorbed Multilayer FeSe Film. *Physical Review Letters*, 123(25). <https://doi.org/10.1103/PhysRevLett.123.257001>
- Yusmaniar, Erdawati, Sosiati, H., Budi, S., Alaydrus, M., & Handoko, E. (2021). Microwave Absorbing Characteristics of Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> Core-Shell Polyaniline-Based Composites. *Materials Research Express*, 8(4). <https://doi.org/10.1088/2053-1591/abf52a>
- Zeng, X., Cheng, X., Yu, R., & Stucky, G. D. (2020). Electromagnetic Microwave Absorption Theory and Recent Achievements in Microwave Absorbers. Dalam *Journal Pre-proof* (Vol. 168, hlm. 606–623). Elsevier Ltd. <https://doi.org/10.1016/j.carbon.2020.07.028>

Zhu, J., Wei, S., Chen, M., Gu, H., Rapole, S. B., Pallavkar, S., Ho, T. C., Hopper, J., & Guo, Z. (2013). Magnetic Nanocomposites for Environmental Remediation. *Advanced Powder Technology*, 24(2), 459–467. <https://doi.org/10.1016/j.apt.2012.10.012>

