

DAFTAR PUSTAKA

- Abid, N., Khan, A. M., Shujait, S., Chaudhary, K., Ikram, M., Imran, M., Haider, J., Khan, M., Khan, Q., & Maqbool, M. (2022). Synthesis of nanomaterials using various top-down and bottom-up approaches, influencing factors, advantages, and disadvantages: A review. In *Advances in Colloid and Interface Science* (Vol. 300). Elsevier B.V. <https://doi.org/10.1016/j.cis.2021.102597>
- Admi, R. I. (2019). *Analisis Sifat Absorpsi Gelombang Mikro Material Keramik Berbasis $\text{La}_{0.7}(\text{Ca}_{1-x}\text{Sr}_x)_{0.3}\text{MnO}_3$ ($x=0;0.1;0.2;\text{dan } 0.3$)*.
- Al Rai, A., & Yanilmaz, M. (2021). High-performance nanostructured bio-based carbon electrodes for energy storage applications. *Cellulose*, 28(9), 5169–5218. <https://doi.org/10.1007/s10570-021-03881-z>
- Ali, J., Bibi, S., Jatoi, W. B., Tuzen, M., Jakhrani, M. A., Feng, X., & Saleh, T. A. (2023). Green synthesized zinc oxide nanostructures and their applications in dye-sensitized solar cells and photocatalysis: A review. *Materials Today Communications*, 36, 106840. <https://doi.org/10.1016/j.mtcomm.2023.106840>
- Al-Taweel, S., Saud, H., Al-Taweel, S. S., & Saud, H. R. (2016). New route for synthesis of pure anatase TiO_2 nanoparticles via ultrasound-assisted sol-gel method New route for synthesis of pure anatase TiO_2 nanoparticles via ultrasound-assisted sol-gel method. *Available Online Wwww.Jocpr.Com Journal of Chemical and Pharmaceutical Research*, 8(2), 620–626. www.jocpr.com
- Amalraj, A., & Pius, A. (2014). Photocatalytic Degradation of Alizarin Red S and Bismarck Brown R Using TiO_2 Photocatalyst. *Journal of Chemistry & Applied Biochemistry*, 1.
- Arasi, S. E., Raj, M. V. A., & Madhavan, J. (2018). Impact of dysprosium (Dy^{3+}) doping on size, optical and dielectric properties of titanium dioxide nanoparticles grown by low temperature hydrothermal method. *Journal of Materials Science: Materials in Electronics*, 29(4), 3170–3177. <https://doi.org/10.1007/s10854-017-8250-2>
- Baig, N., Kammakakam, I., Falath, W., & Kammakakam, I. (2021). Nanomaterials: A review of synthesis methods, properties, recent progress, and challenges. In *Materials Advances* (Vol. 2, Issue 6, pp. 1821–1871). Royal Society of Chemistry. <https://doi.org/10.1039/d0ma00807a>
- Baranwal, N., & Mahulikar, S. P. (2019). Review of Infrared signature suppression systems using optical blocking method. *Defence Technology*, 15(3), 432–439. <https://doi.org/10.1016/j.dt.2018.12.002>

- Basak, T., Samanta, S. K., & Jindamwar, A. (2008). A novel concept on discrete samples for efficient microwave processing of materials. *Chemical Engineering Science*, 63(12), 3292–3308. <https://doi.org/10.1016/j.ces.2008.03.037>
- Baseghi, S., Garmabi, H., Gavgani, J. N., & Adelnia, H. (2015). Lightweight high-density polyethylene/carbonaceous nanosheets microcellular foams with improved electrical conductivity and mechanical properties. *Journal of Materials Science*, 50(14), 4994–5004. <https://doi.org/10.1007/s10853-015-9048-3>
- Basbir, S., Awan, M. S., Farrukh, M. A., Naidu, R., Khan, S. A., Rafique, N., Ali, S., Hayat, I., Hussain, I., & Khan, M. Z. (2022). In-vivo (Albino Mice) and in-vitro Assimilation and Toxicity of Zinc Oxide Nanoparticles in Food Materials. *International Journal of Nanomedicine*, 17, 4073–4085. <https://doi.org/10.2147/IJN.S372343>
- Basiron, N., Sreekantan, S., Saharudin, K. A., Ahmad, Z. A., & Kumaravel, V. (2018). Improved adhesion of nonfluorinated ZnO nanotriangle superhydrophobic layer on glass surface by spray-coating method. *Journal of Nanomaterials*, 2018. <https://doi.org/10.1155/2018/7824827>
- Belaabed, B., Wojkiewicz, J. L., Lamouri, S., El Kamchi, N., & Lasri, T. (2012). Synthesis and characterization of hybrid conducting composites based on polyaniline/magnetite fillers with improved microwave absorption properties. *Journal of Alloys and Compounds*, 527, 137–144. <https://doi.org/10.1016/j.jallcom.2012.02.179>
- Bhattacharya, S., & Acharya, A. (2020). Experimental tools for characterizations of glass nanocomposites containing metal oxides. In *Metal Oxide Glass Nanocomposites* (pp. 51–75). Elsevier. <https://doi.org/10.1016/B978-0-12-817458-6.00004-4>
- Broadbent, B., Tseng, J., Kast, R., Noh, T., Brusatori, M., Kalkanis, S. N., & Auner, G. W. (2016). Shining light on neurosurgery diagnostics using Raman spectroscopy. *Journal of Neuro-Oncology*, 130(1), 1–9. <https://doi.org/10.1007/s11060-016-2223-9>
- Bruder, J. A. (2013). IEEE Radar standards and the radar systems panel. *IEEE Aerospace and Electronic Systems Magazine*, 28(7), 19–22. <https://doi.org/10.1109/MAES.2013.6559377>
- Chang, S. H. (2014). An overview of empty fruit bunch from oil palm as feedstock for bio-oil production. In *Biomass and Bioenergy* (Vol. 62, pp. 174–181). <https://doi.org/10.1016/j.biombioe.2014.01.002>
- Cheng, J. B., Shi, H. G., Cao, M., Wang, T., Zhao, H. B., & Wang, Y. Z. (2020). Porous carbon materials for microwave absorption. *Materials Advances*, 1(8), 2631–2645. <https://doi.org/10.1039/d0ma00662a>

- Childres, I., Jauregui, L. A., Park, W., Cao, H., & Chen, Y. P. (2013). *Raman Spectroscopy of Graphene and Related Materials*.
- Chitraningrum, N., Marlina, R., Arundina, R. Y., Rimma, E., Togatorop, S., Sulistyaningsih, E. R., Arisesa, H., Budiman, I., Daud, P., & Hamzah, M. (2022). *Microwave absorption properties of porous activated carbon-based palm oil empty fruit bunch*. <https://doi.org/10.1063/5.0128960>
- Chougale, A. S., Wagh, S. S., Shelke, H. D., Shaikh, S. F., Bulakhe, R. D., Kim, J. M., Patole, S. P., & Shinde, D. R. (2024). Photocatalytic and antioxidant activity of ZnO/Cu/Ag/CNT nanocomposite. *Journal of Materials Science: Materials in Electronics*, 35(14). <https://doi.org/10.1007/s10854-024-12620-6>
- Clarke, J. (1935). Airborne Early Warning Radar. *Proceeding of The IEEE*, 73 (2). <https://doi.org/10.1109/PROC.1985.13142>
- Clarke, J., & King, J. (1982). *A British AEW Radar System*. Conf. Proc. RADAR 82.
- Deng, J., Li, M., & Wang, Y. (2016). Biomass-derived carbon: synthesis and applications in energy storage and conversion. *Green Chemistry*, 18(18), 4824–4854. <https://doi.org/10.1039/C6GC01172A>
- Destyorini, F., Amalia, W. C., Irmawati, Y., Hardiansyah, A., Priyono, S., Aulia, F., Oktaviano, H. S., Hsu, Y.-I., Yudianti, R., & Uyama, H. (2022). High Graphitic Carbon Derived from Coconut Coir Waste by Promoting Potassium Hydroxide in the Catalytic Graphitization Process for Lithium-Ion Battery Anodes. *Energy & Fuels*, 36(10), 5444–5455. <https://doi.org/10.1021/acs.energyfuels.2c00632>
- Dias, J. de C., Martin, I. M., & Rezende, M. C. (2012). Reflectivity of hybrid microwave absorbers based on NiZn ferrite and carbon black. *Journal of Aerospace Technology and Management*, 4(3), 267–274. <https://doi.org/10.5028/jatm.2012.04032512>
- Dubey, P., Shrivastav, V., Maheshwari, P. H., & Sundriyal, S. (2020). Recent advances in biomass derived activated carbon electrodes for hybrid electrochemical capacitor applications: Challenges and opportunities. *Carbon*, 170, 1–29. <https://doi.org/10.1016/j.carbon.2020.07.056>
- Ferrari, A. C., & Robertson, J. (2000). *Interpretation of Raman spectra of disordered and amorphous carbon*. 61(20), 95–107.
- Ganjoo, R., Sharma, S., Kumar, A., & Daouda, M. M. A. (2023). Activated Carbon: Fundamentals, Classification, and Properties. In *Activated Carbon* (pp. 1–22). The Royal Society of Chemistry. <https://doi.org/10.1039/BK9781839169861-00001>
- Giechaskiel, B., & Clairotte, M. (2021). Fourier Transform Infrared (FTIR) Spectroscopy for Measurements of Vehicle Exhaust Emissions: A

- Review. *Applied Sciences*, 11(16), 7416.
<https://doi.org/10.3390/app11167416>
- Gohardani, O., Elola, M. C., & Elizetxea, C. (2014). Potential and prospective implementation of carbon nanotubes on next generation aircraft and space vehicles: A review of current and expected applications in aerospace sciences. *Progress in Aerospace Sciences*, 70, 42–68. <https://doi.org/10.1016/j.paerosci.2014.05.002>
- Hardiansyah, A., Chaldun, E. R., Nuryadin, B. W., Fikriyyah, A. K., Subhan, A., Ghozali, M., & Purwasasmita, B. S. (2018). Preparation and Characterization of Biomass-Derived Advanced Carbon Materials for Lithium-Ion Battery Applications. *Journal of Electronic Materials*, 47(7), 4028–4037. <https://doi.org/10.1007/s11664-018-6289-3>
- Harrington, G. F., & Santiso, J. (2021). Back-to-Basics tutorial: X-ray diffraction of thin films. *Journal of Electroceramics*, 47(4), 141–163. <https://doi.org/10.1007/s10832-021-00263-6>
- Heng, Z. W., Chong, W. C., Pang, Y. L., & Sim, L. C. (2020). Photocatalytic degradation of methylene blue under visible light using carbon dot/titanium dioxide nanohybrid. *IOP Conference Series: Materials Science and Engineering*, 991(1). <https://doi.org/10.1088/1757-899X/991/1/012092>
- Herrero, Y. R., Camas, K. L., & Ullah, A. (2023). Characterization of biobased materials. In *Advanced Applications of Biobased Materials* (pp. 111–143). Elsevier. <https://doi.org/10.1016/B978-0-323-91677-6.00005-2>
- Jalal, R., Goharshadi, E. K., Abareshi, M., Moosavi, M., Yousefi, A., & Nancarrow, P. (2010). ZnO nanofluids: Green synthesis, characterization, and antibacterial activity. *Materials Chemistry and Physics*, 121(1–2), 198–201. <https://doi.org/10.1016/j.matchemphys.2010.01.020>
- Jaleh, B., & Fakhri, P. (2016). Infrared and Fourier transform infrared spectroscopy for nanofillers and their nanocomposites. In *Spectroscopy of Polymer Nanocomposites* (pp. 112–129). Elsevier. <https://doi.org/10.1016/B978-0-323-40183-8.00005-7>
- Jaya, R. P. (2020). Porous concrete pavement containing nanosilica from black rice husk ash. In *New Materials in Civil Engineering* (pp. 493–527). Elsevier. <https://doi.org/10.1016/B978-0-12-818961-0.00014-4>
- Jenn, D. (2005). *Radar and Laser Cross Section Engineering, Second Edition*. American Institute of Aeronautics and Astronautics, Inc. <https://doi.org/10.2514/4.477027>
- Jia, Z., Lan, D., Lin, K., Qin, M., Kou, K., Wu, G., & Wu, H. (2018). Progress in low-frequency microwave absorbing materials. In *Journal of*

- Materials Science: Materials in Electronics* (Vol. 29, Issue 20, pp. 17122–17136). Springer New York LLC.
<https://doi.org/10.1007/s10854-018-9909-z>
- Jiang, L., Sheng, L., & Fan, Z. (2018). Biomass-derived carbon materials with structural diversities and their applications in energy storage. *Science China Materials*, 61(2), 133–158.
<https://doi.org/10.1007/s40843-017-9169-4>
- Kalita, D., Konwar, P., Sahu, D., Baruah, S., & Barua, S. (2023). Fluoropolymer nanocomposites: introduction, fundamental properties, and high-performance applications. In *Advanced Fluoropolymer Nanocomposites* (pp. 79–120). Elsevier. <https://doi.org/10.1016/B978-0-323-95335-1.00023-2>
- Khan, I., Saeed, K., & Khan, I. (2019). Nanoparticles: Properties, applications and toxicities. In *Arabian Journal of Chemistry* (Vol. 12, Issue 7, pp. 908–931). Elsevier B.V.
<https://doi.org/10.1016/j.arabjc.2017.05.011>
- Kholil, M. A., Priyono, P., & Subagio, A. (2022). Multiwalled carbon nanotubes and zinc oxide using a high energy milling method for radar-absorbent. *Materials Research Express*, 9(2).
<https://doi.org/10.1088/2053-1591/ac4e3a>
- Kim, C. H., Kim, B.-H., & Yang, K. S. (2015). TiO₂ nanoparticles loaded on graphene/carbon composite nanofibers by electrospinning for increased photocatalysis. *2015 2nd International Symposium on Physics and Technology of Sensors (ISPTS)*, II–III.
<https://doi.org/10.1109/ISPTS.2015.7220142>
- Kolanowska, A., Janas, D., Herman, A. P., Jędrysiak, R. G., Gizewski, T., & Boncel, S. (2018). From blackness to invisibility – Carbon nanotubes role in the attenuation of and shielding from radio waves for stealth technology. *Carbon*, 126, 31–52.
<https://doi.org/10.1016/j.carbon.2017.09.078>
- Kumar, R., Sahoo, S., Joanni, E., Singh, R. K., Tan, W. K., Kar, K. K., & Matsuda, A. (2021). Recent progress on carbon-based composite materials for microwave electromagnetic interference shielding. *Carbon*, 177, 304–331. <https://doi.org/10.1016/j.carbon.2021.02.091>
- Li, S., Han, K., Li, J., Li, M., & Lu, C. (2017). Preparation and characterization of super activated carbon produced from gulfweed by KOH activation. *Microporous and Mesoporous Materials*, 243, 291–300. <https://doi.org/10.1016/j.micromeso.2017.02.052>
- Li, Y., Tan, Z., Liu, Y., Lei, C., He, P., Li, J., He, Z., Cheng, Y., Wu, F., & Li, Y. (2024). Past, present and future of high-nickel materials. In *Nano*

- Energy* (Vol. 119). Elsevier Ltd.
<https://doi.org/10.1016/j.nanoen.2023.109070>
- Liu, L., Han, D., Shi, L., Luo, Z., Shi, R., Gao, J., Shi, Y., Cao, X., & Chen, Z. (2022). Fabrication and microwave absorbing property of WO₃@WC with a core-shell porous structure. *Ceramics International*, 48(18), 26575–26584. <https://doi.org/10.1016/j.ceramint.2022.05.353>
- Mahalakshmi, S., Hema, N., & Vijaya, P. P. (2020). In Vitro Biocompatibility and Antimicrobial activities of Zinc Oxide Nanoparticles (ZnO NPs) Prepared by Chemical and Green Synthetic Route— A Comparative Study. *BioNanoScience*, 10(1), 112–121.
<https://doi.org/10.1007/s12668-019-00698-w>
- Malakar, A., & Snow, D. D. (2020). Nanoparticles as sources of inorganic water pollutants. In *Inorganic Pollutants in Water* (pp. 337–370). Elsevier. <https://doi.org/10.1016/B978-0-12-818965-8.00017-2>
- Marki microwave. (2016). *Return Loss to VSWR Conversion Table*. 100, 95037. [https://www.markimicrowave.com/Assets/data/return loss to vswr.pdf](https://www.markimicrowave.com/Assets/data/return%20loss%20to%20vswr.pdf)
- Meng, F., Wang, H., Huang, F., Guo, Y., Wang, Z., Hui, D., & Zhou, Z. (2018). Graphene-based microwave absorbing composites: A review and prospective. *Composites Part B: Engineering*, 137, 260–277.
<https://doi.org/10.1016/j.compositesb.2017.11.023>
- Miguel Martín-Martínez, J. (2002). Rubber base adhesives. In *Adhesion Science and Engineering* (pp. 573–675). Elsevier.
<https://doi.org/10.1016/B978-044451140-9/50013-5>
- Min, Z., Yang, H., Chen, F., & Kuang, T. (2018). Scale-up production of lightweight high-strength polystyrene/carbonaceous filler composite foams with high-performance electromagnetic interference shielding. *Materials Letters*, 230, 157–160.
<https://doi.org/10.1016/j.matlet.2018.07.094>
- Mistar, E. M., Alfatah, T., & Supardan, M. D. (2020). Synthesis and characterization of activated carbon from *Bambusa vulgaris striata* using two-step KOH activation. *Journal of Materials Research and Technology*, 9(3), 6278–6286.
<https://doi.org/10.1016/j.jmrt.2020.03.041>
- Moreau, L. M., Ha, D. H., Zhang, H., Hovden, R., Muller, D. A., & Robinson, R. D. (2013). Defining crystalline/amorphous phases of nanoparticles through X-ray absorption spectroscopy and X-ray diffraction: The case of nickel phosphide. *Chemistry of Materials*, 25(12), 2394–2403.
<https://doi.org/10.1021/cm303490y>
- Muhammad, W., Ullah, N., Haroon, M., & Abbasi, B. H. (2019). Optical, morphological and biological analysis of zinc oxide nanoparticles (ZnO

- NPs) using: *Papaver somniferum* L. *RSC Advances*, 9(51), 29541–29548. <https://doi.org/10.1039/c9ra04424h>
- Musa, A., Ibrahim Zakari, M., Lawal Mashi, A., & Saleh, T. A. (2023). Preparation of nanocomposite of zinc oxide with nanocrystalline cellulose from Luffa sponge for removal of metronidazole from aqueous solutions. *Environmental Nanotechnology, Monitoring & Management*, 20, 100840. <https://doi.org/10.1016/j.enmm.2023.100840>
- Negi, P., & Kumar, A. (2022). Biomass - Derived Activated Carbon / Epoxy Composite as Microwave Absorbing Material. *Journal of Electronic Materials*, 51(6), 2918–2925. <https://doi.org/10.1007/s11664-022-09558-y>
- Nirmala, M. J., Dhas, S. P., Saikrishna, N., Raj, U. S., Sai, P. S., & Nagarajan, R. (2022). Green nanoemulsions: Components, formulation, techniques of characterization, and applications. In *Bio-Based Nanoemulsions for Agri-Food Applications* (pp. 47–69). Elsevier. <https://doi.org/10.1016/B978-0-323-89846-1.00013-9>
- Nithya, T., Kavitha, P., Karthik, P., Anpo, M., & Neppolian, B. (2019). The Microwave-Assisted Synthesis of Silica-Based Materials and Their Photocatalysis. In *Chemistry of Silica and Zeolite-Based Materials: Synthesis, Characterization and Applications* (pp. 73–88). Elsevier. <https://doi.org/10.1016/B978-0-12-817813-3.00004-3>
- Novia Yanti, R., & Hutasuht, I. L. (2020). POTENSI LIMBAH PADAT PERKEBUNAN KELAPA SAWIT DI PROVINSI RIAU. *Wahana Forestra: Jurnal Kehutanan*, 15(2), 1–11. <https://doi.org/10.31849/forestra.v15i2.4696>
- Omanović-Miklićanin, E., Badnjević, A., Kazlagić, A., & Hajlovac, M. (2020). Nanocomposites: a brief review. *Health and Technology*, 10(1), 51–59. <https://doi.org/10.1007/s12553-019-00380-x>
- Oriakhi, C. O. (1998). *Nano Sandwiches*. *Chemical Briefing*, 34:59-62.
- Osman, N. B., Shamsuddin, N., & Uemura, Y. (2016). Activated Carbon of Oil Palm Empty Fruit Bunch (EFB); Core and Shaggy. *Procedia Engineering*, 148, 758–764. <https://doi.org/10.1016/j.proeng.2016.06.610>
- Pandey, D. K., Kagdada, H. L., Sanchora, P., & Singh, D. K. (2021). Overview of Raman Spectroscopy: Fundamental to Applications (pp. 145–184). https://doi.org/10.1007/978-981-33-6084-6_6
- Pari, G., Darmawan, S., & Prihandoko, B. (2014). Porous Carbon Spheres from Hydrothermal Carbonization and KOH Activation on Cassava and Tapioca Flour Raw Material. *Procedia Environmental Sciences*, 20, 342–351. <https://doi.org/10.1016/j.proenv.2014.03.043>

- Parvathiraja, C., Katheria, S., Siddiqui, M. R., Wabaidur, S. M., Islam, M. A., & Lai, W. C. (2022). Activated Carbon-Loaded Titanium Dioxide Nanoparticles and Their Photocatalytic and Antibacterial Investigations. *Catalysts*, 12(8). <https://doi.org/10.3390/catal12080834>
- Patel, J. P., & Parsania, P. H. (2017). Characterization, testing, and reinforcing materials of biodegradable composites. In *Biodegradable and Biocompatible Polymer Composites: Processing, Properties and Applications* (pp. 55–79). Elsevier. <https://doi.org/10.1016/B978-0-08-100970-3.00003-1>
- Patel, J. P., & Parsania, P. H. (2018). Characterization, testing, and reinforcing materials of biodegradable composites. In *Biodegradable and Biocompatible Polymer Composites* (pp. 55–79). Elsevier. <https://doi.org/10.1016/B978-0-08-100970-3.00003-1>
- Petrović, E. K. (2017). An overview of health hazards from materials: Application of principles. In *Materials for a Healthy, Ecological and Sustainable Built Environment: Principles for Evaluation* (pp. 203–236). Elsevier Inc. <https://doi.org/10.1016/B978-0-08-100707-5.00009-5>
- Praveen, P., Viruthagiri, G., Mugundan, S., & Shanmugam, N. (2014). Structural, optical and morphological analyses of pristine titanium dioxide nanoparticles - Synthesized via sol-gel route. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, 117, 622–629. <https://doi.org/10.1016/j.saa.2013.09.037>
- Quan, B., Liang, X., Ji, G., Cheng, Y., Liu, W., Ma, J., Zhang, Y., Li, D., & Xu, G. (2017). Dielectric polarization in electromagnetic wave absorption: Review and perspective. In *Journal of Alloys and Compounds* (Vol. 728, pp. 1065–1075). Elsevier Ltd. <https://doi.org/10.1016/j.jallcom.2017.09.082>
- Rahman, H. (2019). *Fundamental Principles of Radar*. CRC Press. <https://doi.org/10.1201/9780429279478>
- Ramesh, M., Maniraj, J., & Rajeshkumar, L. (2023). Thermomechanical characterization of cellulose fiber composites. In *Cellulose Fibre Reinforced Composites* (pp. 183–201). Elsevier. <https://doi.org/10.1016/B978-0-323-90125-3.00014-8>
- Rodriguez-Reinoso, F., & Silvestre-Albero, J. (2016). Activated Carbon and Adsorption. In *Reference Module in Materials Science and Materials Engineering*. Elsevier. <https://doi.org/10.1016/B978-0-12-803581-8.02289-X>
- Rohini, R., & Bose, S. (2017). Electromagnetic wave suppressors derived from crosslinked polymer composites containing functional particles: Potential and key challenges. *Nano-Structures & Nano-Objects*, 12, 130–146. <https://doi.org/10.1016/j.nanoso.2017.09.016>

- Rosli, N. S., Harun, S., Jahim, J. M., & Othaman, R. (2017). Pencirian kimia dan fizikal bagi tandan kosong buah kelapa sawit. *Malaysian Journal of Analytical Sciences*, 21(1), 188–196. <https://doi.org/10.17576/mjas-2017-2101-22>
- Rouhi, M., Hajizadeh, Z., Taheri-Ledari, R., Maleki, A., & Babamoradi, M. (2022). A review of mechanistic principles of microwave absorption by pure and composite nanomaterials. In *Materials Science and Engineering: B* (Vol. 286). Elsevier Ltd. <https://doi.org/10.1016/j.mseb.2022.116021>
- Ruiz-Perez, F., López-Estrada, S. M., Tolentino-Hernández, R. V., & Caballero-Briones, F. (2022). Carbon-based radar absorbing materials: A critical review. *Journal of Science: Advanced Materials and Devices*, 7(3). <https://doi.org/10.1016/j.jsamd.2022.100454>
- Sahoo, P., Saini, L., & Dixit, A. (2023). Microwave-absorbing materials for stealth application: a holistic overview. In *Oxford Open Materials Science* (Vol. 3, Issue 1). Oxford University Press. <https://doi.org/10.1093/oxfmat/itac012>
- Santhoshkumar, J., Kumar, S. V., & Rajeshkumar, S. (2017). Synthesis of zinc oxide nanoparticles using plant leaf extract against urinary tract infection pathogen. *Resource-Efficient Technologies*, 3(4), 459–465. <https://doi.org/10.1016/j.refit.2017.05.001>
- Sari, N. A., Ishak, C. F., & Bakar, R. A. (2014). Characterization of oil palm empty fruit bunch and rice husk biochars and their potential to adsorb arsenic and cadmium. *American Journal of Agricultural and Biological Science*, 9(3), 450–456. <https://doi.org/10.3844/ajabssp.2014.450.456>
- Scherrer P. (1918). Bestimmung der Größe und der inneren Struktur von Kolloidteilchen mittels Röntgenstrahlen. *Nachrichten von Der Gesellschaft Der Wissenschaften, Göttingen*, 98–100.
- Senthil Prabhu, R., Priyanka, R., Vijay, M., & Kaviya Vikashini, G. R. (2021). Field Emission Scanning Electron Microscopy (Fesem) with A Very Big Future in Pharmaceutical Research. *Research Article | Pharmaceutical Sciences | OA Journal | MCI Approved | Index Copernicus*, 11(2), 2321–3272. <https://doi.org/10.21276/ijpbs.2021.11.2.21>
- Setua, D. K., Mordina, B., Srivastava, A. K., Roy, D., & Eswara Prasad, N. (2020). Carbon nanofibers-reinforced polymer nanocomposites as efficient microwave absorber. In *Fiber-Reinforced Nanocomposites: Fundamentals and Applications* (pp. 395–430). Elsevier. <https://doi.org/10.1016/B978-0-12-819904-6.00018-9>
- Shaban, Y., & Alharbi, N. A. (2022). Sunlight-mediated photocatalytic removal of phenanthrene from wastewater using carbon-doped zinc oxide (C-ZnO) nanoparticles. *Environmental Science and Pollution*

- Research*, 29(31), 47818–47831. <https://doi.org/10.1007/s11356-022-19214-x>
- Shoaib, N. (2017). *Vector Network Analyzer (VNA) Measurements and Uncertainty Assessment*. Springer International Publishing. <https://doi.org/10.1007/978-3-319-44772-8>
- Singh, N. B., & Agarwal, S. (2015). Nanocomposites: An overview. *Emerging Materials Research*, 5(1), 5–43. <https://doi.org/10.1680/jemmr.15.00025>
- Skolnik, M. (2002). Role of radar in microwaves. *IEEE Transactions on Microwave Theory and Techniques*, 50(3), 625–632. <https://doi.org/10.1109/22.989947>
- Suresh, S. (2013). Semiconductor Nanomaterials, Methods and Applications: A Review. *Nanoscience and Nanotechnology*, 3(3), 62–74. <https://doi.org/10.5923/j.nn.20130303.06>
- TANG, S.-Y., XIA, Z.-N., FU, Y.-J., & GOU, Q. (2008). Advances and Applications of Microwave Spectroscopy. *Chinese Journal of Analytical Chemistry*, 36(8), 1145–1151. [https://doi.org/10.1016/S1872-2040\(08\)60061-4](https://doi.org/10.1016/S1872-2040(08)60061-4)
- Tranter, G. E. (2017). Protein Structure Analysis by CD, FTIR, and Raman Spectroscopies. In *Encyclopedia of Spectroscopy and Spectrometry* (pp. 740–758). Elsevier. <https://doi.org/10.1016/B978-0-12-409547-2.12099-2>
- Uthirakumar, A. P. (2011). Fabrication of ZnO Based Dye Sensitized Solar Cells. In *Solar Cells - Dye-Sensitized Devices*. InTech. <https://doi.org/10.5772/19459>
- Wang, C., Murugadoss, V., Kong, J., He, Z., Mai, X., Shao, Q., Chen, Y., Guo, L., Liu, C., Angaiah, S., & Guo, Z. (2018). Overview of carbon nanostructures and nanocomposites for electromagnetic wave shielding. In *Carbon* (Vol. 140, pp. 696–733). Elsevier Ltd. <https://doi.org/10.1016/j.carbon.2018.09.006>
- Wang, D. C., Lei, Y., Jiao, W., Liu, Y. F., Mu, C. H., & Jian, X. (2021). A review of helical carbon materials structure, synthesis and applications. In *Rare Metals* (Vol. 40, Issue 1, pp. 3–19). University of Science and Technology Beijing. <https://doi.org/10.1007/s12598-020-01622-y>
- Wang, J., & Kaskel, S. (2012). KOH activation of carbon-based materials for energy storage. *Journal of Materials Chemistry*, 22(45), 23710. <https://doi.org/10.1039/c2jm34066f>
- Wang, J., Nie, P., Ding, B., Dong, S., Hao, X., Dou, H., & Zhang, X. (2017). Biomass derived carbon for energy storage devices. *Journal of Materials Chemistry A*, 5(6), 2411–2428. <https://doi.org/10.1039/C6TA08742F>

- Wang, X., Zhao, C., Li, C., Liu, Y., Sun, S., Yu, Q., Yu, B., Cai, M., & Zhou, F. (2024). Progress in MXene-based materials for microwave absorption. *Journal of Materials Science & Technology*, 180, 207–225. <https://doi.org/10.1016/j.jmst.2023.08.064>
- Yohandri, Rianto, D., & Putra, A. (2017). Study of single layer radar absorber material (RAM) based on coconut shell activated carbon. *Progress in Electromagnetics Research Symposium, 2017-Novem*, 1536–1539. <https://doi.org/10.1109/PIERS-FALL.2017.8293376>
- Yuen, F. K., & Hameed, B. H. (2009). Recent developments in the preparation and regeneration of activated carbons by microwaves. In *Advances in Colloid and Interface Science* (Vol. 149, Issues 1–2, pp. 19–27). <https://doi.org/10.1016/j.cis.2008.12.005>
- Yulianti, R. T., Destyorini, F., Irmawati, Y., Priyono, S., Fauzi, M. H., Umar, A. A., Uyama, H., Fauzia, V., & Yudianti, R. (2023). High capacitance performance of hierarchically SiO₂ self-doped porous activated carbon derived from palm empty fruit bunches. *Journal of Energy Storage*, 71. <https://doi.org/10.1016/j.est.2023.108153>
- Zaidi, A., Athley, F., Medbo, J., Gustavsson, U., Durisi, G., & Chen, X. (2018). Propagation & Channel Modeling. In *5G Physical Layer* (pp. 35–85). Elsevier. <https://doi.org/10.1016/B978-0-12-814578-4.00008-4>
- Zhang, H., Krooswyk, S., & Ou, J. (2015). Measurement and data acquisition techniques. In *High Speed Digital Design* (pp. 199–219). Elsevier. <https://doi.org/10.1016/B978-0-12-418663-7.00005-8>
- Zhang, H., & Long, J. (2021). Photoelectrochemical reduction of carbon dioxide. In *Nanomaterials for CO₂ Capture, Storage, Conversion and Utilization* (pp. 197–210). Elsevier. <https://doi.org/10.1016/B978-0-12-822894-4.00008-3>
- Zhang, H., Zhao, Y., Yang, X., Zhao, G., Zhang, D., Huang, H., Yang, S., Wen, N., Javid, M., Fan, Z., & Pan, L. (2020). A facile synthesis of novel amorphous tio₂nanorods decorated rgo hybrid composites with wide band microwave absorption. *Nanomaterials*, 10(11), 1–17. <https://doi.org/10.3390/nano10112141>
- Zhang, W., Zheng, Y., Zhang, X., Zhu, Q., Tian, L., Wu, H., Yan, H., & Qi, S. (2019). Structure-microwave absorption performance correlations of GNPs/ZnO nanocomposite absorber: Synthesis, characteration and mechanism investigation. *Ceramics International*, 45(10), 13376–13384. <https://doi.org/10.1016/j.ceramint.2019.04.033>
- Zheng, H., Zhang, W., Li, B., Zhu, J., Wang, C., Song, G., Wu, G., Yang, X., Huang, Y., & Ma, L. (2022). Recent advances of interphases in carbon fiber-reinforced polymer composites: A review. In *Composites Part B*:

Engineering (Vol. 233). Elsevier Ltd.
<https://doi.org/10.1016/j.compositesb.2022.109639>

Zhu, X., Zhang, Y., Zhou, Y., & Huang, X. (2021). Moisture absorption characteristics of nanoparticle-doped silicone rubber and its influence mechanism on electrical properties. *Polymers*, 13(9).
<https://doi.org/10.3390/polym13091474>

Zuhnir Piliang, M. (2018). *Program Pengembangan Pesawat Tempur KF-X/IF-X: Peluang dan Tantangan Dislitbangau*.

Zyoud, S. H., Ahmed, N. M., Lahewil, A. S. Z., & Omar, A. F. (2022). Micro spot ZnO nanotubes using laser assisted chemical bath deposition: A low-cost approach to UV photodetector fabrication. *Sensors and Actuators A: Physical*, 338, 113485.
<https://doi.org/10.1016/j.sna.2022.113485>

