

DAFTAR PUSTAKA

- [1] E. Woyke, *The Smartphone: Anatomy of an industry*. The new press, 2014.
- [2] “Smartphone market in Indonesia - Statistics and facts,” Statista Research Department. Accessed: Feb. 28, 2023. [Online]. Available: <https://www.statista.com/topics/5020/smartphones-in-indonesia/#topicOverview>
- [3] The Editors of Encyclopedia, “Electromagnetic Field,” Britannica. Accessed: Jul. 08, 2024. [Online]. Available: <https://www.britannica.com/science/electromagnetic-field>
- [4] N. Maregu, “Long term exposure of mobile phone radiation and human health,” *Journal of Information Engineering and Applications*, vol. 6, no. 8, pp. 22–30, 2016.
- [5] T. Ben Rashid, *Analysis of Biological Effects of Cell Phone Radiation on Human Body Using Specific Absorption Rate (SAR) and Thermoregulatory Response*. University of Colorado Colorado Springs, 2017.
- [6] G. Faraji, H. S. Kim, and H. T. Kashi, “Chapter 3 - Severe Plastic Deformation Methods for Sheets,” in *Severe Plastic Deformation*, G. Faraji, H. S. Kim, and H. T. Kashi, Eds., Elsevier, 2018, pp. 113–129. doi: <https://doi.org/10.1016/B978-0-12-813518-1.00003-5>.
- [7] K. Rifai S, “Studi Pendahuluan Karakteristik Casing Smartphone Peredam Radiasi Melalui Teknik Accumulative Roll Bonding dengan Variasi Logam Al, Cu dan Pb,” Universitas Sultan Ageng Tirtayasa, Cilegon, 2023.
- [8] R. Coulling, “Investigating Smartphones-there’s a theory for that: Smartphones as an Assemblage and Apparatus,” 2014.
- [9] K. G. S. Venkatesan, “Comparison of CDMA & GSM Mobile Technology,” *Middle-East Journal of Scientific Research*, vol. 13, no. 12, pp. 1590–1594, 2013.
- [10] GSM Arena, “SAR Head & Body.” Accessed: Feb. 05, 2024. [Online]. Available: <https://www.gsmarena.com/>
- [11] R. Buckus, B. Strucinskiene, and J. Raistenskis, “The assessment of electromagnetic field radiation exposure for mobile phone users,” *Vojnosanit Pregl*, vol. 71, no. 12, pp. 1138–1143, 2014, doi: 10.2298/VSP140119013B.

- [12] R. Percuoco, "Plain Radiographic Imaging," in *Clinical Imaging*, Elsevier, 2014, pp. 1–43. doi: 10.1016/B978-0-323-08495-6.00001-4.
- [13] Melba Phillips and Hellmut Fritzsche, "electromagnetic radiation," *Encyclopaedia Britannica Inc.* Accessed: Mar. 07, 2023. [Online]. Available: <https://www.britannica.com/science/electromagnetic-radiation>
- [14] O. Erogul et al., "Effects of Electromagnetic Radiation from a Cellular Phone on Human Sperm Motility: An In Vitro Study," *Arch Med Res*, vol. 37, no. 7, pp. 840–843, Oct. 2006, doi: 10.1016/j.arcmed.2006.05.003.
- [15] A. Keykhosravi, M. Neamatshahi, R. Mahmoodi, and E. Navipour, "Radiation Effects of Mobile Phones and Tablets on the Skin: A Systematic Review," *Adv Med*, vol. 2018, pp. 1–5, 2018, doi: 10.1155/2018/9242718.
- [16] H. J. Visser, *Antenna Theory and Applications*. John Wiley & Sons, 2012.
- [17] C. A. Balanis, *Antenna theory analysis and design*. Hoboken, New Jersey Wiley, 2016.
- [18] Y. Huang and K. Boyle, *Antennas*. John Wiley & Sons, 2008.
- [19] T. Trzepieciński, S. M. Najm, V. Oleksik, D. Vasilca, I. Paniti, and M. Szpunar, "Recent Developments and Future Challenges in Incremental Sheet Forming of Aluminium and Aluminium Alloy Sheets," *Metals (Basel)*, vol. 12, no. 1, p. 124, Jan. 2022, doi: 10.3390/met12010124.
- [20] R. Lumley, *Fundamentals of aluminium metallurgy: production, processing and applications*. Elsevier, 2010.
- [21] D. Perkins, *Mineralogy: Pearson New International Edition*. Pearson Education, 2013. [Online]. Available: <https://books.google.co.id/books?id=m0ypBwAAQBAJ>
- [22] Metalmen, "Aluminum 1100 Properties & Products," <https://www.metalmensales.com/aluminum-1100-properties-products/>.
- [23] United Aluminum, "Aluminum Alloy 1100 Data Sheet," <https://unitedaluminum.com/1100-aluminum-alloy/>.
- [24] E. E. Alvarado, I. A. Figueroa, and G. Gonzalez, "Microstructural and Mechanical Analysis of an 1100 Aluminum Alloy Processed by Repetitive Corrugation and Straightening," *Physics of Metals and Metallography*, vol. 121, no. 13, pp. 1319–1325, Dec. 2020, doi: 10.1134/S0031918X20130025.

- [25] E. Rambung and V. P. Kalanjati, "Aluminum foil shield diminishes the electromagnetic radiation of mobile phones in the cerebellum of adult male rats," 2018.
- [26] Material Property Data, "Material Compare," MatWeb. Accessed: Mar. 11, 2023. [Online]. Available: <https://www.matweb.com/folders/Compare.aspx?FolderID=4273992>
- [27] ASM International, "Alcoa 6013 aerospace aluminum chosen by Samsung for Galaxy S6 smartphone." Accessed: Feb. 05, 2024. [Online]. Available: https://www.asminternational.org/ims/news/-/journal_content/56/10180/25545915/NEWS;jsessionid=FD29AA2960AF08CB55C660C3723DBE02/?p_p_col_count=4&p_p_col_id=column-2&p_p_col_pos=2&p_p_id=webcontentresults_WAR_webcontentsearchportlet_INSTANCE_35iDxUvqEPc6&p_p_lifecycle=0&p_p_mode=view&p_p_state=normal
- [28] R. J. Sinclair, *The extractive metallurgy of lead*. AusIMM Carlton, 2009.
- [29] A. Rosihan and H. Husaini, "Logam berat sekitar manusia," 2017, Pustaka Buana.
- [30] C. J. Boreiko, "SAFETY | Materials Toxicity," in *Encyclopedia of Electrochemical Power Sources*, Elsevier, 2009, pp. 233–240. doi: 10.1016/B978-044452745-5.00393-2.
- [31] S. Lyon, "Corrosion of Lead and its Alloys," *Shreir's Corrosion*, pp. 2053–2067, Dec. 2010, doi: 10.1016/B978-044452787-5.00098-6.
- [32] M. E. Schlesinger, K. C. Sole, and W. G. Davenport, *Extractive Metallurgy of Copper*. Elsevier Science, 2011. [Online]. Available: <https://books.google.co.id/books?id=bcwiQepD2yYC>
- [33] R. Bonewitz, M. Carruthers, and R. Efthim, *Rock and minerals: the definitive visual guide*. Dorling Kindersley Limited, 2008.
- [34] M. Sahan, M. Kucuker, B. Demirel, K. Kuchta, and A. Hursthouse, "Determination of Metal Content of Waste Mobile Phones and Estimation of Their Recovery Potential in Turkey," *Int J Environ Res Public Health*, vol. 16, no. 5, p. 887, 2019, doi: 10.3390/ijerph16050887.
- [35] M. Kutz, *Mechanical engineers' handbook*. John Wiley & Sons Inc, 2015.
- [36] ASM International, "UNS C10100," *Alloy Digest*, vol. 37, no. 5, May 1988, doi: 10.31399/asm.ad.cu0538.

- [37] N. Tsuji, “Bulk nanostructured metals and alloys produced by accumulative roll-bonding,” in *Nanostructured Metals and Alloys*, Elsevier, 2011, pp. 40–58. doi: 10.1533/9780857091123.1.40.
- [38] C. M. Cepeda-Jiménez and M. T. Pérez-Prado, “4.12 Processing of Nanoparticulate Metal Matrix Composites,” in *Comprehensive Composite Materials II*, Elsevier, 2018, pp. 313–330. doi: 10.1016/B978-0-12-803581-8.09984-7.
- [39] A. Pramono, L. Kollo, and R. Veinthal, “Hot and cold regions during accumulative roll bonding of Al/Al₂O₃ nanofibre composites,” *Proceedings of the Estonian Academy of Sciences*, vol. 65, no. 2, p. 132, 2016, doi: 10.3176/proc.2016.2.12.
- [40] Y. Saito, H. Utsunomiya, N. Tsuji, and T. Sakai, “Novel ultra-high straining process for bulk materials—development of the accumulative roll-bonding (ARB) process,” *Acta Mater*, vol. 47, no. 2, pp. 579–583, 1999, doi: 10.1016/s1359-6454(98)00365-6.
- [41] D. J. Panagopoulos and G. P. Chrousos, “Shielding methods and products against man-made Electromagnetic Fields: Protection versus risk,” *Science of The Total Environment*, vol. 667, pp. 255–262, Jun. 2019, doi: 10.1016/j.scitotenv.2019.02.344.
- [42] H. M. Zandrato, R. Meilano, J. Bukit, and M. Simorangkir, “Anti Radiation Case from Paper Waste for Smarthphone,” vol. 5, no. 7, pp. 1–6, 2018.
- [43] DefenderShield, “DefenderShield 5G EMF Protection Universal Phone Case,” Anti-radiation. Accessed: Jul. 08, 2024. [Online]. Available: <https://anti-radiation.co.uk/products/universal-emf-phone-case>
- [44] SafeSleeve, “SAFESLEEVE FOR SAMSUNG GALAXY S5, S6 EDGE, S7 EDGE, NOTE 5, J3, AND J7,” SafeSleeve Cases.
- [45] Shield Your Body, “SYB Phone Pouch by Shield Your Body,” EMSafe by Shopify. Accessed: Jul. 08, 2024. [Online]. Available: <https://emfsafeshop.com/products/syb-phone-pouch-by-shield-your-body>
- [46] M. Canada, *Time-Averaged Specific Absorption Rate (TAS) Assessment Procedures for Wireless Devices Operating in the 4 MHz to 6 GHz Frequency Band*. Innovation, Science and Economy Development Canada, 2021.
- [47] ICNIRP, “Frequently Asked Questions related to the ICNIRP RF EMF Guidelines 2020.” Accessed: Jun. 02, 2024. [Online]. Available: <https://www.icnirp.org/en/rf-faq/index.html>

- [48] C. A. Grimes and D. M. Grimes, “Permeability and permittivity spectra of granular materials,” *Phys Rev B*, vol. 43, no. 13, pp. 10780–10788, May 1991, doi: 10.1103/PhysRevB.43.10780.
- [49] R. Dosoudil, M. Usakova, A. Gruskova, and J. Slama, “Influence of the Synthesis Method of Filler on Permeability and Microwave Absorption Properties of Ferrite/Polymer Composites,” *IEEE Trans Magn*, vol. 50, no. 4, pp. 1–4, Apr. 2014, doi: 10.1109/TMAG.2013.2286452.
- [50] E. Madenci and I. Guven, *The Finite Element Method and Applications in Engineering Using ANSYS®*. Springer US, 2015. [Online]. Available: <https://books.google.co.id/books?id=aJKeBgAAQBAJ>
- [51] Y. Nakasone, S. Yoshimoto, and T. A. Stolarski, “Overview of ANSYS Structure and Visual Capabilities,” in *Engineering Analysis with ANSYS Software*, Elsevier, 2006, pp. 37–50. doi: 10.1016/B978-075066875-0/50032-6.
- [52] X. Chen and Y. Liu, *Finite element modeling and simulation with ANSYS Workbench*, Second. CRC press, 2013.
- [53] H. H. Lee, *Finite Element Simulations with ANSYS Workbench 2022: Theory, Applications, Case Studies*. SDC Publications, 2022. [Online]. Available: <https://books.google.co.id/books?id=EV5wEAAAQBAJ>
- [54] C. Technologies and S. Tickoo, *ANSYS Workbench 14.0: A Tutorial Approach*. CADCIM, 2012.
- [55] ANSYS, “Ansys HFSS,” ANSYS Inc. Accessed: Mar. 11, 2023. [Online]. Available: <https://www.ansys.com/products/electronics/ansys-hfss>
- [56] G. Carosi, G. Rybka, and K. van Bibber, *Microwave Cavities and Detectors for Axion Research: Proceedings of the 2nd International Workshop*. in *Springer Proceedings in Physics*. Springer International Publishing, 2018. [Online]. Available: <https://books.google.co.id/books?id=iMRIDwAAQBAJ>
- [57] M. Kopp, *An Introduction to HFSS: Fundamental Principles, Concepts, and Use*. Canonsburg: ANSYS Inc., 2013.
- [58] D. J. Bisharat, S. Liao, and Q. Xue, “High Gain and Low Cost Differentially Fed Circularly Polarized Planar Aperture Antenna for Broadband Millimeter-Wave Applications,” *IEEE Trans Antennas Propag*, vol. 64, no. 1, pp. 33–42, 2016, doi: 10.1109/TAP.2015.2499750.

- [59] Z. Wang, H. Tong, Z. Wang, H. Yang, Y. Wei, and Y. Qian, "Effect of Gap Length and Partition Thickness on Thermal Boundary Layer in Thermal Convection," *Entropy*, vol. 25, no. 2, p. 386, Feb. 2023, doi: 10.3390/e25020386.
- [60] C. Gao, X. He, F. Ye, S. Wang, and G. Zhang, "Electromagnetic Wave Absorption and Mechanical Properties of CNTs@GN@Fe₃O₄/PU Multilayer Composite Foam," *Materials*, vol. 14, no. 23, p. 7244, Nov. 2021, doi: 10.3390/ma14237244.
- [61] Y. M. Almaetah, K. N. Abushgair, and M. A. Hamdan, "Aluminium Alloys Nanostructures Produced by Accumulative Roll Bonding (ARB).," *Jordan Journal of Mechanical & Industrial Engineering*, vol. 15, no. 4, 2021.
- [62] H. L. Yu, C. Lu, A. K. Tieu, and C. Kong, "Fabrication of Nanostructured Aluminum Sheets Using Four-Layer Accumulative Roll Bonding," *Materials and Manufacturing Processes*, vol. 29, no. 4, pp. 448–453, Apr. 2014, doi: 10.1080/10426914.2013.872259.
- [63] A. Pramono, A. Yolanda, and A. A. Alhamidi, "Pre-heating of multi-axial forging (MAF) on aluminum based composites," *IOP Conf Ser Mater Sci Eng*, vol. 478, p. 012029, Feb. 2019, doi: 10.1088/1757-899X/478/1/012029.
- [64] C. Woolston, "How strong are different magnetic fields?," *Los Angeles Times*. Accessed: Jul. 03, 2024. [Online]. Available: <https://www.latimes.com/health/la-he-electromagnetic-types15-2010feb15-story.html>