DAFTAR PUSTAKA

[1] R. H G dan Dr. H. V Byregowda, "Advantages of Spin Coating Over Other Coating Techniques in the Formation of Superhydrophobic Surfaces," *Int J Eng Adv Technol*, vol. 12, no. 2, hlm. 22–33, Des 2022, doi: 10.35940/ijeat.B38921212222.

[2] Y. Leng, Y. Sun, X. Wang, J. Hou, X. Bai, dan M. Wang, "A method to detect water-injected pork based on bioelectrical impedance technique," *Journal of Food Measurement and Characterization*, vol. 13, no. 2, hlm. 1341–1348, Jun 2019, doi: 10.1007/s11694-019-00049-z.

[3] Mw. Aminullah, H. Setiawan, A. Huda, H. Samaulah, S. Haryati, dan Md. Bustan, "Pengaruh Komposisi Material Semikonduktor Dalam Menurunkan Energi Band Gap dan Terhadap Konversi Gelombang Mikro," *EECCIS*, vol. 13, no. 2, hlm. 65–70, 2019, [Daring]. Tersedia pada: https://jurnaleeccis.ub.ac.id/

[4] N. Aprilia Amanda, L. Safriani, A. Aprilia, dan A. Bahtiar, "Pengaruh Jenis Prekursor Terhadap Karakteristik Partikel ZnO Beserta Pengujian Sifat Fotokatalitiknya," 2022.

[5] N. Hasim, E. Dan, dan H. Sutanto, "Pengaruh Temperatur Sintering Terhadap Sifat Optik Lapisan Tipis Zinc Oxide (ZnO) Yang Dideposisi Diatas Substrat Kaca Dan Aplikasinya Untuk Mendegradasi Pewarna Methylene Blue," 2014.

[6] N. Hasim, E. Dan, dan H. Sutanto, "Pengaruh Temperatur Sintering Terhadap Sifat Optik Lapisan Tipis Zinc Oxide (ZnO) Yang Dideposisi Diatas Substrat Kaca Dan Aplikasinya Untuk Mendegradasi Pewarna Methylene Blue," 2014.

[7] H. Zhang, S. Krooswyk, dan J. Ou, "Measurement and data acquisition techniques," *High Speed Digital Design*, hlm. 199–219, Jan 2015, doi: 10.1016/B978-0-12-418663-7.00005-8.

[8] J. Siregar, S. Novika, D. Wahyuni, Abdul, dan M. Rambe, “Struktur Kristal Dan Morfologi Nanokomposit Fe3O 4-ZnO,” 2022.

[9] A. Zhafirah, “Studi Struktur Kristal, Morfologi, Dan Sifat Optik Film Tipis ZnO Doping Mg Yang Dideposisikan Dengan Metode Sol-Gel Spin Coating,” 2019.

[10] R. Y. Lubis, “Karaterisasi Struktur Kristal ZnO Dengan Doping Mn Menggunakan Alat X-Ray Diffraction,” 2020.

[11] S. L. Patty, “Karakteristik Fosfat, Nitrat Dan Oksigen Terlarut Di Perairan Selat Lembeh, Sulawesi Utara,” *Jurnal Pesisir dan Laut Tropis* , vol. 2, no. 1, hlm. 1–7, 2015.

[12] A. Purwanto, D. Ratnasari, dan A. B. Suryono, “Pembuatan Nanopartikel Seng Oksida (ZnO) Menggunakan Proses Flame Assisted Spray Pyrolysis (FASP),” vol. 13, no. 1, hlm. 17–21, 2014.

[13] Y. Yunita, N. Nurlina, dan I. Syahbanu, “Sintesis Nanopartikel Zink Oksida (ZnO) dengan Penambahan Ekstrak Klorofil sebagai Capping Agent,” *POSITRON*, vol. 10, no. 2, hlm. 44, Des 2020, doi: 10.26418/positron.v10i2.42136.

[14] R. M. P. Gutierrez, J. V. M. Mendez, dan I. A. Vazquez, “A novel approach to the oral delivery of bionanostructures for systemic disease,” *Nanostructures for Oral Medicine*, hlm. 27–59, Jan 2017, doi: 10.1016/B978-0-323-47720-8.00002-X.

[15] R. Augustine dan A. Hasan, “Multimodal applications of phytonanoparticles,” *Phytonanotechnology: Challenges and Prospects*, hlm. 195–219, Jan 2020, doi: 10.1016/B978-0-12-822348-2.00011-5.

[16] L. Suhaimi, A. H. Yuwono, dan A. Subhan, “Pengaruh Perlakuan Hidrotermal Terhadap Morfologi, Sifat Optik, Dan Sifat Listrik Lapisan Tipis Nanorods ZnO,” 2020. [Daring]. Tersedia pada: www.ejurnalmaterialmetalurgi.com

[17] K. C. Rathod, P. D. Kamble, K. R. Sanadi, G. S. Kamble, M. L. Guar, dan K. M. Garadkar, “Photovoltaic Application Study of Zinc Telluride Thin Films Grown by Chemical Bath Deposition Method,” *Advances in Materials*

Physics and Chemistry, vol. 11, no. 08, hlm. 131–144, 2021, doi: 10.4236/ampc.2021.118013.

[18] A. Z. Arsad *dkk.*, "Effect of Chemical Bath Deposition Variables on the Properties of Zinc Sulfide Thin Films: A Review," *Molecules*, vol. 28, no. 6. MDPI, 1 Maret 2023. doi: 10.3390/molecules28062780.

[19] P. A. Septian Eka dan N. Putu Sri Ayuni, "Fabrikasi Film Tipis ZnO dengan Metode Spincoating Assisted Chemical Bath Deposition (SA-CBD) sebagai Alternatif Semikonduktor pada Dye-sensitized Solar Cells (DSSC)," *Wahana Matematika dan Sains: Jurnal Matematika, Sains, dan Pembelajarannya*, vol. 15, no. 3, hlm. 98–105, 2021.

[20] R. Voo, M. Mariatti, dan L. C. Sim, "Properties of epoxy nanocomposite thin films prepared by spin coating technique," *Journal of Plastic Film and Sheeting*, vol. 27, no. 4, hlm. 331–346, Okt 2014, doi: 10.1177/8756087911419745.

[21] N. Novianti, R. V Manurung, dan A. Arifin, "Screen Printed-Carbon Electrode Modifikasi Bismut untuk Analisis Kadmium dengan Voltametri Siklik," *IJEIS (Indonesian Journal of Electronics and Instrumentation Systems)*, vol. 10, no. 1, hlm. 65, Apr 2020, doi: 10.22146/ijeis.54138.

[22] H. Hermawansa dan T. U. Kalsum, "Analisis Kinerja Sensor Pada Robot Pendeteksi Kotoran Debu Dan Air," *ILKOM Jurnal Ilmiah*, vol. 11, no. 1, hlm. 53–58, Mei 2019, doi: 10.33096/ilkom.v11i1.405.53-58.

[23] V. Rahmadhani, W. Arum, U. Bhayangkara, dan J. Raya, "Literature Review Internet Of Think (IOT): Sensor, Konektifitas dan QR Code," vol. 3, no. 2, 2022, doi: 10.38035/jmpis.v3i2.

[24] D. Aribowo, G. Priyogi, dan S. Islam, "Aplikasi Sensor LDR (Light Dependent Resistor) Untuk Efisiensi Energi Pada Lampu Penerangan Jalan Umum," *PROSISKO*, vol. 9, no. 1, hlm. 21–29, 2022.

[25] O. Choirunnisak, A. E. Mulyono, Y. Pradana, dan R. Nuryadi, "Pengembangan Sensor Kapasitif Berbasis Perubahan Fasa untuk Mengukur Kadar Air dalam Biodiesel Development of Phase Shift-Based Capacitive Sensors to Measure Water Content in Biodiesel," 2021.

[26] B. E. Cahyono, M. Misto, dan F. Hasanah, “Karakterisasi Sensor Kapasitif Untuk Penentuan Level Aquades,” *Rekayasa Energi Manufaktur*, vol. 1, no. 2, hlm. 9, Des 2016, doi: 10.21070/r.e.m.v1i2.583.

[27] R. Setiawan, M. Rivai, dan Suwito, “Implementasi Analog Front End Pada Sensor Kapasitif Untuk Pengaturan Kelembaban Menggunakan Mikrokontroller STM32,” *Jurnal Teknik ITS*, vol. 5, no. 2, hlm. 904–910, 2016.

[28] R. R. A. Putri, C. Sulistya, dan D. R. Santoso, “Analisis Nilai Impedansi Listrik pada Daging Ikan Nila yang Disimpan dalam Lemari Es,” *Indonesian Journal Of Applied Physics*, vol. 6, no. 02, hlm. 117, Feb 2017, doi: 10.13057/ijap.v6i02.1780.

[29] M. J. Farid, “Analisis Sifat Kelistrikan Daging Ayam Normal dan Ayam Tiren Akibat Pengaruh Lama Waktu Penyimpanan Pada Suhu Tertentu,” 2017.

[30] R. Meldayani, I. Iwantono, A. S. Rini, dan Y. Rati, “Analisa Sifat Fisis Nanopartikel ZnO Di-Doping Ag Yang Disintesis Menggunakan Metode Biosintesis,” *Komunikasi Fisika Indonesia*, vol. 19, no. 1, hlm. 7, Mar 2022, doi: 10.31258/jkfi.19.1.7-10.

[31] S. Rully Anggita, “Deposisi ZnO Doping Ag pada Substrat Alumunium Foil untuk Degradasi Methylene Blue,” 2020.

[32] M. A. Dwiputra, F. Fadhila, C. Imawan, dan V. Fauzia, “The enhanced performance of capacitive-type humidity sensors based on ZnO nanorods/WS2 nanosheets heterostructure,” *Sens Actuators B Chem*, vol. 310, Mei 2020, doi: 10.1016/j.snb.2020.127810.

[33] S. N. Harlinda, “Argentum Sensitized Zinc Oxide Photoelectrode: Fabrication, Characterization And Application For Photoelectrochemical Water Splitting,” 2018.

[34] A. N. M A, N. L. P Sriyani, dan dan T. I Putri, “Kualitas Kimia Daging Babi Landrace Persilangan yang Dilayukan Secara Tradisional dalam Waktu yang Berbeda,” *Peternakan Tropika*, vol. 7, no. 2, hlm. 587–598, 2019.

[35] M. Melania Br Tarigan, A. Wibowo, dan F. Ardhani, "Pengamatan Perubahan Sifat Fisik Otot Semitendinosus Sapi Pasca Penyembelihan Selama Masa Simpan Dingin," *Jurnal Peternakan Lingkungan Tropis*, vol. 3, no. 2, hlm. 84–93, 2020.

[36] N. K. Mardewi dan I. G. A. D. S. Rejeki, "Kualitas Kimia Daging Ayam Broiler Umur 5 Minggu Yang Dipelihara Pada Kepadatan Kandang Yang Berbeda," *Jurnal Lingkungan & Pembangunan*, vol. 3, no. 1, hlm. 31–37, 2019, [Daring]. Tersedia pada: https://ejournal.warmadewa.ac.id/index.php/wicaksana

[37] Junaldi, Zulharbi, dan W. Lovita, "Alat Pendeteksi Kesegaran Daging Berdasarkan Sensor Bau dan Warna," *Elektron Jurnal Ilmiah*, vol. 11, no. 1, hlm. 1–7, 2019.

[38] K. Lubis, "Metoda-Metoda Karakterisasi Nanopartikel Perak," *Pengabdian Kepada Masyarakat*, vol. 21, no. 79, hlm. 50–55, 2015.

[39] A. E. Vladár dan V. D. Hodoroaba, "Characterization of nanoparticles by scanning electron microscopy," dalam *Characterization of Nanoparticles: Measurement Processes for Nanoparticles*, Elsevier, 2019, hlm. 7–27. doi: 10.1016/B978-0-12-814182-3.00002-X.

[40] I. Lidia dan P. Mursal, "Karakterisasi XRD dan SEM Pada Material Nanopartikel Serta Peran Material Nanopartikel Dalam Drug Delivery System," *Pharma Xplore: Jurnal Sains dan Ilmu Farmasi*, vol. 3, no. 2, hlm. 214–221, 2018.

[41] A. Sujatno, R. Salam, B. Bandriyana, dan A. Dimyati, "Studi Scanning Electron Microscopy (Sem) Untuk Karakterisasi Proses Oxidasi Paduan Zirkonium," *Jurnal Forum Nuklir*, vol. 9, no. 2, hlm. 44–50, 2015, doi: 10.17146/jfn.2015.9.1.3563.

[42] A. Sujatno, R. Salam, dan A. Dimyati Pusat Sains dan Teknologi Bahan Maju, "Studi Scanning Electron Microscopy (SEM) Untuk Karakterisasi Proses Oxidasi Paduan Zirkonium," 2015.

[43] B. D. (Bernard D. Cullity, *Elements of x-ray diffraction*, 3rd edition. Addison-Wesley Publishing Company, Inc, 2014.

[44] I. Kurniawan, R. Dewi Anjani, dan R. Hanifi, "Analisa Sambungan Pengelasan Gas Metal Arc Welding (GMAW) menggunakan pengujian metalografi di PT. XYZ," *Jurnal Ilmiah Wahana Pendidikan*, vol. 22, no. 8, hlm. 99–108, Nov 2022, doi: 10.5281/zenodo.7322984.

[45] P. L. Mega, "Ekstraksi TiO2 Dari Slag Titanium Dengan Metode Leaching Menggunakan HCl Skripsi," 2018.

[46] K. Khalid, R. Ishak, dan Z. Z. Chowdhury, "UV–Vis spectroscopy in non-destructive testing," *Non-Destructive Material Characterization Methods*, hlm. 391–416, Jan 2024, doi: 10.1016/B978-0-323-91150-4.00021-5.

[47] I. Saputra Harahap, P. Wahyuningsih, dan Y. Amri, "Analisa Kandungan Beta Karoten Pada CPO (Crude Palm Oil) Di Pusat Penelitian Kelapa Sawit (PPKS) Medan Menggunakan Spektrofotometri Uv-Vis," *Jurnal Kimia Sains dan Terapan*, vol. 2, no. 1, 2020, [Daring]. Tersedia pada: https://ejurnalunsam.id/index.php/JQ

[48] E. J. Beard, G. Sivaraman, Á. Vázquez-Mayagoitia, V. Vishwanath, dan J. M. Cole, "Comparative dataset of experimental and computational attributes of UV/vis absorption spectra," *Sci Data*, vol. 6, no. 1, Des 2019, doi: 10.1038/s41597-019-0306-0.

[49] N. Shoaib, *Vector Network Analyzer (VNA) Measurements and Uncertainty Assessment*. Turin: Springer International, 2017. [Daring]. Tersedia pada: http://www.springer.com/series/13890

[50] A. Khalid dan C. Li, "Oscillation detection technique by using Vector Network Analyzer," *Journal of Terahertz Science and Electronic Information Technology*, vol. 1, no. 13, hlm. 203–211, 2015, doi: 10.11805/TKYDA201503.0000.

[51] S. Bhagyaraj dan I. Krupa, "Biopolymer assisted synthesis of metal–silica hybrid nanoflowers as a medium for the photocatalytic degradation of dye pollutants," *Inorg Chem Commun*, vol. 158, hlm. 111644, Des 2023, doi: 10.1016/J.INOCHE.2023.111644.

[52] S. N. Kane, A. Mishra, dan A. K. Dutta, "Preface: International Conference on Recent Trends in Physics (ICRTP 2016)," *Journal of Physics: Conference*

Series, vol. 755, no. 1. Institute of Physics Publishing, 1 November 2016. doi: 10.1088/1742-6596/755/1/011001.

[53] Y. Kang, F. Yu, L. Zhang, W. Wang, L. Chen, dan Y. Li, "Review of ZnO-based nanomaterials in gas sensors," *Solid State Ion*, vol. 360, Feb 2021, doi: 10.1016/j.ssi.2020.115544.

[54] N. Döbelin, R. Archer, dan V. Tu, "A free and open-source solution for Rietveld refinement of XRD data from the CheMin instrument onboard the Mars rover Curiosity," *Planet Space Sci*, vol. 224, Des 2022, doi: 10.1016/j.pss.2022.105596.

[55] G. Tang *dkk.*, "Realizing High Figure of Merit in Phase-Separated Polycrystalline Sn1-xPbxSe," *J Am Chem Soc*, vol. 138, no. 41, hlm. 13647–13654, Okt 2016, doi: 10.1021/jacs.6b07010.

[56] M. Tilli dan A. Haapalinna, "Properties of Silicon," *Handbook of Silicon Based MEMS Materials and Technologies: Second Edition*, hlm. 3–17, Jan 2015, doi: 10.1016/B978-0-323-29965-7.00001-4.

[57] S. Popović, "Quantitative phase analysis by x-ray diffraction-doping methods and applications," *Crystals*, vol. 10, no. 1. MDPI AG, 1 Januari 2020. doi: 10.3390/cryst10010027.

[58] A. Kalam, S. A. S. Allami, A. G. Al-Sehemi, M. A. Assiri, dan P. Yadav, "Effect Of Stabilizer On Optical Band Gap Of ZnO And Their Performance In Dye-Sensitized Solar Cells," *Bull Chem Soc Ethiop*, vol. 36, no. 1, hlm. 209–222, 2022, doi: 10.4314/bcse.v36i1.17.

[59] L. Daul, T. Jin, I. Busch, dan L. Koenders, "Influence of geometric properties of capacitive sensors on slope error and nonlinearity of displacement measurements," *Sensors*, vol. 21, no. 13, Jul 2021, doi: 10.3390/s21134270.

[60] M. Brading, B. Keelan, dan H. Tran, "Image Sensors for Camera Monitor Systems," dalam *Handbook of Camera Monitoring Systems*, 2016, hlm. 175–201. doi: 10.1007/978-3-319-29611-1_5.

[61] N. H. Ke, N. H. Thanh, N. H. Long, D. A. Tuan, dan L. V. T. Hung, "Fabrication of Ag–ZnO NRs SERS substrates for abamectin detection: the

effect of Ag sputtering times and ZnO sol concentrations in seed layer preparation on SERS performance," *Journal of Materials Science: Materials in Electronics*, vol. 32, no. 23, hlm. 27318–27332, 2021, doi: 10.1007/s10854-021-07102-y.

[62] N. M. Erfiza, D. Hasni, dan U. Syahrina, "Evaluasi Nilai Gizi Masakan Daging Khas Aceh (Sie Reuboh) Berdasarkan Variasi Penambahan Lemak Sapi dan Cuka Aren," *Jurnal Teknologi dan Industri Pertanian Indonesia*, vol. 10, no. 1, hlm. 28–35, Apr 2018, doi: 10.17969/jtipi.v10i1.10202.

[63] W. Yang dan D. D. L. Chung, "Effect of water on the dielectric behavior of solder," *Journal of Materials Science: Materials in Electronics*, vol. 32, no. 17, hlm. 22196–22204, Sep 2021, doi: 10.1007/s10854-021-06700-0.

[64] Döbelin, N. (2024). Profex XRD. Versi 5.2.8. https://www.profex-xrd.org/.