

## DAFTAR PUSTAKA

- Ahmad, A., Farooqui, U., dan Hamid, N., 2018, Effect of graphene oxide (GO) on Poly (vinylidene fluoride-hexafluoropropylene)(PVDF-HFP) polymer electrolyte membrane, *Polymer*, *142*, 330-336,
- AlFawaz, Y. F., Almutairi, B., Kattan, H. F., Zafar, M. S., Farooq, I., Naseem, M., . . . Abduljabbar, T., 2020, Dentin bond integrity of hydroxyapatite containing resin adhesive enhanced with graphene oxide nanoparticles—An SEM, EDX, micro-Raman, and microtensile bond strength study, *Polymers*, *12*(12), 2978,
- Ali, A., Chiang, Y. W., dan Santos, R. M., 2022, X-ray diffraction techniques for mineral characterization: A review for engineers of the fundamentals, applications, and research directions, *Minerals*, *12*(2), 205,
- Asghar, M. R., Zhang, Y., Wu, A., Yan, X., Shen, S., Ke, C., dan Zhang, J., 2018, Preparation of microporous Cellulose/Poly (vinylidene fluoride-hexafluoropropylene) membrane for lithium ion batteries by phase inversion method, *Journal of Power Sources*, *379*, 197-205,
- Aziz, S. B., Brza, M., Brevik, I., Hamsan, M., Abdulwahid, R. T., Majid, S., . . . M. Abdullah, R., 2020, Characteristics of glycerolized chitosan: NH<sub>4</sub>NO<sub>3</sub>-based polymer electrolyte for energy storage devices with extremely high specific capacitance and energy density over 1000 cycles, *Polymers*, *12*(11), 2718, doi:10.3390/polym12112718
- Barbosa, J. C., Dias, J. P., Lanceros-Méndez, S., dan Costa, C. M., 2018, Recent advances in poly (vinylidene fluoride) and its copolymers for lithium-ion battery separators, *Membranes*, *8*(3), 45,
- Bashirpour-Bonab, H., 2022, Analysis of the effect of graphene oxide on polymer electrolytes based on PVDF for lithium-ion battery, *International Journal of Energy Research*, *46*(11), 15793-15803,
- Bicy, K., Gueye, A. B., Rouxel, D., Kalarikkal, N., dan Thomas, S., 2022, Lithium-ion battery separators based on electrospun PVDF: A review, *Surfaces and Interfaces*, *31*, 101977,
- Borah, A. R., Hazarika, P., Duarah, R., Goswami, R., dan Hazarika, S., 2024, Biodegradable Electrospun Membranes for Sustainable Industrial Applications, *ACS omega*, *9*(10), 11129-11147, doi:10.1021/acsomega.3c09564

- Caicedo, F. M. C., López, E. V., Agarwal, A., Drozd, V., Durygin, A., Hernandez, A. F., dan Wang, C., 2020, Synthesis of graphene oxide from graphite by ball milling, *Diamond and Related Materials*, 109, 108064, doi:10.1016/j.diamond.2020.108064
- Chen, K., Li, Y., dan Zhan, H. (2022). *Advanced separators for lithium-ion batteries*. Paper presented at the IOP Conference Series: Earth and Environmental Science.
- Chen, T., Jin, Y., Lv, H., Yang, A., Liu, M., Chen, B., . . . Chen, Q., 2020, Applications of lithium-ion batteries in grid-scale energy storage systems, *Transactions of Tianjin University*, 26(3), 208-217,
- Chen, Y., Kang, Y., Zhao, Y., Wang, L., Liu, J., Li, Y., . . . Tavajohi, N., 2021, A review of lithium-ion battery safety concerns: The issues, strategies, and testing standards, *Journal of Energy Chemistry*, 59, 83-99,
- Cui, J., Liu, J., He, C., Li, J., dan Wu, X., 2017, Composite of polyvinylidene fluoride–cellulose acetate with Al (OH) 3 as a separator for high-performance lithium ion battery, *Journal of Membrane Science*, 541, 661-667,
- Dai, X., Zhang, X., Wen, J., Wang, C., Ma, X., Yang, Y., . . . Xu, S., 2022, Research progress on high-temperature resistant polymer separators for lithium-ion batteries, *Energy Storage Materials*, 51, 638-659,
- Datye, A., dan DeLaRiva, A., 2023, Scanning Electron Microscopy (SEM) *Springer Handbook of Advanced Catalyst Characterization* (pp. 359-380): Springer
- Dimiev, A. M., 2016, Mechanism of formation and chemical structure of graphene oxide, *Graphene Oxide: Fundamentals and Applications*, 36-84,
- Djunaidi, M. C., Prasetya, N. B. A., Khoiriyah, A., Pardoyo, P., Haris, A., dan Febriola, N. A., 2020, Polysulfone influence on Au selective adsorbent imprinted membrane synthesis with sulfonated polyeugenol as functional polymer, *Membranes*, 10(12), 390,
- Dreyer, D. R., Park, S., Bielawski, C. W., dan Ruoff, R. S., 2010, The chemistry of graphene oxide, *Chemical society reviews*, 39(1), 228-240,
- Dyartanti, E., Sunaryati, N., Alhakim, R., Putri, L., Putri, A., Nurohmah, A., dan Nisa, S. (2021). *Recent Development of Polyvinylidene Fluoride/Cellulose Membranes Electrolyte Separator for Lithium Ion*

*Batteries*. Paper presented at the IOP Conference Series: Materials Science and Engineering.

- Elgrishi, N., Rountree, K. J., McCarthy, B. D., Rountree, E. S., Eisenhart, T. T., dan Dempsey, J. L., 2018, A practical beginner's guide to cyclic voltammetry, *Journal of chemical education*, 95(2), 197-206, doi:10.1021/acs.jchemed.7b00361
- Firdaus, I., Sembiring, S., dan Junaidi, J., 2022, Sintesis dan Karakterisasi Nanofiber Komposit PVA/SiO<sub>2</sub> dari Silika Sekam Padi Menggunakan Metode Electrospinning, *INDONESIAN JOURNAL OF APPLIED PHYSICS*, 12(1), 116-123,
- Francis, C. F., Kyratzis, I. L., dan Best, A. S., 2020, Lithium-ion battery separators for ionic-liquid electrolytes: a review, *Advanced Materials*, 32(18), 1904205,
- Gigimol, M., dan Mathew, B., 2007, Effect of the nature and degree of crosslinking on the Rose Bengal uptake by DVB-, NNMBA-, HDODA-, and TTEGDA-crosslinked aminopolyacrylamides, *Journal of Applied Polymer Science*, 104(5), 2856-2867,
- Guerrero-Pérez, M. O., dan Patience, G. S., 2020, Experimental methods in chemical engineering: Fourier transform infrared spectroscopy—FTIR, *The Canadian Journal of Chemical Engineering*, 98(1), 25-33,
- Handayani, D. S., Rahayu, P., dan Firdaus, M., 2019, Synthesis and Characterisation of Copoly-(Eugenol-N, N'-Methylene Bis (Acrylamide)), *Journal of Physical Science*, 30(3),
- Hidayah, N., Liu, W.-W., Lai, C.-W., Noriman, N., Khe, C.-S., Hashim, U., dan Lee, H. C. (2017). *Comparison on graphite, graphene oxide and reduced graphene oxide: Synthesis and characterization*. Paper presented at the AIP conference proceedings.
- Huang, X., 2012, A lithium-ion battery separator prepared using a phase inversion process, *Journal of Power Sources*, 216, 216-221,
- Hummers Jr, W. S., dan Offeman, R. E., 1958, Preparation of graphitic oxide, *Journal of the american chemical society*, 80(6), 1339-1339,
- Jiříčková, A., Jankovský, O., Sofer, Z., dan Sedmidubský, D., 2022, Synthesis and applications of graphene oxide, *Materials*, 15(3), 920,
- Kerosenewala, J., Vaidya, P., Ozarkar, V., Shirapure, Y., dan More, A. P., 2023, Eugenol: Extraction, properties and its applications on incorporation with polymers and resins—A review, *Polymer Bulletin*, 80(7), 7047-7099,

- Khan, H., Yerramilli, A. S., D'Oliveira, A., Alford, T. L., Boffito, D. C., dan Patience, G. S., 2020, Experimental methods in chemical engineering: X-ray diffraction spectroscopy—XRD, *The Canadian Journal of Chemical Engineering*, 98(6), 1255-1266,
- Khassi, K., Youssefi, M., dan Semnani, D., 2020, PVDF/TiO<sub>2</sub>/graphene oxide composite nanofiber membranes serving as separators in lithium-ion batteries, *Journal of Applied Polymer Science*, 137(23), 48775, doi:10.1002/app.48775
- Kim, T., Choi, W., Shin, H.-C., Choi, J.-Y., Kim, J. M., Park, M.-S., dan Yoon, W.-S., 2020, Applications of voltammetry in lithium ion battery research, *Journal of Electrochemical Science and Technology*, 11(1), 14-25, doi:10.33961/jecst.2019.00619
- Kirk, R. E., Othmer, D. F., dan Mann, C. A., 1949, Encyclopedia of Chemical Technology. Vol. II, *The Journal of Physical Chemistry*, 53(4), 591-591,
- Kulawik, K., Buffat, P., Kruk, A., Wusatowska-Sarnek, A., dan Czyska-Filemonowicz, A., 2015, Imaging and characterization of  $\gamma'$  and  $\gamma$  "nanoparticles in Inconel 718 by EDX elemental mapping and FIB-SEM tomography, *Materials Characterization*, 100, 74-80,
- Kumar, S. S. A., Bashir, S., Ramesh, K., dan Ramesh, S., 2021, New perspectives on graphene/graphene oxide based polymer nanocomposites for corrosion applications: the relevance of the graphene/polymer barrier coatings, *Progress in Organic Coatings*, 154, 106215,
- Kusrini, E., Suhrowati, A., Usman, A., Khalil, M., dan Degirmenci, V., 2019, Synthesis and characterization of graphite oxide, graphene oxide and reduced graphene oxide from graphite waste using modified Hummers's method and zinc as reducing agent, *Synthesis*, 10(6), 1093-1104,
- Kusumawati, D., dan Agustin, T. (2023). *Characteristic of nanofiber PVA-graphene oxide (GO) as lithium battery separator*. Paper presented at the Journal of Physics: Conference Series.
- Kusumawati, D. H., dan Agustin, T. N., 2023, Fabrikasi dan Karakterisasi Nanofiber PVA-Graphene Oxide (GO) sebagai Separator Baterai Lithium-Ion, *Inovasi Fisika Indonesia*, 12(1), 1-13,
- Lazanas, A. C., dan Prodromidis, M. I., 2023, Electrochemical impedance spectroscopy— a tutorial, *ACS Measurement Science Au*, 3(3), 162-193,

- Li, A., Yuen, A. C. Y., Wang, W., De Cachinho Cordeiro, I. M., Wang, C., Chen, T. B. Y., . . . Yeoh, G. H., 2021, A review on lithium-ion battery separators towards enhanced safety performances and modelling approaches, *Molecules*, 26(2), 478,
- Li, D., Wang, H., Luo, L., Zhu, J., Li, J., Liu, P., . . . Jiang, M., 2021, Electrospun separator based on sulfonated polyoxadiazole with outstanding thermal stability and electrochemical properties for lithium-ion batteries, *ACS Applied Energy Materials*, 4(1), 879-887,
- Liu, C., Neale, Z. G., dan Cao, G., 2016, Understanding electrochemical potentials of cathode materials in rechargeable batteries, *Materials Today*, 19(2), 109-123,
- Lusiana, R. A., Saputry, A. P., dan Prasetya, N. B. A., 2019, Pengaruh Sulfonasi terhadap Karakteristik Fisiko-Kimia Membran Polisulfon, *Indonesian Journal of Mathematics and Natural Sciences*, 42(1), 35-42,
- Magar, H. S., Hassan, R. Y., dan Mulchandani, A., 2021, Electrochemical impedance spectroscopy (EIS): Principles, construction, and biosensing applications, *Sensors*, 21(19), 6578, doi:10.3390/s21196578
- Marcano, D. C., Kosynkin, D. V., Berlin, J. M., Sinitskii, A., Sun, Z., Slesarev, A., . . . Tour, J. M., 2010, Improved synthesis of graphene oxide, *ACS nano*, 4(8), 4806-4814, doi:10.1021/nn1006368
- Marjani, A., Nakhjiri, A. T., Adimi, M., Jirandehi, H. F., dan Shirazian, S., 2020, Effect of graphene oxide on modifying polyethersulfone membrane performance and its application in wastewater treatment, *Scientific reports*, 10(1), 2049, doi:10.1038/s41598-020-58472-y
- Mathew, A., Lacey, M. J., dan Brandell, D., 2021, Investigating oxidative stability of lithium-ion battery electrolytes using synthetic charge-discharge profile voltammetry, *Journal of Power Sources Advances*, 11, 100071, doi:10.1016/j.powera.2021.100071
- Méndez-Lozano, N., Pérez-Reynoso, F., dan González-Gutiérrez, C., 2022, Eco-friendly approach for graphene oxide synthesis by Modified Hummers method, *Materials*, 15(20), 7228, doi:10.3390/ma15207228
- Molina-Gutiérrez, S., Manseri, A., Ladmiral, V., Bongiovanni, R., Caillol, S., dan Lacroix-Desmazes, P., 2019, Eugenol: A promising building block for synthesis of radically polymerizable monomers, *Macromolecular Chemistry and Physics*, 220(14), 1900179,

- Muliawati, E. C., 2024, New Nanocomposite Membranes with blended Sulfonated Poly-Eugenol (S-PE) and Titanium Dioxide (TiO<sub>2</sub>) as an alternative in Direct Methanol Fuel Cells, *Journal of Applied Sciences, Management and Engineering Technology*, 5(1), 49-57,
- Muzadi, H., Kamalia, N. Z., Lestariningsih, T., dan Astuti, Y., 2023, Effect of LiTFSI Electrolyte Salt Composition on Characteristics of PVDF-PEO-LiTFSI-Based Solid Polymer Electrolyte (SPE) for Lithium-Ion Battery, *Molekul*, 18(1), 98-106,
- Ngadiwiyan, Ismiyanto, Gunawan, Purbowatiningrum, R. S., Prasetya, N. B. A., Kusworo, T. D., dan Susanto, H., 2018, Sulfonated polystyrene and its characterization as a material of electrolyte polymer, *Journal of Physics: Conference Series*, 1025, 012133, doi:10.1088/1742-6596/1025/1/012133
- Ngadiwiyan, N., 2005, Polimerisasi eugenol dengan katalis asam sulfat pekat, *Jurnal Kimia Sains dan Aplikasi*, 8(2), 43-47,
- Pavithra, S., Sakunthala, A., Rajesh, S., Kavitha, S., dan Sathishkumar, P., 2023, Influence of graphene oxide on the membrane characteristics of PVDF-HFP as an electrolyte for lithium-based energy storage devices, *Applied Nanoscience*, 13(6), 4177-4192,
- Permono, A., 2018, *Mengenal polimer dan polimerisasi*: UGM PRESS
- Ponnada, S., Kiai, M. S., Gorle, D. B., dan Nowduri, A., 2021, Improved performance of lithium-sulfur batteries by employing a sulfonated carbon nanoparticle-modified glass fiber separator, *Nanoscale Advances*, 3(15), 4492-4501,
- Prasetya, N. B. A., Ajizan, A. I., Widodo, D. S., Ngadiwiyan, N., dan Gunawan, G., 2023, A polyeugenol/graphene composite with excellent anti-corrosion coating properties, *Materials Advances*, 4(1), 248-255,
- Prasetya, N. B. A., Sarjono, P. R., Ngadiwiyan, dan Ismiyanto. (2019). *Synthesis and study of antibacterial activity of polyeugenol*. Paper presented at the IOP Conference Series: Materials Science and Engineering.
- Rahim, E. A., Ridhay, A., Halizah, S. N., Sosidi, H., Inda, N. I., Mirzan, M., dan Amar, A. A., 2024, Sintesis dan Karakterisasi Polivinil Alkohol (PVA) Terlapis Polieugenol, *KOVALEN: Jurnal Riset Kimia*, 10(1), 69-76,

- Rey, S. O., Romero, J. A., Romero, L. T., Martínez, À. F., Roger, X. S., Qamar, M. A., . . . Gevorkov, L., 2023, Powering the future: a comprehensive review of battery energy storage systems, *Energies*, 16(17), 6344,
- Sankari, G., Krishnamoorthy, E., Jayakumaran, S., Gunasekaran, S., Priya, V. V., Subramaniam, S., . . . Mohan, S. K., 2010, Analysis of serum immunoglobulins using Fourier transform infrared spectral measurements, *Biology and Medicine*, 2(3), 42-48,
- Saxena, P., dan Shukla, P., 2021, A comprehensive review on fundamental properties and applications of poly (vinylidene fluoride)(PVDF), *Advanced Composites and Hybrid Materials*, 4, 8-26,
- Shah, V., Wang, B., dan Li, K., 2021, Blending modification to porous polyvinylidene fluoride (PVDF) membranes prepared via combined crystallisation and diffusion (CCD) technique, *Journal of membrane science*, 618, 118708, doi:10.1016/j.memsci.2020.118708
- Siburian, R., Sihotang, H., Raja, S. L., Supeno, M., dan Simanjuntak, C., 2018, New route to synthesise of graphene nano sheets, *Oriental Journal of Chemistry*, 34(1), 182, doi:10.13005/ojc/340120
- Suedee, R., Seechamnaturakit, V., Canyuk, B., Ovatlarnporn, C., dan Martin, G. P., 2006, Temperature sensitive dopamine-imprinted (N, N-methylene-bis-acrylamide cross-linked) polymer and its potential application to the selective extraction of adrenergic drugs from urine, *Journal of Chromatography A*, 1114(2), 239-249,
- Sujiono, E. H., Zabrian, D., Dahlan, M., Amin, B., dan Agus, J., 2020, Graphene oxide based coconut shell waste: synthesis by modified Hummers method and characterization, *Heliyon*, 6(8),
- Tsao, C.-H., Yang, T.-K., Chen, K.-Y., Fang, C.-E., Ueda, M., Richter, F. H., . . . Kuo, P.-L., 2021, Comparing the ion-conducting polymers with sulfonate and ether moieties as cathode binders for high-power lithium-ion batteries, *ACS Applied Materials & Interfaces*, 13(8), 9846-9855,
- Ulanowska, M., dan Olas, B., 2021, Biological properties and prospects for the application of eugenol—a review, *International journal of molecular sciences*, 22(7), 3671,
- Valverde, A., Goncalves, R., Silva, M. M., Wuttke, S., Fidalgo-Marijuan, A., Costa, C. M., . . . Lanceros-Mendez, S., 2020, Metal–organic framework based PVDF separators for high rate cycling lithium-ion batteries, *ACS Applied Energy Materials*, 3(12), 11907-11919,

- Wang, S., Fernandez, C., Chunmei, Y., Fan, Y., Wen, C., Stroe, D.-I., dan Chen, Z., 2021, *Battery system modeling*: Elsevier
- Wei, J., Wang, R., Pan, F., dan Fu, Z., 2022, Polyvinyl alcohol/graphene oxide conductive hydrogels via the synergy of freezing and salting out for strain sensors, *Sensors*, 22(8), 3015, doi:10.3390/s22083015
- Xiao, W., Song, J., Huang, L., Yang, Z., dan Qiao, Q., 2020, PVA-ZrO<sub>2</sub> multilayer composite separator with enhanced electrolyte property and mechanical strength for lithium-ion batteries, *Ceramics International*, 46(18), 29212-29221,
- Xie, L., Wang, G., Jiang, C., Yu, F., dan Zhao, X., 2021, Properties and applications of flexible poly (vinylidene fluoride)-based piezoelectric materials, *Crystals*, 11(6), 644,
- Yamada, H., Yoshii, K., Asahi, M., Chiku, M., dan Kitazumi, Y., 2022, Cyclic voltammetry part 1: fundamentals, *Electrochemistry*, 90(10), 102005-102005, doi:10.5796/electrochemistry.22-66082].
- Zhang, L., Li, X., Yang, M., dan Chen, W., 2021, High-safety separators for lithium-ion batteries and sodium-ion batteries: advances and perspective, *Energy Storage Materials*, 41, 522-545,
- Zhang, Y., Lu, S., Zhao, Z., Zhang, X., Lv, H., Yang, Z., . . . Mu, D., 2024, In-situ curing poly (N, N'-Methylenebisacrylamide)-based composite electrolyte reinforced with high-strength glass fiber skeleton for solid state lithium ion batteries, *Chemical Engineering Journal*, 487, 150474,