

DAFTAR PUSTAKA

- Balint, R., Cassidy, N. J. dan Cartmell, S. H. (2014). Conductive polymers: Towards a smart biomaterial for tissue engineering. *Acta Biomaterialia*, 10 (6), 2341–2353. doi: 10.1016/j.actbio.2014.02.015.
- BASF. (1999). *Glutaraldehyde-50%*. New Jersey: BASF Corporation.
- Batista, K. A. *et al.* (2013). Lipase entrapment in PVA/Chitosan biodegradable film for reactor coatings. *Materials Science and Engineering C*, 33(3) 1696–1701. doi: 10.1016/j.msec.2012.12.082.
- Beswick, *et al.* (2002). *Plastics in Packaging*. Shrophshire: Rapra Technology, Ltd.
- Buraidah, *et al.* (2009). Characterization of chitosan/PVA blended electrolyte doped with NH₄I. *Journal of Non-Crystalline Solids*, 357, 3261–3266.
- Buraidah, *et al.* (2010). Charaterizations of Chitosan-Based Polymer Electrolyte Photovoltaic Cells. *Journal of Photoenergy*, 115, 1-7.
- Costa-Júnior, E. S., Barbosa-Stancioli, E. F., Mansur, A. A. P., Vasconcelos, W. L., & Mansur, H. S. (2009). Preparation and characterization of chitosan/poly(vinyl alcohol) chemically crosslinked blends for biomedical applications. *Carbohydrate Polymers*, 76(3), 472–481. <https://doi.org/10.1016/j.carbpol.2008.11.015>.
- Das, R., Pattanayak, A. J. dan Swain, S. K. (2018). *Polymer nanocomposites for sensor devices, Polymer-based Nanocomposites for Energy and Environmental Applications*. Elsevier Ltd. doi: 10.1016/B978-0-08-102262-7.00007-6.
- Effendi, *et al.* (2007). *Medan Elektromagnetika Terapan*. Jakarta: Erlangga.
- Farha, *et al.* (2012). Pembuatan Membran Komposit Kitosan-PVA dan Pemanfaatannya pada Pemisahan Limbah Pewarna Rhodamin-B, *Prosiding Seminar Nasional Kimia*. Surabaya: Unesa.
- Febriawan, F. B., dan Kusumo, E. (2014). Sintesis dan Karakterisasi Eduble Film Kitosan Termodifikasi PVA dan Sorbitol. *Indonesian*

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SINTESIS DAN KARAKTERISASI FILM KONDUKTIF NANOKOMPOSIT PVA/CS/GA/MWCNT
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Journal of Chemical Science, 2 (1), 1–6.

Goldianto, Hernowo, dan Triyana. (2013) . Pengembangan Prototipe

- Sensor Elektromekanik Berbasis Prinsip Strain Gauge menggunakan Poly(3,4-ethylenedioxythiophene), Poly(styrene sulfonic acid) (PEDOT:PSS). *Jurnal Fisika Indonesia*, XVII, 14–17.
- Harper, *et al.* (2003). *Plastics Materials and Processes: A Concise Encyclopedia*. New York: Wiley.
- Hirankumar, *et al.* (2005). Thermal, Electrical and Optical Studies on The Poly(Vinyl Alcohol) Based Polymer Electrolytes. *Journal of Power Sources*, 144, 262-267.
- Hema, *et al.* (2008). Structural, vibrational and electrical characterization of PVA–NH₄Br polymer electrolyte system. *Physica B* 403, 2740–2747.
- Hema,*et al.* (2009). FTIR, XRD and Ac Impedance Spectroscopic Study on PVA Based Polymer Electrolyte Doped With NH₄X (X = Cl, Br, I). *Journal of Non-Crystalline Solids*, 355, 84-90.
- Hennik, *et al.* (2002). Novel Crosslinking Methods to Design Hydrogels. *Advanced Drug Delivery Reviews*, 54, 13-36.
- Huang, Z. X., Chen, R. Y., Zheng, X., Chen, X., & Chen, Z. (2007). Preparation of PVA-GA-CS/PVA-Fe-SA bipolar membrane and its application in electro-generation of 2,2-dimethyl-3-hydroxypropionic acid. *Journal of Membrane Science*, 23(11), 1771–1775. <https://doi.org/10.1016/j.memsci.2007.09.034>
- Irzaman *et al.* (2010). Studi Konduktivitas Listrik Film Tipis Ba_{0.25} Sr_{0.75} TiO₃ Yang Didadah Ferium Oksida (BFST) Menggunakan Metode Chemical Solution Deposition. *Berkala Fisika*, 13(1), 33–38.
- Jalal, N. M. *et al.* (2017). Open Access Effect of Lithium Chloride Addition on the Electrical Conductivity of Polyvinyl Alcohol Films. *American Journal of Engineering Research (AJER)*, (1), 337–343.
- Jia, Y., Gong, J., Gu, X., Kim, H., & Dong, J. (2007). Fabrication and characterization of poly (vinyl alcohol)/ chitosan blend nanofibers produced by electrospinning method. *Carbohydrate Polymer* 67, 403–409. <https://doi.org/10.1016/j.carbpol.2006.06.010>
- Julian, J dan Eko Santoso. (2016). Pengaruh Komposisi PVA / Kitosan terhadap Perilaku Membran Komposit PVA / Kitosan / Grafir Oksida yang Terikat Silang Asam Sulfat. *Jurnal Sains dan Seni ITS* 5(1), 37–43.

- Kiernan, J. A. (2000). Formaldehyde, formalin, paraformaldehyde and glutaraldehyde: What they are and what they do. *Microscopy Today*, 00-1(c), pp. 8–12.
- Kufian, *et al.* (2007). Dielectric and Conduction Mechanism Studies of PVA-Orthophosphoric Acid Polymer Electrolyte. *Ionics*, 13, 231-234.
- Kumar, D. dan Sharma, R. C. (1998). Advances in conductive polymers. *European Polymer Journal*, 34(8), 1053–1060. doi: 10.1016/S0014-3057(97)00204-8.
- Lewandowski, *et al.* (2001). Novel Proton Conducting Polymer Electrolyte Based on Poly(Vinyl Alcohol) and Trifluoromethane Sulfonic Acid. *Polish Journal of Chemistry*, 75, 1745-1752.
- Ma, P. C. *et al.* (2010). Dispersion and functionalization of carbon nanotubes for polymer-based nanocomposites: A review. *Composites Part A: Applied Science and Manufacturing*, 41(10), 1345–1367. doi: 10.1016/j.compositesa.2010.07.003.
- Migneault, I. *et al.* (2004). Glutaraldehyde: Behavior in aqueous solution, reaction with proteins, and application to enzyme crosslinking. *BioTechniques*, 37(5), 790–802. doi: 10.2144/04375RV01.
- Mittal, G. *et al.* (2015). A review on carbon nanotubes and graphene as fillers in reinforced polymer nanocomposites. *Journal of Industrial and Engineering Chemistry*, 21, 11–25. doi: 10.1016/j.jiec.2014.03.022.
- Mohamed, *et al.* (1995). Polymer Batteries Fabricated From Lithium Complexed Acetylated Chitosan. *Journal of Power Sources*, 56, 153-156.
- Nadarajah, K. (2005). *Development and Characterization of Antimicrobial Edible Films from Crawfish Chitosan*. Louisiana: Louisiana State University.
- Noezar, *et al.* (2008). Membran PVA-Chitosan Crosslinked Untuk Pemisahan Campuran Etanol-Air Secara Pervaporasi. *Jurnal Teknik Kimia Indonesia*, 7(1), 724-730.
- Putri, R. (2009). *Studi Konduktivitas Elektrolit Polimer Kitosan/PVA+KOH*. (Tesis). Institut Pertanian Bogor, Bogor.
- Qingwen, L. *et al.* (2007). Structure Dependent Electrical Properties of Carbon Nanotube Fibers. *Advanced Material* 19 (20), 3358-3363.

- Rajendran, *et al.* (2001). Ionic Conductivity Studies Inpoly(Methylmethacrylate)-Polyethylene Oxide Hybrid Polymer Electrolytes with Lithium Salts. *Journal of Power Sources*, 96, pp. 406-410.
- Ramakrishna, P. *et al.* (2011). Interpenetrating polymer network of crosslinked blend microspheres for controlled release of acebutolol HCl. *Journal of Applied Pharmaceutical Science*, 1(6), 212–219.
- Rani, G. (2018). A review on the conducting polymers. *International Journal of Advanced Science and Research*, 3 (3), 6–13.
- Rinaudo, M. (2006). Chitin and chitosan: Properties and application. *Prog.Polym. Sci*, 31, pp. 603-632.
- Sahubawa, L dan Ustadi. (2014). *Teknologi Pengawetan dan Pengolahan Hasil Perikanan*. Yogyakarta: Gajah Mada University Press.
- Smart *et al.* (2006). The Biocompatibility of Carbon Nanotubes. *Carbon*, 44, pp.1034–1047.
- Septiani, S. (2017). *Sintesis dan Karakterisasi Thin Film Konduktif Berbasis Nanokomposit PVA/CS/GA/SWCNT*. (Skripsi). Universitas Pendidikan Indonesia, Bandung.
- Sheftel, V. (2000). *Indirect Food Additives and Polymers : Migration and Toxicology*. US: CRC Press.
- Sitorus, B. dan Suendo, V. (2011). Sintesis Polimer Konduktif sebagai Bahan Baku untuk Perangkat Penyimpan Energi Listrik. *Jurnal ELKHA*, 3 (1), 43–47.
- Srivastava, N., Singh, Y. dan Singh, R. A. (2013). Preparation of three-component conducting polymer composite using nucleate doping technique. *Indian Journal of Engineering and Materials Sciences*, 20(1), 68–72.
- Thakur, V. K., Thakur, M. K. and Gupta, R. (2014). Review : Raw Natural Fiber – Based Polymer Composites. *International Journal of Polymer Analysis and Characterization Review : Raw Natural Fiber – Based Polymer Composites*, 19, 256-271. doi: 10.1080/1023666X.2014.880016.
- Wang, T., Turhan, M. dan Gunasekaran, S. (2004). Selected properties of pH-sensitive, biodegradable chitosan-poly(vinyl alcohol) hydrogel. *Polymer International*, 53(7), 911–918. doi:

10.1002/pi.1461.

- Woo, S., Kim, Y., Dong, T., Piao, Y., & Kim, H. (2012). Electrochimica Acta Synthesis of a graphene-carbon nanotube composite and its electrochemical sensing of hydrogen peroxide. *Electrochimica Acta*, *59*, 509–514. <https://doi.org/10.1016/j.electacta.2011.11.012>
- Yusof, Y. M., Illias, H. A., & Kadir, M. F. Z. (2014). Incorporation of NH₄Br in PVA-chitosan blend-based polymer electrolyte and its effect on the conductivity and other electrical properties. *Ionic*, *20*, 1235–1245. <https://doi.org/10.1007/s11581-014-1096-1>
- Zhan, C. *et al.* (2017). Conductive polymer nanocomposites: a critical review of modern advanced devices. *Journal of Materials Chemistry C*, *5*(7), 1569–1585. doi: 10.1039/c6tc04269d.