

## DAFTAR PUSTAKA

- Cánovas, M. J.; Sobrados, I.; Sanz, J.; Acosta, J. L.; Linares, A. (2006): Proton mobility in hydrated sulfonated polystyrene: NMR and impedance studies. In *Journal of Membrane Science* 280 (1-2), pp. 461–469.
- Chandan, Amrit; Hattenberger, Mariska; El-Kharouf, Ahmad; Du, Shangfeng; Dhir, Aman; Self, Valerie et al. (2013): High temperature (HT) polymer electrolyte membrane fuel cells (PEMFC)-A review. In *Journal of Power Sources* 231, pp. 264–278.
- Chen, Sheng-Li; Bocarsly, Andrew Bruce; Benziger, J. (2005a): Nafion-layered sulfonated polysulfone fuel cell membranes. In *Journal of Power Sources* 152, pp. 27–33.
- Chen, Sheng-Li; Bocarsly, Andrew Bruce; Benziger, J. (2005b): Nafion-layered sulfonated polysulfone fuel cell membranes. In *Journal of Power Sources* 152, pp. 27–33.
- Cook, Brian (2002): Introduction to fuel cells and hydrogen technology. In *Engineering Science & Education Journal* 11 (6), pp. 205–216.
- Harper, Charles A.; Petrie, Edward M. (2003): *Plastics materials and processes: a concise encyclopedia*: John Wiley & Sons.
- Hendrana, Sunit (2006): PENGEMBANGAN ULTRA SPEED HETEROGENEOUS SULFONATION PADA POLISTIREN. In *text*.
- Hendrana, Sunit; Chaldun, Elsy Rachimi; Pudjiastuti, Sri; Rahayu, Imam; Natanael, Christi Liamita; Oktaverina, Dwi; Semboor, Morina Seftiviani (2013): Heterogeneous Sulphonation of Polystyrene for Polymer Electrolyte Membrane Fuel Cell Application. In : *Macromolecular Symposia*, vol. 327. Wiley Online Library, pp. 80–84.
- Hendrana, Sunit; Hartanti, Febrina Tri; Rahayu, Iman (2018): Morphology Effect On Behaviour Of Phosphoricacidin Supramolecular Structured Polymer Membrane Fuel Cell. In *Jusami/ Indonesian Journal of Materials Science* 14 (4), pp. 241–247.
- Hoogers, Gregor (2002): *Fuel cell technology handbook*: CRC press.
- Inagaki, Yasuhito; Kiuchi, Shigeo (2001): Converting waste polystyrene into a polymer flocculant for wastewater treatment. In *Journal of Material Cycles and Waste Management* 3 (1), pp. 14–19.
- Kim, Deuk Ju; Jo, Min Jae; Nam, Sang Yong (2015): A review of polymer-nanocomposite electrolyte membranes for fuel cell application. In *Journal of Industrial and Engineering Chemistry* 21, pp. 36–52.
- Kodre, K. V.; Attarde, SR; Yendhe, P. R.; Patil, R. Y.; Barge, V. U. (2014): Differential scanning calorimetry: A review. In *Research and Reviews: Journal of Pharmaceutical Analysis* 3 (3), pp. 11–22.

- Larminie, James; Dicks, Andrew; McDonald, Maurice S. (2003): Fuel cell systems explained: J. Wiley Chichester, UK (2).
- Li, Qingfeng; He, Ronghuan; Jensen, Jens Oluf; Bjerrum, Niels J. (2003): Approaches and recent development of polymer electrolyte membranes for fuel cells operating above 100 C. In *Chemistry of materials* 15 (26), pp. 4896–4915.
- Lufrano, F.; Gatto, I.; Staiti, P.; Antonucci, V.; Passalacqua, E. (2001): Sulfonated polysulfone ionomer membranes for fuel cells. In *Solid State Ionics* 145 (1-4), pp. 47–51.
- Martins, Cristiane R.; Ruggeri, Giacomo; Paoli, Marco-A de (2003): Synthesis in pilot plant scale and physical properties of sulfonated polystyrene. In *Journal of the Brazilian Chemical Society* 14 (5), pp. 797–802.
- Othman, M. H.D.; Ismail, A. F.; Mustafa, A. (2010): Recent development of polymer electrolyte membranes for direct methanol fuel cell application-a review. In *Malaysian Polym J* 5 (2), pp. 1–36.
- Smit, M. A.; Ocampo, A. L.; Espinosa-Medina, M. A.; Sebastian, P. J. (2003): A modified Nafion membrane with in situ polymerized polypyrrole for the direct methanol fuel cell. In *Journal of Power Sources* 124 (1), pp. 59–64.
- Smitha, B.; Sridhar, S.; Khan, A. A. (2003): Synthesis and characterization of proton conducting polymer membranes for fuel cells. In *Journal of Membrane Science* 225 (1-2), pp. 63–76.
- Souzy, Renaud; Ameduri, Bruno (2005): Functional fluoropolymers for fuel cell membranes. In *Progress in Polymer Science* 30 (6), pp. 644–687.
- Sridhar, K. R. (2006): Nanostructured fuel cell electrode: Google Patents.
- Turbak, Albin F. (1962a): Polymer sulfonation without cross linking. The sulfur trioxide-phosphate system. In *Industrial & Engineering Chemistry Product Research and Development* 1 (4), pp. 275–278.
- Turbak, Albin F. (1962b): Polymer sulfonation without cross linking. The sulfur trioxide-phosphate system. In *Industrial & Engineering Chemistry Product Research and Development* 1 (4), pp. 275–278.
- Wong, C. Y.; Wong, W. Y.; Ramya, K.; Khalid, M.; Loh, Kee Shyuan; Daud, W. R.W. et al. (2019): Additives in proton exchange membranes for low-and high-temperature fuel cell applications: A review. In *International Journal of Hydrogen Energy*.
- Woo, Youngtai; Oh, Se Young; Kang, Yong Soo; Jung, Bumsuk (2003): Synthesis and characterization of sulfonated polyimide membranes for direct methanol fuel cell. In *Journal of Membrane Science* 220 (1-2), pp. 31–45.
- Xing, Peixiang; Robertson, Gilles P.; Guiver, Michael D.; Mikhailenko, Serguei D.; Wang, Keping; Kaliaguine, Serge (2004): Synthesis and characterization of sulfonated poly (ether ether ketone) for proton exchange membranes. In *Journal of Membrane Science* 229 (1-2), pp. 95–106.