

## DAFTAR PUSTAKA

- Al Baroroh, L. A., Handayani, I., & Rosi, M. (2017). Effects Of Mn<sup>7+</sup> Insertion on The Conductivity and Capacitance of Nanoporous Carbon From Coconut Shell. *e-Proceeding of Engineering : Vol.4, No.1*, ISSN : 2355-9365.
- Al Mahbub, M. H., Deb, N., Abedin, M. R., Abedin, S., & Khan, M. S. (2015). Metal Recovery from Waste Dry Cell Batteries. Khulna - Bangladesh: 4th International Conference on Solid Waste Management in the Developing Countries.
- Almeida, M. F., Xara, S. F., Delgado, J., & Costa, C. A. (2006). Characterization of spent AA household alkaline batteries. *Waste Management* 26, 466-476.
- Amacher, J. K., Koenig, R., & Kitchen, B. (2000). *Salinity and Plant Tolerance*. Utah State University: All Archived Publications.
- Amelia. (2018, Februari 1). *Arcandra Ungkap Enam Sebab PLTS Sulit Berkembang di Indonesia*. Retrieved from Katadata.com:  
<https://katadata.co.id/arnold/berita/5e9a5609bfb9c/arcandra-ungkap-6-penyebab-plts-sulit-berkembang-di-indonesia>
- Amelia, R., Khakim, A., Mahardika, L., & Maddu, A. (2013). *Pembuatan nanokarbon dengan karbon limbah baterai untuk aplikasi elektroda superkapasitor*. Bogor: Institut Pertanian Bogor.
- Andhika, I. F., Hertiningtyas, C., Aji, A. D., Endah, T., Saraswati, & Patiha. (2014). Penggunaan Karbon Batu Baterai Sebagai Elektroda Dalam Metoda Arc Discharge Untuk Pembuatan TiO<sub>2</sub> Termodifikasi Karbon. *ALCHEMY Jurnal Penelitian Kimia*, Vol. 10, No. 2, 186-194.
- Astuti, & Phastika, M. (2015). Fabrication Of APorous Carbon ElectrodePrepared With Candlenut Shell And Design Of Capasitive Deionisation (CDI) System Prototype For Water Desalination Of Brakish Waterl. *Jurnal Pendidikan Fisika Indonesia* 11 (1), 100-107.
- Atmanto, L. J. (2015). Pembangkit Listrik Tenaga Panas Bumi (PLTP) dan Kendala Pembangunannya. *Majalah Ilmiah Pengembangan Rekayasa dan Sosial*, Vol. 11 No. 1, DOI: http://dx.doi.org/10.32497/orbith.v11i1.373.

- Audinos, R. (1983). Electrodialyse Inverse, Etude LDe L'Energie Electrique Obtenue A Partir De Deux Solutions Salinities Differentes. *Journal Of Power Sources* (10), 203-217.
- Avci, A. H., Sarkar, P., Messana, D., Fontananova, E., Di Profio, G., & Curcio, E. (2016). Effect of MgCl<sub>2</sub> on Energy Generation by Reverse Electrodialysis. *Chemical Engineering Transaction Vol 47*, 361-366.
- Bartels, C. R., & Andes, K. (2012). Consideration of energy savings in SWRO. *Desalination and Water Treatment*, 51, 717-725, DOI: 10.1080/19443994.2012.700038.
- Boer, R., Dewi, R. G., Siagian, U. W., Ardiansyah, M., Surmaini, E., Ridha, D. M., . . Parinderati, R. (2012). *Metodologi Penghitungan Tingkat Emisi Gas Rumah Kaca "Kegiatan Pengadaan dan Penggunaan Energi"*. Jakarta: Kementerian Lingkungan Hidup.
- Bogeat, A. B., Franco, M. A., Gonzalez, C. F., Garcia, A. M., & Serrano, V. G. (2014). Electrical conductivity of activated carbon–metal oxide nanocomposites under compression : a comparison study. *Phys. Chem. Chem. Phys* , 25161--25175, DOI: 10.1039/c4cp03952a.
- Brende, B. (2019). *The Global Risks Report 2019 14th Edition*. Cologny/Geneva Switzerland: World Economic Forum.
- Brown, T. E., LeMay, H. E., Bursten, B. E., Murphy, C., Woodward, P., & Stoltzfus, M. E. (2015). *Chemistry: The Central Science (13th edition)*. New Jersey: Pearson Education, Inc.
- Burheim, O. S., Seland, F., Pharoah, J. G., & Kjelstrup, S. (2012). Improved electrode systems for reverse electro-dialysis and electro-dialysis. *Desalination* (285), 147-152.
- Castaño, V., & Sáenz, S. (2017). Design and optimization of a reverse electrodialysis stack for energy generation through salinity gradients. *Revista DYNA*, 84(202), ISSN 0012-7353, 84-91.
- Celebanska, A., Filipiak, M. S., Filipiak, A., & Jubete, E. (2015). Nanocarbon electrode prepared from oppositely charged nanoparticles and nanotubes for low-potential thiacholine oxidation. *Electrochimica Acta* 176, 249-254.
- Cheng, Q., Tang, J., Ma, J., Zhang, H., Shinya, N., & Qin, L.-C. (2011). Graphene and nanostructured MnO<sub>2</sub> composite electrodes for supercapacitors. *Carbon* (49), 2917 – 2925.

- Choi, J.-H. (2010). Fabrication of a carbon electrode using activated carbon powder and application to the capacitive deionization process. *Separation and Purification Technology* 70, 362-366.
- Cipollina, A., & Micale, G. (2016). *Sustainable Energy from Gradient Salinity*. Cambridge USA: Woodhead Publishing.
- Crespo, L., Dobrotkova, S., Philibert, C., Richter, C., & Simbolotti, G. (2012). *Renewable Energy Technology : Cost Analysis Series*. Europe Union: International Renewable Energy Agency (IRENA).
- Dang, H.-S., Weiber, E. A., & Jannasch, P. (2015). Poly(phenylene oxide) functionalized with quaternary ammonium groups via flexible alkyl spacers for highperformance anion exchange membranes. *Journal of Materials Chemistry A*, DOI: 10.1039/C5TA00350D.
- Daniilidis, A., Herber, R., & Vermaas, D. A. (2014). Upscale potential and financial feasibility of a reverse electrodialysis power plant. *Applied Energy*, 257 - 265.
- Daraghmeh, A., Hussain, S., Saadeddin, I., Servera, L., Xuriguera, E., Cornet, A., & Cirera, A. (2017). A Study of Carbon Nanofibers and Active Carbon as Symmetric Supercapacitor in Aqueous Electrolyte: A Comparative Study. *Nanoscale Research Letters*, DOI 10.1186/s11671-017-2415-z.
- Delord, B., Neri, W., Bertaux, K., Derre, A., Ly, I., Mano, N., & Poulin, P. (2017). Carbon Nanotube Fiber Mats For Microbial Fuel Cell Electrodes. *Bioresource Technology*, doi: <http://dx.doi.org/10.1016/j.biortech.2017.06.170>.
- DEN. (2017). *Outlook Energi Indonesia*. Jakarta: Kementerian ESDM Republik Indonesia.
- Denchak, M. (2017, February 23). *The lowdown on the earth's central environmental threat*. Retrieved from Global Climate Change: What You Need to Know: <https://www.nrdc.org/stories/global-climate-change-what-you-need-know>
- Detikhealth. (2011). *Banyak yang Tidak Tahu Bahaya Buang Baterai Bekas*. Retrieved Februari 16, 2021, from <https://health.detik.com/ulasan-khas/d-1594162/banyak-yang-tidak-tahu-bahaya-buang-baterai-bekas>
- Ditjen KEBTKE. (2016). *Jurnal Energi Edisi 02*. Jakarta: Ditjen KEBTKE, Kementerian ESDM Republik Indonesia.

- Dutta, T., Kim, K.-H., Deep, A., Szulejko, J. E., Vellingiri, K., Kumar, S., . . . Yun, S.-T. (2017). Recovery of nanomaterials from battery and electronic wastes: A new paradigm of environmental waste management. *Renewable and Sustainable Energy Reviews*, <http://dx.doi.org/10.1016/j.rser.2017.10.094>.
- Ebin, B., Petranikova, M., Steenari, B.-M., & Ekberg, C. (2015). Production of zinc and manganese oxide particles by pyrolysis of alkaline and Zn–C battery waste. *Waste Management*, <http://dx.doi.org/10.1016/j.wasman.2015.10.029>.
- Engineering, T. (2001). *The Engineering ToolBox*. Retrieved December 3, 2020, from [https://www.engineeringtoolbox.com/fuels-higher-calorific-values-d\\_169.html](https://www.engineeringtoolbox.com/fuels-higher-calorific-values-d_169.html)
- EPA. (2019). *Common CHP Configurations*. USA Environmental Protection Agency.
- Fatoni, M., Muryani, C., & Nugraha, S. (2018). Studi Agihan Air Tanah Dangkal di Kecamatan Puring Kabupaten Kebumen 2016. *Jurnal GeoEco*, 4, 77-78.
- Frackowiak, E., & Beguin, F. (2001). Carbon materials for the electrochemical storage of energy in capacitors. *Carbon* 39, 937–950.
- Furqon, Z. (2016). *Sea Water Desalination Pada Unit Utilities Pertamina RU IV Cilacap*. Cepu: STEM Akamigas.
- Geise, G., Curtis, A., Hatzell, M., Hickner, M., & Logan, B. (2014). Salt Concentration Differences Alter Membrane Resistance in Reverse Electrodialysis Stacks. *Environmental Science & Technology Letters*, 36–39, <https://doi.org/10.1021/ez4000719>.
- GHGProtocol. (2006). *Allocation of GHG Emissions from a Combined Heat and Power (CHP) Plant*. A WRI/WBCSD GHG Protocol Initiative.
- Gilstrap, M. C. (2013). *Renewable Electric Generation From Salinity Gradient Using Reverse Electrodialysis*. Georgia: School of Civil & Environmental Engineering Georgia Institute of Technology.
- Golnabi, H., Matloob, M., Bahar, M., & Sharifian, M. (2009). Investigation of electrical conductivity of different water liquids and electrolyte solutions. *Iranian Physical Journal*, 3-2, 24-28.
- González, J. S., Stoeckli, F., & Centeno, T. A. (2011). The role of the electric conductivity of carbons in the electrochemical capacitor performance. *Journal of Electroanalytical Chemistry* 657, 176-180.

- Gordillo, C. A., Corral, F. S., Orta, C. A., Delgado, V. J., Velázquez, M. G., Hernández, E. H., . . . Martínez, P. A. (2017). Surface Modification of Carbon Nanofibers and Graphene Platelets Mixtures by Plasma Polymerization of Propylene. *Journal of Nanomaterials*, vol. 2017, <https://doi.org/10.1155/2017/4875319>.
- Güler, E., Elizen, Rianne, Vermaas, D. A., Saakes, M., & Nijmeijer, K. (2013). Performance-determining membrane properties in reverse electrodialysis. *Journal of Membrane Science* 446, 266-276.
- Haghi, A., Thomas, S. P., & Moein, M. M. (2015). *Foundation Of Nano Technology Volume 1 : Pore Size Carbon Base*. Toronto - New Jersey: Apple Academic Press, Inc.
- Hamelers, H., Buisman, C., & Post, J. (2009). Influence of multivalent ions on power production from mixing salt and fresh water with a reverse electrodialysis system. *Journal of Membrane Science* 330, 67-72.
- Haque Khan, M., & Kurny, A. (2012). Characterization of Spent Household Zinc-Carbon Dry Cell Batteries in the Process of Recovery of Value Metals. *Journal of Minerals & Materials Characterization & Engineering Vol. 11 No. 66*, 641-651.
- Hidayat, M. I., & Suprapto. (2017). Pemisahan Mangan Dioksida ( $MnO_2$ ) dari Limbah Pasta Baterai dengan Metode Elektrolisis. *Jurnal Sains dan Seni ITS Vol 6 No.2*, C41-C45.
- Hidayat, S., Putra, R., Alamsyah, W., Saat, A. H., & Rivelin, N. (2017). Pengaruh Penambahan Karbon dan PVdF terhadap Konduktivitas Listrik Bahan Komposit LiFePO<sub>4</sub>. *Pertemuan Ilmiah XXXI HFI Jateng & DIY* (pp. 81-84). Yogyakarta: ISSN : 0853-0823.
- Humplík, T., Lee, J., O'Hern, S. C., Fellman, B. A., Baig, M. A., Hassan, S. F., . . . Wang, E. N. (2011). Nanostructured materials for water desalination. IOP Publishing Ltd, doi:10.1088/0957-4484/22/29/292001.
- IEC. (2015, November 27). *Indonesia Environmental Energy Center*. Retrieved Februari 18, 2021, from <https://environment-indonesia.com/articles/konsep-teknologi-ramah-lingkungan/>
- Inoue, G., & Kawase, M. (2017). Numerical and experimental evaluation of the relationship between porous electrode structure and effective conductivity of ions and electrons in lithium-ion batteries. *Journal of Power Sources* 342, 476-488, <http://dx.doi.org/10.1016/j.jpowsour.2016.12.098>.

- IPCC. (2006). *IPCC Guidelines for National Greenhouse Gas Inventories*. Retrieved December 3, 2020, from <https://www.ipcc-nccc.iges.or.jp/public/2006gl/vol2.html>
- IPCC. (2014). *AR5 Climate Change 2014: Mitigation of Climate Change*. New York, USA: Cambridge University Press.
- Isidor, B. (2016, February 23). *Battery University*. Retrieved November 20, 2017, from [http://batteryuniversity.com/learn/article/bu\\_311\\_supplementary\\_battery\\_raw\\_materials](http://batteryuniversity.com/learn/article/bu_311_supplementary_battery_raw_materials)
- Iswanto, Sudarmadji, Wahjuni, E. T., & Sutomo, A. H. (2016). Timbulan Sampah B3Rumah Tangga dan Potensi Dampak Kesehatan Lingkungan di Kabupaten Sleman Jogjakarta. *Jurnal Manusia dan Lingkungan*, Vol 23, No 2, 179-188.
- Iwana, M. (2016). *Climate Change Impact in Indonesia and Bangladesh: A Literature Review*. DOI:10.13140/RG.2.1.3234.9042: <https://www.researchgate.net/publication/302569770>.
- Jagtoyen, M., Pardue, J., Rantell, T., Grulke, E., & Derbyshire, F. (2000). *Porosity of Carbon Nanotubes*. Kentucky - USA: University of Kentucky, Center for Applied Energy Research.
- Kang, J. H. (2015). *Fabrication and characterization of nano carbon based electrochemical double-layer capacitors*. Ontario, Canada: University of Waterloo.
- Kiehne, H. (2003). *Battery Technology Handbook*. New York. Basel: Marck Dekker, Inc.
- Kim, H., Kim, Y. E., Jeong, Jo, N., Hwang, K. S., Han, J. H., . . . Kim, C. S. (2017). Innovative reverse-electrodialysis power generation system for carbon capture and utilization. *Journal of CO<sub>2</sub> Utilization* 20, 312–317.
- Kurniawati, A., Nugroho, A. S., & Kaswinarni, F. (2015). The Impact of Landfill Leachate Jatibarang Towards the Diversity and Abundance of Plankton in the Waters of Kreo River Semarang City. (pp. 708 - 713). Semarang: Seminar Nasional XII Pendidikan Biologi FKIP UNS 2015.
- Kusyuniarti, M., Hadi, A., & Wijayanti, P. (2011). *Sistem Pengelolaan Limbah Baterai Rumah Tangga Melalui Pendekatan Sosial dan Organisasi*. Bogor: Institut Pertanian Bogor.

- Lee, S.-Y., Jeong, Y.-J., Chae, S.-R., Yeon, K.-H., Lee, Y., Kim, C.-S., . . . Park, J.-S. (2016). Porous carbon-coated graphite electrodes for energy production from salinity gradient using reverse electrodialysis. *Journal of Physics and Chemistry of Solids* 91, 34-40.
- Linden, D., & Reddy, T. B. (2002). "8" *Handbook of batteries*. McGraw-Hill, ISBN 978-0-07-135978-8.
- Liu, F., Coronell, O., & Call, D. F. (2017). Electricity generation using continuously recirculated flow electrodes in reverse electrodialysis. *Journal of Power Sources* 355, 206-210.
- Logan, B. E., & Elimelech, M. (2012, Agustus 16). Membrane Based Processes for Sustainable Power Generation using Water. *Vol 488 Nature*, pp. 313-319.
- Mullinger, P., & Jenkins, B. (2013). Chapter 2 - The Combustion Process. In *Industrial and Process Furnaces (Second Edition)* (pp. 31-65, <https://doi.org/10.1016/B978-0-08-099377-5.00002-2>). High Wycombe, Buckinghamshire, UK: Butterworth-Heinemann.
- Nasrat, L. S., Iskander, B. A., & Kamel, M. N. (2017). Carbon Nanotubes Effect for Polymer Materials on Break Down Voltage. *International Journal of Electrical and Computer Engineering (IJECE)* Vol. 7, No. 4, 1770-1778.
- Nindhia, T. G., Surata, I. W., Swastika, I. D., & Wahyudi, I. M. (2016). Reuse of Carbon Paste from Used Zinc-Carbon Battery for Biogas Desulfurizer with Clay as a Binder. *International Journal of Environmental Science and Development*, Vol. 7, DOI: 10.7763/IJESD.2016.V7.768.
- Pattle, R. (1954). Production of electric power by mixing fresh and salt water in the hydroelectric pile. *Nature* (174), 655-662.
- Pawlowicz, R. (2015). The Absolute Salinity of seawater diluted by riverwater. *Deep-Sea Research I* 101, 71-79.
- Pierson, H. O. (1994). The Element Carbon. In *Hand Book Of Carbon, Graphite, Diamond, and Fullerenes* (pp. 11 - 42, <https://doi.org/10.1016/B978-0-8155-1339-1.50007-4>). William Andrew.
- Pistoia, G. (2005). Battery Standards and Sizes. In G. Pistoia, *Batteries for Portable Devices* (pp. 29-32). <https://doi.org/10.1016/B978-044451672-5/50003-X>.
- Portet, C., Yushin, G., & Gogotsi, Y. (2008). Effect of Carbon Particle Size on Electrochemical Performance of EDLC. *Journal of The Electrochemical Society*, 155, DOI: 10.1149/1.2918304.

- Post, J., Goeting, C., Valk, J., Goinga, S., Veerman, J., Hamelers, H., & Hack, P. (2010). Towards implementation of reverse electrodialysis for power generation from salinity gradients. *Desalination and Water Treatment* 16:1-3, 182-193.
- Post, J., Hamelers, H., & Buisman, C. (2008, May 5). Energy Recovery from Controlled Mixing Salt and Fresh Water with a Reverse Electrodialysis System. *Environmental Science & Technology*, 5785-5790.
- Post, J., Veerman, J., Hamelers, J., Euverink, G., Metz, S., Nymeyer, D., & Buisman, C. (2007). Salinity-gradient power: Evaluation of Salinity-gradient power: Evaluation of . *Journal Of Membrane Science* 288, 218-230.
- Prasetya, Y., Risqiputra, M. C., & Susanto, H. (2013). Penyediaan Energi Listrik Berbasis Perbedaan Salinitas Dengan Menggunakan Teknologi Reverse Electrodialysis. *Jurnal Teknologi Kimia dan Industri Vol. 4 No.2*, 157-163.
- Prasojo, E., Nurzaman, H., Walujanto, Rosdiana, D., & Ismutadi, P. (2016). *Energy Outlook Indonesia 2016*. Jakarta: Sekretariat Jendral Dewan Energi Nasional Indonesia.
- Pratama, Y. (2015, October 13). *Dampak Negatif Penggunaan Energi Fosil dari Sektor Transportasi dan Industri*. Retrieved from Indonesia Environment and Energy Center: <https://environment-indonesia.com/dampak-negatif-penggunaan-energi-fosil-dari-sektor-transportasi-dan-industri/>
- Public\_Law\_104-142. (1996). *Mercury-Containing Battery Management Act*. United State of America Congress.
- Rahman, T., Fadhluloh, M. A., Nandiyanto, A. B., & Mudzakir, A. (2015). Review : Sintesis Karbon Nanopartikel. *Jurnal Integrasi Proses Vol 5 No.3*, 120-131.
- Rahmawati, F., Yuliati, L., Alaih, I. S., & Putri, F. R. (2017). Carbon rod of zinc-carbon primary battery waste as a substrate for CdS and TiO<sub>2</sub> photocatalyst layer for visible light driven photocatalytic hydrogen production. *Journal of Environmental Chemical Engineering*, <http://dx.doi.org/10.1016/j.jece.2017.04.032>.
- Rakesh, B. M., Bhanu, P. S., & Shailaja, P. (2017). *Carbon Nanomaterials Synthesis, Structure, Properties and Application* . Boca Raton: CRC Plus Taylor & Francis Group.
- Ratchahat, R., Viriya-empikul, N., Faungnawakij, K., Charinpanitkul, T., & Soottitantawat, A. (2010). Synthesis of Carbon Microspheres from Starch by Hydrothermal Process. *Science Journal UBU Vol. 1 No.2*, 40-45.

- Raut, A. S. (2014). *Electrochemical Behavior of Carbon Nanostructured Electrodes: Graphene, Carbon Nanotubes, and Nanocrystalline Diamond*. Duke: Department of Electrical and Computer Engineering Duke University.
- Republik\_Indonesia\_PP\_No\_101. (2014). *Tentang Pengelolaan Limbah Bahan Berbahaya dan Beracun*.
- Republik\_Indonesia\_PP\_No\_22. (2021). Tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup
- Republik\_Indonesia\_UU\_No\_32. (2009). *Tentang Perlindungan dan Pengelolaan Lingkungan Hidup*.
- Republik\_Indonesia\_UU\_No\_11. (2020). *Tentang Cipta Kerja*.
- Ridwan, M. (2020, December 15). *Pemanfaatan Potensi PLTS Terhambat Masalah Ini*. Retrieved from Bisnis.com:  
<https://ekonomi.bisnis.com/read/20201215/44/1331312/pemanfaatan-potensi-plts-terhambat-masalah-ini>
- Romano, M. S., Razal, J. M., Antiohos, D., Wallace, G., & Chen, J. (2015). Nano-Carbon Electrodes for Thermal Energy Harvesting. *Journal Of Nanoscience and Nanotechnology* 15, doi:10.1166/jnn.2015.9731.
- Sa'adah, A. F., Fauzi, A., & Juanda, B. (2017). Prediction of Fuel Supply and Consumption in Indonesia with System Dynamics Model. *Jurnal Ekonomi dan Pembangunan Indonesia*, Vol. 17 No. 2, 118–137, DOI: <http://dx.doi.org/10.21002/jepi.v17i2.661>.
- Sánchez-González, J., Stoeckli, F., & Centeno, T. A. (2011). The role of the electric conductivity of carbons in the electrochemical capacitor performance. *Journal of Electroanalytical Chemistry* 657, 176-180.
- Sasakura Engineering. (1998). *Operation and Maintenance Manual Book Volume I of 2160 m3/day Desalination Plant*. Osaka. Japan Energi: Sasakura Engineering Co. Ltd.
- Scialdone, O., Albanese, A., D'Angelo, A., Galia, A., & Guarisco, C. (2013). Investigation of electrode material – redox couple systems for reverse electrodialysis processes. Part II: Experiments in a stack with 10–50 cell pairs. *Journal of Electroanalytical Chemistry* (704), 1-9.
- Scialdone, O., Guarisco, C., Grispo, G., D Angelo, A., & Galia, A. (2012). Investigation of electrode material – Redox couple systems for reverse

- electrodialysis processes. Part I: Iron redox couples. *Journal of Electroanalytical Chemistry* (681), 66–75.
- Setiyono. (2005). Potensi Limbah Bahan Berbahaya dan Beracun (B3) di Wilayah DKI Jakarta dan Strategi Pengelolaannya. *JAI, Vol 1, No.3*, 304-317.
- Shabeebaa, P., Thayyil, M. S., Pillai, M. P., Soufeena, P. P., & Niveditha, C. V. (2018). Electrochemical Investigation of Activated Carbon Electrode Supercapacitors. *Russian Journal of Electrochemistry Vo. 54 No. 3*, 302-308.
- Sivasakthivel, T., & Reddy, K. K. (2011). Ozone Layer Depletion and Its Effects: A Review. *International Journal of Environmental Science and Development*, 2, 30 - 37 , DOI: 10.7763/IJESD.2011.V2.93.
- Suda, F., & Matsuo, T. U. (2007). Transient changes in the power output from the concentration difference cell (dialytic battery) between seawater and river water. *Energy* 32, 165 - 173 ; DOI : <https://doi.org/10.1016/j.energy.2006.04.005>.
- Sukandarrumudi. (1999). *Bahan Galian Industri*. Yogjakarta: Gadjahmada University Press.
- Supriadi, A., Darmawan, A., Prasetyo, B. E., Kurniasih, T. N., Kurniawan, F., Oktaniani, K., . . . Sediadi, I. (2015). *Data Inventori Emisi GRK Sektor Energi*. Jakarta: Pusat Data dan Informasi Kementerian ESDM.
- Susanto, H., Fitrianingtyas, M., Samsudin, A. M., & Syakur, A. (2017). Experimental study of the natural organic matters effect on the power generation of reverse electrodialysis. *International of Energy Research*, DOI: 10.1002/er.3728.
- Taherian, R. (2019). The Theory of Electrical Conductivity. In R. Taherian, *Electrical Conductivity in Polymer-Based Composites: Experiments, Modelling and Applications* (pp. 1-18). Elsevier Inc, DOI:<https://doi.org/10.1016/B978-0-12-812541-0.00001-X>.
- Tedesco, M., Cipollina, A., Tamburini, A., & Micale, G. (2017). Towards 1 kW power production in a reverse electrodialysis pilot plant with saline waters and concentrated brines. *Journal of Membrane Science* 522, 226-236.
- Tedesco, M., Hamelers, H., & Biesheuvel, M. (2018). Nernst-Planck transport theory for (reverse) electrodialysis: III. Optimal membrane thickness for enhanced process performance. *Journal of Membrane Science* 565, DOI: 10.1016/j.memsci.2018.07.090.

- Tedesco, M., Scalici, C., Vaccari, D., Cipollina, A., Tamburini, A., & Micale, G. (2016). Performance of the first Reverse Electrodialysis pilot plant for power production from saline waters and concentrated brines. *Journal Membrane Science* 500, 33–45.
- TLV. (2020). *TLV Toolbox*. Retrieved December 3, 2020, from <https://www.tlv.com/global/ME/mobile/>
- Topsoe, H. (1966). *Geometric Factor of Four Point Resistivity Measurement*. Vedbaek: Semiconductor Division.
- Veerman, J. (2010). *Reverse electrodialysis design and optimization by modeling and experimentation: Design and optimization by modeling and experimentation*. Groningen: Groningen University.
- Veerman, J., & Vermaas, D. (2012). Reverse Electrodialysis Fundamental. Dalam J. Veerman, & D. Vermaas, *Sustainable Energy from Salinity Gradients* (hal. 77-133). Cambrdge USA: Woodhead Publisher.
- Veerman, J., de Jong, R., Saakes, M., Metz, S., & Harmsen, G. (2009). Reverse electrodialysis: Comparison of six commercial membrane pairs on the thermodynamic efficiency and power density. *Journal of Membrane Science*, (343), 7 - 15; DOI : 10.1016/j.memsci.2009.05.047.
- Veerman, J., Saakes, M., J. Metz, S., & Harmsen, G. J. (2010). Electrical Power from Sea and River Water by Reverse Electrodialysis: A First Step from the Laboratory to a Real Power Plant. *Environ. Sci. Technol*, 44, 9207–9212.
- Veerman, J., Saakes, M., Metz, S., & Harmsen, G. (2010). Reverse electrodialysis: evaluation of suitable electrode systems. *Journal Appl Electrochem* 40, 1461–1474.
- Vermaas, D. A., Guler, E., Saakes, M., & Nijmeijer, K. (2012). Theoretical power density fromsalinity gradients using reverse electrodialysis. *Energy Procedia* 20, 170-184.
- Vermaas, D. A., Kunteng, D., Saakes, M., & Nijmeijer, K. (2013). Fouling in reverse electrodialysis under natural conditions. *Water Research* 47, 1289-1298.
- Vermaas, D. A., Saakes, Michel, & Nijmeijer, K. (2011). Doubled Power Density from Salinity Gradients at Reduced Intermembrane Distance. *Environment Science Technology* 45, 7089-7095.

- Vermaas, D., Bajracharya, S., Bastos Sales, B., Saakes, M., Hamelers, B., & Nijmeijer, K. (2012). Clean energy generation using capacitive electrodes in reverse electrodialysis. *Energy & Environmental Science* (6), 643-651.
- Vermaas, D., Veerman, J., Yip, N. Y., Elimelech, M., Saakes, M., & Nijmeijer, K. (2013). High Efficiency in Energy Generation from Salinity Gradients with Reverse Electrodialysis. *ACS Sustainable Chem. Eng.*, 1295-1302.
- Vilar, E., de Fretias, N., de Lirio, F., & de Sousa, F. (1998). Study of Electrical Conductivity of Graphite Felt Employed as A Porous Electrode. *Brazilian Journal of Chemical Engineering Vol. 15 No. 3*,  
<http://dx.doi.org/10.1590/S0104-66321998000300007>.
- Walhi. (2021, Februari 9). *Polemik sampah dan incenerator*. Retrieved from Walhi.or.id: <https://www.walhi.or.id/tema-polemik-sampah-dan-incenerator>
- Wang, Q., Yue, K., Zhang, X., Wang, L., Guiver, M. D., & Zhang, J. (2017). Carbon fiber paper supported nano-Pt electrode with high electrocatalytic activity for concentrated nitric acid reduction. *Journal of Electroanalytical Chemistry*, doi: 10.1016/j.jelechem.2017.03.043.
- Wardana, Y. N., Syafrudin, & Rezagama, A. (2015). Sistem Perencanaan Pengelolaan Sampah B3 Rumah Tangga di Kecamatan Semarang Barat Kota Semarang. *Jurnal Teknik Lingkungan, Vol 4, No 3*, 1-12.
- Waremra, R. S., & Betaubun, P. (2018). Analysis of Electrical Properties Using the four point Probe Method. *E3S Web of Conferences 73, ICENIS 2018*, <https://doi.org/10.1051/e3sconf/20187313019>.
- WebElements. (2007, April 14). *Wikipedia*. Retrieved Februari 18, 2021, from [https://id.wikipedia.org/wiki/Kelimahan\\_unsur\\_di\\_kerak\\_Bumi#cite\\_note-3](https://id.wikipedia.org/wiki/Kelimahan_unsur_di_kerak_Bumi#cite_note-3)
- Weiner, A. M., McGovern, R. K., & Lienhard V, J. H. (2015). A new reverse electrodialysis design strategy which significantly reduces the leveled cost of electricity. *Journal of Membrane Science* 493, 605-614.
- Wigayati, E. M. (2009). Pembuatan dan Karakterisasi Lembaran Grafit untuk Bahan Anoda Baterai Padat Lithium. *Jurnal Fisika Himpunan Mahasiswa Fisika*, 9, ISSN No. 0854-3046.
- Wikipedia. (2020). *Salinity*. Retrieved Februari 16, 2021, from <https://en.wikipedia.org/wiki/Salinity>

- Winslow, K. M., Laux, S. J., & Townsend, T. G. (2018). A review on the growing concern and potential management strategies of waste lithium-ion batteries. *Resources, Conservation & Recycling*, 263–277.
- Xu, X., Li, J., Li, Y., Ni, B., Liu, X., & Pan, L. (2018). Selection of Carbon Electrode Materials. In S. Ahualli, & Á. V. Delgado, *Charge and Energy Storage in Electrical Double Layers* (pp. 65-83). London: Academic Press.
- Xu, X., Li, J., Li, Y., Ni, B., Liu, X., & Pan, L. (2018). Selection of Carbon Electrode Materials. In S. Ahualli, & Á. V. Delgado, *Charge and Energy Storage in Electrical Double Layers* (pp. 65-83). London: Academic Press.
- Yip, N. Y., & Elimelech, M. (2012). Thermodynamic and Energy Efficiency Analysis of Power Generation from Natural Salinity Gradients by Pressure Retarded Osmosis. *Environmental Science & Technology* 46, 5230-5239.
- Yip, N. Y., Vermaas, D. A., Nijmeijer, K., & Elimelech, M. (2014). Thermodynamic, Energy Efficiency, and Power Density Analysis of Reverse Electrodialysis Power Generation with Natural Salinity Gradients. *Environmental Science & Technology* 48, 4925-4936.
- Zhang, L.-H., Wu, S.-S., Wan, Y., Huo, Y.-F., Luo, Y.-C., Yang, M.-Y., . . . Lu, Z.-G. (2017). Mn<sub>3</sub>O<sub>4</sub>/carbon nanotube nanocomposites recycled from waste alkaline Zn–MnO<sub>2</sub> batteries as high-performance energy materials. *Rare Metals*, Vo. 36, No. 5, 442-448.
- Zhang, Y., Guo, J., & Li, T. (2012). Research Progress on Binder of Activated Carbon Electrode. *Advanced Materials Research Vol 549*, 780-784, ISSN: 1662-8985, doi:10.4028/www.scientific.net/AMR.549.780.
- Zhang, Y., Guo, J., & Li, T. (2012). Research Progress on Binder of Activated Carbon Electrode. *Advanced Materials Research Vol 549*, 780-784, ISSN: 1662-8985, doi:10.4028/www.scientific.net/AMR.549.780.
- Zhu, G., Wang, W., Li, X., Zhu, J., Wang, H., & Zhang, L. (2016). Design and fabrication of graphene/carbon nanotubes/activated carbon hybrid and its application for capacitive deionization. *RSC Advances*, DOI: 10.1039/C5RA23547B