

## DAFTAR PUSTAKA

- Abnisa, F., & Wan Daud, W. M. A. (2014). A review on co-pyrolysis of biomass: An optional technique to obtain a high-grade pyrolysis oil. *Energy Conversion and Management*, 87, 71–85.
- Abnisa, F., Wan Daud, W. M. A., Ramalingam, S., Azemi, M. N. B. M., & Sahu, J. N. (2013). Co-pyrolysis of palm shell and polystyrene waste mixtures to synthesis liquid fuel. *Fuel*, 108, 311–318.
- Ahvenainen, R. (2003). Novel Food Packaging Techniques. In *Novel Food Packaging Techniques*. Elsevier Ltd.
- Al-Salem, S. M. (2009). Establishing an integrated databank for plastic manufacturers and converters in Kuwait. *Waste Management*, 29(1), 479–484.
- Alagu, R. M., Sundaram, E. G., & Natarajan, E. (2015). Thermal and catalytic slow pyrolysis of *Calophyllum inophyllum* fruit shell. *Bioresource Technology*, 193, 463–468.
- Asadullah, M., Anisur Rahman, M., Mohsin Ali, M., Abdul Motin, M., Borhanus Sultan, M., Robiul Alam, M., & Sahedur Rahman, M. (2008). Jute stick pyrolysis for bio-oil production in fluidized bed reactor. *Bioresource Technology*, 99(1), 44–50.
- Barneto, A. G., Carmona, J. A., Gálvez, A., & Conesa, J. A. (2009). Effects of the composting and the heating rate on biomass gasification. *Energy and Fuels*, 23(2), 951–957.
- Basu, P. (2013). Biomass Gasification, Pyrolysis and Torrefaction: Practical Design and Theory. In *Biomass Gasification, Pyrolysis and Torrefaction: Practical Design and Theory*. Elsevier Inc.
- Brebu, M., Ucar, S., Vasile, C., & Yanik, J. (2010). Co-pyrolysis of pine cone with synthetic polymers. *Fuel*, 89(8), 1911–1918.
- Bridgwater, A. V. (2012). Review of fast pyrolysis of biomass and product upgrading. *Biomass and Bioenergy*, 38, 68–94.
- Budiarto, R., & Agung, A. (2009). Potensi Energi Limbah Pabrik Kelapa Sawit. *National Seminar on Basic Science VI*. Retrieved from [https://www.researchgate.net/publication/280737844\\_Potensi\\_Energi\\_Limbah\\_Pabrik\\_Kelapa\\_Sawit](https://www.researchgate.net/publication/280737844_Potensi_Energi_Limbah_Pabrik_Kelapa_Sawit)
- Çepelioğullar, Ö., & Pütün, A. E. (2013). Thermal and kinetic behaviors of biomass and plastic wastes in co-pyrolysis. *Energy Conversion and Management*, 75, 263–270.
- Chen, G., Andries, J., Luo, Z., & Spliethoff, H. (2003). Biomass pyrolysis/gasification for product gas production: The overall investigation of parametric effects. *Energy Conversion and Management*, 44(11), 1875–1884.
- Direktorat Jenderal Perkebunan Kementerian Pertanian, 2019, *Statistik Perkebunan Indonesia 2018-2020*. Retrieved from <http://ditjenbun.pertanian.go.id>
- Dai, J.-W., Xiao, H.-W., Zhang, L.-H., & Chu, M.-Y. (2019). Drying characteristics and modeling of apple slices during microwave intermittent drying. *Journal of Food Process Engineering*, 42(6), e13212.
- De La Hoz, A., Díaz-Ortiz, Á., & Moreno, A. (2005, February). Microwaves in organic synthesis. Thermal and non-thermal microwave effects. *Chemical Society Reviews*, Vol. 34, pp. 164–178.
- Demirbas, A. (2004). Effects of temperature and particle size on bio-char yield from pyrolysis of agricultural residues. *Journal of Analytical and Applied Pyrolysis*, 72(2), 243–248.
- DEN. (2016). *Outlook Energi Indonesia 2015*.

- Desideri, U., & Stroe, C. (2011). Conventional pyrolysis of spruce wood and hazelnut shell delivering oily products. *Journal of Sustainable Energy*, 2(2), 2–6.
- Dong, Q., & Xiong, Y. (2014). Kinetics study on conventional and microwave pyrolysis of moso bamboo. *Bioresource Technology*, 171, 127–131.
- Du, Z., Li, Y., & Wang, X. (2011). Microwave-assisted pyrolysis of microalgae for biofuel production. *Bioresource Technology*, 102(7), 4890–4896.
- European-Plastics. (2015). An analysis of European plastics production, demand and waste data. In *Plastics – the Facts*.
- Falade, K. O., & Abbo, E. S. (2007). Air-drying and rehydration characteristics of date palm (*Phoenix dactylifera* L.) fruits. *Journal of Food Engineering*, 79(2), 724–730.
- Fernández, Y., & Menéndez, J. A. (2011). Influence of feed characteristics on the microwave-assisted pyrolysis used to produce syngas from biomass wastes. *Journal of Analytical and Applied Pyrolysis*, 91(2), 316–322.
- Garcia-Perez, M., Wang, X. S., Shen, J., Rhodes, M. J., Tian, F., Lee, W. J., ... Li, C. Z. (2008). Fast pyrolysis of oil mallee woody biomass: Effect of temperature on the yield and quality of pyrolysis products. *Industrial and Engineering Chemistry Research*, 47(6), 1846–1854.
- Gaukel, V., Siebert, T., & Erle, U. (2017). Microwave-assisted drying. *The Microwave Processing of Foods*, 152–178.
- Granados, D. A., Basu, P., Chejne, F., & Nhuchhen, D. R. (2017). Detailed Investigation into Torrefaction of Wood in a Two-Stage Inclined Rotary Torrefier. *Energy & Fuels*, 31(1), 647–658.
- Gu, C., Yao, S., & Pan, D. (2019). Experimental Research on the Drying Characteristics of Flexible Fibrous Biomass Fuels in the Baffled-Rotary Cylinder. *Energy & Fuels*, 33(3), 2285–2292.
- Himawanto, D. A., Indarto, I., Saptoadi, H., & Rohmat, T. A. (2011). Karakteristik Dan Pendekatan Kinetika Global Pada Pirolisis Lambat Sampah Kota Terseleksi. *Reaktor*, 13(3), 140.
- Huang, X., Cheng, D. G., Chen, F., & Zhan, X. (2013). Reaction pathways of  $\beta$ -d-glucopyranose pyrolysis to syngas in hydrogen plasma: A density functional theory study. *Bioresource Technology*, 143, 447–454.
- Huang, Y. F., Kuan, W. H., Lo, S. L., & Lin, C. F. (2008). Total recovery of resources and energy from rice straw using microwave-induced pyrolysis. *Bioresource Technology*, 99(17), 8252–8258.
- Huang, Yu Fong, Chiueh, P. Te, & Lo, S. L. (2016). A review on microwave pyrolysis of lignocellulosic biomass. *Sustainable Environment Research*, 26(3), 103–109.
- Hussain, Z., Khan, K. M., Basheer, N., & Hussain, K. (2011). Co-liquefaction of Makarwal coal and waste polystyrene by microwave-metal interaction pyrolysis in copper coil reactor. *Journal of Analytical and Applied Pyrolysis*, 90(1), 53–55.
- Indonesia, M. (n.d.). Indonesia Negara Terbesar Kedua Pembuangan Sampah Plastik. Retrieved December 10, 2019, from <https://mediaindonesia.com/read/detail/100109-indonesia-negara-terbesar-kedua-pembuangan-sampah-plastik>
- Kementerian Perdagangan Republik Indonesia. Profil Komoditas Minyak Goreng. Available online: <https://ews.kemendag.go.id/publikasi/PublicationView.aspx#>. (Accessed on: 31 March 2021).
- Kim, H. T., Kim, J. K., Cha, H. G., Kang, M. J., Lee, H. S., Khang, T. U., ... Kim, K. H. (2019). Biological Valorization of Poly(ethylene terephthalate) Monomers for Upcycling Waste PET. *ACS Sustainable Chemistry and Engineering*, 7(24), 19396–19406.

- Kordoghli, S., Paraschiv, M., & Kuncser, R. (2017). Catalysts' influence on thermochemical decomposition of waste tires. *Environmental Progress & Sustainable Energy*, 36(5), 1560–1567.
- Kostas, E. T., Beneroso, D., & Robinson, J. P. (2017). The application of microwave heating in bioenergy: A review on the microwave pre-treatment and upgrading technologies for biomass. *Renewable and Sustainable Energy Reviews*, 77, 12–27.
- Kumar, G., Panda, A. K., & Singh, R. K. (2010). Optimization of process for the production of bio-oil from eucalyptus wood. *Ranliao Huaxue Xuebao/Journal of Fuel Chemistry and Technology*, 38(2), 162–167.
- Lappas, A. A., Samolada, M. C., & Iatridis, D. K. (2002). Biomass pyrolysis in a circulating fluid bed reactor for the production of fuels and chemicals. *Fuel*, 81(16), 2087–2095.
- Lee, S. H., Eom, M. S., Yoo, K. S., Kim, N. C., Jeon, J. K., Park, Y. K., ... Lee, S. H. (2008). The yields and composition of bio-oil produced from *Quercus Acutissima* in a bubbling fluidized bed pyrolyzer. *Journal of Analytical and Applied Pyrolysis*, 83(1), 110–114.
- Lei, H., Ren, S., & Julson, J. (2009). The effects of reaction temperature and time and particle size of corn stover on microwave pyrolysis. *Energy and Fuels*, 23(6), 3254–3261.
- Liu, Y., Aziz, M., & Fushimi, C. (2012). Exergy Analysis of Biomass Drying Based on Self-Heat Recuperation Technology and Its Application to Industry: a Simulation and Experimental Study. *Industrial & Engineering Chemistry Research*, 51(30), 9997–10007.
- Lv, W., Li, D., & Lv, H. (2019, April 1). Recent development of microwave fluidization technology for drying of fresh fruits and vegetables. *Trends in Food Science and Technology*, Vol. 86, pp. 59–67. Elsevier Ltd.
- Matsui, K. N., Ditchfield, C., & Tadini, C. C. (2018). Microwave Processing of Fruits. In *Food Engineering Series* (pp. 417–440). Springer.
- McAdams, W.H. (1954). Heat Transmission. McGraw-Hill Book Company, New York, NY.
- Miura, M., Kaga, H., Sakurai, A., Kakuchi, T., & Takahashi, K. (2004). Rapid pyrolysis of wood block by microwave heating. *Journal of Analytical and Applied Pyrolysis*, 71(1), 187–199.
- Motasemi, F., & Afzal, M. T. (2013a). A review on the microwave-assisted pyrolysis technique. *Renewable and Sustainable Energy Reviews*, 28, 317–330.
- Motasemi, F., & Afzal, M. T. (2013b). A review on the microwave-assisted pyrolysis technique. *Renewable and Sustainable Energy Reviews*, 28, 317–330.
- Namazi, A. B., Allen, D. G., & Jia, C. Q. (2015). Probing microwave heating of lignocellulosic biomasses. *Journal of Analytical and Applied Pyrolysis*, 112, 121–128.
- Önal, E., Uzun, B. B., & Pütün, A. E. (2014). Bio-oil production via co-pyrolysis of almond shell as biomass and high density polyethylene. *Energy Conversion and Management*, 78, 704–710.
- Onwudili, J. A., Insura, N., & Williams, P. T. (2009). Composition of products from the pyrolysis of polyethylene and polystyrene in a closed batch reactor: Effects of temperature and residence time. *Journal of Analytical and Applied Pyrolysis*, 86(2), 293–303.
- Pickles, C. A., Gao, F., & Kelebek, S. (2014). Microwave drying of a low-rank sub-bituminous coal. *Minerals Engineering*, 62, 31–42.
- Rahman, N. F. A., Ismail, A., Shah, N. N. A. K., Varith, J., & Shamsudin, R. (2019). Effect of drying temperature on Malaysia pomelo (*Citrus grandis* (L.) osbeck) pomace residue under vacuum condition. *Pertanika Journal of Science and Technology*, 27(S1), 57–66. Retrieved from

- [https://www.researchgate.net/publication/333996178\\_Effect\\_of\\_Drying\\_Temperature\\_on\\_Malaysia\\_Pomelo\\_Citrus\\_grandis\\_L\\_Osbeck\\_Pomace\\_Residue\\_under\\_Vacuum\\_Condition](https://www.researchgate.net/publication/333996178_Effect_of_Drying_Temperature_on_Malaysia_Pomelo_Citrus_grandis_L_Osbeck_Pomace_Residue_under_Vacuum_Condition)
- Robinson, J. P., Kingman, S. W., & Baranco, R. (2010). Microwave pyrolysis of wood pellets. *Industrial and Engineering Chemistry Research*, 49(2), 459–463.
- Sahwan, F. L., Martono, D. H., Wahyono, S., & Wisoyodharmo, L. A. (2005). Sistem Pengelolaan Limbah Plastik di Indonesia. *Jurnal Sistem Pengolahan Limbah J. Tek. Ling. P3TL-BPPT*, 6(1), 311–318.
- Salema, A. A., & Ani, F. N. (2011). Microwave induced pyrolysis of oil palm biomass. *Bioresource Technology*, 102(3), 3388–3395.
- Salema, A. A., & Ani, F. N. (2012). Microwave-assisted pyrolysis of oil palm shell biomass using an overhead stirrer. *Journal of Analytical and Applied Pyrolysis*, 96, 162–172.
- Saptoadi, H. (2015). The Future of Biomass Energy in Indonesia. *2nd AUN/SEED-Net Regional Conference on Energy Engineering*.
- Shahidi, F., & Naczki, M. (1995). *Food phenolics: sources, chemistry, effects, applications*. Lancaster ;;Basel: Technomic Pub. Co. Retrieved from <https://www.worldcat.org/title/food-phenolics-sources-chemistry-effects-applications/oclc/489976951?referer=di&ht=edition>
- Singh, G. D., Sharma, R., Bawa, A. S., & Saxena, D. C. (2008). Drying and rehydration characteristics of water chestnut (*Trapa natans*) as a function of drying air temperature. *Journal of Food Engineering*, 87(2), 213–221. h
- Solomons, T. W. G., & Fryhle, C. B. (2009). *Organic Chemistry* (10th ed.). John Wiley & Sons. Retrieved from <https://www.amazon.com/Organic-Chemistry-Edition-Graham-Solomons/dp/0470401419>
- Syamsiro, M., Saptoadi, H., Norsujianto, T., Noviasri, P., Cheng, S., Alimuddin, Z., & Yoshikawa, K. (2014). Fuel oil production from municipal plastic wastes in sequential pyrolysis and catalytic reforming reactors. *Energy Procedia*, 47, 180–188.
- Szadzińska, J., Lechtańska, J., Pashminehazar, R., Kharaghani, A., & Tsotsas, E. (2019). Microwave- and ultrasound-assisted convective drying of raspberries: Drying kinetics and microstructural changes. *Drying Technology*, 37(1), 1–12.
- Uguz, S., Ayerli, T., & Ardeli, Y. (2017). Polietilen ve Kereste Tozlarının Ko-pirolizi: Piroliz Ürün Değeri Üzerinde Polietilenin Etkisi. *Nevşehir Bilim ve Teknoloji Dergisi*, 6, 306–313.
- Völker, S., & Rieckmann, T. (2002). Thermokinetic investigation of cellulose pyrolysis - Impact of initial and final mass on kinetic results. *Journal of Analytical and Applied Pyrolysis*, 62(2), 165–177.
- Vollmer, M. (2004). Physics of the microwave oven. *Physics Education*, 39(1), 74–81.
- Wagenaar, B. M., Prins, W., & van Swaaij, W. P. M. (1994). Pyrolysis of biomass in the rotating cone reactor: modelling and experimental justification. *Chemical Engineering Science*, 49(24), 5109–5126.
- Wahyudiono, Sasaki, M., & Goto, M. (2008). Recovery of phenolic compounds through the decomposition of lignin in near and supercritical water. *Chemical Engineering and Processing: Process Intensification*, 47(9–10), 1609–1619.
- Yang, H., Yan, R., Chen, H., Lee, D. H., Liang, D. T., & Zheng, C. (2006). Pyrolysis of palm oil wastes for enhanced production of hydrogen rich gases. *Fuel Processing Technology*, 87(10), 935–942.
- Yaws, C. L. (2003). *Yaws' Handbook of Thermodynamic and Physical Properties of Chemical Compounds: Physical, Thermodynamic and Transport Properties for 5,000 Organic*

<https://books.google.co.id/books?id=PjhEYgEACAAJ>

Yuda Wardana, N., Caroko, N., & Thoharudin, T. (2016). Slow Pyrolysis Mixture Of Palm Shells And Plastics With Natural Zeolite Catalysts. *Teknoin*, 22(5), 361–366.

Zhang, M., Chen, H., & Mujumdar, A. S. (2017). Recent developments in high-quality drying of vegetables, fruits, and aquatic products. *Critical Reviews in Food Science and Nutrition*, 57(6), 1239–1255.

Zhang, S., Yan, Y., Li, T., & Ren, Z. (2005). Upgrading of liquid fuel from the pyrolysis of biomass. *Bioresource Technology*, 96(5), 545–550.

Zhao, X., Song, Z., Liu, H., Li, Z., Li, L., & Ma, C. (2010). Microwave pyrolysis of corn stalk bale: A promising method for direct utilization of large-sized biomass and syngas production. *Journal of Analytical and Applied Pyrolysis*, 89(1), 87–94.

Zhao, X., Wang, M., Liu, H., Li, L., Ma, C., & Song, Z. (2012). A microwave reactor for characterization of pyrolyzed biomass. *Bioresource Technology*, 104, 673–678.

Zhou, L., Wang, Y., Huang, Q., & Cai, J. (2006). Thermogravimetric characteristics and kinetic of plastic and biomass blends co-pyrolysis. *Fuel Processing Technology*, 87(11), 963–969.