

## DAFTAR PUSTAKA

- (No date a) EPA. Available at: <https://www.epa.gov/cameo/aloha-software>  
(Accessed: 10 September 2025).
- (No date b) Swiss cheese model – safeche: Process safety. Available at:  
<https://safeche.engin.umich.edu/tutorials/swiss-cheese-model/> (Accessed: 10  
September 2025).
- (No date c) Layers of Protection (LOPA) – safeche: Process safety. Available at:  
<https://safeche.engin.umich.edu/tutorials/lopa-tutorial/> (Accessed: 10  
September 2025).
- (No date) Up-flow solids contact clarification. Available at:  
[https://water.mecc.edu/exam\\_prep/upflow.htm](https://water.mecc.edu/exam_prep/upflow.htm) (Accessed: 08 September  
2025).
- Almasi, A. (2019) Considerations for chlorination packages in industrial facilities,  
Water Technology. Available at:  
[https://www.watertechonline.com/wastewater/article/15550734/consideration  
s-for-chlorination-packages-in-industrial-facilities](https://www.watertechonline.com/wastewater/article/15550734/considerations-for-chlorination-packages-in-industrial-facilities) (Accessed: 05 September  
2025).
- American Petroleum Institute. (2007). API Standard 650: Welded Tanks for Oil  
Storage (11th ed.). Washington, DC: American Petroleum Institute.
- American Society of Mechanical Engineers. (2015). ASME Boiler and Pressure  
Vessel Code, Section II – Materials. New York, NY: ASME.
- American Society of Mechanical Engineers. (2023). ASME Boiler and Pressure  
Vessel Code, Section VIII – Pressure Vessel. New York, NY: ASME.
- Anionic polyacrylamide uses: Applications & benefits: Tairan Chemical (2025)  
Henan Tairan Water Purification Material Co., LTD. Available at:  
[https://www.tairanchemical.com/news/anionic-polyacrylamide-uses:-  
applications.html](https://www.tairanchemical.com/news/anionic-polyacrylamide-uses:-applications.html) (Accessed: 05 September 2025).
- Antiscalant dosing calculator for RO systems (2025) wpcalc. Available at:  
[https://wpcalc.com/en/medical/antiscalant-dosing/#google\\_vignette](https://wpcalc.com/en/medical/antiscalant-dosing/#google_vignette)  
(Accessed: 05 September 2025).
- Appendix. (2019). In Kern's Process Heat Transfer (pp. 653–690).  
<https://doi.org/https://doi.org/10.1002/9781119364825.app1>

- Argoub, K. et al. (2020) 'Estimation and uncertainty analysis of standard enthalpy of formation in the liquid state by third-order-group-contribution method', *Fluid Phase Equilibria*, 520, p. 112644. doi:10.1016/j.fluid.2020.112644.
- Aries, R.S. and Newton, R.D. (1955) *Chemical Engineering Cost Estimation* by Robert S. Aries and Robert D. Newton. New York: McGraw-Hill.
- Badan Pusat Statistik Kabupaten Serang. (2024).
- Bagaskoro, Y. (2024). IRBI (Indeks Risiko Bencana Indonesia) Tahun 2024. Badan Nasional Penanggulangan Bencana.
- Ban, H., Chen, S., Zhang, Y., Cheng, Y., Wang, L., Li, X. Kinetics and Mechanism of Catalytic Oxidation of 5-Methylfurfural to 2,5-Furandicarboxylic Acid with Co/Mn/Br Catalyst. *Ind. Eng. Chem. Res.* 2019, 58, 19009–19021.
- Ban, H., Pan, T., Cheng, Y., Wang, L., Li, X. Solubilities of 2,5Furandicarboxylic Acid in Binary Acetic Acid + Water, Methanol + Water, and Ethanol + Water Solvent Mixtures. *J. Chem. Eng. Data* 2018, 63, 1987–1993.
- Ban, H.; Zhang, Y.; Chen, S.; Cheng, Y.; Pan, T.; Wang, L.; Li, X. Production of 2, 5-Furandicarboxylic Acid by Optimization of Oxidation of 5-Methyl Furfural over Homogeneous Co/Mn/Br Catalysts. *ACS Sustainable Chem. Eng.* 2020, 8, 8011–8023.
- Benyathiar, P., Kumar, P., Carpenter, G., Brace, J., & Mishra, D. (2022). Reciclaje de botella a botella de tereftalato de polietileno (PET) para la industria de bebidas: una revisión. *Polymers*, 14(12), 1–29.
- Brown, G. G. and associates. (1950). *Unit Operation* (1st ed.). John Wiley & Sons.
- Brown, G. G., Foust, A. S., Kats, D. L. V., Schneidewind, R., Wood, W. P., Brown, G. M., Brownell, L. E., Martin, J. J., Williams, G. B., Bancharo, J. T., & York, J. L. (1950). *Unit Operations*. Wiley.
- Brownell, L. E., & Young, E. H. (1959). *Process equipment design: vessel design*. John Wiley & Sons
- Buros, K. (2017). *Water Desalination Report*. 53(11).
- Bächle, V. et al. (2021) 'Interaction of particles and filter fabric in ultrafine filtration', *Eng*, 2(2), pp. 126–140. doi:10.3390/eng2020009.
- Carro, J., Fernández-Fueyo, E., Fernández-Alonso, C., Cañada, J., Ullrich, R., Hofrichter, M., Alcalde, M., Ferreira, P., & Martínez, A. T. (2018). Self-

sustained enzymatic cascade for the production of 2,5-furandicarboxylic acid from 5-methoxymethylfurfural. *Biotechnology for Biofuels*, 11(1), 1–10. <https://doi.org/10.1186/s13068-018-1091-2>

Chen, S. et al. (2021) ‘Liquid-phase aerobic oxidation of 5-hydroxymethylfurfural to 2,5-furandicarboxylic acid over CO/Mn/BR Catalyst’, *Industrial & Engineering Chemistry Research*, 59(39), pp. 17076–17084. doi:10.1021/acs.iecr.0c01309.

Chen, S., Cheng, Y., Ban, H., Zhang, Y., Zheng, L., Wang, L., & Li, X. (2020). Liquid-Phase Aerobic Oxidation of 5-Hydroxymethylfurfural to 2,5-Furandicarboxylic Acid over Co/Mn/Br Catalyst. *Industrial & Engineering Chemistry Research*, 59(39), 17076–17084. <https://doi.org/10.1021/acs.iecr.0c01309>

Chen, S.; Cheng, Y.; Ban, H.; Zhang, Y.; Zheng, L.; Wang, L.; Li, X. Liquid Phase Aerobic Oxidation of 5-Hydroxymethylfurfural to 2, 5-Furandicarboxylic Acid over Co/Mn/Br catalyst. *Ind. Eng. Chem. Res.* 2020, 59, 17076–17084.

Chi Shun Machinery Plant Co. (no date) Mechanical bar screen, bar screen wastewater, bar screening, Automatic Bar Screen: Chi shun bar screen supplier, CHI SHUN MACHINERY. Available at: <https://chishun.com.tw/mechanical-bar-screen-4c.html> (Accessed: 05 September 2025).

Cilegon, Banten (no date) Prakiraan Cuaca Cilegon, Banten | MSN Cuaca. Available at: <https://www.msn.com/id-id/cuaca/prakiraan/in-Cilegon,Banten?loc=eyJjoiQ2lsZWdviIsInliOiJCYW50ZW4iLCJyMiI6IkNpbGVnb24iLCJlJoiSW5kb25lc2hliiwiaSI6IkIiEliwidCI6MTAyLCJnIjoiaWQtaWQiLCJ4IjoiMTA2LjA1MiIsInkiOiItNi4wMjkyIn0%3D&weadegreetype=C&ocid=entnewsntp&cvid=6b33ce9e227c40b0b841dfa79e9a4f7d> (Accessed: 05 September 2025).

Coulson, J. M., & Richardson, J. F. (1978). *Chemical Engineering: Volume 2 – Unit Operations* (2nd ed.). Pergamon Press.

Crowl, Daniel A., and Joseph F. Louvar. *Chemical Process Safety: Fundamentals with Applications*. Pearson, 2019.

de Jong, E., Visser, H. A., Dias, A. S., Harvey, C., & Gruter, G. J. M. (2022). The Road to Bring FDCA and PEF to the Market. *Polymers*, 14(5), 1–32. <https://doi.org/10.3390/polym14050943>

Dias, D. S., & Vagueiro, A. S. (2012). PROCESS FOR THE CONVERSION OF A CARBOHYDRATE-CONTAINING FEEDSTOCK.

DN diametre nominal and NPS Nominal Pipe Size table (no date) Engineers Edge - Engineering, Design and Manufacturing Solutions. Available at: [https://www.engineersedge.com/fluid\\_flow/dn\\_diametre\\_nominal\\_and\\_nps\\_nominal\\_pipe\\_size\\_table\\_15039.htm](https://www.engineersedge.com/fluid_flow/dn_diametre_nominal_and_nps_nominal_pipe_size_table_15039.htm) (Accessed: 05 September 2025).

Ermis, H., Collins, C., Kumar Saha, S., & Murray, P. (2024). Beyond Visibility: Microorganisms for tackling plastic and microplastic problems for cleaner future. *Chemical Engineering Journal*, 497, 154585. <https://doi.org/https://doi.org/10.1016/j.cej.2024.154585>

Fachri, B.A. et al. (2015) 'Experimental and Kinetic Modeling Studies on the sulfuric acid catalyzed conversion of d-fructose to 5-hydroxymethylfurfural and Levulinic acid in water', *ACS Sustainable Chemistry & Engineering*, 3(12), pp. 3024–3034. doi:10.1021/acssuschemeng.5b00023.

FDCA 2,5-furandicarboxylic acid 99% Purity Cas 3238-40-2 - buy CAS 3238-40-2 2 5-furandicarboxylic acid FDCA product on Alibaba.com (no date) [www.alibaba.com](http://www.alibaba.com). Available at: [https://www.alibaba.com/product-detail/FDCA-2-5-Furandicarboxylic-acid-99\\_1601038902302.html?spm=a2700.7724857.0.0.61a46b53Np9pdc](https://www.alibaba.com/product-detail/FDCA-2-5-Furandicarboxylic-acid-99_1601038902302.html?spm=a2700.7724857.0.0.61a46b53Np9pdc) (Accessed: 09 November 2024).

Focus supply high fructose corn syrup F55 F90 hfcs 55 hfcs 90 - buy liquid glucose syrup, corn glucose syrup, high fructose corn syrup product on alibaba.com (no date) [www.alibaba.com](http://www.alibaba.com). Available at: [https://www.alibaba.com/product-detail/Focus-supply-High-fructose-corn-syrup\\_62230531742.html?spm=a2700.galleryofferlist.normal\\_offer.d\\_price.379413a0HXIxB1](https://www.alibaba.com/product-detail/Focus-supply-High-fructose-corn-syrup_62230531742.html?spm=a2700.galleryofferlist.normal_offer.d_price.379413a0HXIxB1) (Accessed: 09 November 2024).

Fogler, H.S. (2011) *Elements of chemical reaction engineering* H. Scott Fogler. Hauptbd. Upper Saddle River, NJ: Pearson Education Internat.

GE Global Asset Protection Services. (2001, September 3). . GE Global Asset Protection Services.

Global 2,5-Furandicarboxylic Acid (FDCA) Market – Industry Trends and Forecast to 2031. Available online: <https://www.databridgemarketresearch.com/reports/global-fdca-market> (accessed on 7 November 2024).

Google Earth. (2024). [https://earth.google.com/earth/d/1HAvLVK6GjQ\\_e7AWVYwIZHLwh-C5ZWqJh](https://earth.google.com/earth/d/1HAvLVK6GjQ_e7AWVYwIZHLwh-C5ZWqJh)

Google Maps.(2024).

Gómez Millán, G., Hellsten, S., Llorca, J., Luque, R., Sixta, H., & Balu, A. M. (2019). Recent Advances in the Catalytic Production of Platform Chemicals from Holocellulosic Biomass. *ChemCatChem*, 11(8), 2022–2042. <https://doi.org/10.1002/cctc.201801843>

Gómez Millán, G. et al. (2019) ‘Recent advances in the catalytic production of platform chemicals from Holocellulosic biomass’, *ChemCatChem*, 11(8), p. doi:10.1002/cctc.201801843.

Hogue, C. (2019). Climate change mitigation potential of carbon capture and utilization in the chemical industry. *Proceedings of the National Academy of Sciences of the United States of America*, 166(23), 15. <https://doi.org/10.1073/pnas.1821029116>

HSE (1999). Health and Safety Executive: Reducing Risks - Protecting People. Discussion Document, HSE Books

Ihmels, E.C. and Gmehling, J. (2002) ‘Extension and revision of the group Contribution Method GCVOL for the prediction of pure compound liquid densities’, *Industrial & Engineering Chemistry Research*, 42(2), pp. 408–412. doi:10.1021/ie020492j.

Inflation rate, end of period consumer prices (no date) IMF. Available at: [https://www.imf.org/external/datamapper/PCPIEPCH@WEO/OEMDC/ADV\\_EC/WEOWORLD/IDN](https://www.imf.org/external/datamapper/PCPIEPCH@WEO/OEMDC/ADV_EC/WEOWORLD/IDN) (Accessed: 09 November 2024).

J. P. Holman, *Heat Transfer*, 10th ed. New York: McGraw-Hill, 2010.

Jensen, M. H., & Riisager, A. (2019). Advances in the synthesis and application of 2,5-furandicarboxylic acid. In *Biomass, Biofuels, Biochemicals: Recent Advances in Development of Platform Chemicals*. Elsevier B.V. <https://doi.org/10.1016/B978-0-444-64307-0.00005-6>

Jeong, J. et al. (2013) ‘Commercially attractive process for production of 5-hydroxymethyl-2-furfural from high fructose corn syrup’, *Journal of Industrial and Engineering Chemistry*, 19(4), p. doi:10.1016/j.jiec.2012.12.004.

Jiang, L., Gonzalez-Diaz, A., Ling-Chin, J., Malik, A., Roskilly, A. P., & Smallbone, A. J. (2020). PEF plastic synthesized from industrial carbon dioxide and biowaste. *Nature Sustainability*, 3(9), 761–767. <https://doi.org/10.1038/s41893-020-0549-y>

- Juan (2024) Hazard and Operability Study (HAZOP): Tujuan, Manfaat & Istilah, Sertifikasi BNSP. Available at: <https://trainingbnsf.com/hazard-and-operability-study/> (Accessed: 10 September 2025).
- Kajian Risiko Bencana Kota Cilegon 2023-2027. (2023). Badan Penanggulangan Bencana Daerah Kota Cilegon. <https://asikbpd.id/file/krb/KRB%20Kota%20Cilegon%20Tahun%202023-2027.pdf.pdf>
- Kern, D. Q. (1959). Process Heat Transfer. McGraw-Hill Book Company
- Kusnarjo. (2010). Desain pabrik. Yogyakarta: ANDI.
- Lau, W.J. et al. (2014) 'Ultrafiltration as a pretreatment for seawater desalination: A Review', Membrane Water Treatment, 5(1), pp. 15–29. doi:10.12989/mwt.2014.5.1.015.
- Layers of Protection Analysis (LOPA) (2022) Petroplat. Available at: <https://www.petroplat.com/layers-of-protection-analysis-lopa/> (Accessed: 10 September 2025).
- Li, Z., Huai, L., Hao, P., Zhao, X., Wang, Y., Zhang, B., Chen, C., & Zhang, J. (2022). Oxidation of 2,5-bis(hydroxymethyl)furan to 2,5-furandicarboxylic acid catalyzed by carbon nanotube-supported Pd catalysts. Chinese Journal of Catalysis, 43(3), 793–801. [https://doi.org/https://doi.org/10.1016/S1872-2067\(21\)63878-0](https://doi.org/https://doi.org/10.1016/S1872-2067(21)63878-0)
- Lim, Y. J., Goh, K., Kurihara, M., & Wang, R. (2021). Seawater desalination by reverse osmosis: Current development and future challenges in membrane fabrication—a review. Journal of Membrane Science, 629, Article 119292.
- Ludwig, H. (2022) Reverse Osmosis Seawater Desalination Volume 2 [Preprint]. doi:10.1007/978-3-030-81927-9.
- Ludwig, H. (2022). Reverse Osmosis Seawater Desalination Volume 1: Planning, Process Design and Engineering – A Manual for Study and Practice (1st ed.). Springer Cham.
- Marliacy, P. et al. (2000) 'Thermodynamics of crystallization of sodium sulfate decahydrate in H<sub>2</sub>O–nacl–na<sub>2</sub>so<sub>4</sub>: Application to NA<sub>2</sub>SO<sub>4</sub>·10H<sub>2</sub>O-based latent heat storage materials', Thermochimica Acta, 344(1–2), pp. 85–94. doi:10.1016/s0040-6031(99)00331-7.
- Marshall, A., Jiang, B., Gauvin, RM., and Thomas, CM. (2022). 2,5-Furandicarboxylic Acid: An Intriguing Precursor for Monomer and Polymer

- Synthesis. *Molecules* *Jurnal* Vol. 27. Available online: <https://www.mdpi.com/1420-3049/27/13/4071> (accessed on 7 November 2024)
- Merck. (n.d.). 2,5-Furandicarboxylic acid. <https://www.sigmaaldrich.com/ID/en/product/aldrich/722081#product-documentation>
- Metcalf & Eddy, Inc., Tchobanoglous, G., Stensel, H. D., Tsuchihashi, R., & Burton, F. (2014). *Wastewater Engineering: Treatment and Resource Recovery* (5th ed.). McGraw-Hill Education.
- Motagamwala, A.H. et al. (2018) 'Toward biomass-derived renewable plastics: Production of 2,5-furandicarboxylic acid from fructose', *Science Advances*, 4(1). doi:10.1126/sciadv.aap9722.
- Nguyen, T. (2023) 304 stainless steel in seawater: Clinton Aluminum, Clinton Aluminum | Clinton Aluminum. Available at: <https://clintonaluminum.com/304-stainless-steel-in-seawater/> (Accessed: 05 September 2025).
- Nurdifa, A.R. (2023). Impor Sirup Fruktosa Terus Dibatasi, Kemenperin Klaim Produsen Lokal Tumbuh. Jakarta: *Bisnis.com*. Available online: <https://ekonomi.bisnis.com/read/20230913/257/1694465/impor-sirop-fruktosa-terus-dibatasi-kemenperin-klaim-produsen-lokal-tumbuh>
- Parker, K., Salas, M., Nwosu, V, C. (2010). High Fructose Corn Syrup: Production, uses and public. *Biotechnology and Molecular Biology*, 71-78
- Pemerintah Kabupaten Serang (2021). *RPJMD Kabupaten Serang*. Serang.
- Pemerintah Provinsi Banten. (2024). Keputusan Gubernur Banten Nomor 471 Tahun 2024 tentang Upah Minimum Kabupaten/Kota di Provinsi Banten Tahun 2025. Serang: Pemerintah Provinsi Banten. Retrieved from
- Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor P.68/Menlhk/Setjen/Kum.1/8/2016 tentang Baku Mutu Limbah Cair Bagi Usaha dan/atau Kegiatan Industri.
- Perry, R. H., & Green, D. W. (2008). *Perry's chemical engineers' handbook*. New York: McGraw-Hill Book Company.

- Perry, R. H., Green, D. W., & Maloney, J. O. (1997). Perry's Chemical Engineers' Handbook (Issue v. 7, Bag. 1997). McGraw-Hill.  
<https://books.google.co.id/books?id=n8B7QgAACAAJ>
- Peters, M. S., Timmerhaus, K. D., & West, R. E. (1991). Plant design and economics for chemical engineers (4th ed.). McGraw-Hill.
- Phosphorus removal for lagoon operators Powerpoint presentation ... (no date) Bing. Available at: <https://sl.bing.net/iW6TgJF8BhY> (Accessed: 05 September 2025).
- Polyacrylamide flocculant: Benefits, mechanisms, and safety (2025) Biology Insights. Available at: <https://biologyinsights.com/polyacrylamide-flocculant-benefits-mechanisms-and-safety/> (Accessed: 05 September 2025).
- Polyethylene Furanoate (PEF) Market Analysis. Available online: <https://www.chemanalyst.com/industry-report/polyethylene-furanoate-pef-market-4196> (accessed on 7 November 2024).
- Powell, S.T. (1954) Water Conditioning for Industry. New York: McGraw-Hill.
- Prasad, S., Khalid, A., Narishetty, V., Kumar, V., Dutta, S., and Ejaz, A. (2023). Recent advances in the production of 2,5-furandicarboxylic acid from biorenewable resources. Materials Science for Energy Technologies Vol. 6(2023), 502–521. Doi: <https://doi.org/10.1016/j.mset.2023.04.005>
- PT Krakatau Tirta Industri. Available online: <https://www.krakatautirta.co.id/main-business/water-demin> (accessed on 2 November 2024).
- R. W. Serth, Process Heat Transfer: Principles and Applications. Burlington, MA: Academic Press, 2007.
- Rajeshwari, K. V., Balakrishnan, M., Kansal, A., Lata, K., & Kishore, V. V. N. (2000). State-of-the-art of anaerobic digestion technology for industrial wastewater treatment. Renewable and Sustainable Energy Reviews, 4(2), 135–156.
- Ratzlaff, J. (no date) Home, Homepage. Available at: <https://www.piping-designer.com/index.php/properties/fluid-mechanics/584-viscosity-of-a-mixture> (Accessed: 05 August 2025).
- RICHARDSON, J. F., & PEACOCK, D. G. B. T.-C. E. (Third E. (Eds.). (1991). CHAPTER 2 - Flow Characteristics of Reactors—Flow Modelling. In

- Chemical Engineering Series (pp. 71–107). Butterworth-Heinemann.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-057154-6.50010-9>
- RICHARDSON, J. F., HARKER, J. H., & BACKHURST, J. R. (2002a).  
CHAPTER 11 - Distillation. In J. F. RICHARDSON, J. H. HARKER, & J. R.  
B. T.-C. E. (Fifth E. BACKHURST (Eds.), Chemical Engineering Series (pp.  
542–655). Butterworth-Heinemann.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-049064-9.50022-9>
- RICHARDSON, J. F., HARKER, J. H., & BACKHURST, J. R. (2002b).  
CHAPTER 14 - Evaporation. In J. F. RICHARDSON, J. H. HARKER, & J. R.  
B. T.-C. E. (Fifth E. BACKHURST (Eds.), Chemical Engineering Series (pp.  
771–826). Butterworth-Heinemann.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-049064-9.50025-4>
- RICHARDSON, J. F., HARKER, J. H., & BACKHURST, J. R. (2002c).  
CHAPTER 16 - Drying. In J. F. RICHARDSON, J. H. HARKER, & J. R. B.  
T.-C. E. (Fifth E. BACKHURST (Eds.), Chemical Engineering Series (pp.  
901–969). Butterworth-Heinemann.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-049064-9.50027-8>
- RICHARDSON, J. F., HARKER, J. H., & BACKHURST, J. R. (2002d).  
CHAPTER 7 - Liquid Filtration. In J. F. RICHARDSON, J. H. HARKER, &  
J. R. B. T.-C. E. (Fifth E. BACKHURST (Eds.), Chemical Engineering Series  
(pp. 372–436). Butterworth-Heinemann.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-049064-9.50018-7>
- Rosatella, A. A., Simeonov, S. P., Frade, R. F. M., & Afonso, C. A. M. (2011). 5-  
Hydroxymethylfurfural (HMF) as a building block platform: Biological  
properties, synthesis and synthetic applications. *Green Chemistry*, 13(4), 754–  
793. <https://doi.org/10.1039/c0gc00401d>
- Serth, R.W. (2007) *Process heat transfer: Principles and applications*. Amsterdam:  
Elsevier Academic Press.
- Serth, R.W. (2007) *Process heat transfer: Principles and applications*. Amsterdam:  
Elsevier Academic Press.
- Setiawan, R.Y. et al. (2015) ‘The consequences of opening the Sunda Strait on the  
hydrography of the Eastern Tropical Indian Ocean’, *Paleoceanography*, 30(10),  
pp. 1358–1372. doi:10.1002/2015pa002802.
- Sincero, A. P., & Sincero, G. A. (2003). *Physical-Chemical Treatment of Water and  
Wastewater*. CRC Press.

- SINNOTT, R. K. (1993). CHAPTER 12 - Heat-transfer Equipment. In R. K. B. T.-C. and R. C. E. (Second E. SINNOTT (Ed.)), *Chemical Engineering Technical Series* (pp. 565–702). Pergamon. <https://doi.org/10.1016/B978-0-08-041865-0.50020-9>
- Sinnott, R. K. (2005). *Chemical Engineering: Chemical Engineering Volume 6 (Chemical Engineering Series)*. 4th edition. Elsevier Butterworth-Heinemann.
- Siswanto, S. Pd., M. T. (2025). Teknik pengendalian kualitas. Eureka Media Aksara. <https://repository.penerbiteureka.com/media/publications/618512-teknik-pengendalian-kualitas-d25a5810.pdf>
- Smith, J. ., & Van Ness, H. (2001). *Introduction to Chemical Engineering Thermodynamics (6th ed)*. McGraw Hill
- Smith, J. M., Van Ness, H. C., Abbott, M. M., 2018, “Introduction to Chemical Engineering Thermodynamics”, Eight Ed., The McGraw Hill Companies, Inc., New York.
- Stanley, J., Terzopoulou, Z., Klonos, P. A., Zamboulis, A., Xanthopoulou, E., Koltsakidis, S., Tzetzis, D., Zemljč, L. F., Lambropoulou, D. A., Kyritsis, A., Papageorgiou, G. Z., & Bikiaris, D. N. (2023). Effect of Monomer Type on the Synthesis and Properties of Poly(Ethylene Furanoate). *Polymers*, 15(12), 1–26. <https://doi.org/10.3390/polym15122707>
- Statista Search Department (2023, October) Annual production of plastics worldwide from 1950 to 2022 (in million metric tons) [Infographic]. Statista. <https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/> (accessed 7 November 2024)
- Sung, Y. J., Park, C., Kim, B., & Shin, S. (2013). DMSO(dimethylsulfoxide) 용매에서 과당의 5-HMF(5-hydroxymethylfurfural) 전환. 45(2), 21–26.
- Syamsuddin, M., Zallesa, S., Ismail, M., & Syamsudin, F. (2025). Projected impacts of ocean warming on the potential fishing zone of Eastern little tuna (*Euthynnus affinis*) in the Java Sea. *Egyptian Journal of Aquatic Biology & Fisheries*, 29(1), 431–450.
- Tarleton, E. S., & Wakeman, R. J. (2007a). 1 - Solid/liquid separation equipment (E. S. Tarleton & R. J. B. T.-S. S. Wakeman (Eds.); pp. 1–77). Butterworth-Heinemann. <https://doi.org/10.1016/B978-185617421-3/50001-8>

- Tarleton, E. S., & Wakeman, R. J. B. T.-S. S. (Eds.). (2007b). Appendix A - Variable ranges for filter cycle calculations (pp. 410–419). Butterworth-Heinemann. <https://doi.org/https://doi.org/10.1016/B978-185617421-3/50010-9>
- Tereos FKS Indonesia. Available online: <https://tereosfks.com/about> (accessed on 2 November 2024).
- The leader of corn wet milling industry in Indonesia, Leader of Corn Wet Milling Industry in Indonesia. Available at: <https://tereosfks.com/product/high-fructose-corn-syrup> (Accessed: 09 November 2024).
- Toray membrane (no date) TORAY. Available at: <https://www.water.toray/> (Accessed: 05 September 2025).
- Treybal, R. E., 1980, “Mass-Transfer Operations”, The McGraw-Hill, Kolombia
- Treybal, R.E., 1981, “Mass-Transfer Operations”, Int.ed., p. 139-210, Singapore, McGraw Hill Book Company.
- USA.gov. (2025). Minimum wage. Retrieved September 12, 2025, from
- Vilbrandt, F. C. (1959). Chemical Engineering Plant Design. McGraw-Hill Book Company, Inc. Retrieved from Internet Archive:
- Walas, S. M. (1990). Chemical Process Equipment Selection and Design. Butterworth Heinemann, 313 Washington Street
- Wang, Z. et al. (2021) ‘Design and energy consumption analysis of small reverse osmosis seawater desalination equipment’, *Energies*, 14(8), p. 2275. doi:10.3390/en14082275.
- Wu, R.M. et al. (2001) ‘Novel cake characteristics of waste-activated sludge’, *Water Research*, 35(5), pp. 1358–1362. doi:10.1016/s0043-1354(00)00513-3.
- Yaws, C. L. (1999). Chemical Properties Handbook. Texas: McGraw-Hill.
- Yaws, C. L. (1999). Chemical Properties Handbook: Physical, Thermodynamics, Environmental Transport, Safety & Health Related Properties for Organic & Inorganic Compounds. McGraw-Hill Education. <https://books.google.co.id/books?id=PH2KG4cbtzYC>
- Yaws, C. L., 1999, “Chemical Properties Handbook: Physical, Thermodynamic, Environmental, Transport, Safety, and Health Related Properties for Organic and Inorganic Chemicals”, The McGraw Hill Companies, Inc., New York.

- Yi, G., Teong, S. P., & Zhang, Y. (2015). The direct conversion of sugars into 2,5-furandicarboxylic acid in a triphasic system. *ChemSusChem*, 8(7), 1151–1155.
- Yi, G., Teong, S.P. and Zhang, Y. (2015) ‘The direct conversion of sugars into 2,5-furandicarboxylic acid in a triphasic system’, *ChemSusChem*, 8(7), p. doi:10.1002/cssc.201500118.
- Young, E.H., and Brownell, L. E., 1979, *Process Equipment Design*, John Wiley and Sons, Inc., New York. Evans, F. L., 1980, “*Equipment Design Handbook*”, Gulf Publishing Company, Tokyo.
- Yuan, H., Liu, H., Du, J., Liu, K., Wang, T., & Liu, L. (2020). Biocatalytic production of 2,5-furandicarboxylic acid: recent advances and future perspectives. *Applied Microbiology and Biotechnology*, 104(2), 527–543. <https://doi.org/10.1007/s00253-019-10272-9>
- Zhang, Z. and Deng, K. (2015) ‘Recent advances in the catalytic synthesis of 2,5-furandicarboxylic acid and its derivatives’, *ACS Catalysis*, 5(11), p. doi:10.1021/acscatal.5b01491.
- Zhao, W., Wu, W., Li, H., Fang, C., Yang, T., Wang, Z., He, C., & Yang, S. (2018). Quantitative synthesis of 2,5-bis(hydroxymethyl)furan from biomass-derived 5-hydroxymethylfurfural and sugars over reusable solid catalysts at low temperatures. *Fuel*, 217, 365–369.
- Zhou, T. et al. (2023) ‘Continuous conversion of fructose to 2,5-furandicarboxylic acid by tandem fixed bed system’, *Industrial Crops and Products*, 205, p. doi:10.1016/j.indcrop.2023.117520.
- Zhou, T., Zhang, C., Chen, L., Yao, Y., Lu, S., & Liao, X. (2023). Continuous conversion of fructose to 2,5-furandicarboxylic acid by tandem fixed bed system. *Industrial Crops and Products*, 205, 117520. <https://doi.org/https://doi.org/10.1016/j.indcrop.2023.117520>
- Zuo, X. B.; Venkitasubramanian, P.; Busch, D. H.; Subramaniam, B. Optimization of Co/Mn/Br-catalyzed oxidation of 5-hydroxymethylfurfural to enhance 2, 5-furandicarboxylic acid yield and minimize substrate burning. *ACS Sustainable Chem. Eng.* 2016, 4, 3659–3668.
- Zuo, X.; Venkitasubramanian, P.; Busch, D. H.; Subramaniam, B. Optimization of Co/Mn/Br-catalyzed oxidation of 5-hydroxymethylfurfural to enhance 2, 5-furandicarboxylic acid yield and minimize substrate burning. *ACS Sustainable Chem. Eng.* 2016, 4, 3659–3668.