

## DAFTAR PUSTAKA

- Andy Christian dan Wasis Setiadi. (2019). *TURUNAN BAHAN KIMIA DARI INDUSTRI PETROKIMIA*. Myria Publisher.
- Aries, R.S., and Newton, R.D. (1955). *Chemical Engineering Cost Estimation*, McGraw Hill, New York.
- Bank Indonesia. (2022). BI 7-day (Reverse) Repo Rate. Retrieved from [www.bi.go.id:https://www.bi.go.id/id/statistik/indikator/bi-7day-rr.aspx](https://www.bi.go.id/id/statistik/indikator/bi-7day-rr.aspx)
- Bloch, H. P., & Godse, A. (2006). *Compressors and modern process applications*. John Wiley & Sons.
- BPS. (2021). *Kota Bontang dalam Angka 2021*.
- BPS. (2022). Suku Bunga Kredit Rupiah Menurut Kelompok Bank 2022. <https://www.bps.go.id/indicator/13/383/1/suku-bunga-kredit-rupiah-menurut-kelompok-bank.html>. Diakses pada Agustus 2022.
- Brown, G. G., Katz, D., Foust, A.S., and Schneidewind, R. (1950). *Unit Operations*, John Wiley and Sons, Tokyo.
- Brownell, & Young. (1959). *Process Equipment Design Handbook*. In *Advances in Applied Science Research* (Vol. 3, Issue 3, p. 408). <https://books.google.com/books?id=QtQWiZSkBzMC&pgis=1>
- Budiman, A. (2021). *Distilasi teori dan pengendalian operasi*. UGM PRESS.
- Coulson & Richardson's. (2005). *Chemical Engineering Design*.
- Couper, J. R., Penney, W. R., Fair, J. R., & Walas, S. M. (2012). *Chemical process equipment: selection and design third edition*. Gulf professional publishing.
- Crowl, D.A, Louvar, J.F. (2002). *Chemical Process Safety*. Prentice Hall. New Jersey.
- Direktorat Jendral Minyak dan Gas Bumi. (2019). *Statistik Minyak dan Gas Bumi*. Kementerian Energi dan Sumber Daya Mineral.
- Evans, F. L. (1980). *Equipment Design Handbook for Refineries and Chemical Plants*, 2nd ed., Gulf Pub. Co, Houston.
- Fogler, H. S. (2004). *Elements of Chemical Reaction Engineering*, 3rd ed., Prentice

Hall of India, New Delhi.

F.Megyesy, E. (1973). *Pressure Vessel Handbook* (Twelfth).

Faramawy, S., Zaki, T., & Sakr, A. A. E. (2016). Natural gas origin, composition, and processing: A review. *Journal of Natural Gas Science and Engineering*, 34, 34–54. <https://doi.org/10.1016/j.jngse.2016.06.030>

Fogler, H. Scott. (2016). *Elements of Chemical Reaction Engineering* 5<sup>th</sup> ed. USA. Pearson Education, Inc.

Frank L. Evans, J. (1980). *Equipment Design Handbook for Refineries and Chemical Plants*, 2nd ed.

Gheysens, Karel. (2011). A Top Down Approach on the Kinetic Modelling of Methane Aromatisation: From Global Kinetics to a Bifunctional Mechanism. Universiteit Gent.

Global Asset Protection Services LLC. (2001). Oil and Chemical Plant Layout and Spacing. *GAPS Guidelines*, GAP.2.5.2, 1–13.

Gupta, C. (1977). Fuels, *Furnaces* and Refractories. In *Fuels, Furnaces and Refractories*. PHI Learning. <https://doi.org/10.1016/c2013-0-02746-6>

Hopkins, S. (2008). Alloy Membrane for Hydrogen Separation and Purification. *Pall Corporation*.

Jespersen, Neil D., Brady, James E., & Hyslop, Alison. (2011). *Chemistry: The Molecular Nature of Matter*, Sixth Edition. USA: John Wiley and Sons, Inc.

Karakaya, C., Morejudo, S. H., Zhu, H., & Kee, R. J. (2016). Catalytic Chemistry for Methane Dehydroaromatization (MDA) on a Bifunctional Mo/HZSM-5 Catalyst in a Packed Bed. *Industrial and Engineering Chemistry Research*, 55(37), 9895–9906. <https://doi.org/10.1021/acs.iecr.6b02701>

Kee, B., Karakaya, C., Zhu, H., DeCaluwe, S., & Kee, R. J. (2017). The Influence of Hydrogen-Permeable Membranes and Pressure on Methane Dehydroaromatization in Packed-Bed Catalytic Reactors. *Industrial and Engineering Chemistry Research*, 56(13), 3551–3559.

<https://doi.org/10.1021/acs.iecr.6b04960>

Kern. (1965). *Kern - Process Heat Transfer.pdf* (p. 878).

Ketenagalistrikan, direktorat J. (2019). Statistik ketenaga listrik. *Https://Gatrik.Esdm.Go.Id/Frontend/Download\_Index?Kode\_Catagory=Statistika*, 53(9), 1689–1699.

Kosinov, N., & Hensen, E. J. M. (2020). Reactivity, Selectivity, and Stability of Zeolite-Based Catalysts for Methane Dehydroaromatization. *Advanced Materials*, 32(44). <https://doi.org/10.1002/adma.202002565>

Kureel, M. K., Geed, S. R., Giri, B. S., Shukla, A. K., Rai, B. N., & Singh, R. S. (2016). Removal of aqueous benzene in the immobilized batch and continuous packed bed bioreactor by isolated *Bacillus* sp. M1. *Resource-Efficient Technologies*, 2, S87–S95. <https://doi.org/10.1016/j.reffit.2016.11.010>

Labinger, J. A., & Ott, K. C. (1987). Mechanistic studies on the oxidative coupling of methane. *Journal of Physical Chemistry*, 91(11), 2682–2684.

Lenntech. (2016). *FILMTECH Membranes*. [www.lenntech.com](http://www.lenntech.com).

Li, D., Baslyman, W. S., Siritanaratkul, B., Shinagawa, T., Sarathy, S. M., & Takanabe, K. (2019). Oxidative-Coupling-Assisted Methane Aromatization: A Simulation Study. *Industrial and Engineering Chemistry Research*, 58(51), 22884–22892. <https://doi.org/10.1021/acs.iecr.9b04602>

Ma, S., Guo, X., Zhao, L., & Scott, S. (2013). Recent progress in methane dehydroaromatization: From laboratory curiosities to promising technology. *Journal of Energy Chemistry*, 22(1), 1–20. [https://doi.org/10.1016/S2095-4956\(13\)60001-7](https://doi.org/10.1016/S2095-4956(13)60001-7)

Matches. (2014). <http://www.matche.com/equipcost/EquipmentIndex.html>  
*Material Safety Data Sheet*.

McCabe, Warren L, 1993, Unit Operations of Chemical Engineering 5th Edition,  
McGraw-Hill, Singapore.

- Mcgroup. (2021). Benzene and Derivatives. <https://mcgroup.co.uk/researches/benzene-and-derivatives>. Diakses pada November 2021.
- Meerganz von Medeazza, G. L. (2005). “Direct” and socially-induced environmental impacts of desalination. *Desalination*, 185(May), 57–70.
- Meng, Q., Yan, J., Wu, R., Liu, H., Sun, Y., Wu, N. N., Xiang, J., Zheng, L., Zhang, J., & Han, B. (2021). Sustainable production of benzene from lignin. *Nature Communications*, 12(1), 1–12. <https://doi.org/10.1038/s41467-021-24780-8>
- Merchant Research & Consulting ltd. (2021). Benzene: 2021 World Market Outlook and Forecast up to 2030. <https://mcgroup.co.uk/researches/benzena>
- Metcalf & Eddy, Tchobanoglous, G., Burton, F. L., & Stensel, H.D. (2003). Wastewater engineering: Treatment and reuse, 4<sup>th</sup> ed. McGraw-Hill.
- Moghimpour Bijani, P., Sohrabi, M., & Sahebdehfar, S. (2012). Thermodynamic Analysis of Nonoxidative Dehydroaromatization of Methane. *Chemical Engineering and Technology*, 35(10), 1825–1832. <https://doi.org/10.1002/ceat.201100436>
- Mordor Intelligence. (2021). Benzene Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026). <https://www.mordorintelligence.com/industry-reports/benzena-market>
- Occupational Safety and Health Administration*. 2000. “*Process Safety Management*”. U.S. Department of Labor.
- Pal, N., & Agarwal, M. (2021). Advances in materials process and separation mechanism of the membrane towards hydrogen separation. *International Journal of Hydrogen Energy*, 46(53), 27062–27087. <https://doi.org/10.1016/j.ijhydene.2021.05.175>
- Perry, R.H., & Green, D.W. (2008). Perry’s chemical engineer’s Handbook, 6<sup>th</sup> ed. McGraw Hil, New York.
- Peters, M.S., and Timmerhaus, K.D. (2002). Plant Design and Economics for Chemical Engineer. McGraw Hill, Singapura.
- Pilling, M., & Holden, B. S. (2009). Choosing trays andh packings for distillation.

*Chemical Engineering Progress*, 105(9), 44–50.

Powell, S.T. (1954). *Water Conditioning for Industry*. Mc Graw HillBook Co., Tokyo.

PT. Badak NGL. (2021). *Data Spesifikasi LNG yang Dihasilkan*.

PT. Badak NGL. (2019). *Laporan Tahunan 2019 Komitmen Mempertahankan Keunggulan*.

PT.ChandraAsri. (2020). *Gambaran umum perseroan 1*. 18.

Republik Indonesia. 2007 Undang-Undang Republik Indonesia Nomor 40 Tahun 2007 tentang Perseroan Terbatas. Presiden Republik Indonesia. Jakarta

Rijanto, Estiko. (2004). *Modeling and On-line Process Identification of GMS Flake Shaping Process Using RDF*, Prosiding PPI-KIM, Serpong.

Sinnott, R. K. (2005). “*Coulson & Richardson’s Chemical Engineering Series: Chemical Engineering Design*”, *Chemical Engineering vol. 6 4th ed.*, Elsevier Butterworth-Heinemann, Oxford.

Skutil, K., & Taniewski, M. (2006). Some technological aspects of methane aromatization (direct and via oxidative coupling). *Fuel Processing Technology*, 87(6), 511–521. <https://doi.org/10.1016/j.fuproc.2005.12.001>

Smith, J. M., H. C. Van Ness, and M.M. Abbott. (2018). *Introduction to Chemical Engineering Thermodynamics*, 8<sup>th</sup> ed. McGraw-Hill, New York.

Solomons, G. (2014). *Organic Chemistry 11th Edition*.

Tahunan, L. (2019). *Laporan Tahunan 2019 PT Badak NGL*.

Tamagawa, K., Iijima, T., & Kimura, M. (1976). Molecular structure of benzene. *Journal of Molecular Structure*, 30(2), 243-253.

Tempelman, C. H. L., & Hensen, E. J. M. (2015). On the deactivation of Mo/HZSM-5 in the methane dehydroaromatization reaction. *Applied Catalysis B: Environmental*, 176–177, 731–739. <https://doi.org/10.1016/j.apcatb.2015.04.052>

Treybal, Robert E. (1981). *Mass Transfer Operations* 3th Edition, McGraw-Hill, Singapore.

U.S. Energy Information Administration. (2021). April 2021 Monthly Energy Review.

In *U.S. Energy Information Administration* (Vol. 26, Issue 04).

Ulrich, Gael D. (1984). *A Guide to Chemical Engineering Process Design and Economics*, John Wiley and Sons, New York. Economics, John Wiley and Sons, New York.

Walas, S. M. (1990). *Chemical Process Design*.

Wang, Z., Luo, D., & Liu, L. (2018). Natural gas utilization in China: Development trends and prospects. *Energy Reports*, 4, 351–356.  
<https://doi.org/10.1016/j.egyr.2018.05.005>

Yaws, C. L., Sheth, S. D., & Han, M. (1997). Thermodynamic Properties for Explosion Calculations. In *Handbook of Chemical Compound Data for Process Safety*.  
<https://doi.org/10.1016/b978-088415381-8/50024-3>

Zhang, Z.-G. (2019). Process, reactor and catalyst design: Towards application of direct conversion of methane to aromatics under nonoxidative conditions. *Carbon Resources Conversion*, 2(3), 157–174.  
<https://doi.org/10.1016/j.crcon.2019.07.001>