

DAFTAR PUSTAKA

- Adhitiya, A. (2013). Simulasi Performansi Heat Exchanger Type *Shell* And *TUBE* Dengan Double Segmental Baffle Terhadap Helical Baffle. 2(3).
- Arunkumar, M., Kannan, M., & Murali, G. (2016). Numerical Simulation To Reduce the *Fouling* in a *Shell* and *TUBE* Heat Exchanger. International Journal of Advanced Engineering Technology Int J Adv Engg Tech, January, 859–861.
- Asadbeigi, S., Ahmadi, E., Goodarzi, M., & Sagharichian, A. (2023). Heliyon Analyzing and simulating heat transfer and designing a *shell* and *TUBE* heat exchanger for the pasteurization process of tomato paste: A CFD study. Heliyon, 9(11), e21593. <https://doi.org/10.1016/j.heliyon.2023.e21593>
- Berce, J., Zupančič, M., Može, M., & Golobič, I. (2021). A review of crystallization *fouling* in heat exchangers. Processes, 9(8). <https://doi.org/10.3390/pr9081356>
- Bott, T. R. (1995). *Fouling* of Heat Exchangers (Issue April).
- Buckner, C. A., Lafrenie, R. M., Dénommée, J. A., Caswell, J. M., Want, D. A., Gan, G. G., Leong, Y. C., Bee, P. C., Chin, E., Teh, A. K. H., Picco, S., Villegas, L., Tonelli, F., Merlo, M., Rigau, J., Diaz, D., Masuelli, M., Korrapati, S., Kurra, P., ... Mathijssen, R. H. J. (2016). We are IntechOpen , the world ' s leading publisher of Open Access books Built by scientists , for scientists TOP 1 %. Intech, 11(tourism), 13.
- Damayanti, M. U., Budi, D., Kukuh, U., Jurusan, W., & Mesin, T. (2016). Analisis Termal High Pressure Feedwater Heater di PLTU PT. XYZ. JURNAL TEKNIK ITS, 5(2).
- Deshmukh, K. P., Cant, R. S., Arlov, D., & Wilson, D. I. (2025). Experimental and numerical investigations of cleaning based on fundamental modelling of mass transfer. Heat and Mass Transfer/Waerme- Und Stoffuebertragung, 61(10). <https://doi.org/10.1007/s00231-025-03601-4>
- Diaz-bejarano, E., Coletti, F., Macchietto, S., Diaz-bejarano, E., & Coletti, F. (2019). Modeling and Prediction of *Shell-SIDE Fouling* in *Shell*-and-*TUBE* Heat Exchangers Modeling and Prediction of *Shell-SIDE Fouling* in *Shell*-and-*TUBE* Heat Exchangers. Heat Transfer Engineering, 0(0), 1–17. <https://doi.org/10.1080/01457632.2018.1446814>

- Emani, S., Ramasamy, M., & Shaari, K. Z. B. K. (2016). Effect of Shear Stress on Crude Oil *Fouling* in a Heat Exchanger *TUBE* Through CFD Simulations. *Procedia Engineering*, 148, 1058–1065. <https://doi.org/10.1016/j.proeng.2016.06.592>
- Emani, S., Yusoh, N. A., Gounder, R. M., & Shaari, K. Z. K. (2017). Effect of operating conditions on crude oil *fouling* through CFD simulations. *International Journal of Heat and Technology*, 35(4), 1034–1044. <https://doi.org/10.18280/ijht.350440>
- Emani, S., Yusoh, N. A., Gounder, R. M., & Shaari, K. Z. K. (2018). A procedure to evaluate the most suitable integrated solutions for increasing energy performance of the building 's envelope , avoiding moisture problems Effect of operating conditions on crude oil *fouling* through CFD simulations. December 2017. <https://doi.org/10.18280/ijht.350440>
- Gustiandoro. (2016). Analisa perpindahan panas alat penukar kalors*shell* and *TUBE* pada pipa tembaga dengan*TUBE* susunan bujur sangkarskala laboratorium. *Jurnal Sains Dan Teknologi*, 1(3), 6–25.
- Hamdi, H., Damis Widiawaty, C., Sidi, R., Udin, B., & Rahman, H. (2023). Visualisasi Termal Alat Penukar Kalor *Shell* and *TUBE*. *Jurnal Poli-Teknologi*, 22(1), 1–5. <https://doi.org/10.32722/pt.v22i1.5329>
- Hu, Z., Li, T., Zhang, Y., Tao, Y., Tu, J., Yang, Q., Wang, Y., Yang, L., & Romagnoli, A. (2024). Experimental investigation on the performance of a borehole thermal energy storage system based on similarity and symmetry. *Energy*, 313. <https://doi.org/10.1016/j.energy.2024.133999>
- Ikram, K., Djilali, K. A., Bailek, N., Younis, J. A., Abdennasser, D., Al-Sabur, R., Zerouali, B., Malka, L., Santos, C. A. G., & Colak, I. (2025). Optimizing heat exchanger efficiency: Predictive modeling to minimize *fouling* in crude oil refining. *Advances in Mechanical Engineering*, 17(5), 1–20. <https://doi.org/10.1177/16878132251344071>
- Jones, C., & Ma, K. L. (2010). Visualizing flow trajectories using locality-based rendering and warped curve plots. *IEEE Transactions on Visualization and Computer Graphics*, 16(6), 1587–1594. <https://doi.org/10.1109/TVCG.2010.218>
- Kerraoui, I., Mahdi, Y., & Mouheb, A. (2021). CFD investigation of *fouling* mechanisms in the crude oil preheat network. *Heat and Mass Transfer/Waerme- Und Stoffuebertragung*, 57(9), 1411–1424. <https://doi.org/10.1007/s00231-021-03040-x>

- Kotwal, H., & Patel, D. S. (2013). CFD Analysis of *Shell* and *TUBE* Heat Exchanger- A Review. International Research Journal of Engineering and Technology, 2(2), 325–329.
- Kumar, R., & Kishore, P. S. (2017). Experimental Study of Condensation in a *Shell* and *TUBE* Heat Exchanger in the Presence of a Noncondensable Gas. Heat Transfer - Asian Research, 46(6), 511–531. <https://doi.org/10.1002/htj.21228>
- Kurt, M. (2023). CFD and statistical analysis of flow mass ratios on temperature and pressure drops of double pipe heat exchanger. June, 771–780.
- Łopata, S., & Oclon, P. (2015). Numerical study of the effect of *fouling* on local heat transfer conditions in a high-temperature fin-and-*TUBE* heat exchanger. <https://doi.org/10.1016/j.energy.2015.03.048>
- Łopata, S., & Ocloń, P. (2015). Numerical study of the effect of *fouling* on local heat transfer conditions in a high-temperature fin-and-*TUBE* heat exchanger. Energy, 92, 100–116. <https://doi.org/10.1016/j.energy.2015.03.048>
- Mandic, D. (2018). Numerical Simulation of Fluid Flow and Heat Transfer through Channels of Plate Heat Exchangers. Journal of Fluid Flow, Heat and Mass Transfer, 5, 71–77. <https://doi.org/10.11159/jffhmt.2018.007>
- Mukherjee, R. (1998). Effectively design hell-and-*TUBE* heat exchangers. Chemical Engineering Progress, 94(2), 21–37.
- Muzaki, A. R., & Anggara, F. (2022). Simulasi kontur distribusi suhu dan kecepatan fluida pada heat exchanger type *shell* and *TUBE* aliran dua stage sistem counter flow dengan computational fluid dynamics (cfđ). SINTEK JURNAL: Jurnal Ilmiah Teknik Mesin, 16(1), 6. <https://doi.org/10.24853/sintek.16.1.6-13>
- Ojaniemi, U., & Manninen, M. (2013). Modelling turbulence and thermophoresis in plate heat exchanger with high solid content. Proceedings of International Conference on Heat Exchanger *Fouling* and Cleaning, 2013(1997), 225–232. www.heatexchanger-fouling.com
- Ozden, E., & Tari, I. (2010). *Shell SIDE* CFD analysis of a small *shell*-and-*TUBE* heat exchanger. Energy Conversion and Management, 51(5), 1004–1014. <https://doi.org/10.1016/j.enconman.2009.12.003>

- Pamuk, M. T. (2020). CFD simulation of a *shell* and *TUBE* heat exchanger. Proceedings of the World Congress on Mechanical, Chemical, and Material Engineering, 1–8. <https://doi.org/10.11159/iccpe20.105>
- Paz, C., Conde, M., & Vence, J. (2017). Development of a Cfd Model for Predicting *Fouling* Process Using. 2013, 273–280.
- Pourbozorg, M., Li, T., & Law, A. W. K. (2016). Effect of turbulence on *fouling* control of submerged hollow fibre membrane filtration. Water Research, 99, 101–111. <https://doi.org/10.1016/j.watres.2016.04.045>
- Roberts, A. J., & Li, Z. (2006). An accurate and comprehensive model of thin fluid flows with inertia on curved substrates. In Journal of Fluid Mechanics (Vol. 553). <https://doi.org/10.1017/S0022112006008640>
- Sannad, M., Mehdi, Y., Zaza, A., Hammami, Y. El, & Idihya, Y. (2022). A Numerical Simulation Under Milk *Fouling* in A Plate Heat Exchanger in The Presence of a Porous Medium. 1(1), 1–17.
- Schilling, S., Glade, H., & Orth, T. (2022). Investigation of Crystallization *Fouling* on Novel Polymer Composite Heat Exchanger *TUBES* Investigation of Crystallization *Fouling* on Novel Polymer Composite Heat Exchanger *TUBES*. Heat Transfer Engineering, 43(15–16), 1326–1336. <https://doi.org/10.1080/01457632.2021.1963533>
- Sekulic, D. P., & Shah, R. K. (2019). Fundamentals of Heat Exchanger Design. In Sustainability (Switzerland) (Vol. 11, Issue 1).
- Souri, M., & Borujerdi, A. N. (2025). International Journal of Research Publication and Reviews The Impact of *Fouling* on Heat Transfer , Pressure Drop , and the Effectiveness of Heat Exchangers. 6(5), 12264–12275.
- Tullius, J. F., & Bayazitoglu, Y. (2013). Effect of Al₂O₃/H₂O nanofluid on MWNT circular fin structures in a minichannel. International Journal of Heat and Mass Transfer, 60(1), 523–530. <https://doi.org/10.1016/j.ijheatmasstransfer.2013.01.035>
- Widiawaty, C. D., Rahman, H., Jakarta, P. N., & Indonesia, D. (2023). Visualisasi Termal Alat Penukar Kalor *Shell* and *TUBE*. 22(1), 1–5.
- Widiawaty, C. D., Siswantara, A. I., Budiyanto, M. A., Andira, M. A., Adanta, D., Syafe'i, M. H. G., Farhan, T. A., & Rizianiza, I. (2024). Analysis of *Mesh* Resolution Effect to

- Numerical Result of CFD-ROM: Turbulent Flow in Stationary Parallel Plate. *CFD Letters*, 16(8), 1–17. <https://doi.org/10.37934/cfdl.16.8.117>
- Yang, S., Hu, T., Zhang, L., & Zhang, M. (2015). CFD Analysis of Heat Transfer and Flow Resistance on *Shell SIDE* of the Spiral Elliptical *TUBE* Heat Exchanger. *Ifeesm*, 804–809.
- Zhang, P., Wan, Z., Dong, S., & Liu, N. (2023). Conditional analysis on extreme wall shear stress and heat flux events in compressible turbulent boundary layers. <https://doi.org/10.1017/jfm.2023.797>