

DAFTAR PUSTAKA

- Ahn, J., Carson, C., Jensen, M., K., Shinya, J., Satoru, N., dan Editors, T. (n. d. . (2015). *Reflections on the Fukushima Daiichi Nuclear Accident*. Toward Social-Scientific Literacy and Engineering Resilience.
https://doi.org/http://dx.doi.org/10.1007/978-3-319-12090-4_1
- Al-Anssari, S., Arif, M., Wang, S., Barifcani, A., dan Iglauer, S. (2017). Stabilising nanofluids in saline environments. *Journal of Colloid and Interface Science*, 508, 222–229. <https://doi.org/10.1016/j.jcis.2017.08.043>
- Allen Crabtree, M. S. (1993). *THERMOPHYSICAL PROPERTIES OF SATURATED LIGHT AND HEAVY WATER FOR ADVANCED NEUTRON SOURCE APPLICATIONS*.
- Amoo, L. M., dan Layi Fagbenle, R. (2020). Advanced fluids - a review of nanofluid transport and its applications. In *Applications of Heat, Mass and Fluid Boundary Layers*. Elsevier Ltd. <https://doi.org/10.1016/B978-0-12-817949-9.00020-7>
- Bell, S. (1999). *Good Practice Guide A Beginner 's Guide to Uncertainty of* (Nomor 11).
- Broughton, J. M., Pui, K., Petti, D. A., dan Tolman, E. L. (1989). Scenario of the Three Mile Island Unit 2 accident. *Nuclear Technology*, 87(1), 34–53.
<https://doi.org/10.13182/NT89-A27637>
- Carabtee, A., dan Moshe Siman-Tov. (1993). *Thermophysical Properties Of Saturated Light And Heavy Water For Advanced Neutron Source Applications*. Oak Ridge National Laboratory.
- Chen, L., dan Zhang, X. R. (2011). Simulation of heat transfer and system

behavior in a supercritical CO₂ based thermosyphon: Effect of pipe diameter. *Journal of Heat Transfer*, 133(12), 1–8.

<https://doi.org/10.1115/1.4004434>

Choi, S. U. S., dan Eastman, J. A. (1995). Ethane Thermal Conductivity of Fluids. In *ASME International Mechanical Engineering Congress & Exposition* (hal. 281–285). <https://doi.org/10.1021/je60018a001>

Das, S. K., Choi, S. U. S., dan Patel, H. E. (2006). Heat transfer in nanofluids - A review. *Heat Transfer Engineering*, 27(10), 3–19. <https://doi.org/10.1080/01457630600904593>

du Toit, C. G. (2021). Fundamental evaluation of the effect of pipe diameter, loop length and local losses on steady-state single-phase natural circulation in square loops using the 1D network code Flownex. *Thermal Science and Engineering Progress*, 22(December 2020), 100840. <https://doi.org/10.1016/j.tsep.2021.100840>

Ho, C. J., Chiou, S. P., dan Hu, C. S. (1997). Heat transfer characteristics of a rectangular natural circulation loop containing water near its density extreme. *International Journal of Heat and Mass Transfer*, 40(15), 3553–3558. [https://doi.org/10.1016/S0017-9310\(97\)00007-0](https://doi.org/10.1016/S0017-9310(97)00007-0)

Ho, C. J., Chung, Y. N., dan Lai, C. M. (2014). Thermal performance of Al₂O₃/water nanofluid in a natural circulation loop with a mini-channel heat sink and heat source. *Energy Conversion and Management*, 87, 848–858. <https://doi.org/10.1016/j.enconman.2014.07.079>

Ho, C. J., Liu, W. K., Chang, Y. S., dan Lin, C. C. (2010). Natural convection heat transfer of alumina-water nanofluid in vertical square enclosures: An experimental study. *International Journal of Thermal Sciences*, 49(8), 1345–1353. <https://doi.org/10.1016/j.ijthermalsci.2010.02.013>

Hwang, K. S., Jang, S. P., dan Choi, S. U. S. (2009). Flow and convective heat transfer characteristics of water-based Al₂O₃ nanofluids in fully developed

laminar flow regime. *International Journal of Heat and Mass Transfer*, 52(1–2), 193–199. <https://doi.org/10.1016/j.ijheatmasstransfer.2008.06.032>

International Atomic Energy Agency. (2016). Design Safety Considerations for Water Cooled Small Modular Reactors Incorporating Lessons Learned from the Fukushima Daiichi Accident. *Iaea Tecdoc Series*, 1–110.

Juarsa, M., Antariksawan, A. R., Kusuma, M. H., Haryanto, D., dan Putra, N. (2018). Estimation of natural circulation flow based on temperature in the FASSIP-02 large-scale test loop facility. In P. C.R., J. F.H., K. E., & S. E.A. (Ed.), *IOP Conference Series: Earth and Environmental Science* (Vol. 105, Nomor 1). Institute of Physics Publishing. <https://doi.org/10.1088/1755-1315/105/1/012091>

Juarsa, M., Antariksawan, A. R., Widodo, S., Kusuma, M. H., Rohman, A. N., Giarno, dan Subki, M. H. (2018). Backward phenomenon on natural circulation flow based on power differences in FASSIP-01 loop. *AIP Conference Proceedings*, 2001(August). <https://doi.org/10.1063/1.5049996>

Juarsa, M., Purba, J. H., Kusuma, H. M., Setiadipura, T., dan Widodo, S. (2014). Preliminary study on mass flow rate in passive cooling experimental simulation during transient using NC-queen apparatus. *Atom Indonesia*, 40(3), 141–147. <https://doi.org/10.17146/aij.2014.333>

Kim, D., Kwon, Y., Cho, Y., Li, C., Cheong, S., Hwang, Y., Lee, J., Hong, D., dan Moon, S. (2009). Convective heat transfer characteristics of nanofluids under laminar and turbulent flow conditions. *Current Applied Physics*, 9(2 SUPPL.), e119–e123. <https://doi.org/10.1016/j.cap.2008.12.047>

Lai, K., Wang, W., Yi, C., Kuang, Y., dan Ye, C. (2018). The study of passive cooling system assisted with separate heat pipe for decay heat removal in spent fuel pool. *Annals of Nuclear Energy*, 111, 523–535. <https://doi.org/10.1016/j.anucene.2017.08.062>

Minea, A. A. (2017). Hybrid nanofluids based on Al₂O₃, TiO₂ and SiO₂:

Numerical evaluation of different approaches. *International Journal of Heat and Mass Transfer*, 104, 852–860.

<https://doi.org/10.1016/j.ijheatmasstransfer.2016.09.012>

Misale, M., Devia, F., dan Garibaldi, P. (2005). *Some Considerations on the Interaction Between the Fluid and Wall Tube During Experiments in a Single-Phase Natural Circulation Loops*. 2005(1), 128–133.

Misale, M., Devia, F., dan Garibaldi, P. (2012). Experiments with Al₂O₃ nanofluid in a single-phase natural circulation mini-loop: Preliminary results. *Applied Thermal Engineering*, 40, 64–70.

<https://doi.org/10.1016/j.applthermaleng.2012.01.053>

Misale, M., dan Frogheri, M. (2001). Stabilization of a single-phase natural circulation loop by pressure drops. *Experimental Thermal and Fluid Science*, 25(5), 277–282. [https://doi.org/10.1016/S0894-1777\(01\)00075-9](https://doi.org/10.1016/S0894-1777(01)00075-9)

Misale, M., Garibaldi, P., Passos, J. C., dan de Bitencourt, G. G. (2007). Experiments in a single-phase natural circulation mini-loop. *Experimental Thermal and Fluid Science*, 31(8), 1111–1120.

<https://doi.org/10.1016/j.expthermflusci.2006.11.004>

Narendar, G. & Charishma, K. T. S. (2021). CFD study on the effect of nanofluids in natural circulation loop. *Materials Today: Proceedings*.

Narendar, G., dan Charishma, K. T. S. (2021). CFD study on the effect of nanofluids in natural circulation loop. *Materials Today: Proceedings*, 49, 2116–2123. <https://doi.org/10.1016/j.matpr.2021.08.317>

Nayak, A. K., Gartia, M. R., dan Vijayan, P. K. (2008). An experimental investigation of single-phase natural circulation behavior in a rectangular loop with Al₂O₃ nanofluids. *Experimental Thermal and Fluid Science*, 33(1), 184–189. <https://doi.org/10.1016/j.expthermflusci.2008.07.017>

Nayak, A. K., Gartia, M. R., dan Vijayan, P. K. (2009). Thermal-hydraulic

characteristics of a single-phase natural circulation loop with water and Al₂O₃ nanofluids. *Nuclear Engineering and Design*, 239(3), 526–540.
<https://doi.org/10.1016/j.nucengdes.2008.11.014>

R. Grief. (1988). Natural circulation loops. *J. Heat Transfer*, 110, 1243 – 1258.

Rahnama, Z., dan Ansarifard, G. R. (2021). Nanofluid application for heat transfer, safety, and natural circulation enhancement in the NuScale nuclear reactor as a small modular reactor using computational fluid dynamic (CFD) modeling via neutronic and thermal-hydraulics coupling. *Progress in Nuclear Energy*, 138(May), 103796. <https://doi.org/10.1016/j.pnucene.2021.103796>

Sahu, M., Sarkar, J., dan Chandra, L. (2020a). *Performance of single phase natural circulation loop using hybrid nanofluids for heating above 100°C. m*, 305–310. <https://doi.org/10.1615/ihmtc-2019.520>

Sahu, M., Sarkar, J., dan Chandra, L. (2020b). Transient thermo-hydraulics and performance characteristics of single-phase natural circulation loop using hybrid nanofluids. *International Communications in Heat and Mass Transfer*, 110(December 2019), 104433.
<https://doi.org/10.1016/j.icheatmasstransfer.2019.104433>

Sarkar, J., Ghosh, P., dan Adil, A. (2015). A review on hybrid nanofluids: Recent research, development and applications. *Renewable and Sustainable Energy Reviews*, 43, 164–177. <https://doi.org/10.1016/j.rser.2014.11.023>

Seyyedi, S. M., Sahebi, N., Dogonchi, A. S., dan Hashemi-Tilehnoee, M. (2019). Numerical and experimental analysis of a rectangular single-phase natural circulation loop with asymmetric heater position. *International Journal of Heat and Mass Transfer*, 130, 1343–1357.
<https://doi.org/10.1016/j.ijheatmasstransfer.2018.11.030>

Sharma, R., dan Bisht, A. (2020). Effect of buoyancy and suction on Sisko nanofluid over a vertical stretching sheet in a porous medium with mass flux condition. *Indian Journal of Pure and Applied Physics*, 58(3), 178–188.

<https://doi.org/10.56042/ijpap.v58i3.23660>

Swapnalee, B. T., dan Vijayan, P. K. (2011a). A generalized flow equation for single phase natural circulation loops obeying multiple friction laws.

International Journal of Heat and Mass Transfer, 54(11–12), 2618–2629.

<https://doi.org/10.1016/j.ijheatmasstransfer.2011.01.023>

Swapnalee, B. T., dan Vijayan, P. K. (2011b). International Journal of Heat and Mass Transfer A generalized flow equation for single phase natural

circulation loops obeying multiple friction laws. *International Journal of Heat and Mass Transfer*, 54(11–12), 2618–2629.

<https://doi.org/10.1016/j.ijheatmasstransfer.2011.01.023>

Swapnalee, B. T., Vijayan, P. K., Sharma, M., dan Pilkhwal, D. S. (2012). Steady state flow and static instability of supercritical natural circulation loops.

Nuclear Engineering and Design, 245, 99–112.

<https://doi.org/10.1016/j.nucengdes.2012.01.002>

Tan, S.-C., Gao, P.-Z., dan Su, G.-H. (2008). Experimental research on natural circulation complex oscillations under rolling motion conditions. *Yuanzineng Kexue Jishu/Atomic Energy Science and Technology*, 42(11), 1007–1011.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-57949088146&partnerID=40&md5=d00eb0fe5a85d8241719a3bb4b5266d6)

[57949088146&partnerID=40&md5=d00eb0fe5a85d8241719a3bb4b5266d6](https://www.scopus.com/inward/record.uri?eid=2-s2.0-57949088146&partnerID=40&md5=d00eb0fe5a85d8241719a3bb4b5266d6)

Taylor, J. R. (1981). *An Introduction to Error Analysis*. (Second Edi).

Tiwari, A. K., Pandya, N. S., Shah, H., dan Said, Z. (2020). Experimental comparison of specific heat capacity of three different metal oxides with

MWCNT/ water-based hybrid nanofluids: proposing a new correlation.

Applied Nanoscience (Switzerland), 0123456789.

<https://doi.org/10.1007/s13204-020-01578-6>

Vijayan, P. K. (2002). Experimental observations on the general trends of the steady state and stability behaviour of single-phase natural circulation loops.

Nuclear Engineering and Design, 215(1–2), 139–152.

[https://doi.org/10.1016/S0029-5493\(02\)00047-X](https://doi.org/10.1016/S0029-5493(02)00047-X)

Vijayan, P. K., dan Austregesilo, H. (1994). Scaling laws for single-phase natural circulation loops. *Nuclear Engineering and Design*, 152(1–3), 331–347.

[https://doi.org/10.1016/0029-5493\(94\)90095-7](https://doi.org/10.1016/0029-5493(94)90095-7)

Vijayan, P. K., Austregesilo, H., dan Teschendorff, V. (1995). Simulation of the unstable oscillatory behavior of single-phase natural circulation with repetitive flow reversals in a rectangular loop using the computer code athlet. *Nuclear Engineering and Design*, 155(3), 623–641.

[https://doi.org/10.1016/0029-5493\(94\)00972-2](https://doi.org/10.1016/0029-5493(94)00972-2)

Vijayan, P. K., dan Date, A. W. (1992). The limits of conditional stability for single-phase natural circulation with throughflow in a figure-of-eight loop. *Nuclear Engineering and Design*, 136(3), 361–380.

[https://doi.org/10.1016/0029-5493\(92\)90034-S](https://doi.org/10.1016/0029-5493(92)90034-S)

Vijayan, P. K., Nayak, A. K., Saha, D., dan Gartia, M. R. (2008). Effect of loop diameter on the steady state and stability behaviour of single-phase and two-phase natural circulation loops. *Science and Technology of Nuclear Installations*, 2008. <https://doi.org/10.1155/2008/672704>

Vijayan, P. K., Sharma, M., dan Saha, D. (2007). Steady state and stability characteristics of single-phase natural circulation in a rectangular loop with different heater and cooler orientations. *Experimental Thermal and Fluid Science*, 31(8), 925–945.

<https://doi.org/10.1016/j.expthermflusci.2006.10.003>

Wang, X. Q., dan Mujumdar, A. S. (2007). Heat transfer characteristics of nanofluids: a review. *International Journal of Thermal Sciences*, 46(1), 1–19. <https://doi.org/10.1016/j.ijthermalsci.2006.06.010>

Wu, Y. W., Su, G. H., Qiu, S., dan Tian, W. (2012). Development of a thermal-hydraulic analysis software for a passive residual heat removal system. *Annals of Nuclear Energy*, 48, 25–39.

<https://doi.org/10.1016/j.anucene.2012.05.012>

Yu, W., dan Xie, H. (2012). *A Review on Nanofluids : Preparation , Stability Mechanisms , and Applications*. 2012. <https://doi.org/10.1155/2012/435873>

Zivirin. (1981). A Review Of Natural Circulation Loops In Pressurized Water Reactors And Other Systemz. *Nuclear Engineering and Design*, 67, 203–225.

