รายการอ้างอิง

ธงชัย เทียมทัด และ อาทิตย์ คูณศรีสุข. (2565). การวิเคราะห์ทางอุณหพลศาสตร์ การศึกษาเชิงพารามิเตอร์ และสภาวะการทำงานที่เหมาะที่สุดของวัฏจักรคาลินาสำหรับแหล่งความร้อนที่มีอุณหภูมิ 100, 110 และ 120 องศาเซลเซียส. การถ่ายเทพลังงานความร้อนและมวลในอุปกรณ์ด้านความร้อนและกระบวนการ ครั้งที่ 22, เชียงใหม่, 10-11 มีนาคม 2565.

อาทิตย์ คูณศรีสุข และคณะ (2561). การออกแบบโรงไฟฟ้า ORC ที่ใช้กังหันขยายตัวแบบ 2 เฟสเพื่อผลิตไฟฟ้าจากความร้อนทิ้งและการวิเคราะห์สมรรถนะที่สภาวะออกแบบและที่สภาวะนอกเหนือสภาวะออกแบบ. สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ และการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย

Ahmadi Boyaghchi F, Heidarnejad P. Thermoeconomic assessment and multi-objective optimization of a solar micro CCHP based on Organic Rankine Cycle for domestic application. Energy. 2015;97: 224-234.

Ahmed, M., Hooman, K., & Hashemi, S. M. (2007). Double cascade organic Rankine cycle for solar-driven reverse osmosis desalination. Desalination, 216, 306-313.

Alrabie, M. S., Altamimi, F. N., Altarrgemy, M. H., Hadi, F., Akbar, M. K., & Traum, M. J. (2017). Method to design a hydro Tesla turbine for sensitivity to varying laminar Reynolds number modulated by changing working fluid viscosity. In Energy Sustainability (Vol. 57595, p. V001T07A004). American Society of Mechanical Engineers.

Bejan A. Thermal Design and Optimization. 1st ed. New York: John Wiley & Sons; 1995.

Biswas, A., & Mandal, B. K. (2023). Analysis of Organic Rankine Cycle using various working fluids for low-grade waste heat recovery. In S. Doolla, Z. H. Rather, & V. Ramadesigan (Eds.), Advances in clean energy and sustainability. ICAER 2022. Green energy and technology (pp. 1-20). Springer.

Blondel Q, Tauveron N, Lhermet G, Caney N. Zeotropic mixtures study in plate heat exchangers and ORC systems. Applied Thermal Engineering. 2022;119418.

รายการอ้างอิง (ต่อ)

Cao, L., Wang, J., Chen, L., & Dai, Y. (2018). Comprehensive analysis and optimization of Kalina-Flash cycles for low-grade heat source. Applied Thermal Engineering, 131, 540-552.

Carey, V. P. (2010). Assessment of Tesla turbine performance for small scale Rankine combined heat and power systems. Journal of Engineering for Gas Turbines and Power, 132(2), 12230.

Çengel Y, Boles M, Kanoğlu M. Thermodynamics: An engineering approach. 9th ed. New York (NY): McGraw-Hill; 2024.

Colwell, C. (2023). An innovative biomass-fueled gas turbine-ORC system equipped with electrochemically mediated amine regeneration (EMAR) for CO2 capture. Journal of CO2 Utilization, 68, 102365.

Dawo, F., Fleischmann, J., Kaufmann, F., Schifflechner, C., Eyerer, S., Wieland, C., & Spliethoff, H. (2021). R1224yd (Z), R1233zd (E) and R1336mzz (Z) as replacements for R245fa: Experimental performance, interaction with lubricants and environmental impact. Applied Energy, 288, 116661.

Dumont, O., Talluri, L., Fiaschi, D., Manfrida, G., & Lemort, V. (2019). Comparison of a scroll, a screw, a roots, a piston expander and a Tesla turbine for small-scale organic Rankine cycle. In ORC conference 2019.

European Parliament and the Council. Regulation (EU) 2024/573 on fluorinated greenhouse gases, amending Directive (EU) 2019/1937 and repealing Regulation (EU) No 517/2014. Official Journal of the European Union. 2024.

Eyerer, S., Wieland, C., Vandersickel, A., & Spliethoff, H. (2016). Experimental study of an ORC (Organic Rankine Cycle) and analysis of R1233zd-E as a drop-in replacement for R245fa for low temperature heat utilization. Energy, 103, 660-671.

Feng, Y., Hung, T., Zhang, Y., Li, B., Yang, J., & Shi, Y. (2015). Performance comparison of low-grade ORCs (organic Rankine cycles) using R245fa, pentane and their mixtures based on the thermoeconomic multi-objective optimization and decision makings. Energy, 93, 2018-2029.

รายการอ้างอิง (ต่อ)

Fischer, J. (2011). Comparison of trilateral cycles and organic Rankine cycles. Energy, 36(10), 6208-6219.

G. Xu ,Xu, G., Song, G., Zhu, X., Gao, W., Li, H., & Quan, Y. (2015). Performance evaluation of a direct vapor generation supercritical ORC system driven by linear Fresnel reflector solar concentrator. Applied Thermal Engineering, 80, 196-204.

Hærvig, J., Sørensen, K., & Condra, T. J. (2016). Guidelines for optimal selection of working fluid for an organic Rankine cycle in relation to waste heat recovery. Energy, 96, 592-602.

Harikishan Gupta E. and Shyam P. Kodal. (2013). Design and Operation of Tesla Turbo machine - A state of the art review. International Journal of Advanced Transport Phenomena Vol. 02, No. 01, Jan-Dec 2013

He, C., Liu, C., Gao, H., Xie, H., Li, Y., Wu, S., & Xu, J. (2012). The optimal evaporation temperature and working fluids for subcritical organic Rankine cycle. Energy, 38(1), 136-143.

Humphreys K. Jelen's Cost and Optimization Engineering. 3rd ed. New York: McGraw-Hill; 1991.

Júnior, E. P. B., Arrieta, M. D. P., Arrieta, F. R. P., & Silva, C. H. F. (2019). Assessment of a Kalina cycle for waste heat recovery in the cement industry. Applied thermal engineering, 147, 421-437.

Kachawong, T., & Koonsrisuk, A. (2025). From vapor to liquid: Unlocking the potential of Tesla turbines in ORC power plants with variable steam qualities. Energy, 315, 134306.

Kalina, J., & Świerzewski, M. (2019). Identification of ORC unit operation in biomass-fired cogeneration system. Renewable Energy, 142, 400-414.

Kang, S. H. (2012). Design and experimental study of ORC (organic rankine cycle) and radial turbine using R245FA working fluid. Energy, 41(1), 514–524.

รายการอ้างอิง (ต่อ)

Karimi, S., & Mansouri, S. (2018). A comparative profitability study of geothermal electricity production in developed and developing countries: Exergoeconomic analysis and optimization of different ORC configurations. Renewable Energy, 115, 600-619.

Kalina, A. I. (1984). Combined-cycle system with novel bottoming cycle. Journal of Engineering for Gas Turbines and Power, 106(4), 737–742.

Koonsrisuk, A., Lorente, S., & Bejan, A. (2010). Constructal solar chimney configuration. *International Journal of Heat and Mass Transfer*, *53*(1-3), 327-333.

Lecompte, S., Huisseune, H., Van Den Broek, M., Vanslambrouck, B., & De Paepe, M. (2015). Review of organic Rankine cycle (ORC) architectures for waste heat recovery. Renewable and sustainable energy reviews, 47, 448-461.

Lemmens, S. (2016). Cost engineering techniques and their applicability for cost estimation of organic Rankine cycle systems. Energies, 9(7), 485.

Li, J., Liu, Q., Ge, Z., Duan, Y., & Yang, Z. (2017). Thermodynamic performance analyses and optimization of subcritical and transcritical organic Rankine cycles using R1234ze(E) for 100–200 °C heat sources. Energy Conversion and Management, 149, 140-154.

Li, T., Wang, Z., Wang, J., & Gao, X. (2023). Dynamic performance of organic Rankine cycle driven by fluctuant industrial waste heat for building power supply. Energies, 16(2), 765.

Li, Y., Zhang, Y., & Cui, X. (2023). Study on fracture mechanism of low-pressure blades of steam turbines in power plants. Journal of Physics: Conference Series, 2528, 012046. Presented at the 7th International Conference on Mechanical, Electric and Industrial Engineering (MEIE 2023).

Lu, P., Chen, K., Luo, X., Wu, W., Liang, Y., Chen, J., & Chen, Y. (2024). Experimental and simulation study on a zeotropic ORC system using R1234ze (E)/R245fa as working fluid. Energy, 292, 130453.

รายการอ้างอิง (ต่อ)

Manfrida G, Talluri L. Fluid Dynamics Assessment of the Tesla turbine rotor. Thermal Science. 2019;23(1):1-10.

Manfrida, G., & Talluri, L. (2019). Fluid dynamics assessment of the Tesla turbine rotor. Thermal Science, 23(1), 1-10.

Mergner, H., & Weimer, T. (2015). Performance of ammonia–water based cycles for power generation from low enthalpy heat sources. Energy, 88, 93-100.

Mohammadi, K., Ellingwood, K., & Powell, K. (2020). A novel triple power cycle featuring a gas turbine cycle with supercritical carbon dioxide and organic Rankine cycles: Thermoeconomic analysis and optimization. Energy Conversion and Management, 220, 113123.

Moran, M. J., Shapiro, H. N., Boettner, D. D., & Bailey, M. B. (2010). Fundamentals of engineering thermodynamics. John Wiley & Sons.

Niknam, P. H., Talluri, L., Ciappi, L., & Fiaschi, D. (2021). Numerical assessment of a two-phase Tesla turbine: Parametric analysis. Applied Thermal Engineering, 197, 117364.

Ochoa, G. V., Peñaloza, C. A., & Rojas, J. P. (2019). Thermoeconomic modelling and parametric study of a simple ORC for the recovery of waste heat in a 2 MW gas engine under different working fluids. Applied Sciences, 9(21), 4526.

Pacini, L., Ciappi, L., Talluri, L., Fiaschi, D., Manfrida, G., & Smolka, J. (2020). Computational investigation of partial admission effects on the flow field of a tesla turbine for ORC applications. Energy, 212, 118687.

Palagi, L., Pesyridis, A., Sciubba, E., & Tocci, L. (2019). Machine learning for the prediction of the dynamic behavior of a small scale ORC system. Energy, 166, 72-82.

Pantaleo, A., Fordham, J., Oyewunmi, O., & Markides, C. (2017). Intermittent waste heat recovery via ORC in coffee torrefaction. Energy Procedia, 142, 1714-1720.

Patil, V. R., Biradar, V. I., Shreyas, R., Garg, P., Orosz, M. S., & Thirumalai, N. C. (2017). Techno-economic comparison of solar organic Rankine cycle (ORC) and photovoltaic (PV) systems with energy storage. Renewable Energy, 113, 1250-1260.

รายการอ้างอิง (ต่อ)

Phueksaphanrat, T., Schulz, E., & Koonsrisuk, A. (2020). Energy cost analysis of an organic rankine cycle with exhaust gas in off design conditions. Journal of Research and Applications in Mechanical Engineering, 8(1), 48-58.

Quoilin, S., Declaye, S., Tchanche, B. F., & Lemort, V. (2011). Thermo-economic optimization of waste heat recovery Organic Rankine Cycles. Applied thermal engineering, 31(14-15), 2885-2893.

Raksa-in, W., & Koonsrisuk, A. (2020). Waste heat recovery power plant for a heat source temperature of 130-150 C. Journal of Research and Applications in Mechanical Engineering, 8(2), 101-113.

Raksa-in, W., Duangduean, S., Schulz, E., & Koonsrisuk, A. (2025). Resolving performance contradictions in ORC and alternative power cycles: Systematic analysis of five technologies with time-adjusted economic insights. Energy, 324, 136130.

Rice, W. (1965). An analytical and experimental investigation of multiple-disk turbines. ASME Journal of Engineering for Power, 87(1), 29-36.

Rodríguez, C. E. C., Palacio, J. C. E., Venturini, O. J., Lora, E. E. S., Cobas, V. M., Dos Santos, D. M., ... & Gialluca, V. (2013). Exergetic and economic comparison of ORC and Kalina cycle for low temperature enhanced geothermal system in Brazil. Applied Thermal Engineering, 52(1), 109-119.

Roumpedakis, T. C., Christou, T., Monokrousou, E., Braimakis, K., & Karellas, S. (2019). Integrated ORC-adsorption cycle: A first and second law analysis of potential configurations. Energy, 179, 1-15.

Roumpedakis, T. C., Loumpardis, G., Monokrousou, E., Braimakis, K., Charalampidis, A., & Karellas, S. (2020). Exergetic and economic analysis of a solar driven small scale ORC. Energy, 157, 116145.

Rusin, K., Wróblewski, W., & Rulik, S. (2021). Efficiency based optimization of a Tesla turbine. Energy, 236, 121374.

Song, J., Gu, C., & Li, X. (2017). Performance estimation of Tesla turbine applied in small scale organic Rankine cycle (ORC) system. Applied Thermal Engineering, 110, 318-326.

รายการอ้างอิง (ต่อ)

Sonsaree, S., & Jiajitsawat, S. (2019). Small-scale Solar Organic Rankine Cycle Power Plant: A Simplified Formula to Estimate the Power Output of Six Areas in Thailand. NU. International Journal of Science, 16(2), 11-30.

Sun, F., Zhou, W., Ikegami, Y., Nakagami, K., & Su, X. (2014). Energy–exergy analysis and optimization of the solar-boosted Kalina cycle system 11 (KCS-11). Renewable Energy, 66, 268-279.

Talluri, L., Dumont, O., Manfrida, G., Lemort, V., & Fiaschi, D. (2020). Experimental investigation of an organic Rankine Cycle Tesla turbine working with R1233ZD(E). Applied Thermal Engineering, 174, 115293.

Talluri, L., Dumont, O., Manfrida, G., Lemort, V., & Fiaschi, D. (2020). Geometry definition and performance assessment of Tesla turbines for ORC. Energy, 211, 118570.

Talluri, L., Niknam, P., Copeta, A., Amato, M., Iora, P., Uberti, S., ... & Fiaschi, D. (2021). A revised Tesla Turbine concept for 2-phase applications. In E3S Web of Conferences (Vol. 238, p. 10006). EDP Sciences.

Tchanche, B. F., Papadakis, G., Lambrinos, G., & Frangoudakis, A. (2009). Fluid selection for a low-temperature solar organic Rankine cycle. Applied Thermal Engineering, 29(11-12), 2468-2476.

Tchanche, B., Lambrinos, G., Frangoudakis, A., & Papadakis, G. (2011). Low-grade heat conversion into power using organic Rankine cycles: A review of various applications. Renewable and Sustainable Energy Reviews, 15(6), 3963-3979.

Tesla, N. (1913). Turbine. U.S. Patent No. 1,061,206.

Theamtat, T., & Koonsrisuk, A. (2020). Fluid selection and optimal operating conditions of an ORC, and trilateral Rankine cycle power plant for a heat source temperature of 210 °C-250 °C. Journal of Research and Applications in Mechanical Engineering, 8(2), 135-147.

Thurairaja, K., Wijewardane, A., & Ranasinghe, C. (2018). Thermo-economic analysis of organic rankine cycle for power generation. In 2018 IEEE 7th International Conference on Power and Energy (PECon) (pp. 389-393). IEEE.

รายการอ้างอิง (ต่อ)

Thurairaja, K., Wijewardane, A., Jayasekara, S., & Ranasinghe, C. (2019). Working fluid selection and performance evaluation of ORC. Energy Procedia, 156, 244-248.

Traverso, A., Reggio, F., Silvestri, P., Rizzo, S., Engelbrecht, G., & Chasoglou, A. (2019). Two-phase flow expansion: development of an innovative test-rig for flow characterisation and CFD validation. In E3S Web of Conferences (Vol. 113, p. 03017). EDP Sciences.

Turton, R., Bailie, R. C., Whiting, W. B., & Shaeiwitz, J. A. (2008). Analysis, synthesis and design of chemical processes. Pearson Education.

Vatavuk, W. M. (2002). Updating the CE plant cost index. Chemical Engineering, 109(1), 62-70.

Walraven, D., Laenen, B., & D'haeseleer, W. (2015). Minimizing the levelized cost of electricity production from low-temperature geothermal heat sources with ORCs: Water or air cooled?. Applied Energy, 142, 144-153.

Wang, E., & Yu, Z. (2016). A numerical analysis of a composition-adjustable Kalina cycle power plant for power generation from low-temperature geothermal sources. Applied Energy, 180, 834–848.

Wang, M., Zhang, J., & Liu, H. (2022). Comparison of dual-pressure organic Rankine cycle using zeotropic mixtures. Applied Thermal Engineering, 204, 117996.

Wang, Y., Qin, G., Zhang, Y., Yang, S., Liu, C., Jia, C., & Cui, Q. (2021). Conventional and advanced exergy analyses of an organic Rankine cycle by using the thermodynamic cycle approach. Energy Science & Engineering, 9(12), 2474-2492.

White, M. T. (2021). Cycle and turbine optimisation for an ORC operating with two-phase expansion. Applied Thermal Engineering, 192, 116852.

White, M. T. (2021). Cycle and turbine optimization for an ORC operating with two-phase expansion. Applied Thermal Engineering, 192, 116852.

Wong, T. N., & Ooi, K. T. (1995). Refrigerant flow in capillary tube: an assessment of the two-phase viscosity correlations on model prediction. International communications in heat and mass transfer, 22(4), 595-604.

รายการอ้างอิง (ต่อ)

Yang, J., Ye, Z., Yu, B., Ouyang, H., & Chen, J. (2019). Simultaneous experimental comparison of low-GWP refrigerants as drop-in replacements to R245fa for Organic Rankine cycle application: R1234ze (Z), R1233zd (E), and R1336mzz (E). Energy, 173, 721-731.

Yari, M., Mehr, A., Zare, V., Mahmoudi, S., & Rosen, M. (2015). Exergoeconomic comparison of TLC (trilateral Rankine cycle), ORC (organic Rankine cycle) and Kalina cycle using a low-grade heat source. Energy, 83, 712-722.

Yongprawat, M. (2022). Hydrochemical and environmental isotope study of the geothermal water in Mae Chan (North) and Ranong (South) geothermal areas in Thailand [PhD thesis, University of Göttingen].

Yousefizadeh Dibazar, S., Salehi, G., & Davarpanah, A. (2020). Comparison of exergy and advanced exergy analysis in three different organic Rankine cycles. Processes, 8(5), 586.

Yu, X., Li, Z., Lu, Y., Huang, R., & Roskilly, A. P. (2018). Investigation of an innovative cascade cycle combining a trilateral cycle and an Organic Rankine Cycle (TLC-ORC) for industry or transport application. Energies, 11(11), 3032.

Yufeng, Z., Guobing, Z., Hui, X., & Jing, C. (2005). An assessment of friction factor and viscosity correlations for model prediction of refrigerant flow in capillary tubes. International journal of energy research, 29(3), 233-248.

Zare, V. (2015). A comparative exergoeconomic analysis of different ORC configurations for binary geothermal power plants. Energy conversion and management, 105, 127-138.

Zhang, Y., Ren, X., Duan, X., Gong, L., & Hung, T. C. (2024). Strategy for the zeotropic organic rankine cycle operation to match the heat sink variation. Energy, 286, 129541.

Zhang, Y., Zhang, S., Peng, H., Tian, Z., Gao, W., & Yang, K. (2023). Thermodynamic analysis of Tesla turbine in Organic Rankine cycle under two-phase flow conditions. Energy Conversion and Management, 276, 116477.

รายการอ้างอิง (ต่อ)

Zhao, L., & Bao, J. (2014). Thermodynamic analysis of organic Rankine cycle using zeotropic mixtures. Applied energy, 130, 748-756

Ziviani, D., Dickes, R., Quoilin, S., Lemort, V., De Paepe, M., & van den Broek, M. (2016, June). Organic Rankine cycle modelling and the ORCmKit library: analysis of R1234ze (Z) as drop-in replacement of R245fa for low-grade waste heat recovery. In ECOS 2016-29th international conference on Efficiency, Cost, Optimisation, Simulation and Environmental Impact of Energy Systems.