



DAFTAR PUSTAKA

Adeff, J. A., Hofler, T. J., Atchley, A. A., Moss, W.C., (1998), 'Measurements with reticulated vitreous carbon stacks in thermoacoustic prime movers and refrigerators', *The Journal of the Acoustical Society of America*, 104(1), pp. 32–38. doi: 10.1121/1.424055.

Adeff, J. A. dan Hofler, T. J., (2000), 'Design and construction of a solar-powered, thermoacoustically driven, thermoacoustic refrigerator', *Journal of the Acoustical Society of America*, 107(6)(May 2000), pp. 37–42.

Agarwal, H., Unni, V. R., Akhil, K. T., Ravi, N. T., Iqbal, S. Md., Sujith, R. I., Pesala, B., (2016), 'Compact standing wave thermoacoustic generator for power conversion applications', *Applied Acoustics*. Elsevier Ltd, 110, pp. 110–118. doi: 10.1016/j.apacoust.2016.03.028.

Al-Kayiem, A. A. H., (2017), *Investigation of Travelling-wave Thermoacoustic Engines with Different Configurations*. College of Engineering University of Glasgow.

Alcock, A. C., Tartibu, L. K. dan Jen, T. C., (2018), 'Experimental investigation of an adjustable standing wave thermoacoustic engine', *Heat and Mass Transfer/Waerme- und Stoffuebertragung*. Heat and Mass Transfer, 55(3), pp. 877–890. doi: 10.1007/s00231-018-2469-1.

Arafa, N., Ibrahim, A. H., Addas, K., Abdel-rahman, E., (2011), 'Design Considerations for Thermoacoustic Engines for Low Onset Temperature and Efficient Operation', *Forum Acusticum 2011*, (January), pp. 961–966.

Arafa, N., Ibrahim, A. H. dan Khalil, E. E., (2011), 'Sensitivity analysis of a standing-wave thermoacoustic engine', *9th Annual International Energy Conversion Engineering Conference, IECEC 2011*, (August), pp. 1–8. doi: 10.2514/6.2011-5802.

Atchley, A. A., (1992), 'Standing wave analysis of a thermoacoustic prime mover below onset of self-oscillation', *Journal of the Acoustical Society of America*, 92(5), pp. 2907–2914.



- Atchley, A. A., Bass, H. E., Hofler, T. J., Lin, H. T., (1992), 'Study of a thermoacoustic prime mover below onset of self-oscillation', *Journal of the Acoustical Society of America*, 91(2), pp. 734–743. doi: 10.1121/1.402535.
- Babaei, H. dan Siddiqui, K., (2008), 'Design and optimization of thermoacoustic devices', *Energy Conversion and Management*. Elsevier Ltd, 49(12), pp. 3585–3598. doi: 10.1016/j.enconman.2008.07.002.
- Backhaus, S. dan Swift, G. W., (1999), 'A thermoacoustic stirling heat engine', *Nature*, 399(6734), pp. 335–338. doi: 10.1038/20624.
- Backhaus, S. dan Swift, G. W., (2000), 'A thermoacoustic-Stirling heat engine: Detailed study', *The Journal of the Acoustical Society of America*, 107(6), pp. 3148–3166. doi: 10.1121/1.429343.
- Backhaus, S., Tward, E. and Petach, M., (2004), 'Traveling-wave thermoacoustic electric generator', *Applied Physics Letters*, 85(6), pp. 1085–1087. doi: 10.1063/1.1781739.
- Bannwart, Flavio de Campos, 2014, 'Methods for the transfer matrix evaluation of thermoacoustic cores with application to the design of thermoacoustic engines', PhD thesis, Universidade Estadual De Campinas, Campinas
- Bassem, M. M., Ueda, Y. dan Akisawa, A. (2011) 'Design and construction of a traveling wave thermoacoustic refrigerator', *International Journal of Refrigeration*. Elsevier Ltd and IIR, 34(4), pp. 1125–1131. doi: 10.1016/j.ijrefrig.2011.02.003.
- Bendig, M., Maréchal, F. dan Favrat, D. (2013) 'Defining " Waste Heat " for industrial processes', *Applied Thermal Engineering*, 61, pp. 134–142. doi: 10.1016/j.applthermaleng.2013.03.020.
- Biwa, T., Nomura, H., Ueda, Y., Yazaki, T., (2008), 'Experimental verification of a two-sensor acoustic intensity measurement in lossy ducts', *The Journal of the Acoustical Society of America*, 124(3), pp. 1584–1590. doi: 10.1121/1.2953311.
- De Blok, C. M., Owczarek, P. dan Francois, M., (2014), 'Bi-directional turbines for converting acoustic wave power into electricity', *9th PAMIR International Conference*, pp. 433–438.
- de Blok, K., (2010), 'Novel 4-Stage Traveling Wave Thermoacoustic Power Generator', pp. 73–79. doi: 10.1115/fedsm-icnmm2010-30527.



- de Blok, K., (2012), 'Multi-stage Traveling Wave Thermoacoustics in Practice', *19th International Congress on Sound and Vibration*, pp. 1–8.
- de Blok, K., (2013), 'On the design of near atmospheric air operated thermoacoustic engines', *Aster Thermoacoustics*, (September), pp. 1–18.
- De Blok, K., (2008), 'Low operating temperature integral thermo acoustic devices for solar cooling and waste heat recovery', *The Journal of the Acoustical Society of America*, 123(5), pp. 3541–3541. doi: 10.1121/1.2934526.
- Boessneck, E. T. dan Salem, T. E., (2016), 'Performance Characterization of Bi-Directional Turbines for Use in Thermoacoustic Generator Applications', p. V001T09A001. doi: 10.1115/es2016-59372.
- Brar, J. dan Bansal, R. K., (2014), *A Text Book of Theory of Machines*. LAXMI PUBLICATION (P) LTD.
- Brewer, J. H., (2015), *interference, jick.net*.
- Brito-Melo, A., Gato, L. M. C. dan Sarmiento, A. J. N. A., (2002), 'Analysis of Wells turbine design parameters by numerical simulation of the OWC performance', *Ocean Engineering*, 29(12), pp. 1463–1477. doi: 10.1016/S0029-8018(01)00099-3.
- Brooke, J., (2003), *Wave Energy Conversion*. Elsevier O, *Wave Energy Conversion*. Elsevier O. Edited by R. Bhattacharyya and M. E. McCormick. Elsevier.
- Brückner, S., Liu, S., Miró, L., Radspieler, M., Cabeza, L. F., (2015), 'Industrial waste heat recovery technologies : An economic analysis of heat transformation technologies', *Applied Energy*, 151, pp. 157–167. doi: 10.1016/j.apenergy.2015.01.147.
- Callaghan, J. dan Boud, R., (2006), *Future Marine Energy: Cost competitiveness and growth of wave and tidal stream energy*. Available at: http://www.bchydro.com/content/dam/hydro/medialib/internet/documents/planning_regulatory/iep_ltap/ror/appx_11a_marine_energy.pdf.
- Ceperley, P. H., (1979), 'A pistonless Stirling engine—The traveling wave heat engine', *The Journal of the Acoustical Society of America*, 66(5), pp. 1508–1513. doi: 10.1121/1.383505.
- Ceperley, P. H., (1985), 'Gain and efficiency of a short traveling wave heat engine',



The Journal of the Acoustical Society of America, 77(3), pp. 1239–1244. doi: 10.1121/1.392191.

Chen, B. M., Abakr, Y. A., Riley, P. H., Hann, D. B., (2012), ‘Development of thermoacoustic engine operating by waste heat from cooking stove’, *AIP Conference Proceedings*, 1440(February 2015), pp. 532–540. doi: 10.1063/1.4704259.

Chen, R. dan Garrett, S. L., (1998), ‘Solar/heat- driven thermoacoustic engine’, *The Journal of the Acoustical Society of America*, 103(5), pp. 2841–2841. doi: <https://doi.org/10.1121/1.421491>.

Clément, A., McCullen, P., Falcão, A., Fiorentino, A., Gardner, F., Hammarlund, K., Lemonis, G., Lewis, T., Nielsen, K., Petroncini, S., Pontes, M. T., Schild, P., Sjöström, B. O., Sørensen, H. C., Thorpe, T., (2002), ‘Wave energy in Europe: Current status and perspectives’, *Renewable and Sustainable Energy Reviews*, 6(5), pp. 405–431. doi: 10.1016/S1364-0321(02)00009-6.

Cullen, J. M. dan Allwood, J. M., (2010), ‘Theoretical efficiency limits for energy conversion devices’, *Energy*. Elsevier Ltd, 35(5), pp. 2059–2069. doi: 10.1016/j.energy.2010.01.024.

Dai, W., Luo, E., Zhang, Y., Ling, H., (2006), ‘Detailed study of a traveling wave thermoacoustic refrigerator driven by a traveling wave thermoacoustic engine’, *The Journal of the Acoustical Society of America*, 119(5), pp. 2686–2692. doi: 10.1121/1.2184267.

Danel, Q., Périlhon, C., Lacour, S., Punov, P., Danlos, A., (2015), ‘Waste Heat Recovery Applied to a Tractor Engine’, *Energy Procedia*, 74, pp. 331–343. doi: 10.1016/j.egypro.2015.07.622.

Das, T. K., Halder, P. dan Samad, A., (2017), ‘Optimal design of air turbines for oscillating water column wave energy systems: A review’, *The International Journal of Ocean and Climate Systems*, 8(1), pp. 37–49. doi: 10.1177/1759313117693639.

Dong, S., Shen, G., Xu, M., Zhang, S., An, L., (2019), ‘The effect of working fluid on the performance of a large-scale thermoacoustic Stirling engine’, *Energy*. Elsevier Ltd, 181, pp. 378–386. doi: 10.1016/j.energy.2019.05.142.



- Drew, B., Plummer, A. R. dan Sahinkaya, M. N., (2009), 'A review of wave energy converter technology', *Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy*, 223(8), pp. 887–902. doi: 10.1243/09576509JPE782.
- Emam, M. M., (2013), *Experimental Investigation On A Sanding Wave Thermoacoustic Engine*.
- Energetics (2004), *Energy and Environmental Profile of the U.S. Iron and Steel Industry*
- EPOS., (2019), *Waste Heat - Heat to electricity techniques*.
- esdm.go.id., (2017), *Perpres 22/2017 - RUEN*. Available at: <https://www.esdm.go.id/assets/media/content/content-rencana-umum-energi-nasional-ruen.pdf> (Accessed: 1 June 2019).
- Etalim Inc., (2014), *NRCan ecoENERGY Innovation Initiative Stakeholder Report*.
- Falcão, A. F. O. dan Gato, L. M. C., (2012), 'Air turbines', in Sayigh, A. (ed.) *Comprehensive Renewable Energy*. Oxford: Elsevier, pp. 111–149. doi: 10.1016/B978-0-08-087872-0.00805-2.
- Falcão, A. F. O. dan Henriques, J. C. C., (2016), 'Oscillating-water-column wave energy converters and air turbines: A review', *Renewable Energy*, 85, pp. 1391–1424. doi: 10.1016/j.renene.2015.07.086.
- Falnes, J. dan Løvseth, J., (1991), 'Ocean wave energy', *Energy Policy*, 19(8), pp. 768–775. doi: 10.1016/0301-4215(91)90046-Q.
- Feldman, K. T., (1967), 'Review of the Literature on Rijke Thermoacoustic Phenomena', 4(2), pp. 1–24. doi: 10.1001/archpedi.1926.04130080098009.
- Figliola, R.S., dan Beasley, D.E., (2011), *Theory and Design for Mechanical Measurements*, fifth ed, John Willey and Son inc, USA.
- Forman, C., Muritala, I. K., Pardemann, R., Meyer, B., (2016), 'Estimating the global waste heat potential', *Renewable and Sustainable Energy Reviews*. Elsevier, 57, pp. 1568–1579. doi: 10.1016/j.rser.2015.12.192.
- Fusco, A. M., Ward, W. C., Swift, G. W., Los, A., Los, A., (1992), 'Two-sensor power measurement in lossy ducts', 91(April), pp. 2229–2235.
- Gardner, C. dan Lawn, C., (2009), 'Design of a standing-wave thermoacoustic



engine', in *16th International Congress on Sound and Vibration 2009, ICSV 2009*, pp. 5141–5148.

Gardner, D. L. dan Howard, C. Q., (2009), 'Waste-Heat-Driven Thermoacoustic Engine and Refrigerator', *Acoustics*, (November), pp. 23–26.

Gardner, D. L. dan Swift, G., (2003), 'A cascade thermoacoustic engine', *The Journal of the Acoustical Society of America*, 114(4), pp. 1905–1919. doi: 10.1121/1.1612483.

Garrett, S. L., (2003), 'Resource Letter: TA-1: Thermoacoustic engines and refrigerators', *American Journal of Physics*, 72(1), pp. 11–17. doi: 10.1119/1.1621034.

Garrett, S. L., (2012), 'Thermoacoustic engines and refrigerators', *AIP Conference Proceedings*, 1440(7), pp. 9–22. doi: 10.1063/1.4704199.

Garrett, S. L., (2017), *Understanding Acoustics - An Experimentalist's View of Acoustics and Vibration*. ASA Press. doi: 10.1007/978-3-319-49978-9.

Garrett, S. L., Adeff, J. A., Hofler, T. J., Garrett, S. L., Adeff, J. A., Hoflers, T. J., (1993), 'Thermoacoustic Refrigerator for Space Applications', *Journal Of Thermophysics And Heat Transfe*, 7(4), pp. 595–599.

Gato, L. M.C and Falcão, A. F. O., (1988), 'Aerodynamics of the Wells turbine', *International Journal of Mechanical Sciences*, 30(6), pp. 383–395. doi: 10.1016/0020-7403(88)90012-4.

Govardhan, M. dan Chauhan, V. S., (2007), 'Numerical Studies On Performance Improvement Of Self-Rectifying Air Turbine For Wave Energy Conversion', *Engineering Applications of Computational Fluid Mechanics*, 1(1), pp. 57–70. doi: 10.1080/19942060.2007.11015182.

Guédra, M., Bannwart, F.C., Penelet, G., Lotton, P., (2015), 'Parameter estimation for the characterization of thermoacoustic stacks and regenerators', *Applied Thermal Engineering*, 80, pp. 229–237. doi: 10.1016/j.applthermaleng.2015.01.058.

Haddad, C., Périlhon, C., Danlos, A., François, M.X., Descombes, G., (2014), 'Some efficient solutions to recover low and medium waste heat: Competitiveness of the thermoacoustic technology', *Energy Procedia*. Elsevier B.V., 50, pp. 1056–



1069. doi: 10.1016/j.egypro.2014.06.125.

Hariharan, N. M., Sivashanmugam, P. dan Kasthuriengan, S., (2012), 'Influence of stack geometry and resonator length on the performance of thermoacoustic engine', *Applied Acoustics*. Elsevier Ltd, 73(10), pp. 1052–1058. doi: 10.1016/j.apacoust.2012.05.003.

Hatazawa, M., Sugita, H., Ogawa, T., Seo, Y., (2011), 'Performance of a Thermoacoustic Sound Wave Generator driven with Waste Heat of Automobile Gasoline Engine.', *Transactions of the Japan Society of Mechanical Engineers Series B*, 70(689), pp. 292–299. doi: 10.1299/kikaib.70.292.

Herman, C. dan Chen, Y., (2006), 'A simplified model of heat transfer in heat exchangers and stack plates of thermoacoustic refrigerators', *Heat and Mass Transfer/Waerme- und Stoffuebertragung*, 42(10), pp. 901–917. doi: 10.1007/s00231-006-0150-6.

Hoflers, T. J., (1986), *Thermoacoustic Refrigerator Design and Performance*. University of California, San-Diego.

Holzinger, T., Emmert, T. dan Polifke, W., (2014), 'Optimizing thermoacoustic regenerators for maximum amplification of acoustic power', *Journal of the Acoustical Society of America*, 136(5). doi: 10.1121/1.4896499.

Huang, Y., Luo, E., Dai, W., Wu, Z., (2004), 'A Traveling Wave Thermoacoustic Refrigerator within Room Temperature Range', *Cryocoolers 13*, pp. 189–194. doi: 10.1007/0-387-27533-9_27.

Ibrahim, A., Arafa, N. dan Khalil, E., (2011), 'Geometrical Optimization of Thermoacoustic Heat Engines', in *49th AIAA Aerospace Sciences Meeting including the New Horizons Forum and Aerospace Exposition*. doi: 10.2514/6.2011-129.

Ilyas, A., Kashif, S. A. R., Saqib, M. A., Asad, M. M., (2014), 'Wave electrical energy systems: Implementation, challenges and environmental issues', *Renewable and Sustainable Energy Reviews*. Elsevier, 40, pp. 260–268. doi: 10.1016/j.rser.2014.07.085.

Jacobsen, F., (2007), On the uncertainty in measurement of sound power using sound intensity, *Noise Control Eng. J*, 55.



Jaworski, A. J. dan Mao, X., (2013), 'Development of thermoacoustic devices for power generation and refrigeration', in *Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy*, pp. 762–782. doi: 10.1177/0957650913493622.

Jin, T., Zhang, B., Tang, K., Bao, R., Chen, G., (2007), 'Experimental observation on a small-scale thermoacoustic prime mover', *Journal of Zhejiang University-SCIENCE A*, 8(2), pp. 205–209. doi: 10.1631/jzus.2007.a0205.

Johnson, I., Choate, B., Dillich, S., Recovery, W. H., Furnaces, I., Balances, E., (2008), 'Waste heat recovery: opportunities and challenges', *Energy*, pp. 47–52.

Jouhara, H., Almahmoud, S., Chauhan, A., Delpech, B., Bianchi, G., Tassou, S. A., Llera, R., Lago, F., Arribas, J. J., (2017), 'Experimental and theoretical investigation of a flat heat pipe heat exchanger for waste heat recovery in the steel industry', *Energy*, 141, pp. 1928–1939. doi: 10.1016/j.energy.2017.10.142.

Jouhara, H. dan Olabi, A. G., (2018), 'Editorial: Industrial waste heat recovery', *Energy*. Elsevier Ltd, 160, pp. 1–2. doi: 10.1016/j.energy.2018.07.013.

Jung, S. dan Matveev, K. I., (2009), 'Study of a small-scale standing-wave thermoacoustic engine', *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 224(1), pp. 133–141. doi: 10.1243/09544062JMES1594.

Kalra, S., Desai, K. P., Naik, H. B., Atrey, M. D., (2015), 'Theoretical study on standing wave thermoacoustic engine', *Physics Procedia*. Elsevier B.V., 67, pp. 456–461. doi: 10.1016/j.phpro.2015.06.058.

Kamsanam, W., Mao, X. dan Jaworski, A. J., (2015), 'Thermal performance of finned-tube thermoacoustic heat exchangers in oscillatory flow conditions', *International Journal of Thermal Sciences*, 101, pp. 169–180. doi: 10.1016/j.ijthermalsci.2015.10.032.

Kaneuchi, K. dan Nishimura, K., (2015), 'Evaluation of bi-directional turbines using the two-sensor method'. doi: 10.3990/2.279.

Karlsson, M., Åbom, M., Lalit, M., Glav, R., (2016), 'A Note on the Applicability of Thermo-Acoustic Engines for Automotive Waste Heat Recovery', *SAE International Journal of Materials and Manufacturing*, 9(2), pp. 286–293. doi:



10.4271/2016-01-0223.

Ke, H., He, Y., Liu, Y., Cui, F., (2012), 'Mixture working gases in thermoacoustic engines for different applications', *International Journal of Thermophysics*, 33(7), pp. 1143–1163. doi: 10.1007/s10765-012-1268-z.

Khurmi, R., Gupta, J. K., (2005) *Theory of Machines*. 14th edn. S. Chand & Co. Ltd., New Dehli 2005.

Kloprogge, T., (2012), *Turbine Design for Thermoacoustic Generator*.

Kruk, B., (2013), 'Influence of Material Used for the Regenerator on the Properties of a Thermoacoustic Heat Pump', *ARCHIVES OF ACOUSTICS*, 38(4), pp. 565–570. doi: 10.2478/aoa-2013-0067.

Maeda, H., Santhakumar, S., Setoguchi, T., Takao, M., Kinoue, Y., Kaneko, K., (1999), 'Performance of an impulse turbine with fixed guide vanes for wave power conversion', *Renewable Energy*, 17(4), pp. 533–547. doi: 10.1016/S0960-1481(98)00771-X.

Matveev, K. I., Shafiei-Tehrany, N. dan Richards, C. D., (2008), 'Small-scale thermoacoustic engine demonstrator', *Proceedings of PowerMEMS 2008*, pp. 373–376.

Milani, M., Montorsi, L. dan Terzi, S., (2017), 'Numerical analysis of the heat recovery efficiency for the post-combustion flue gas treatment in a coffee roaster plant', *Energy*. Elsevier B.V., 141, pp. 729–743. doi: 10.1016/j.energy.2017.09.098.

Mohamed, M. H., Janiga, G., Pap, E., Thévenin, D., (2011), 'Multi-objective optimization of the airfoil shape of Wells turbine used for wave energy conversion', *Energy*. Elsevier Ltd, 36(1), pp. 438–446. doi: 10.1016/j.energy.2010.10.021.

Mumith, J. A., Makatsoris, C. dan Karayiannis, T. G., (2014), 'Design of a thermoacoustic heat engine for low temperature waste heat recovery in food manufacturing: A thermoacoustic device for heat recovery', *Applied Thermal Engineering*. Elsevier Ltd, 65(1–2), pp. 588–596. doi: 10.1016/j.applthermaleng.2014.01.042.

Naik-Dhungel, N., (2009), *Waste Heat to Power System*. Available at: <https://www.epa.gov/sites/production/files/2015->



07/documents/waste_heat_to_power_systems.pdf.

Nakamura, K. dan Ueda, Y., (2011), 'Design and Construction of a Standing-Wave Thermoacoustic Engine with Heat Sources Having a Given Temperature Ratio', *Journal of Thermal Science and Technology*, 6(3), pp. 416–423. doi: 10.1299/jtst.6.416.

Normah, M. G., Irfan, A. R., Koh, K. S., Manet, A., Zaki, Ab M., (2013), 'Investigation of a portable standing wave thermoacoustic heat engine', *Procedia Engineering*. Elsevier B.V., 56, pp. 829–834. doi: 10.1016/j.proeng.2013.03.203.

Novotny, P., VIT, T., Vestfalova, M., Lopes, J., (2012), 'Standing Wave Thermoacoustic Engines', in *EPJ Web of Conferences*. doi: 10.1051/epjconf/201225010.

Oluleye, G., Jobson, M., Smith, R., Perry, S. J., (2016), 'Evaluating the potential of process sites for waste heat recovery', *Applied Energy*. Elsevier Ltd, 161, pp. 627–646. doi: 10.1016/j.apenergy.2015.07.011.

Onishi, R., Sakamoto, S., Shiraki, K., Kuroki, D., Watanabe, Y., 2020, Resonance control of coaxial-type system by an additional stack, *Japanese Journal of Applied Physics*, 59, SKKD 10, doi: 10.35848/1347-4065/ab7155

Panhuis, in't., (2009), *Mathematical Aspects of Thermoacoustics*. doi: 10.6100/IR642908.

Pecher, A. dan Kofoed, J. P., (2017), *Handbook Of Ocean Wave Energy*. AG Switzerland: Springer International Publishing.

Pereiras, B., Castro, F., Marjani, A., Rodríguez, M. A., (2011), 'An improved radial impulse turbine for OWC', *Renewable Energy*. Elsevier Ltd, 36(5), pp. 1477–1484. doi: 10.1016/j.renene.2010.10.013.

Piccolo, A., Siclari, R., Rando, F., Cannistraro, M., (2017), 'Comparative performance of thermoacoustic heat exchangers with different pore geometries in oscillatory flow. Implementation of experimental techniques', *Applied Sciences (Switzerland)*, 7(8). doi: 10.3390/app7080784.

Poese, M. E., Smith, R. W., Garrett, S. L., Van G. R., Gosselin, P., (2004), 'Thermoacoustic refrigeration for ice cream sales', in *6th Gustav Lorentzen Natural Working Fluids Conference*, pp. 1–8.



- Puddu, P., Paderi, M. dan Manca, C., (2014), 'Aerodynamic characterization of a Wells turbine under bi-directional airflow', *Energy Procedia*. Elsevier B.V., 45, pp. 278–287. doi: 10.1016/j.egypro.2014.01.030.
- Putnam, A. A. dan Dennis, W. R., (1956), 'Survey of Organ-Pipe Oscillations in Combustion Systems', *The Journal of the Acoustical Society of America*, 2(2), pp. 246–259.
- Qiu, L. M., Lou, P., Wang, K., Wang, B., Sun, D.M., Rao, J. F., Zhang, X. J., (2013), 'Characteristics of onset and damping in a standing-wave thermoacoustic engine driven by liquid nitrogen', *Chinese Science Bulletin*, 58(11), pp. 1325–1330. doi: 10.1007/s11434-012-5214-z.
- Raghunathan, S., (1995), 'A methodology for Wells turbine design for wave energy conversion', *Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy*, 209(3), pp. 221–232. doi: 10.1243/PIME_PROC_1995_209_040_02.
- Raghunathan, S., Setoguchi, T. dan Kaneko, K., (1994), 'Aerodynamics of monoplane Wells turbine - a review', *International Journal of Offshore and Polar Engineering*, 4(1), pp. 68–75.
- Raghunathan, S. dan Tan, C. P., (1983), 'Aerodynamic performance of a Wells air turbine', *Journal of Energy*, 7(3), pp. 226–230. doi: 10.2514/3.48075.
- Raghunathan, S. dan Tan, C. P., (1985), 'Effect of blade profile on the performance of the Wells self-rectifying air turbine', *International Journal of Heat and Fluid Flow*, 6(1), pp. 17–22. doi: 10.1016/0142-727X(85)90026-8.
- Raghunathan, S., Tan, C. P. dan Wells, N. A. J., (1981), 'Theory and performance of a Wells turbine', *Journal of Energy*, 6(2), pp. 157–160. doi: 10.2514/3.48047.
- Rossing, T. D., (2007), *Springer Handbook of Acoustic*. Edited by T. D. Rossing. LLC New York: Springer Science+Business Media.
- Rott, N., (1969), 'Damped and thermally driven acoustic oscillations in wide and narrow tubes', *Zeitschrift für angewandte Mathematik und Physik ZAMP*, 20(2), pp. 230–243. doi: 10.1007/bf01595562.
- Rott, N., (1973), 'Thermally driven acoustic oscillations. Part II: Stability limit for helium', *Zeitschrift für angewandte Mathematik und Physik ZAMP*, 24(1), pp. 54–



72. doi: 10.1007/BF01593998.

Rott, N., (1974), 'The influence of heat conduction on acoustic streaming', *Zeitschrift für angewandte Mathematik und Physik ZAMP*, 25(3), pp. 417–421. doi: 10.1007/BF01594958.

Rott, N., (1975), 'Thermally driven acoustic oscillations, part III: Second-order heat flux', *Zeitschrift für angewandte Mathematik und Physik ZAMP*, 26(1), pp. 43–49. doi: 10.1007/BF01596277.

Rott, N. dan Zouzoulas, G., (1976), 'Thermally driven acoustic oscillations, part IV: Tubes with variable cross-section', *Zeitschrift für angewandte Mathematik und Physik ZAMP*, 27(2), pp. 197–224. doi: 10.1007/bf01590805.

Sahoo, D., Kotrba, A., Steiner, T., Swift, G., (2017), 'Waste Heat Recovery for Light-Duty Truck Application Using ThermoAcoustic Converter Technology', *SAE International Journal of Engines*, 10(2), pp. 196–202. doi: 10.4271/2017-01-0153.

Saidur, R., Rezaei, M., Muzammil, W. K., Hassan, M. H., Paria, S., Hasanuzzaman, M., (2012), 'Technologies to recover exhaust heat from internal combustion engines', *Renewable and Sustainable Energy Reviews*. Elsevier, 16(8), pp. 5649–5659. doi: 10.1016/j.rser.2012.05.018.

Semkov, K., Mooney, E., Connolly, M., Adley, C., (2014), 'Efficiency improvement through waste heat reduction', *Applied Thermal Engineering*. Elsevier Ltd, 70(1), pp. 716–722. doi: 10.1016/j.applthermaleng.2014.05.030.

Setiawan, I., Murti, P., Achmadin, W. N., Utomo, A. B. S., Nohtomi, M., (2016), 'Design, construction and evaluation of a standing wave thermoacoustic prime mover', in *AIP Conference Proceedings*. doi: 10.1063/1.4943482.

Setoguchi, T. dan Takao, M., (2006), 'Current status of self rectifying air turbines for wave energy conversion', *Energy Conversion and Management*, 47(15–16), pp. 2382–2396. doi: 10.1016/j.enconman.2005.11.013.

Shaaban, S., (2016), 'Aero-economical optimization of Wells turbine rotor geometry', *Energy Conversion and Management*. Elsevier Ltd, 126, pp. 20–31. doi: 10.1016/j.enconman.2016.07.068.

Shimizu, D. dan Sugimoto, N., (2009), 'Physical mechanisms of thermoacoustic



taconis oscillations', *Journal of the Physical Society of Japan*, 78(9), pp. 1–6. doi: 10.1143/JPSJ.78.094401.

Skaria, M., Abdul R. K. K., Shafi, K. A., Kasthuriengan, S., Behera, U., (2015), 'Simulation studies on the performance of thermoacoustic prime movers and refrigerator', *Computers and Fluids*. Elsevier Ltd, 111, pp. 127–136. doi: 10.1016/j.compfluid.2015.01.011.

Sondhauss, C., (1850), 'Ueber die Schallschwingungen der Luft in erhitzten Glasrohren und gedeckten Pfeifen von ungleicher Weite', *Annalen der physik und chemie*, 155(1), pp. 1–34.

Stobart, R., Hounsham, S. dan Weerasinghe, R., (2010), 'The Controllability of Vapour Based Thermal Recovery Systems in Vehicles', *SAE Technical Paper Series*, 1(724). doi: 10.4271/2007-01-0270.

Ralf Starzmann dan Thomas Carolus, (2014), 'Model-based selection of full-scale Wells turbines for ocean wave energy conversion and prediction of their aerodynamic and acoustic performances' *Journal Power and Energy*, 228(I), 2-16. doi: 10.1177/0957650913503153.

Sun, D. M., Wang, K., Zhang, X. J., Guo, Y. N., Xu, Y., Qiu, L. M., (2013), 'A traveling-wave thermoacoustic electric generator with a variable electric R-C load', *Applied Energy*, 106, pp. 377–382. doi: 10.1016/j.apenergy.2013.01.051.

Swift, G., (1988), 'Thermoacoustic engines', *The journal of the Acoustical Society of America*, 84(4), pp. 1145–1180. doi: 10.1121/1.396617.

Swift, G., (2002), *Thermoacoustics : A Unifying Perspective for Some Engines and Refrigerators*, *Lebensmittel-Wissenschaft und-Technologie*. doi: 10.1016/s0023-6438(02)90911-4.

Swift, G. W., (1992), 'Analysis and performance of a large thermoacoustic engine', *The Journal of the Acoustical Society of America*, 92(3), pp. 1551–1563. doi: 10.1121/1.403896.

Swift, G. W., (2017), *Thermoacoustic : A Unifying Perspective for Some Engine and Refrigerators*. 2nd edn. ASA Press.

Swift, G. W. dan Keolian, R., (1993), 'Thermoacoustic in pin-array stack', *Journal of the Acoustical Society of America*, 94(2), pp. 941–943.



- Taconis, K. W., Beenakker, J.J.M., Nier, A.O.C., Aldrich, L.T., (1949), 'Measurements Concerning The Vapour-Liquid Equilibrium of Solution of He 3 in He 4 Below 2.19 K', *Physica*, (8).
- Takasaki, K., Takao, M. dan Setoguchi, T., (2014), 'Effect of Blade Shape on the Performance of Wells Turbine for Wave Energy Conversion', *International Journal of Mechanical , Aerospace, Industrial, Mechatronic and Manufacturing*, 8(2), pp. 155–160.
- Takeuchi, G., Sakamoto, S., Idoki, K., Watanabe, Y., (2014), 'A prototype thermoacoustic system using coaxial geometry for traveling wave phasing', in *Forum Acusticum*, pp. 2–4.
- Takeuchi, G., Sakamoto, S. dan Watanabe, Y., (2014), 'Effects of inner tube-diameter on a coaxial thermoacoustic engine', 35, pp. 465–466.
- Tang, K., Jin, T., Bao, R., Kong, B., Qiu, L. M., (2005), 'Influence of resonance tube length on performance of thermoacoustically driven pulse tube refrigerator', *Cryogenics*, 45(3), pp. 185–191. doi: 10.1016/j.cryogenics.2004.10.002.
- Tang, K., Chen, G. B., Bao, R., Kong, B., Qiu, L. M., (2006), 'Influence of resonance tube geometry shape on performance of thermoacoustic engine', *Ultrasonics*, 44(SUPPL.), pp. 1519–1521. doi: 10.1016/j.ultras.2006.08.005.
- Tang, K., Bao, R., Chen, G. B., Qiu, Y., Shou, L., Huang, Z. J., Jin, T., (2007), 'Thermoacoustically driven pulse tube cooler below 60 K', *Cryogenics*, 47(9–10), pp. 526–529. doi: 10.1016/j.cryogenics.2007.04.003.
- Tasnim, S. H., Mahmud, S. dan Fraser, R. A., (2012), 'Effects of variation in working fluids and operating conditions on the performance of a thermoacoustic refrigerator', *International Communications in Heat and Mass Transfer*. Elsevier Ltd, 39(6), pp. 762–768. doi: 10.1016/j.icheatmasstransfer.2012.04.013.
- Telesz, M. P., (2006), *Design and Testing of A Thermoacoustic Power Converter, Drying Technology*.
- Thakker, A. dan Hourigan, F., (2004), 'Modeling and scaling of the impulse turbine for wave power applications', *Renewable Energy*, 29(3), pp. 305–317. doi: 10.1016/S0960-1481(03)00253-2.
- Thakker, A., Jarvis, J. dan Sahed, A., (2009), 'Design charts for impulse turbine



wave energy extraction using experimental data', *Renewable Energy*. Elsevier Ltd, 34(10), pp. 2264–2270. doi: 10.1016/j.renene.2009.04.002.

Thekdi, A. and Nimbalkar, S. U., (2015), *Industrial Waste Heat Recovery - Potential Applications, Available Technologies and Crosscutting R&D Opportunities*. doi: 10.2172/1185778.

Tijani, M. E. H. dan Spoelstra, S., (2011), 'A high performance thermoacoustic engine', *Journal of Applied Physics*, 110(9). doi: 10.1063/1.3658872.

Tijani, M. E. H., Zeegers, J. C. H. dan De Waele, A. T. A. M., (2002a), 'Construction and performance of a thermoacoustic refrigerator', *Cryogenics*, 42(1), pp. 59–66. doi: 10.1016/S0011-2275(01)00180-1.

Tijani, M. E. H., Zeegers, J. C. H. dan De Waele, A. T. A. M., (2002b), 'Design of thermoacoustic refrigerators', *Cryogenics*, 42(1), pp. 49–57. doi: 10.1016/S0011-2275(01)00179-5.

Timmer, M. A. G., de Blok, K. dan van der Meer, T. H., (2018), 'Review on the conversion of thermoacoustic power into electricity', *The Journal of the Acoustical Society of America*, 143(2), pp. 841–857. doi: 10.1121/1.5023395.

Trapp, A. C., Zink, F., Prokopyev, O. A., Schaefer, L., (2011), 'Thermoacoustic heat engine modeling and design optimization', *Applied Thermal Engineering*. Elsevier Ltd, 31(14–15), pp. 2518–2528. doi: 10.1016/j.applthermaleng.2011.04.017.

Ueda, Y., Biwa, T., Mizutani, U., Yazaki, T., (2004), 'Experimental studies of a thermoacoustic Stirling prime mover and its application to a cooler', *The Journal of the Acoustical Society of America*, 115(3), pp. 1134–1141. doi: 10.1121/1.1649333.

Ueda, Y., Mehdi, B. M., Tsuji, K., Akisawa, A., (2010), 'Optimization of the regenerator of a traveling-wave thermoacoustic refrigerator', *Journal of Applied Physics*, 107(3). doi: 10.1063/1.3294616.

Veselý, M. and Vít, T., (2014), 'Difference between working gases in thermoacoustic engine', in *EPJ Web of Conferences*, pp. 1–4. doi: 10.1051/epjconf/20146702126.

Wang, K., Sun, D., Zhang, J., Xu, Y., Luo, K., Zhang, N., Zou, J., Qiu, L., (2016),



- ‘An acoustically matched traveling-wave thermoacoustic generator achieving 750 W electric power’, *Energy*, 103, pp. 313–321. doi: 10.1016/j.energy.2016.03.001.
- Wantha, C. and Assawamartbunlue, K. (2011) ‘The impact of the resonance tube on performance of a thermoacoustic stack’, *Frontiers in Heat and Mass Transfer*, 2(4), pp. 1–8. doi: 10.5098/hmt.v2.4.3006.
- Ward, W. C. dan Swift, G. W., (1994), ‘Design environment for low- amplitude thermoacoustic engines’, *The Journal of the Acoustical Society of America*, 95(6), pp. 3671–3672. doi: 10.1121/1.409938.
- Wells, A. A., (1976), ‘Fluid Driven Rotary Transducer’.
- Wheatley, J., Hofler, T., Swift, G. W., Migliori, A., (1983), ‘An intrinsically irreversible thermoacoustic heat engine’, *The Journal of the Acoustical Society of America*, 74(1), pp. 153–170.
- Wheatley, J., Hofler, T., Swift, G. W., Migliori, A., (1983), ‘Experiments with an intrinsically irreversible acoustic heat engine’, *Physical Review Letters*, 50(7), pp. 499–502. doi: 10.1103/PhysRevLett.50.499.
- Wheatley, J., Hofler, T., Swift, G. W., Migliori, A., (1985), ‘Understanding some simple phenomena in thermoacoustics with applications to acoustical heat engines’, *American Journal of Physics*, 53(2), pp. 147–162. doi: 10.1119/1.14100.
- Widyaparaga, A. *et al.* (2016) ‘Thermoacoustic heat pumping direction alteration by variation of magnitude and phase difference of opposing acoustic waves’, *Applied Thermal Engineering*. Elsevier Ltd, 101, pp. 330–336. doi: 10.1016/j.applthermaleng.2016.02.032.
- Wu, Z. Dai, W., Man, M., Luo, E., (2012), ‘A solar-powered traveling-wave thermoacoustic electricity generator’, *Solar Energy*. Elsevier Ltd, 86(9), pp. 2376–2382. doi: 10.1016/j.solener.2012.05.010.
- Wu, Z. H., Man, M., Luo, E. C., Dai, W., Zhou, Y., (2011), ‘Experimental investigation of a 500 W traveling-wave thermoacoustic electricity generator’, *Chinese Science Bulletin*, 56(19), pp. 1975–1977. doi: 10.1007/s11434-011-4504-1.
- Yazaki, T., Iwata, A., Maekawa, T., Tominaga, A., (1998), ‘Traveling wave thermoacoustic engine in a looped tube’, *Physical Review Letters*, 81(15), pp.



3128–3131. doi: 10.1103/PhysRevLett.81.3128.

Ying, P., Chen, Y. K. dan Xu, Y. G., (2015), ‘An aerodynamic analysis of a novel small wind turbine based on impulse turbine principles’, *Renewable Energy*. Elsevier Ltd, 75, pp. 37–43. doi: 10.1016/j.renene.2014.09.035.

Yuan, M., Cao, Z., Luo, J., Chou, X., ‘Recent Developments of Acoustic Energy Harvesting: A Review, *Micromachines* 2019, 10, 48; doi:10.3390/mi10010048.

Yu, Z. (2013) ‘Design and analysis of a thermally driven thermoacoustic air conditioner for low grade heat recovery’, in *13th UK Heat Transfer Conference at Transfer Conference*. Imperial College London, pp. 2–3.

Yu, Z. B., Li, Q., Chen, X., Guo, F. Z., Xie, X. J., (2005), ‘Experimental investigation on a thermoacoustic engine having a looped tube and resonator’, *Cryogenics*, 45(8), pp. 566–571. doi: 10.1016/j.cryogenics.2005.06.007.

Yu, Z. dan Jaworski, A. J., (2010), ‘Impact of acoustic impedance and flow resistance on the power output capacity of the regenerators in travelling-wave thermoacoustic engines’, *Energy Conversion and Management*. Elsevier Ltd, 51(2), pp. 350–359. doi: 10.1016/j.enconman.2009.09.032.

Yu, Z., Saechan, P. and Jaworski, A. J., (2011), ‘A method of characterising performance of audio loudspeakers for linear alternator applications in low-cost thermoacoustic electricity generators’, *Applied Acoustics*. Elsevier Ltd, 72(5), pp. 260–267. doi: 10.1016/j.apacoust.2010.11.011.

Zhou, G., Li, Q., Li, Z., Li, Q., (2008), ‘Influence of resonator diameter on a miniature thermoacoustic Stirling heat engine’, *Chinese Science Bulletin*, 53(1), pp. 145–154. doi: 10.1007/s11434-008-0019-9.

Zoontjens, L., Howard, C. Q., Zander, A. C., Cazzolato, B. S., (2009), ‘Numerical study of flow and energy fields in thermoacoustic couples of non-zero thickness’, *International Journal of Thermal Sciences*. Elsevier Masson SAS, 48(4), pp. 733–746. doi: 10.1016/j.ijthermalsci.2008.06.007.