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List of International Journals:

1. A Acevedo, JA Hernandez, D Juarez, A Parrales, R Saravanan, "Thermodynamic analysis of cooling and heating systems for energy recovery" International Journal of Refrigeration, 2020
2. J Muye, GP Kumar, JC Bruno, R Saravanan, A Coronas, "Modelling of scroll expander for different working fluids for low capacity power generation", Applied Thermal Engineering, 2019, 159, 113932
3. IJ Canela-Sánchez, J Delgado-Gonzaga, A Huicochea, E Esche "Interaction analysis of a concentric component evaporator absorber for an absorption heat transformer", Applied Thermal Engineering, 2018, 140, 415-421
4. GP Kumar, R Saravanan, A Coronas, "Simulation studies on simultaneous power, cooling and purified water production using vapour absorption refrigeration system", Applied Thermal Engineering, 2018, 132, 296-307
5. R Ramesh, SN Murugesan, C Narendran, R Saravanan, "Experimental investigations on shell and helical coil solution heat exchanger in NH₃-H₂O vapour absorption refrigeration system (VAR)", International Communications in Heat and Mass Transfer, 2017 87, 6-13
6. R Sivakumar, A Elayaperumal, R Saravanan, "Drying and energy aspects of tapioca sago processing-an experimental field study", Journal of Mechanical Science and Technology, 2017, 31 (6), 3035-3042
7. R Sivakumar, R Saravanan, AE Perumal, S Iniyan, "Fluidized bed drying of some agro products—A review", Renewable and Sustainable Energy Reviews, 2016, 61, 280-301
8. R Sivakumar, A Elayaperumal, R Saravanan, "Studies on combined cooling and drying of agro products using air cooled internal heat recovered vapour absorption system", Applied Thermal Engineering, 2016, 97, 100-108
9. J Muye, DS Ayoub, R Saravanan, A Coronas, "Performance study of a solar absorption power-cooling system", Applied Thermal Engineering, 2016, 97, 59-67

10. GP Kumar, R Saravanan, A Coronasb, "Studies on combined power and cooling based on rectifier integrated ammonia-water absorption cycle", Extended Abstracts, 2016, 81
11. R Ramesh, SN Murugesan, C Narendran, R Saravanan, "Cascaded energy plant using ammonia absorption refrigeration system for combined cooling and heating applications", Science and Technology for the Built Environment, 2015, 21 (3), 290-299
12. R Parameshwaran, K Deepak, R Saravanan, S Kalaiselvam, "Preparation, thermal and rheological properties of hybrid nanocomposite phase change material for thermal energy storage", Applied energy, 2014, 115, 320-330
13. DS Ayou, R Saravanan, JC Bruno, A Coronas, "Analysis and simulation of modified ammonia/water absorption cycle for power and cooling applications", International Journal of Low-Carbon Technologies 8 (suppl_1), 2013, i19-i26
14. DS Ayou, JC Bruno, R Saravanan, A Coronas, "An overview of combined absorption power and cooling cycles", Renewable and Sustainable Energy Reviews, 2013, 21, 728-748.
15. R Sivakumar, AE Perumal, R Saravanan, "Experimental study of bitter guard, green peas and okra's drying characteristics in fluidized bed dryer", International Conference on Energy Efficient Technologies, 2013.
16. CP Jawahar, R Saravanan, JC Bruno, A Coronas, "Simulation studies on gas based Kalina cycle for both power and cooling applications", Applied Thermal Engineering, 2013, 50 (2), 1522-1529.
17. S Sekar, R Saravanan, "Experimental studies on absorption heat transformer coupled distillation system", Desalination, 2011, 274 (1-3), 292-301.
18. CP Jawahar, R Saravanan, "Experimental studies on air-cooled NH₃-H₂O based modified gas absorption cooling system", International journal of refrigeration, 2011, 34 (3), 658-666.
19. S Sekar, R Saravanan, "Exergetic performance of eco friendly absorption heat transformer for seawater desalination", International journal of exergy, 2011, 8 (1), 51-67.
20. CP Jawahar, B Raja, R Saravanan, "Thermodynamic studies on NH₃-H₂O absorption cooling system using pinch point approach", international journal of refrigeration, 2010, 33 (7), 1377-1385.
21. V Murugavel, R Saravanan, "Life cycle cost analysis of waste heat operated absorption cooling systems for building HVAC applications", Proceedings of the Tenth International Conference Enhanced Building, 2010.

22. CP Jawahar, R Saravanan, "Generator absorber heat exchange based absorption cycle—a review", *Renewable and Sustainable Energy Reviews*, 2010, 14 (8), 2372-2382
23. B Raja, DM Lal, R Saravanan, "Stratified flow boiling heat transfer study of a HFC/HC refrigerant mixture in smooth horizontal tubes", *Heat and mass transfer*, 2010, 46 (3), 323-331
24. R Saravanan, V Murugavel, "Life Cycle cost Analysis of Waste Heat Operated Absorption Cooling Systems for Building HVAC Applications", *Energy Systems Laboratory*, 2010, (<http://esl.tamu.edu>)
25. A Rameshkumar, M Udayakumar, R Saravanan, "Heat transfer studies on a GAXAC (generator-absorber-exchange absorption compression) cooler", *Applied energy*, 2009, 86 (10), 2056-2064.
26. B Raja, DK Kumar, DM Lal, R Saravanan, "Influence of nucleation on the flow boiling heat transfer coefficient of a refrigerant mixture under varied heat flux conditions", *Journal of Engineering Thermophysics*, 2009, 18 (3), 249-257.
27. B Raja, DM Lal, R Saravanan, "Flow boiling heat transfer coefficient of R-134a/R-290/R-600a mixture in smooth horizontal tubes using varied heat flux method", *Applied thermal engineering*, 2009, 29 (8-9), 1778-1785.
28. A Rameshkumar, M Udayakumar, R Saravanan, "Energy Analysis of a 1-Ton Generator-Absorber-Exchange Absorption-Compression (GAXAC) Cooler.", *ASHRAE Transactions*, 2009, 115 (1)
29. B Raja, DM Lal, R Saravanan, "Flow boiling heat transfer study of R-134a/R-290/R-600a mixture in 9.52 and 12.7 mm smooth horizontal tubes: Experimental investigation", *Experimental thermal and fluid science*, 2009, 33 (3), 542-550
30. S Kalaiselvam, R Saravanan, "Exergy Analysis of scroll compressors working with R22, R407C, and R417A as refrigerant for HVAC system", *Thermal Science*, 2009, 13 (1), 175-184.
31. B Raja, DM Lal, R Saravanan, "Numerical study on flow boiling heat transfer of a refrigerant mixture in horizontal tubes under a varied heat flux boundary condition", *Computational Thermal Sciences: An International Journal*, 2009.
32. B Raja, P Balachander, DM Lal, R Saravanan, "A Comparative Study on Flow Boiling Heat-Transfer Coefficient of R-134a and R-134a/R-290/R-600a Refrigerant Mixture", *Heat Transfer Research*, 2009, 40 (6)
33. G Srinivas, S Sekar, R Saravanan, S Renganarayanan, "Studies on a water-based absorption heat transformer for desalination using MED", *Desalination and Water Treatment*, 2009, 1 (1-3), 75-81

34. B Raja, DM Lal, R Saravanan, "Boiling in a Stratified Two-Phase Flow: A Review", Heat Transfer Research, 2009, 40 (6)
35. B Vijayaraj, R Saravanan, "Numerical modeling of moisture and temperature distribution within a rectangular bagasse layer undergoing drying", Drying Technology, 2008, 26 (6), 749-758.
36. V Muthu, R Saravanan, S Renganarayanan, "Experimental studies on R134a-DMAC hot water based vapour absorption refrigeration systems", International Journal of Thermal Sciences, 2008, 47 (2), 175-181.
37. R Balakrishnan, LM Dhasan, S Rajagopal, "Flow boiling heat transfer coefficient of R-134a/R-290/R-600a mixture in a smooth horizontal tube", Thermal Science, 2008, 12 (3), 33-44
38. S Tharves Mohideen, R Saravanan, S Renganarayanan, "Influence of absorber mass transfer effectiveness on performance of R 134a-DMAC based single, double and half-effect absorption cooling systems", International journal of energy technology and policy, 2008, 6 (5-6), 566-580
39. M Saravanan, R Saravanan, S Renganarayanan, "Energy and exergy analysis of counter flow wet cooling towers", Thermal Science, 2008, 12 (2), 69-78
40. B Vijayaraj, R Saravanan, S Renganarayanan, "Studies on thin layer drying of bagasse", International Journal of Energy Research, 2007, 31 (4), 422-437
41. S Arivazhagan, R Saravanan, S Renganarayanan, "Experimental studies on HFC based two-stage half effect vapour absorption cooling system", Applied Thermal Engineering, 2006, 26 (14-15), 1455-1462
42. HJ Manohar, R Saravanan, S Renganarayanan, "Modelling of steam fired double effect vapour absorption chiller using neural network", Energy Conversion and Management, 2006, 47 (15-16), 2202-2210.
43. PKP Chandran, R Saravanan, S Renganarayanan, "Pre-Treatment Processes for Enhanced Biomethanation of Municipal Solid Wastes", POLLUTION RESEARCH, 2006, 25 (1), 139
44. S Arivazhagan, R Saravanan, S Renganarayanan, "Comparison of exergetic performance of HFC based single and half effect absorption cooling systems",
45. International Journal of Exergy 3 (4), 402-418
46. B Vijayaraj, R Saravanan, S Renganarayanan, "Energy and exergy analysis of sugar cane bagasse drying", Proceedings of Advances in Energy Research-AER-2006.
47. N Anbazhagan, R Saravanan, S Renganarayanan, "Biomass based sorption cooling systems for cold storage applications", International journal of green energy, 2005 2 (4), 325-335

48. S Arivazhagan, SN Murugesan, R Saravanan, S Renganarayanan, "Simulation studies on R134a—DMAC based half effect absorption cold storage systems", *Energy Conversion and Management*, 2005, 46 (11-12), 1703-1713
49. PKP Chandran, R Saravanan, S Renganarayanan, "EFFECT OF DIRECT THERMAL PRE-TREATMENT ON ANAEROBIC DIGESTION OF MUNICIPAL SOLID WASTES", *ASIAN JOURNAL OF MICROBIOLOGY BIOTECHNOLOGY AND ENVIRONMENTAL SCIENCES*, 2005.
50. R Saravanan, MP Maiya, "Experimental analysis of a bubble pump operated H₂O–LiBr vapour absorption cooler", *Applied Thermal Engineering*, 2003, 23 (18), 2383-2397
51. SN Murugesan, R Saravanan, S Renganarayanan, KP Mohamed, "Solar pond operated R134a based vapour absorption heat transformer for process heat generation", *International journal of ambient energy*, 2001, 22 (3), 155-162
52. R Saravanan, MP Maiya, "Influence of thermodynamic and thermophysical properties of water-based working fluids for bubble pump operated vapour absorption refrigerator", *Energy conversion and management*, 1999, 40 (8), 845-860
53. R Saravanan, R Sethumadhavan, AN Rao, "Water Pumping Windmills in Tamilnadu: A Status Report", *Wind Engineering*, 1999, 319-322
54. M Pfaff, R Saravanan, MP Maiya, SS Murthy, "Studies on bubble pump for a water–lithium bromide vapour absorption refrigerator: Etudes sur une pompe à bulles pour réfrigérateur à absorption eau–bromure de lithium", *International journal of refrigeration*, 1998, 21 (6), 452-462
55. R Saravanan, MP Maiya, "Thermodynamic comparison of water-based working fluid combinations for a vapour absorption refrigeration system", *Applied thermal engineering*, 1998, 18 (7), 553-568.
56. R Saravanan, MP Maiya, "Comparison of methanol-based working fluid combinations for a bubble pump-operated vapour absorption refrigerator", *International journal of energy research* 22 (8), 715-731
57. R Saravanan, MP Maiya, "Effect of component pressure drops in two-fluid pumpless continuous vapour absorption refrigerator", *Energy conversion and management*, 2006, 38 (18), 1823-1832