

Enhancing the Performance of Vapor Compression Refrigeration Systems Using HFC134a by Nanoparticles Suspensions

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Abstract : High Global Warming Potential refrigerants (HydroFluroCarbons) are one of the worst greenhouse gases used in a wide variety of applications, including refrigeration and air-conditioning. Nanotechnology is a promising field in sustainable energy to reduce energy and ecological resource consumption for HVACR (heat, ventilation, air conditioning, and refrigeration) systems. Most researchers reported an improvement in heat transfer coefficient, Coefficient of performance. In this report, a brief summary has been done on the performance enhancement of the Vapor Compression Refrigeration system using HFC134a with nano refrigerants.

Keywords : nanorefrigerant, HFCs, greenhouse gases, GWP, HVACR systems, energy saving

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