

Adsorption Cooling Using Hybrid Energy Resources

Authors : R. Benelmir, M. El Kadri, A. Donnot, D. Descieux

Abstract : HVAC represents a significant part of energy needs in buildings. Integrating renewable energy in cooling processes contributes to reducing primary energy consumption. Sorption refrigeration allows cold production through the use of solar/biomass/geothermal energy or even valuation of waste heat. This work presents an analysis of an experimental bench incorporating an adsorption chiller driven by hybrid energy resources associating solar thermal collectors with a cogeneration gas engine and a geothermal heat pump.

Keywords : solar cooling, cogeneration, geothermal heat pump, hybrid energy resources

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020