

The chapter presents the recent studies focusing on optimizing the efficiency of air-conditioning (AC) systems using solar energy. For this purpose, several advanced AC plants ...

According to them, the solar absorption cooling (ABSC) systems were apt for air-conditioners of large buildings, and solar adsorption cooling (ADSC) systems are suitable for air ...

This article presents a comprehensive parametric study comparing solar adsorption cooling systems comparing Evacuated Tube Collectors (ETCs) and Parabolic Trough Concentrators ...

Solar absorption chillers are one of the most effective and efficient ways to heat and cool buildings using only the power of the sun. These chillers are powered by heat (hot water) which is supplied through ...

Two types of adsorption-compression hybrid systems are developed according to different seasons. Mode A uses solar thermal energy to drive the adsorption chiller for cold storage ...

Solar-powered air conditioners just make sense. After all, you're most likely to use your AC when the sun is beating down on your home. This piece will review the need for solar-powered ...

This paper has discussed different types of solar-driven air-conditioning systems that can serve as an alternative to reduce the energy consumption of conventional electrical driven air ...

Both absorption and adsorption chillers provide sensible and latent cooling, while desiccant systems provide latent cooling only. Liquid and solid desiccant systems are also the ...

Objectives 1- Study and investigate the using of solar energy. 2- Study the adsorption process. 3- Using the adsorption phenomenon in cooling system. 4- Design a usable cooling system using adsorption ...

The use of harmful refrigerants and the high energy consumption associated with conventional refrigeration, cooling, and air-conditioning systems contribute significantly to global ...

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