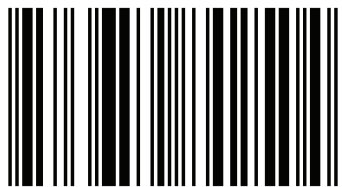


## Absorption and Adsorption Cooling Systems

The world is facing a two fold crises now, shortage of conventional energy sources and environmental pollution. A lot of research is work needed to find new clean and sustainable energy source. Solar energy is the most abundant source of energy which is clean and sustainable but the the conversion efficiency of this energy into a more useful form of energy like electrical energy is still very low, about 15%, in addition to its intermittent nature which needs energy storage system. Solar energy can be used to power absorption/adsorption system instead of electrical energy to produce cooling/refrigeration effect. The use of this technique helps to reduce electrical energy consumption, save money and reduce the production of greenhouse gases. This book explains the design steps and construction of a solar driven absorption/adsorption cooling/refrigeration system.

Prof Shahad received his PhD degree from Manchester University (UMIST) in 1983. He is the Prof of power Engineering at Babylon University/IRAQ. He is researching combustion and renewable energy. Dr Hamzah received his PhD degree in 2016 from Babylon University in the field of solar . He is working at Qadisiyah/ University/IRAQ.



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Design Fabrication and Testing