





Special Issue Reprint

# Adsorption Desalination and Cooling Systems: Advances in Design, Modeling and Performance

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Increasing energy efficiency; reducing energy demand, greenhouse gas emissions, and the use of waste; and integrating renewable and recycled heat from low-temperature sources are significant challenges today and are key parts of 4th Generation District Heating (4GDH) concept. On the other hand, currently about one billion people around the world are suffering from water scarcity, and another three billion are approaching this situation. Only 2.5% of all water on the planet is freshwater, of which around 70% is not available and only 0.4% constitutes the most valuable portion of freshwater. Adsorption cooling technology is one of the most effective ways of addressing both these issues. This technology cools and produces potable water from the renewable and wasted heat of the near ambient temperature, including from sewage water, solar heat, and underground resources. This Special Issue Reprint Book provides the detailed information concerning the abovementioned issues.





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