**Inter-Seasonal Storage of Solar Thermal Energy via Thermochemical Methods.**

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Thermochemical methods can be used to store the excess thermal energy harnessed by a transpired solar collector in summer for use in winter, when the thermal energy demands of a building are greater. The use of chemical salts as thermochemical materials is governed by the fully reversible endo/exothermic reaction; $salt∙x\left(H\_{2}O\right)+heat\leftrightarrow salt+x(H\_{2}O)$. CaCl2, LiNO3 and MgSO4 housed within porous matrices are investigated. Experiments are developed to optimise the moisture adsorption (release of energy) of the salts. CaCl2 is found to be the most promising salt, exhibiting excellent moisture adsorption capabilities at low relative humidities, and thus good heat generation under discharge cycles.