

## **Supporting Information for Journal of Materials Chemistry**

**A**

**Chitosan/Reduced Graphene Oxide Modified Spacer Fabric as Solar**

**Absorber for Efficient Solar Steam Generation**

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### Calculation of the energy conversion efficiency

$$\eta = m h_{L,V} / C_{opt} q_i$$

where  $m$  is the mass flux of steam (the rate of water evaporation under the dark environment is subtracted),  $C_{opt}$  is the optical concentration,  $q_i$  is the nominal direct solar irradiation  $1 \text{ kW m}^{-2}$ ,  $h_{L,V}$  denotes total enthalpy of liquid-vapor phase change (including sensible heat and phase-change enthalpy), can be calculated as

$$h_{L,V} = \lambda + C\Delta T$$

where  $\lambda$  is latent heat of phase change (correspondence at different temperatures),  $C$  is specific heat capacity of water ( $4.2 \text{ kJ kg}^{-1} \text{ K}^{-1}$ ), and  $\Delta T$  denotes the temperature increase of the water.