36 g $H_2O_{(s)}$ 230K $\rightarrow^1$ $H_2O_{(s)}$ 273.15K $\rightarrow^2$ $H_2O_{(l)}$ 273.15K $\rightarrow^3$ $H_2O_{(l)}$ 320K

Amount of ice $n = \dfrac{36\,g}{18\,g/mol} = 2$ mol

$$\Delta S^0{}_1 = nC_p ln\dfrac{Tf}{Ti} = 2*0.0377*ln\dfrac{273.15}{230} = 0.013 \text{ kJ/K}$$

$$\Delta S^0{}_2 = \dfrac{n \cdot \Delta H^0_{fus}}{T} = \dfrac{2*6.02}{273.15} = 0.044 \text{ kJ/K}$$

$$\Delta S^0{}_3 = nC_p ln\dfrac{Tf}{Ti} = 2*0.0753*ln\dfrac{320}{273.15} = 0.024 \text{ kJ/K}$$

$$\Delta S^0{}_{total} = \Delta S^0{}_1 + \Delta S^0{}_2 + \Delta S^0{}_3 = 0.081 \text{ kJ/K} = 81 \text{ J/K}$$

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