

**[tex53] Structural transitions of iron**

At constant atmospheric pressure, the stable phase of Fe below 900°C and above 1400°C is  $\alpha$ -iron. Between these temperatures, the stable phase is  $\gamma$ -iron. The specific heat of each phase can be taken as constant:  $c_\alpha = 0.775\text{J/gK}$ ,  $c_\gamma = 0.690\text{J/gK}$ . Find the latent heat (per gram) at each of the two phase transitions.

**Solution:**