

Exercise Chapter 5

Principle of Chemical Equilibrium

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EXERCISE 1

The equilibrium constant of the reaction is shown below;

$$\ln K = A + \frac{B}{T} + \frac{C}{T^3}$$

Assume the reaction occur at 200 K and 300 K with $A = -2.05$, $B = -1186 \text{ K}$ and $C = 2.1 \times 10^7 \text{ K}^3$. Compute the standard reaction enthalpy $\Delta_r H^\circ$ and standard reaction entropy $\Delta_r S^\circ$ at 250 K.

(10 marks)



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