

一、选择题

125. AD 6210

11215 16220

21225 26230 CA

二、计算和证明题.

1. 理想气体等温可逆膨胀, $\Delta T=0$, $\Delta U=0$ $\Delta H=0$

$$Q_R = -W_R = nRT \ln \frac{V_2}{V_1}$$

$$\text{即 } \Delta S_B = \frac{Q_R}{T} = nR \ln \frac{V_2}{V_1} = 1 \times 8.314 \times \ln \frac{V_2}{10} = 19.14 \text{ k}^{-1}$$

$$V_2 = 100 \text{ dm}^3$$

$$P_1 = P_2 = \frac{nRT}{V_2} = \frac{1 \times 8.314 \times 122}{100 \times 10^{-3}} = 10.14 \text{ kPa}$$

$$\Delta G = \Delta A = -T\Delta S = -122 \times 19.14 = -2334 \text{ J}$$