

## 《物理化学答案》

一、(20分)

1. (A)    2. (B)    3. (C)    4. (B)    5. (B)  
6. (B)    7. (C)    8. (C)    9. (B)    10. (B)

$$\text{二、(5分)} \quad \frac{H^\ominus - H_0^\ominus}{T} = \frac{5}{2}R = 4.968$$

$$-\frac{G^\ominus - H_0^\ominus}{T} = 6.8635 \lg M + 11.4392 \lg T - 7.2820$$

$$C_p^\ominus = \frac{5}{2}R = 4.968 \quad (2 \text{分})$$

$$S^\ominus = 6.8635 \lg M + 11.4392 \lg T - 2.3140 \quad (\text{平动}) \quad (3 \text{分})$$

$$\text{得 } 40.54 \times 4.184 = 169.6 \text{ J} \cdot \text{K}^{-1} \cdot \text{mol}^{-1}$$

三、(8分)

$$\Delta G_T = -RT \ln K_p + RT \ln Q_p = -RT \ln K_p + RT \ln \frac{p_{\text{NO}_2}^2}{p_{\text{N}_2\text{O}_4}}$$