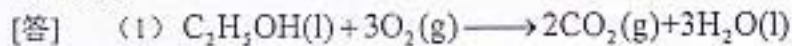


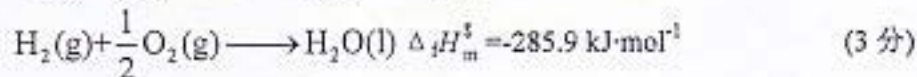
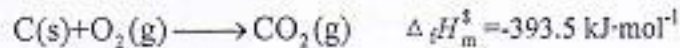
中国科学院 & 中国科学技术大学

2003 年硕士学位研究生入学考试试题参考答案

20. 10 分



$$\Delta_c H_m^\ddagger = -1366.9 \text{ kJ}\cdot\text{mol}^{-1}$$



$$(2) \quad \Delta_c H_m^\ddagger = -1366.9 \text{ kJ}\cdot\text{mol}^{-1} = 2 \Delta_f H_m^\ddagger(\text{CO}_2) + 3 \Delta_f H_m^\ddagger(\text{H}_2\text{O}) - \Delta_f H_m^\ddagger(\text{C}_2\text{H}_5\text{OH})$$

$$\text{得 } \Delta_f H_m^\ddagger(\text{C}_2\text{H}_5\text{OH}) = -277.8 \text{ kJ}\cdot\text{mol}^{-1} \quad (3 \text{ 分})$$

完整版，请访问 www.kaoyancas.net 科大科院考研网，专注于中科大、中科院考研

$$(3) \quad Q_V = Q_P - \Delta nRT = 2 \Delta_c H_m^\ddagger + 2RT = -2728.8 \text{ kJ}\cdot\text{mol}^{-1} \quad (4 \text{ 分})$$