

Thermodynamics part 3: Appendix

Question 4: Heat capacities needed.

$$C_p(\text{CO}_2) = 37.1 \text{ J K}^{-1} \text{ mol}^{-1}$$

$$C_p(\text{graphite}) = 8.5 \text{ J K}^{-1} \text{ mol}^{-1}$$

$$C_p(\text{O}_2) = 29.4 \text{ J K}^{-1} \text{ mol}^{-1}$$

Question 7: Kirchoff equation

$$\Delta H_{T_2} = \Delta H_{T_1} + \Delta C_p \Delta T$$