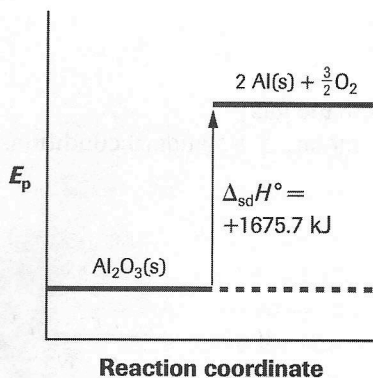
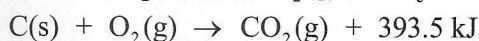
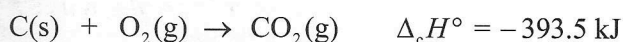


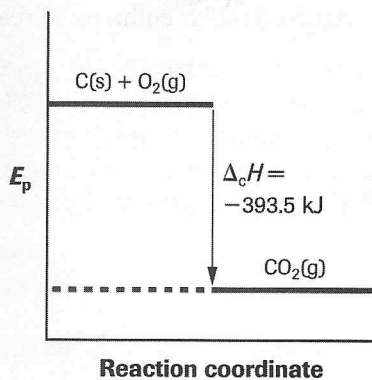
Simple Decomposition of Aluminium Oxide



(c) $\Delta_c H_m^\circ = -393.5 \text{ kJ/mol}$
C



Complete Combustion of Pure Carbon



3. (a) $\Delta_c H_m^\circ = \frac{-483.6 \text{ kJ}}{2 \text{ mol}} = -241.8 \text{ kJ/mol}$

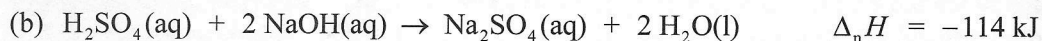
(b) $\Delta_c H_m^\circ = \frac{-1272.1 \text{ kJ}}{4 \text{ mol}} = -318.0 \text{ kJ/mol}$

(c) $\Delta_c H_m^\circ = \frac{+163.2 \text{ kJ}}{2 \text{ mol}} = +81.6 \text{ kJ/mol}$

(d) $\Delta_c H_m^\circ = \frac{-1118.4 \text{ kJ}}{3 \text{ mol}} = -372.8 \text{ kJ/mol}$

[Note that the number of significant digits may change because of dividing by an exact number and thus following the precision rule, instead of the certainty rule. See Learning Tip on page 500 of the Student Book.]

4. (a) $\Delta_n H = -114 \text{ kJ}$



(c) $\Delta_n H_m = \frac{-114 \text{ kJ}}{1 \text{ mol}} = -114 \text{ kJ/mol}$