

Chapter 6

32)

- a) exothermic
- b) exothermic
- c) endothermic
- d) endothermic

42) $T_{\text{final}} = 23.7\text{ }^{\circ}\text{C}$

44) 120 g H_2O

46) $\Delta H = 26.6\text{ kJ/mol}$

48) $q_{\text{reaction}} = -2.95\text{ kJ}$ (–ve sign as heat is evolved by the reaction)

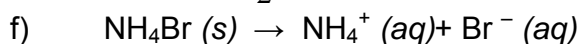
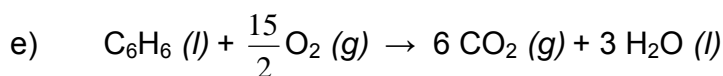
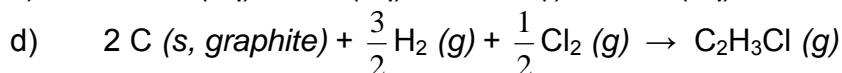
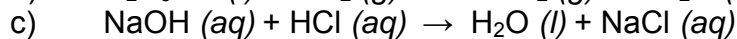
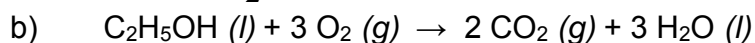
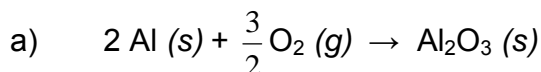
$T_{\text{final}} = 26.8\text{ }^{\circ}\text{C}$

50) $\Delta E_{\text{combustion}} = -25\text{ kJ/g}$ $\Delta E_{\text{combustion}} = -2700\text{ kJ/mol}$

52) $\Delta H = -158\text{ kJ}$

58) $\Delta H = -158\text{ kJ} - 610.1\text{ kJ}$

60)



68) $\Delta H_f^{\circ} = 52.5\text{ kJ/mol}$

80) $\Delta H^{\circ} = -390.\text{ kJ}$ (–ve sign as heat is released by the reaction)

$T_{\text{final}} = 30.0\text{ }^{\circ}\text{C}$

82) $C_{\text{cal}} = 6.66\text{ kJ/}^{\circ}\text{C}$

84) $\Delta H^{\circ} = -11\text{ kJ}$

86) $\Delta H_f^{\circ} = -155\text{ kJ}$