

5 Bonds and energy – Part 2 —Answers

Answers

Work through these after trying the questions yourself.

5.1 It takes in energy (endothermic).

5.2 It gives out energy (exothermic).

5.3 $\Delta H = (\text{bonds broken}) - (\text{bonds made})$.

5.4 broken = $436 + 193 = 629$; made = $2 \times 366 = 732$; $\Delta H = 629 - 732 = -103$ kJ/mol.

5.5 Exothermic (ΔH is negative).

5.6 broken = $436 + 158 = 594$; made = $2 \times 568 = 1136$; $\Delta H = 594 - 1136 = -542$ kJ/mol
—exothermic (negative).