

1(a)	$\text{Mg}(\text{NO}_3)_2 \rightarrow \text{MgO} + 2\text{NO}_2 + \frac{1}{2}\text{O}_2$ OR $2\text{Mg}(\text{NO}_3)_2 \rightarrow 2\text{MgO} + 4\text{NO}_2 + \text{O}_2$
1(b)	M1: $\text{Mg}(\text{NO}_3)_2$ / magnesium nitrate AND magnesium ion / Mg^{2+} AND is smaller / has higher charge density M2: nitrate ion / anion is more distorted / polarised
1(c)(i)	magnesium sulfate and water / MgSO_4 and H_2O
1(c)(ii)	M1: magnesium sulfate / A has a more exothermic ΔH_{lat} and ΔH_{hyd} M2: difference in ΔH_{hyd} is greater M3: magnesium sulfate / A has a more exothermic ΔH_{sol}