Answer **all** questions in the spaces provided

| 0 | 1 |

This question is about silver iodide.

| 0 | 1 | . | 1 |

Define the term enthalpy of lattice formation.

[2 marks]

| 0 | 1 | . | 2 |

Some enthalpy change data are shown in **Table 1**.

Table 1

	Enthalpy change / kJ mol^{-1}
$AgI(s) \rightarrow Ag^+(aq) + I^-(aq)$	+112
$Ag^+(g) \rightarrow Ag^+(aq)$	−464
$I^-(g) \rightarrow I^-(aq)$	−293

Use the data in **Table 1** to calculate the enthalpy of lattice formation of silver iodide.

[2 marks]

Enthalpy of lattice formation _____ kJ mol^{-1}

0 1 . 3 A calculation of the enthalpy of lattice formation of silver iodide based on a perfect ionic model gives a smaller numerical value than the value calculated in Question **1.2**

Explain this difference.

[2 marks]

0 1 . 4 Identify a reagent that could be used to indicate the presence of iodide ions in an aqueous solution and describe the observation made.

[2 marks]

Reagent

Observation

8

Turn over for the next question