

Chem!stry

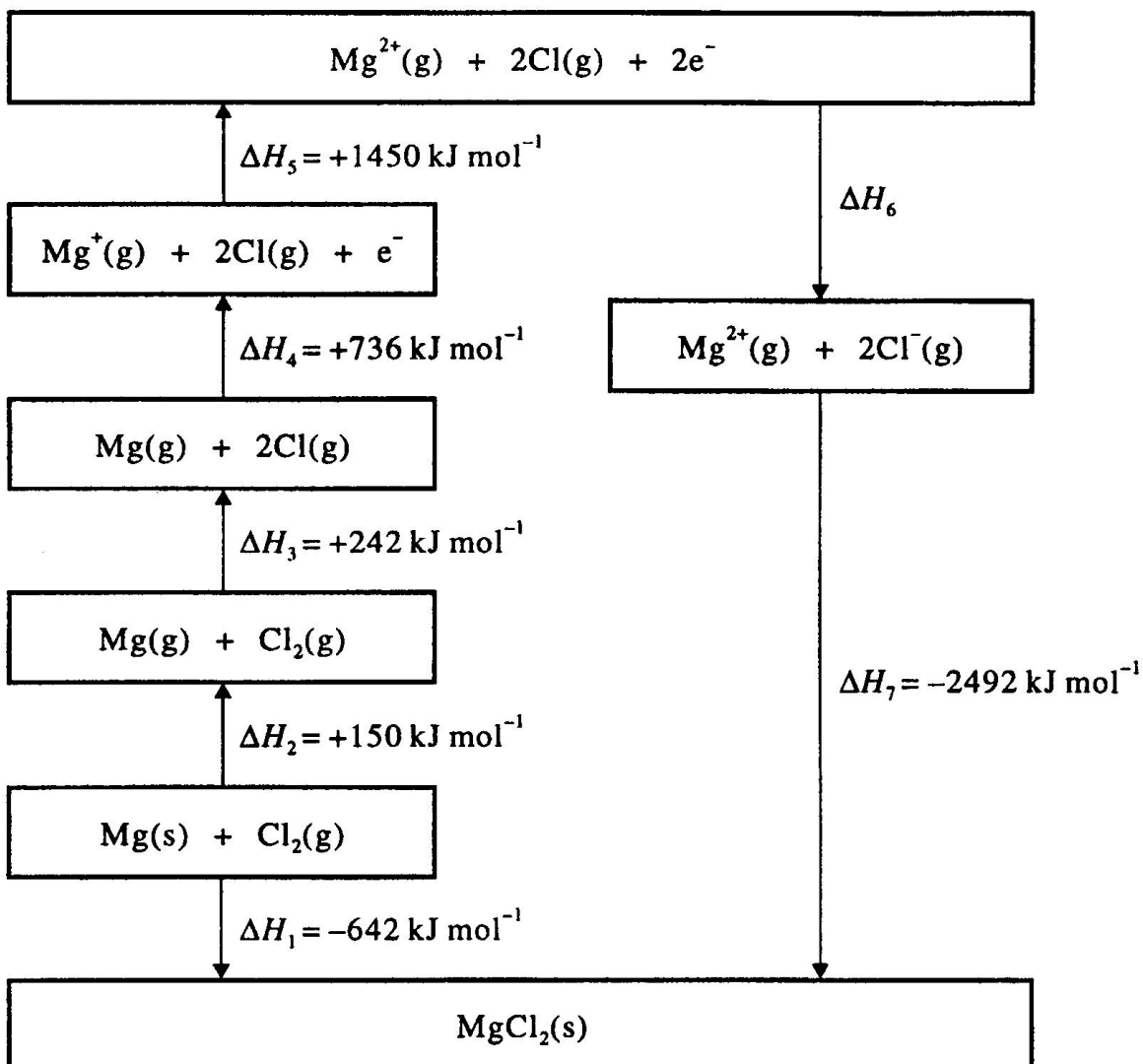
Name: ()

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Born-Haber Cycle

- The diagram below shows the energy level diagram (Born-Haber cycle) for the formation of magnesium chloride from its elements:



1. Give the names of the enthalpy changes represented by ΔH_1 , ΔH_4 , ΔH_5 and ΔH_7 .

ΔH_1

ΔH_4

ΔH_5

ΔH_7

[4 marks]

2. Briefly explain why the value given for ΔH_5 is greater than the value for ΔH_4 .

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[2 marks]

3. Calculate the value of the enthalpy change represented by ΔH_6 and hence deduce the value of the molar first electron affinity of chlorine.

[4 marks]

- Scan the QR Code below for the answers to this assignment.



http://www.chemist.sg/energy_changes/born_haber_cycle_ans.pdf