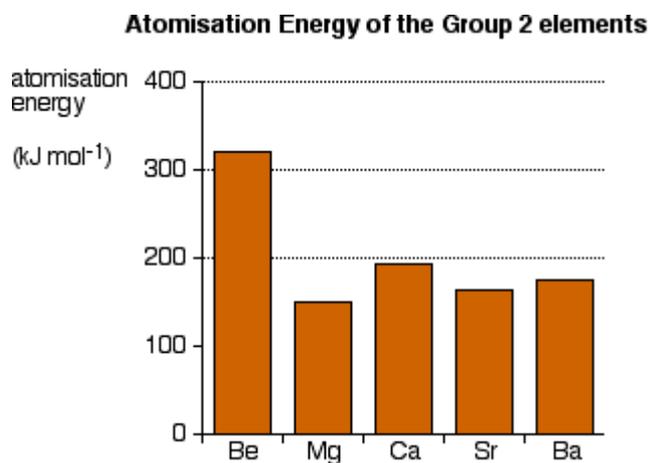


Chemguide – questions

GROUP 2: ATOMIC AND PHYSICAL PROPERTIES

1. Explain why the atomic radii of the Group 2 elements increase as you go down the group.
2. a) Define the term *first ionisation energy*.
b) Describe and explain how the first ionisation energy of these elements changes as you go down the group.
3. The electronegativity of the elements falls as you go down the group.
a) Explain what is meant by *electronegativity*.
b) The most electronegative element in the group is beryllium. Explain why beryllium is more electronegative than magnesium.
4. The atomisation energy of a metal is a good guide to the strength of the metallic bond.
a) Describe briefly the nature of the metallic bond.
b) Define *atomisation energy*.
c) The chart (taken from the Chemguide page) shows the atomisation energies of the Group 2 elements.



It is often claimed that the strength of the metallic bond decreases as you go down Group 2 because the atoms are getting bigger. Are the atomisation energies consistent with this? Explain your answer.