JHS Regents Chemistry Department
Alkaline Earth Metals and Activity Series for Metals

Questions:

1. Describe the differences in reactivity of the Group 2 metals in terms of their location on the periodic table.

Metals become more reactive down a group due to lower ionization energy and greater shielding effect

2. Explain why the metallic activity increases as you go down the group.

lower ionization energy and greater shielding effect

3. What was the physical evidence from your data that shows the metallic character of the alkaline earth metals increased as you go down the group?

Ca + H_2O produced Hydrogen gas while Mg + H_2O did not

4. Describe the differences in reactivity of calcium, iron and copper in terms of their location across period 4 of the periodic table.

   Calcium greater reactivity than Iron greater reactivity than Copper

5. Predict the activity of the following metals in hydrochloric acid.

   a. Potassium Most reactive

   b. Silver medium reactivity

   c. Sulfur Least reactive