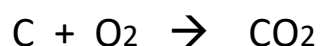


1. A person brought a statue made of copper. To his surprise it acquired a dull green coating after a couple of months. Explain the reason.

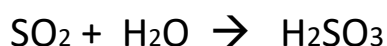
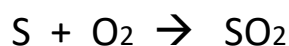
Solution: The green material is a mixture of copper hydroxide and copper carbonate formed due to reaction of copper with moist air (water, oxygen and carbon dioxide).

2. How will carbon and sulphur react with oxygen? What happens when their products are dissolved in water?

Solution : Carbon reacts with oxygen to form carbon dioxide which on dissolving in water forms carbonic acid.



Sulphur reacts with oxygen to form sulphur dioxide which on dissolving in water forms Sulphurous acid.



3. A copper spoon had fallen into a container containing dil. HCl. What would happen to it in three days time?

Solution: Nothing will happen as copper does not react with dil. HCl

4. Name one metal which will fit each of the following description.
Also write the equation of the reaction.

(a) A metal which floats on water, reacts with it and forms an alkali.

(b) A metal that displaces silver from silver nitrate solution.

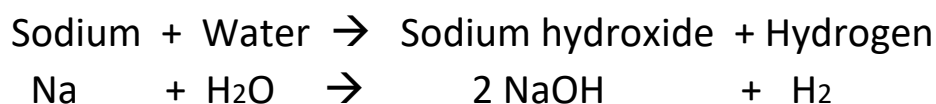
(c) A metal which is used for galvanising iron.

(d) A metal that reacts with oxygen without burning.

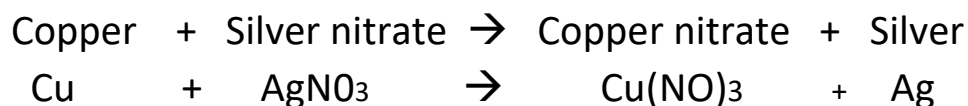
(e) A metal that burns in oxygen with a bright light.

Solution:

(a) Sodium



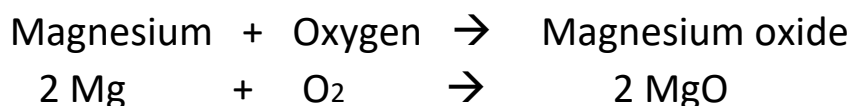
(b) Copper



(c) Zinc

(d) Aluminium

(e) Magnesium



5. A set of metals in order of their increasing chemical reactivity is given below:

Silver, Copper, Lead, Iron, Zinc, Magnesium, Sodium

1. Which of the metals will react with oxygen when heated?
2. Which metals will react with cold water?
3. Which gas will be liberated when metals react with cold water?
4. Which of the above metals is stored in kerosene?
5. Which of the metals become black in the presence of hydrogen sulphide?

Solution:

- a. Zinc and Magnesium
- b. Sodium
- c. Hydrogen
- d. Sodium
- e. Silver