Expression of Reaction of copper with moist air

$$Cu + H_2O + O_2 + CO_2 \longrightarrow Cu(OH)_2CuCO_3$$

Reactants in reaction of copper with moist air

- Copper
- Moisture
- Oxygen
- Carbondioxide

Products in reaction of copper with with moist air

Malachite

List of conditions of reaction of copper with direct oxygen

- · Below 1100 Celsius
- · Above 1100 Celsius

Expression of reaction of copper with direct oxygen below 1100 C

$$Cu + O_2 \xrightarrow{below \, 1100} Cu_2O$$

Expression of reaction of copper with direct oxygen above 1100 C

$$Cu + O_2 \xrightarrow{above 1100} Cu)$$

Expression of reaction of copper with water

$$\mathrm{Cu} + \mathrm{H_2O} \xrightarrow{\mathrm{High\,temperature}} \mathrm{CuO} + \mathrm{H_2}$$

Expression of reaction of copper with dil Sulphuric acid

$$Cu + dil \cdot H_2SO_4 \xrightarrow{Oxygen} CuSO_4 + SO_2 + H_2O$$

Expression of reaction of copper with conc Sulphuric acid

$$Cu + conc \, H_2SO_4 \longrightarrow CuSO_4 + SO_2 + H_2O$$

Expression of reaction of copper with dil Hydrochloric acid

$$Cu + dil HCl \xrightarrow{Oxygen} CuCl_2 + H_2O$$

Expression of reaction of copper with hot conc Nitric acid

$$Cu + hot conc HNO_3 \longrightarrow Cu(NO_3)_2 + N_2 + H_2O$$

Expression of reaction of copper with conc Nitric acid

$$Cu + conc \, HNO_3 \longrightarrow Cu(NO_3)_2 + NO_2 + H_2O$$

Expression of reaction of copper with Moderate Nitric acid

$$Cu + moderate HNO_3 \longrightarrow Cu(NO_3)_2 + NO + H_2O$$

Expression of reaction of copper with dil Nitric acid

$$Cu + dil HNO_3 \longrightarrow Cu(NO_3)_2 + N_2O + H_2O$$

Expression of reaction of copper with Halogen

$$Cu + X_2 \longrightarrow CuX_2$$

Products in reaction of copper with direct oxygen above 1100 Celsius

· Cuprous oxide

Colour of cuprous oxide

Red

Products in reaction of copper with direct oxygen above 1100 Celsius

Cupric oxide

Colour of cupric oxide

Black

Reactants in reaction of copper with water

- Copper
- Water

Products in reaction of copper with water

- · Cupric oxide
- Hydrogen

Condition of reaction in copper with water

High Temperature

Products in reaction of copper with dil sulphuric acid

- Copper sulphate
- · Sulphur dioxide
- Water

Condition of reaction in copper with dil sulphuric acid

Presence of Oxygen

Products in reaction of copper with conc sulphuric acid

- · Copper sulphate
- · Sulphur dioxide
- Water

Products in reaction of copper with dil hydrochloric acid

- · Cupric chloride
- Water

Condition of reaction in copper with dil hydrochloric acid

Presence of air

Products in reaction of copper with hot conc nitric acid

- · Cupric nitrate
- Nitrogen
- Water

Products in reaction of copper with conc nitric acid

- Cupric nitrate
- · Nitrogen dioxide
- Water

Products in reaction of copper with moderate nitric acid

- · Cupric nitrate
- · Nitrogen oxide
- Water

Products in reaction of copper with dil nitric acid

- Cupric nitrate
- · Dinitrogen oxide
- Water

Products in reaction of copper with halogen

• Cupric halide

Condition of reactants in reaction in copper with displacement reaction

Salts of less reactive metals