

TENDER HEART HIGH SCHOOL, SEC-33B, CHD.

CLASS- X
CHAPTER- 11

SUBJECT CHEMISTRY
TEACHER ANAMIKA

28.10.24

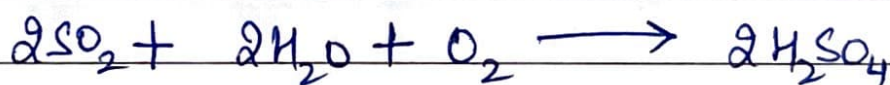
H_2SO_4 is called as 'king of chemical' because there is no other manufactured compound which is used by such a large number of key industries.

In free state, H_2SO_4 is found in certain mineral spring.

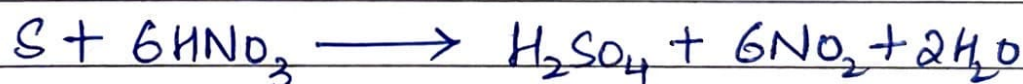
In combined state, as Barytes, Gypsum

Preparation of H_2SO_4

a) By oxidation of aq. solution of SO_2 :-



b) sulphur with conc. HNO_3



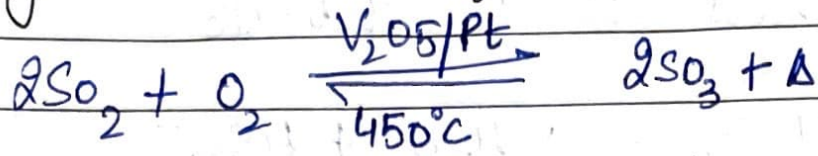
Manufacture of H_2SO_4 (Contact process)

1. Production of SO_2 :-



2. Purification of gas:-

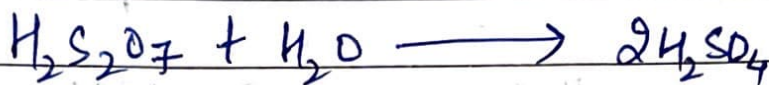
3. Catalytic oxidation of SO_2 :-



4. Absorption of SO_3 in H_2SO_4



5. Dilution of oleum to obtain H_2SO_4

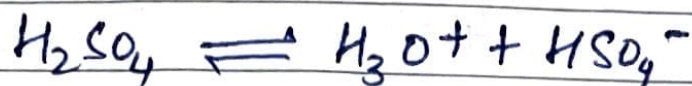


Favourable condition for conversion of SO_2 to SO_3 .

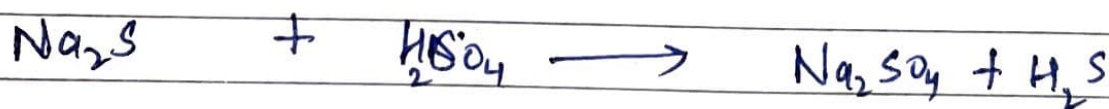
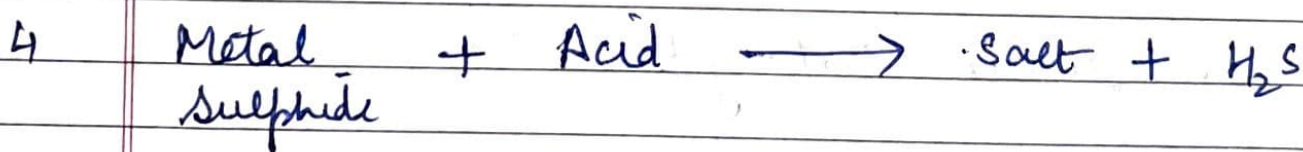
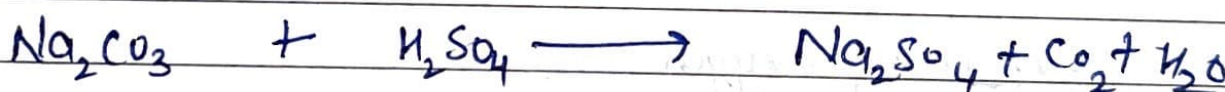
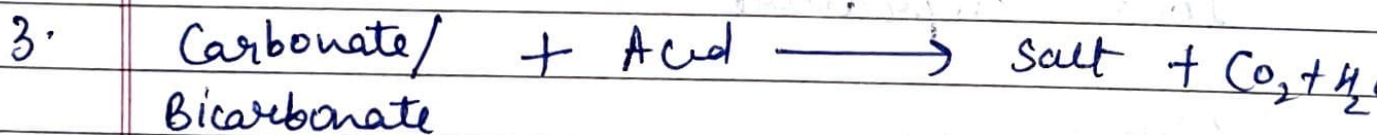
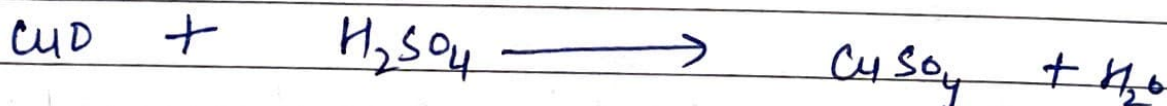
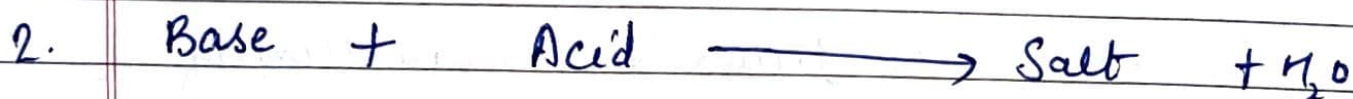
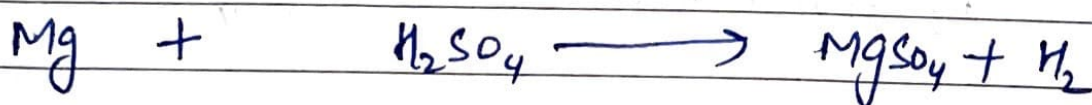
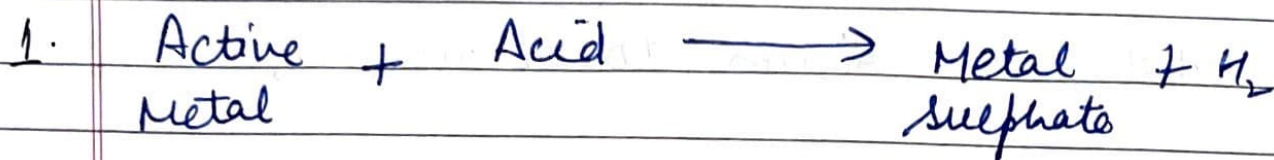
1. Exothermic reaction are favoured at low temperature.
2. high pressure
3. Excess of oxygen
4. A suitable catalyst.

Chemical properties

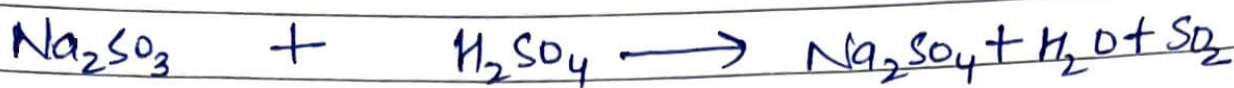
H_2SO_4 when dissolved in water form H_3O^+ , thus it is dibasic



Prop. of dil H_2SO_4



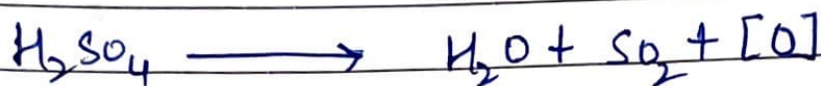
5. Sulphite + Acid $\longrightarrow$ salt + H_2O + SO_2



Prop. of conc. H_2SO_4

1. It is non-volatile in nature.

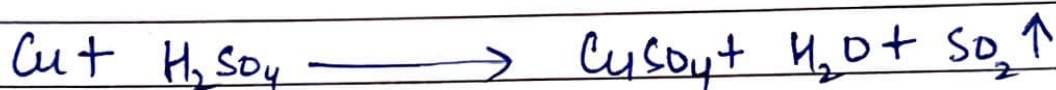
2. It acts as an oxidising agent



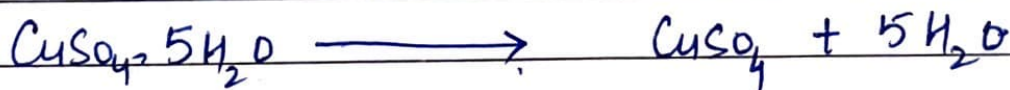
a) Non-metal



b) Metal



c) As a dehydrating agent



Test for H_2SO_4

