

B. M. A. College Bahari

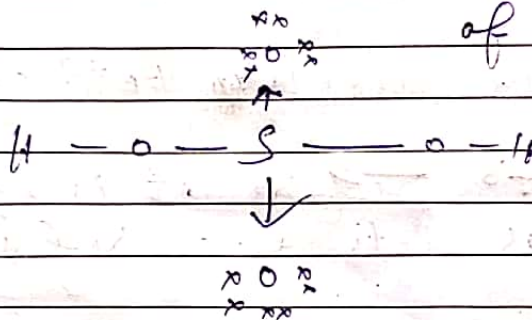
CHEMISTRY. C. CHAUDHARY,

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TOPIC :- Sulphuric Acid.

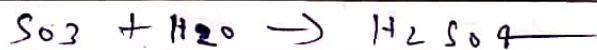
The molecular formula of sulphuric

acid is H_2SO_4 . Electronic dot structure of H_2SO_4 is represented as.

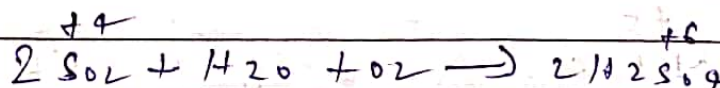


Since it possess two replaceable "H" atoms therefore it is dibasic acid.

H_2SO_4 is prepared by the reaction of SO_3 with H_2O (water)



Oxidation of SO_2 aq. solution gives rise to H_2SO_4



In the above reaction +4 oxidation

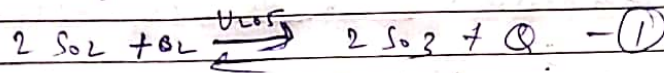
no changes to (+6) therefore it is oxidation.

Manufacture of H₂SO₄

Contact Process: During Contact process sulphur is oxidised into SO₂



SO₂ is further oxidised into SO₃ in presence of V₂O₅ catalyst.



Since above reversible chemical

reaction is exothermic and there is decrease in pressure on R.H.S of eqn (1)

Therefore having pressure at in other words at high pressure production of SO₃ will increase as per Le Chat. principle.

Since the above reaction is exothermic therefore as per Le Chat. physical

principle at lower temp. SO₃ production will increase but ^{at} too low temp slows down the reaction ^{rate} therefore optimum

temp of 400-500°C is maintained.

