

CHEMISTRY IN AQUEOUS AND NON- AQUEOUS SOLUTIONS

For
B.Sc Chemistry(Part-II)
Inorganic chemistry
Paper-III
Lecture-06

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Chemistry in aqueous and non-aqueous solutions

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- ▣ Inorganic reactions of liq. SO_2 Solutions of metals in liq NH_3

Chemistry in aqueous and non-aqueous solutions

Physical properties of Liquid SO₂

- ▣ Colour: Colourless as a gas or liquid
- ▣ Odour : Intense, pungent, irritating
- ▣ Flammability: Not flammable, not explosive in either the gaseous or liquid state
- ▣ Molecular Formula: SO₂
- ▣ Molecular Weight :64.063
- ▣ Boiling Point: -10.1°C (14°F)

Chemistry in aqueous and non-aqueous solutions

Application:

- **Liquid sulphur dioxide** (SO_2) is a versatile chemical
- Used both in **liquid** form or as a source of gaseous SO_2
- Used in the food industry as a preservative
- Used in the pulp and paper industry
- Used in mining industry
- SO_2 is also used as a refrigerant, heat transfer fluid and selective solvent

Chemistry in aqueous and non-aqueous solutions

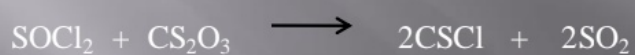
Liquid sulphur dioxide (SO₂)

Acid -Base reaction

Liq SO₂ undergoes auto ionization as



Acid -Base reaction or neutralization reaction can be represented as



Acid Base