

TECHNOLOGY AND APPARATUS FOR STUDY OF ANHYDROUS FLUORHYDRIC SOLUTIONS

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A specific apparatus for handling anhydrous hydrogen fluoride has been realized in order to study solutions of ammonia and alkaline metal fluorides in this solvent. These mixtures would be able to present industrial possibilities of electrolytic preparation of fluorine.

To undertake preparation operations and to make physical measurements using the purest hydrogen fluoride, a high vacuum system is necessary ; details of this type of system will be given.

The following apparatus set up for the different studies will be presented :

- Electrolysis and conductance cells to dry HF and to control his purity
- Synthesis vessel for the preparation of solutions
- Specific cell for liquid phase analysis
- Technics and apparatus for vapour phase analysis
- Calorimetric cells for dissolution and dilution enthalpy determinations

Some results concerning NH_3 -HF mixtures will be presented.

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