

## PHARMACEUTICAL CHEMISTRY

### EXPERIMENT NO -16

**OBJECT:** To perform the identification test of barium sulphate.

#### REFERENCE

1. Singh H.R., Kapoor V.K. "Practical Pharmaceutical chemistry", Vallabh Prakashan, Ed I<sup>st</sup>, 2008, pp 19-20.
2. Chatwal GR, "Pharmaceutical chemistry inorganic" Himalaya publishing house, Ed 5<sup>th</sup>, 2010, pp 256-257

#### REQUIREMENTS

**Chemical required:** Barium sulphate, barium chloride solution, dilute hydrochloric acid, silver nitrate solution, dilute ammonia solution, potassium dichromate, sulphuric acid, etc

**Apparatus required:** Test tube, test tube stand, test tube holder, Pipette, Glass rod.

#### THEORY

Any process that can provide a qualitative determination of the ions present in a simple inorganic compound is based upon knowledge of acid/base chemistry, redox chemistry and solubility. In this regard, the identification of a single pure compound is therefore very much simpler than the identification of a mixture. This experiment deals only with the identification of simple compounds, ie those that contain only one cation and one anion.

#### PROCEDURE

##### *REACTIONS OF BARIUM IONS*

S.NO	TEST	OBSERVATION	INFERENCE
1	Take 1ml of filtrate, acidify with dilute HCl +add 0.2 ml of barium chloride solution.		
2	Add 0.1 ml of iodine solution to the suspension obtained in the above test. Add stannous chloride solution dropwise. Boil the mixture.		

**PHARMACEUTICAL CHEMISTRY**

***REACTION OF SULPHATE IONS***

S. NO	TEST	OBSERVATION	INFERENCE
1	Dissolve 50mg of sample in 5 ml of water. Acidify with dilute hydrochloric acid. Add 1 ml of barium chloride.		
2	Dissolve 50 mg sample with 5 ml of water. Add 2 ml of lead acetate solution. Divide into two parts. <ul style="list-style-type: none"><li>• To the first part add ammonium acetate solution.</li><li>• To the second part add sodium hydroxide solution.</li></ul>		

**RESULT:**

An identification test of barium sulphate was performed.