

## Preparation Of 250 ml Of M/20 Solution Of Mohr's Salt

### Theory

Molecular mass of Mohr's salt,  $\text{FeSO}_4 \cdot (\text{NH}_4)_2\text{SO}_4 \cdot 6\text{H}_2\text{O} = 392$

Hence, for preparing 1000 ml of 1 M Mohr's salt solution,

Mohr's salt required = 392 g

$\therefore$  For preparing 250 ml of  $\frac{\text{M}}{20}$  Mohr's salt solution,

$$\text{Mohr's salt required} = \frac{392}{1000} \times 250 \times \frac{1}{20} = 4.9 \text{ g}$$

### Apparatus

Watch glass, weight box, fractional weight box, 250 ml beaker, glass rod, 250 ml measuring flask and wash bottle.

### Chemical Required

Mohr's salt, cone.  $\text{H}_2\text{SO}_4$  and distilled water.

### Procedure

1. Weigh the clean and dry watch glass and record its weight in the note-book.
2. Weigh accurately 4.9 g of Mohr's salt crystals on the watch glass and record the weight in the note-book.
3. Transfer carefully the weighed Mohr's salt from the watch glass into a clean 250 ml beaker. Add to this beaker about 5 ml of cone. sulphuric acid to check the hydrolysis of ferrous sulphate.
4. Wash the watch glass thoroughly with distilled water to transfer the sticking salt completely into the beaker. Dissolve the salt in the beaker with gentle stirring.
5. Transfer the entire solution carefully into the 250 ml measuring flask through a funnel.
6. Wash the beaker with distilled water and transfer the washing's into the measuring flask.
7. Add enough distilled water to the measuring flask carefully up to just below the etched mark on its neck with the help of wash bottle.
8. Add the last few drops of distilled water with a pipette until the lower level of the meniscus just touches the mark on the measuring flask.
9. Stopper the measuring flask and shake it gently to make the solution homogeneous (i.e., uniform throughout) and label it as M/20 Mohr's salt solution.