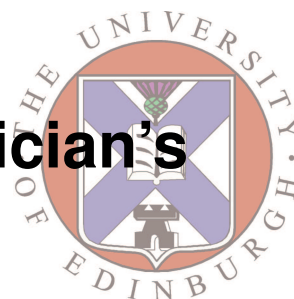


Disappearing Solution – Technician's Notes



Advance Preparation

Chemicals

Iron(II) Sulfate ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$)

20 % sulphuric acid

Lauth's Violet (thionine)

Water

Equipment

Large jar (500 cm^3)

300 W lamp

Kitchen foil

Preparation Instructions

1. Make up solutions as follows...
 - a. 2 g $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ in 480 ml water
 - b. 0.01 g Lauth's Violet (thionine) in 20 ml water
2. Add all of the $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ solution to the jar along with 10 cm^3 20 % sulphuric acid
3. Add enough of the thionine solution to make the solution blue (few drops – do not overdo it!).
4. Shine the light on the solution (you may need to shake the solution).

The solution should turn from purple/blue to clear

5. Take the jar away from the light.

The solution should turn blue again

6. Shine the light on the solution again – you can keep doing the experiment from long enough!

7. Wrap the jar in foil to keep it dark. The solution will keep for a few days.

Preparation for Demo

The Teacher Will Need...

Large jar prepared as above

300 W lamp