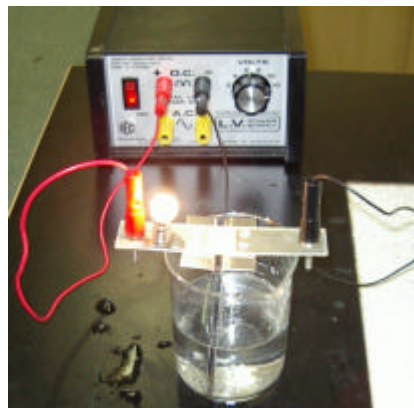


Physical Properties of Compounds

Aim: To investigate the physical properties of some compounds including their melting point and electrical conductivity.

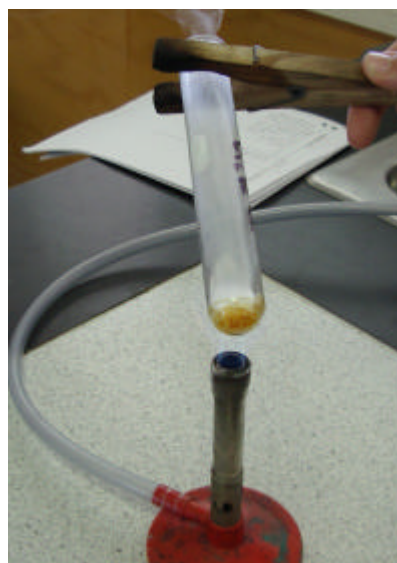
Equipment:

- Safety Glasses
- Test tubes
- Bunsen Burner
- Battery Pack
- Wires
- Teaspoon
- Electrodes
- Water
- Light Globe
- Compound Samples
- Beaker



Method:

1. Transferred a small amount of each test compound into labelled test tubes.
2. Heated the test tube with a small blue flame. Recorded whether the compound melted.
3. Repeated step 2 for each compound sample.
4. Connected up simple conductivity apparatus composed of power supply, globe and electrodes.
5. Transferred a level teaspoon of the sample into a beaker and added 150ml of water. Stirred to dissolve.
6. Immersed the electrodes and determined whether the globe came on. Recorded results.
7. Repeated steps 5 and 6 for each compound sample.



Results:

Compound	Melting Point	Conductivity
Steavic Acid	Low	Yes – Low
KBr	High	Yes – High
NaNO ₃	Low	Yes – High
KI	High	Yes – High
NaCl	High	Yes – High
Sucrose	Low	Yes – Low
Glucose	Low	No
Urea	Low	Yes - Low

Calculations:

Compound	Chemical Bond
Steavic Acid	Covalent
KBr	Ionic
NaNO ₃	Covalent
KI	Ionic
NaCl	Ionic
Sucrose	Covalent
Glucose	Covalent
Urea	Covalent

Conclusion: Steavic acid, NaNO₃, Sucrose, Glucose & Urea are all joined by a covalent bond while KBr, KI & NaCl are joined by an ionic bond.

Evaluation: All in all, a successful experiment.