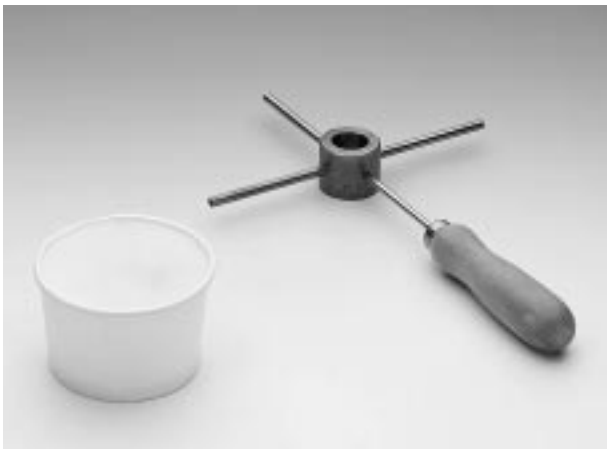
Conductometer

04516.00

Operating Instructions



1 PURPOSE AND DESCRIPTION

The Conductometer 04516.00 shows the different heat conducting properties of copper, brass and steel.
Three rods of copper, brass and steel are attached in a star shape to a metal holder and handle. The rods are 60mm long with a diameter of 4mm and an axial hole on a spot face.

2 OPERATION

Using the wax supplied with the conductometer, three small balls are formed and pushed onto the ends of the metal rods. The metal holder is then heated in the centre using a flame from a gas burner. The conductometer should be held over the flame using the handle so that the opening in the metal holder points downwards. It should be ensured that the metal rods do not enter the flame. (Work with a low flame.)
Due to the heat conduction in the metal, the ends of the rods are gradually heated, finally leading to the melting of the wax and the dropping of the balls. The better the metal conducts the heat, the quicker the corresponding wax ball falls from its rod. It will be observed that the balls fall in the sequence copper, brass then steel.

Matches pushed into the axial holes in the rods can also be used instead of the wax balls. The match heads which protrude slightly from the holes ignite in the sequence mentioned above.

I**mportant:** After the experiment the conductometer should be placed on a fireproof surface to cool or clamped in a suitable support stand.

3 MATERIAL

Conductometer	04516.00
Wax, 100g, replacement	04515.00