

Flying Rings

Objective

To levitate conductive rings using an alternating magnetic field.

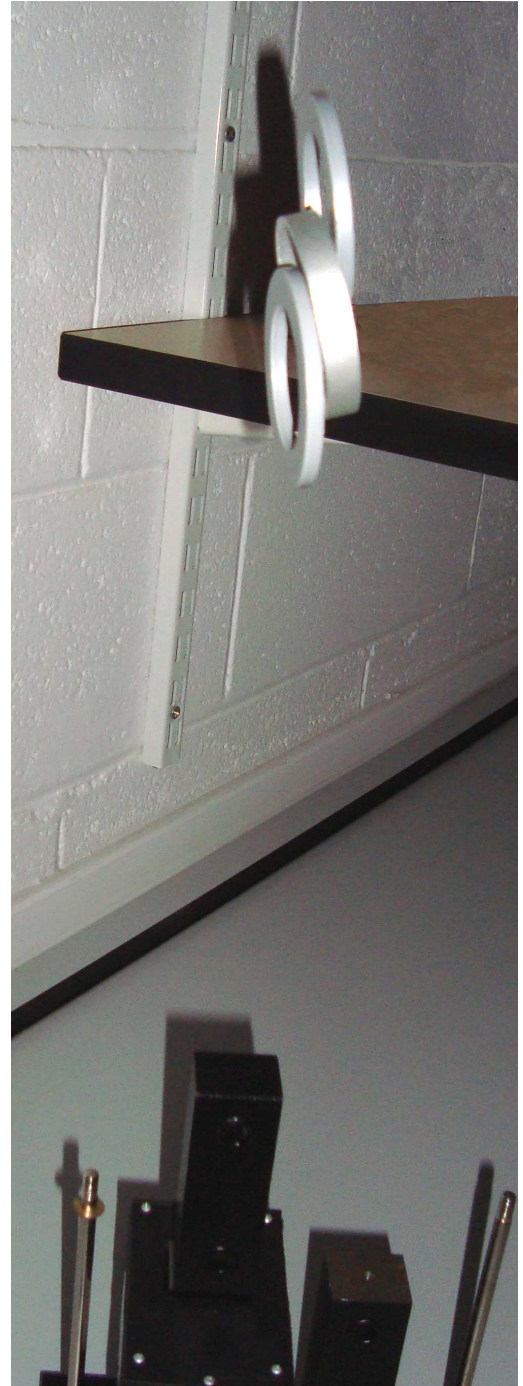
Apparatus



1. Demountable transformer with mains primary.
2. 4 aluminium rings – 1 split, 3 unbroken.

Method

1. Fit the coil over one limb of the core.
2. Balance the removable core piece on top of this limb.
3. Plug in but do not switch on.
4. Place a split ring over the extended limb.
5. Momentarily switch on the mains – nothing happens.
6. Repeat with an unbroken ring – the ring flies upwards.
7. Repeat with all three unbroken rings for a more spectacular effect.



Safety

Only close the mains switch for long enough to see the rings fly. The coil is not rated for continuous use except on a closed magnetic circuit. It contains a thermal cut-out which will take a long time to reset if it is allowed to operate. The unbroken rings will become extremely hot if left in the alternating field for too long. Check that the mains coil has a current PAT label.