

## Coolite Balls

### Apparatus

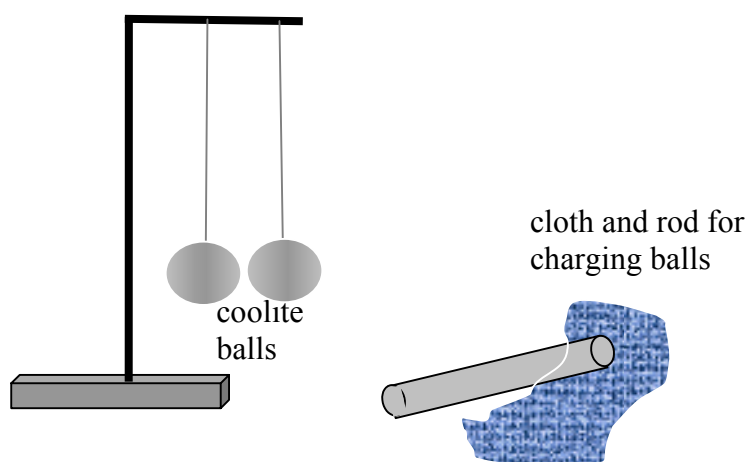
two or three coolite balls hanging from threads very close to each other, some way of charging the balls, e.g. fur and glass rod

### Action

The students charge up the coolite balls such that they all have the same charge type, and explain their observations. They should make the analogy to putting charged particles together in the nucleus.

### The Physics

Like charges will repel and the coolite balls will move away from each other. If the only force in the nucleus was the electrostatic force, nuclei would not be stable.



### Accompanying sheet:

#### Coolite Balls

Charge the coolite balls so that they have opposite charges.  
What happens?

Now charge them so they have like charges and observe what happens.

How do protons stay together in the nucleus?