



Gamma Cube

Aim To locate the position of a radioactive source inside a cube using the emission of γ -rays from the source.

Materials 1 sealed γ -ray source 1 cube comprising up to 4 types of sub-cube 1 Geiger–Müller detector and counter

Method Use the activity measured by a NaI(tl) detector outside the cube to determine the location of the source. Note that the large cube can contain aluminium, perspex, brass and blank (empty) sub-cubes.

Conditions The cube must not be disassembled or tampered with in any way.

Time Limit 25 minutes.

Ranking The ranking order will be determined by the time taken to correctly locate the sub-cube, with a 5 minute penalty for each incorrect attempt.

Team

Result

Do not write below this line

Rank