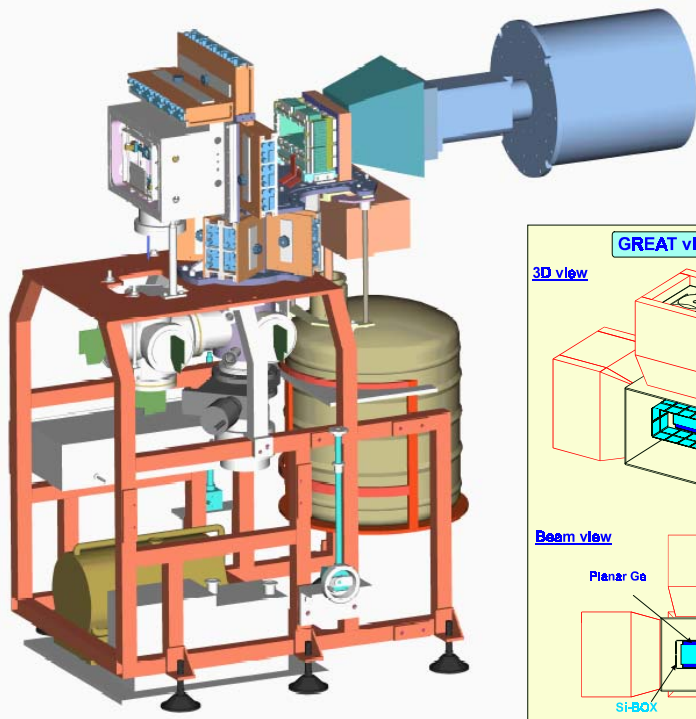
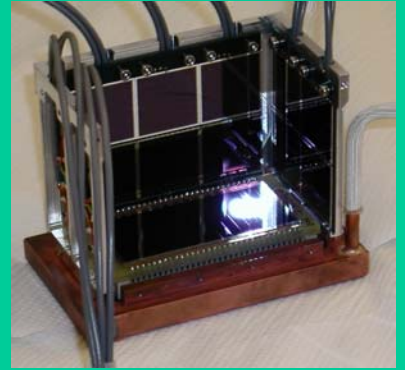


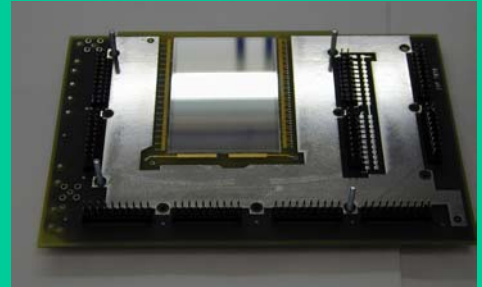
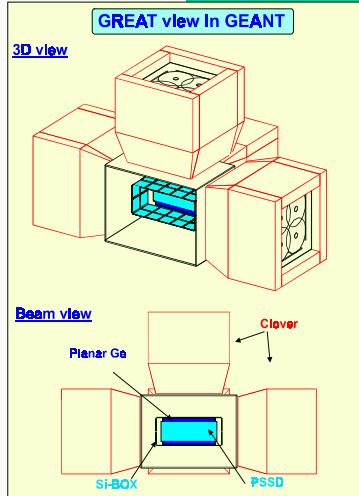
The GREAT Spectrometer



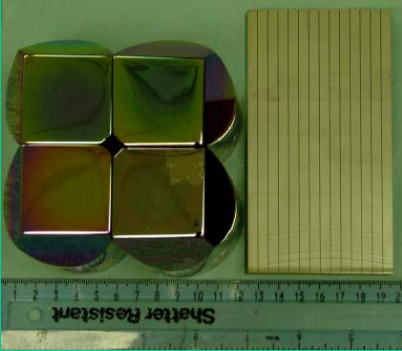
Measures α , β , γ , p and e^- decays of separated fusion products



28 Si PIN diode box



Two 60 x 40 double-sided Si strip detectors are used



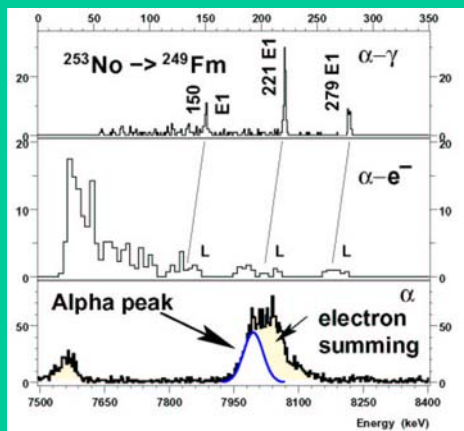
Total Data Readout

Novel triggerless data acquisition eliminates common dead time

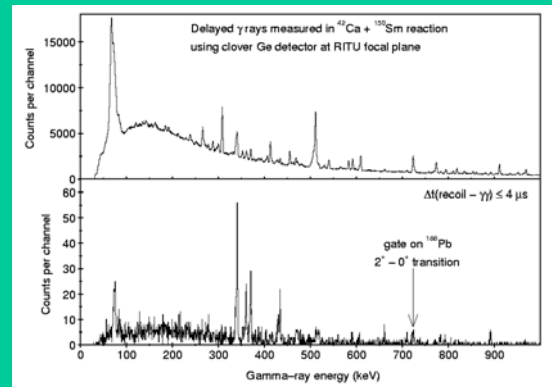
Prototype Experiments

Clover Ge detector and 24 x 12-strip planar Ge detector

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α , γ and e^- spectra taken using prototype set-up shown top right



Singles (top) and γ - γ coincidence (bottom) spectra measured using clover Ge detector

GREAT is a Liverpool – Daresbury – Jyväskylä – Keele – Manchester – Surrey – York collaboration