

T02 Lab Course :

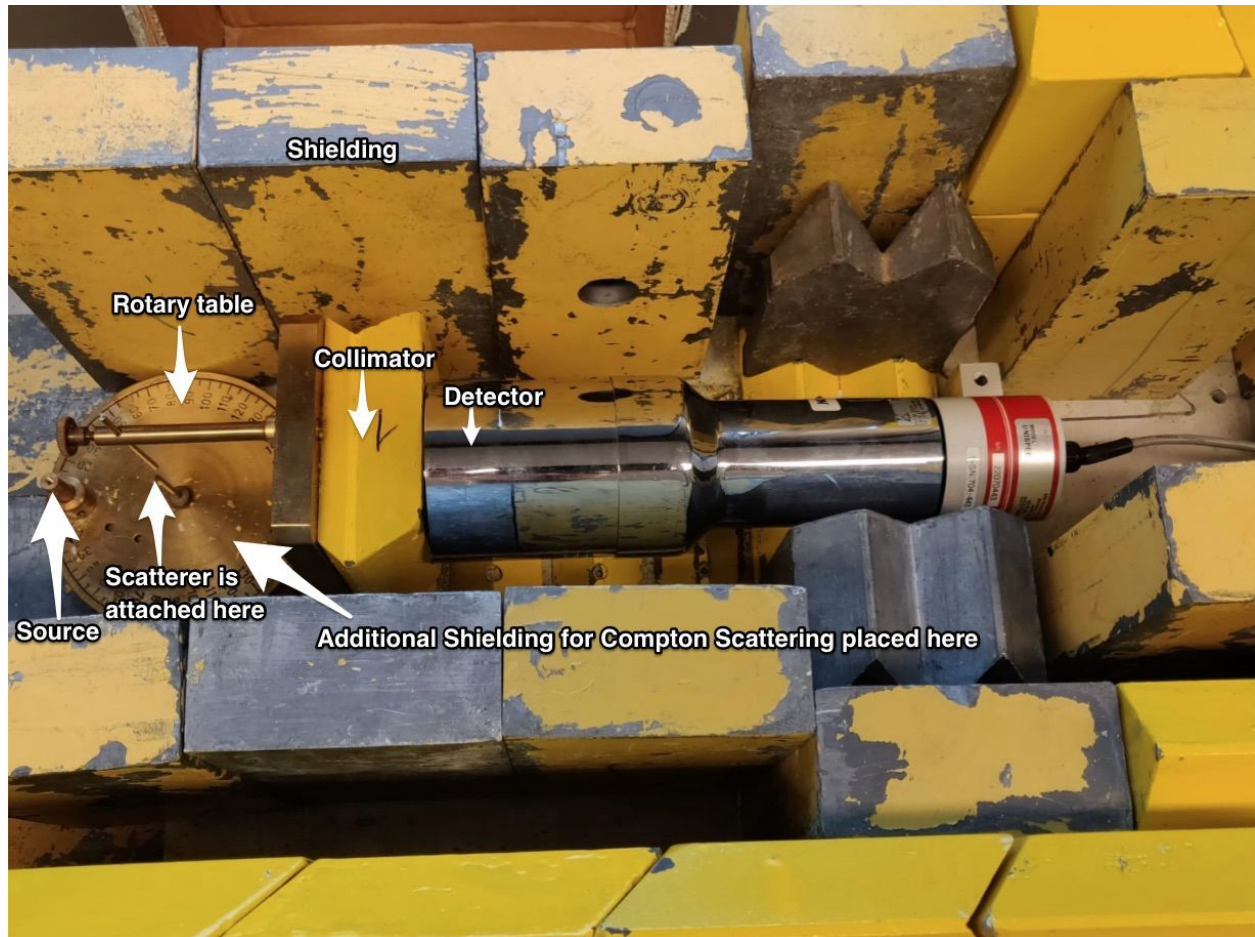
Virtual Data : Details of Source Used and Geometric Measurements

- Cs137 source labelled Ol-797 used

- Measurements for Efficiency:

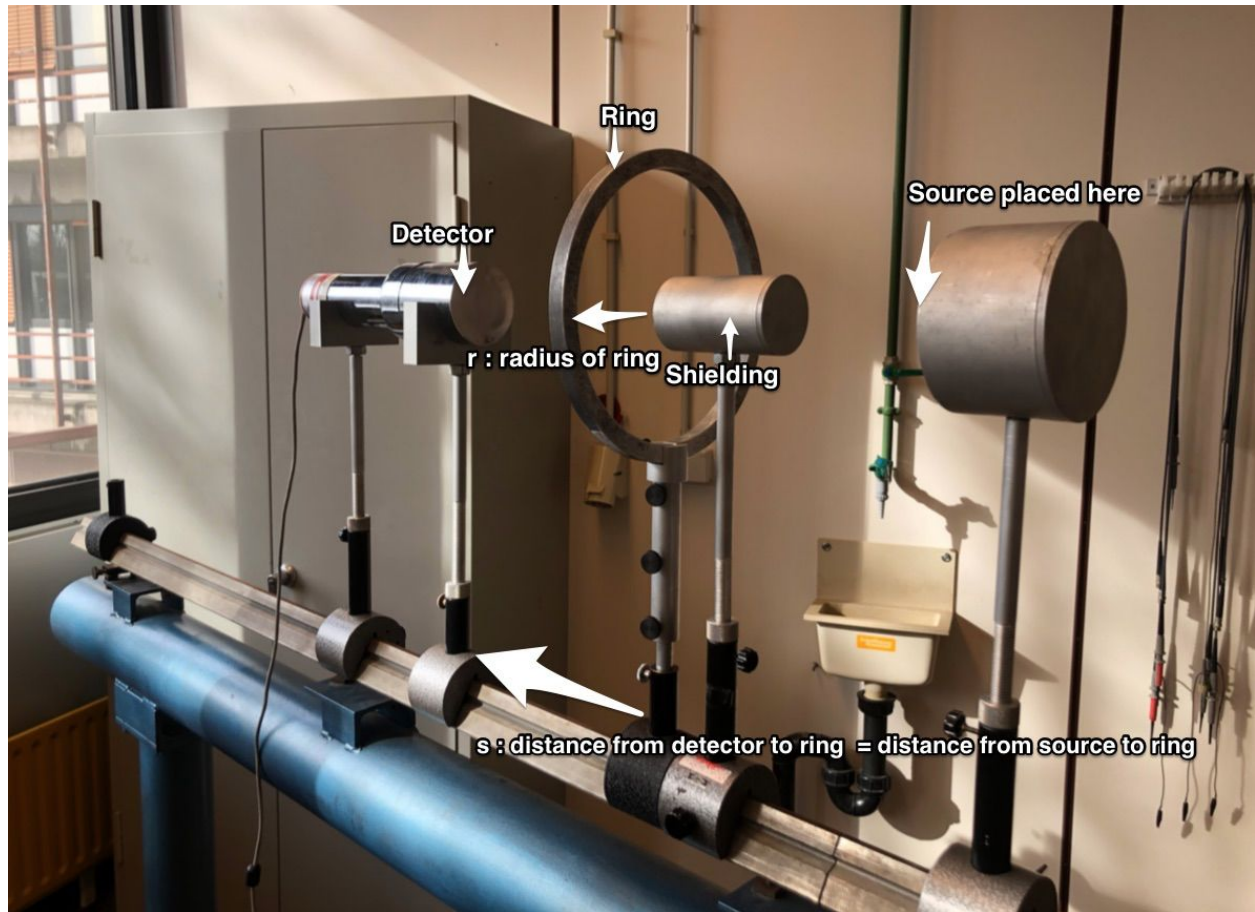
- Setup for Compton scattering with conventional geometry used with angle at 0 degrees
- The Cs137 (Ol-797) source was used
- Distance between source and detector : 17 cm
- Exposed detector area : 4.91 cm²

- Setup for Compton Scattering with Conventional Geometry:



- Distance between source and scatterer : 5 cm
- Distance between scatterer and detector : 12 cm
- Exposed detector area : 4.91 cm^2
- Scattering object (for both Aluminum and Steel) was a small cylinder :
 - Height : 2.1 cm
 - Diameter : 1.2 cm

- Setup for Compton Scattering with Ring Geometry:



- Horizontal distance between ring and detector = distance between source and ring : s (varies, see table below)
- Radius of rings : r (varies, see table below)
- Detector area : 51.3 cm^2
- Thickness of rings : 1.5 cm

r	S	θ
11.6 cm	25 cm	50°
8.2 cm	25 cm	36°
6.65 cm	25 cm	30°
11.6 cm	70 cm	19°
6.65 cm	70 cm	11°

Tabelle 1: Ring-Angles

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