General Purpose Scattering Chambers and utilization



Hall-1, 30°, Pelletron LINAC Facility

Features:

1.5 meter diameter fully automated chamber at Hall-1, 30⁰

- In-vacuum computer controlled 360° rotation of 2 detector arms along with target height and orientation adjustment
- In-vacuum target transfer
- Multi-pin vacuum feed-throughs for signals
- Gas feed-throughs along with PLC based gas flow controller

<u>1 meter diameter chamber at 0⁰, Cascade Hall</u>

 similar features as above with manual operation <u>Research</u>:

Angular distribution of elastic and direct reactions

- Fusion barrier distribution from Quasi-elastic at back angle
- Fission fragment angular and mass distribution