

Investigation of ^{208}PbS -Target on C-Backing

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The structure of carbon layers is strongly dependent on the interlayer applied on the glass substrate and determines as a consequence the structure of the target layer deposited on the carbon backing.

Standardly applied self-supporting foils are optimised for the major application. So at the GSI target laboratory carbon foils are perfected to withstand a highly intense heavy ion beam, either as stripper foil, as backing or as target. For most applications at GSI we use betaine-sucrose as parting agent since the durability of carbon such produced proved to be best suited for experiments in our heavy-ion accelerator. Betaine-sucrose produces a microscopically rough surface.

For a special application, carbon backings with a very flat surface, microscopically as well as macroscopically are needed as target and as backing for enriched.

For these targets we worked with different parting agents and different deposition processes. We report on the yield, on the structure of the carbon layers and the deposited target layer ^{208}PbS in dependence of the parting agent, the thickness and the deposition methods.

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