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Elastic alpha scattering on heavy exotic nuclei - report on IS698 experiment

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The uncertainties in the knowledge of the alpha-nuclear potential are still one of the main sources of uncertainty in the modeling of the production of the stable p-nuclei, with those uncertainties extending to unstable proton rich regions of the nuclear chart.

Recent developments in the production of thin silicon films containing large amounts of He allowed for the proposal of the first experiment measuring the angular distribution of elastic scattered alpha particles off radioactive tin isotopes, at energies around the Coulomb Barrier at the HIE-ISOLDE facility. Experiment IS698 was scheduled and completed last September, allowing for the study of the elastic scattering of the exotic ^{110}Sn , ^{109}Sn and ^{108}Sn .

In this contribution the performance of the thin films exposed for the first time to this heavy radioactive beams, as well as the results of preliminary analysis of the data will be presented.

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