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A New Dedicated Plunger Device for the GALILEO γ-ray array

Different plunger devices have been developed in the last decades to be used with high efficiency γ-ray arrays and with complementary detectors such as the large acceptance spectrometers: PRISMA and VAMOS. Recently, a new plunger device for the γ-ray array GALILEO has been developed in collaboration with the INFN Legnaro and which can be used with the existing auxillary detectors e.g. EUCLIDES. We will report on the mechanical design and functionality of this plunger device, as well as on the constrains given partly by the complete spectrometer, which led to this design. We will close with the results of the commissioning run using a ^{154}Sm(^{32}S,6n)^{180}Pt reaction at a beam energy of 183 MeV. The experiment was chosen to reproduce the known lifetimes in ^{180}Pt and since it stands for a typical reaction using a plunger device coupled to GALILEO this can be seen as a proof of concept.
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