

Radiation hardness investigation of ZnO(Ga) and ZnO(In) with heavy ion beams.

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GSI [1] is a unique large scale facility for heavy ion research. Ion beams of many elements, including H and U, are produced with energies up to 4.5 GeV/u. For absolute beam intensity measurements a BC-400, organic scintillator, is used. Due to the low radiation hardness of this material, alternative inorganic scintillators like ZnO(Ga) and ZnO(In) [2] were investigated during the 2016 experimental campaign. The response of these ceramic detectors to C, Xe and U ion beams at 300 MeV/u will be reported.

1. www.gsi.de
2. P.A. Rodnyi et al., Novel Scintillation Material-ZnO Transparent Ceramics, IEEE 59, 2152 (2012)

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