

Development of a mosaic type array formed by Si photodiodes for charged-particle detection in heavy ion collisions

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Si detectors are extensively applied in the measurement of charged particles produced in fusion reactions. To achieve a relatively low-cost charged-particle detection with the position sensitivity, we have developed a mosaic-type array based on Si photodiodes (Hamamatsu S13955-01). Its high modularity allows one to modify the geometric configuration of the array according to specific experimental requirements. The array was commissioned using $^{136}\text{Xe} + ^{\text{nat}}\text{Zn}$ reaction in July 2022 at HIMAC. In this presentation, details of the detector development and experimental results will be presented.

Presentation type

Oral presentation

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