

Production of ^9Be targets for nuclear physics experiments

Tuesday, 15 November 2016 12:30 (30 minutes)

Self-supporting beryllium (^9Be) targets were produced by mechanical rolling method in which a double pack technique was implemented. Targets were used for the investigation of the low-lying excitation energy region in ^9Be through the $^9\text{Be}(^3\text{He},t)^9\text{B}$ reaction at the K600 spectrometer, at iThemba LABS facility. Beryllium is a semimetal in nature and this makes it hard to deform by rolling or vacuum evaporate as a self-supporting target. Therefore heat treatment was needed to avoid brittleness and breakage of the material during rolling process. A description is given on how beryllium targets were manufactured.

Keywords: Rolling method, annealing, vacuum atmosphere, thickness, target

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Session Classification: Session 4

Track Classification: Plenary