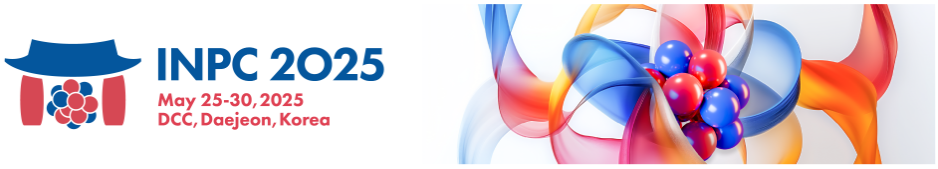

Contribution ID: **393** Type: **Contributed Poster Presentation**

50Cr(p,t)48Cr reaction study for spectroscopy of energy levels in 48Cr

The characteristic 1.157 MeV γ-rays from the radioactive decay of ^{44}Ti ($t_{1/2}$ = 59.1 y) provide information about supernova explosion phenomena. The study of ^{44}Ti(α,p)^{47}V reaction rates is essential for predicting the abundance of ^{44}Ti. To study the properties of energy levels in ^{48}Cr, ^{50}Cr(p,t)^{48}Cr reaction will be performed at the JAEA-Tokai tandem accelerator facility. The ^{50}Cr(p,t)^{48}Cr reaction will be measured using the proton beam and ^{50}Cr target in normal kinematics. The recoiling particles will be detected using silicon detector telescopes. The astrophysical interest energy region of E_x = 8 –10 MeV will be studied. Details of the experiment will be discussed.

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Session Classification: Poster Session

Track Classification: Nuclear Astrophysics