

Status Report of Experiment NP0702-RIBF28

Wednesday, 20 February 2013 14:20 (20 minutes)

Excited states in the nuclei $^{38,40,42}\text{Si}$ have been studied using in-beam gamma-ray spectroscopy following multi-nucleon removal reactions to investigate the systematics of excitation energies along the $Z = 14$ isotopic chain.

Experiment have been performed at RIBF with high intensity ^{48}Ca beam employed to produce the secondary beams of ^{40}S and ^{44}S . The DALI2 gamma-ray spectrometer have been employed to measure the de-excitation gamma-rays from excited nuclear states via $\text{C}(^{40}\text{S},^{38}\text{Si}+\gamma)$, $\text{C}(^{44}\text{S},^{40}\text{Si}+\gamma)$ and $\text{C}(^{44}\text{S},^{42}\text{Si}+\gamma)$ reactions. Here, we will report on the status of analysis: the observed excited states, tentative spin-parity assignment and future plan.

Primary author: MATSUSHITA, Masafumi (Center for Nuclear Study, University of Tokyo)

Presenter: MATSUSHITA, Masafumi (Center for Nuclear Study, University of Tokyo)

Session Classification: Status of Performed Experiments II and New Experiments I