

Abstract Submitted
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Study of High-Spin States in neutron-rich Ti Isotopes M. NI-
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K. MIYAKAWA, A. OZAWA, Univ. of Tsukuba, I. TANIHATA, ANL — We have
studied high-spin states of neutron-rich Ti isotopes $^{49-52}\text{Ti}$ by using a fusion re-
action of a secondary beam. The experiment was performed at RIPS facility in
RIKEN. The secondary ^{46}Ar beam was produced by a projectile fragmentation re-
action of a ^{48}Ca primary beam with 63 MeV/nucleon. By using aluminium degraders
placed at the first and second focal planes, an energy of the secondary beam was
reduced to 4.0 ± 0.9 MeV/nucleon. The ^{46}Ar beam was transported to the final fo-
cal plane and bombarded to a ^9Be target in order to induce the secondary fusion
reaction, $^9\text{Be}(^{46}\text{Ar}, xn)^{55-x}\text{Ti}$. Gamma rays from the high-spin states of the reac-
tion products $^{49-51}\text{Ti}$ were detected by the GRAPE (Gamma-Ray detector Array
with Position and Energy sensitivity) system. Based on excitation functions and
 $\gamma\gamma$ -coincidence measurements, we have identified new high-spin states in ^{49}Ti and
 ^{51}Ti . In the present talk, we will report on the experimental results and discuss the
newly observed high-spin states.

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