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Identifying the T=5 states in ^{48}Ca SRITEJA UPADHYAYULA, Cyclotron Institute, Texas A&M University, SUNGHOON AHN, NSCL, Michigan State University, MARIA ANASTASIOU, Florida State University, SHADI BEDOOR, Cyclotron Institute, Texas A&M University, JUSTIN BROWNE, NSCL, Michigan State University, JEFFREY BLACKMON, CATHERINE DEIBEL, ASHLEY HOOD, Louisiana State University, JOSHUA HOOKER, CURTIS HUNT, YEVGEN KOSHCHIY, Cyclotron Institute, Texas A&M University, JON LIGHTHALL, Louisiana State University, WEI JIA ONG, NSCL, Michigan State University, NABIN RIJAL, Florida State University, GRIGORY ROGACHEV, Cyclotron Institute, Texas A&M University, DANIEL SANTIAGO-GONZALEZ, Louisiana State University, INGO NSCL, MICHIGAN STATE UNIVERSITY, Florida State University — Particle-hole excitations near closed shells carry information on single-particle energies and on two-body interactions. The particle-hole excitations near the doubly magic nuclei are of special interest. Information on the charge-changing particle-hole excitations (T=5 negative parity states) in ^{48}Ca is not available. We performed an experiment to establish the level scheme of the low-lying negative parity T=5 states in ^{48}Ca. Excitation functions for the ^{1}H(^{47}K,p)^{47}K(g.s.) and ^{1}H(^{47}K,p)^{47}K($3/2^{+}$) reactions in the c.m. energy range from 1 MeV to 4.5 MeV were measured. The T=5 states are expected to show up in the p+^{47}K excitation function as narrow resonances. This experiment was performed at NSCL using the ReA3 beam of ^{47}K at energy of 4.6 MeV/u. ANASEN, set in active target mode, was used for this experiment. Experimental results from this experiment will be presented.

Sriteja Upadhyayula
Cyclotron Institute, Texas A&M University

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