

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Competition between radiative and strong force decay¹ SAMUEL TABOR, Florida State University — For nuclear states unbound to neutron decay, radiative emission is often assumed to not dominate over neutron decay mediated by the far stronger strong interaction, except for very low neutron energies and high angular momentum barriers. Recent experimental investigations of ^{19}O and ^{27}Mg populated in heavy-ion fusion-evaporation reactions have revealed predominantly gamma decays from a number of states unbound to neutron decay by up to 2 MeV. In most cases the angular momentum barrier is not sufficient to inhibit neutron decay enough to allow E-M decay with widths of up to an eV or so to win. Other inhibitions to particle decay, including low spectroscopic factors, will be discussed.

¹Supported in part by NSF grant No. 1401574

Samuel Tabor
Florida State University

Date submitted: 28 Sep 2016

Electronic form version 1.4