

Abstract Submitted
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Measurement of the β -branch of ^{12}B to the Hoyle state in ^{12}C ¹
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sity, P.F.F. CARNELLI, Laboratorio Tandem, Argentina, S.T. MARLEY, Western
Michigan University and Argonne National Laboratory, C. UGALDE, Argonne Na-
tional Laboratory and University of Chicago and JINA — Recent measurements of
the β -branch of ^{12}B to the Hoyle state give 0.58(2)%, in contradiction with the value
found in the literature of 1.2(3)%. The precise branching ratio to the Hoyle state is
important for understanding the R-Matrix fits of excitation energies in ^{12}C between
9-13 MeV from studies of β -delayed triple-alpha decay. Accurate fits to the data are
crucial in order to fully disentangle the different states of natural spin and parity
in the region. In order to obtain an independent measurement of the β -branch, we
have measured the γ -branch of the Hoyle state (a cascade going through the 4.44
MeV 2^+ state) using the Gammasphere array at ATLAS. The measured value of the
 β -branch as well as the implications of the results will be presented.

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