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Study of Neutron Deficient ^{9}C JOSEPH BELARGE, G.V. ROGACHEV, Florida State University, J. BLACKMON, Louisiana State University, I. WIEDENHOVER, L. BABY, E.D. JOHNSON, A.N. KUCHERA, E. KOSHCHIY, Florida State University, J. LAI, L. LINHARDT, K. MACON, M. MATOS, Louisiana State University, D. SANTIAGO-GONZALEZ, Florida State University
— Development of theoretical framework that allows the combination of nuclear structure calculations with the continuum is an important objective of modern nuclear theory [1,2]. Due to the low binding energy of exotic isotopes even the lowest excited states are unbound and therefore it is essential to take the continuum into account. We studied the structure of the lightest bound carbon isotope, ^{9}C, through ^{8}B+p resonance scattering using the new active target detector ANASEN [3]. The experiment was performed at the John D. Fox Superconducting Accelerator Laboratory at FSU. A rare isotope beam of ^{8}B ions was produced using the radioactive nuclear beam facility RESOLUT. Pure hydrogen gas was used as a target and also as an active medium for the gas proportional counters of the ANASEN detector. The analysis of the p+^{8}B excitation functions was performed using the R-Matrix approach. The preliminary results will be presented.

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[2] S. Quaglioni and P. Navrátil, PRL **101**, 092501 (2008).
[3] M. Matos, et al.,Proc. Intern. Symposium on Nuclei in the Cosmos XI, July 19-23 2010, Heidelberg, Germany, p.226(2010).

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