Abstract Submitted
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Probing single-particle ^{11}C levels produced via the ^{10}C(d,p) reaction[1] MATTHEW BAINES, DAN BARDAYAN, PATRICK O'MALLEY, SEBASTIAN AGUILAR, SAMUEL HENDERSON, SCOTT CARMICHAEL, LAUREN CALLAHAN, CHEVELLE BOOMERSHINE, JACOB LONG, DREW BLANKSTEIN, LOUIS CAVES, TAN AHN, MAXIME BRODEUR, JAMES KOLATA, University of Notre Dame, GAVIN LOTAY, PAUL STEVENSON, University of Surrey, UNIVERSITY OF NOTRE DAME ISNAP TEAM, UNIVERSITY OF SURREY TEAM — There has been tremendous progress in recent years using no-core shell-model approaches to calculate the low-lying level structures of light nuclei. Important constraints to such calculations come from the spectra of single-particle and single-hole states of nuclei near strongly bound spherical nuclei such as Carbon-12. While Carbon-11 has been studied by neutron removal from Carbon-12 and proton addition to Boron-10, the single-neutron states have never been directly probed. The (d,p) reaction on Carbon-10 was studied at the Notre Dame Nuclear Science Laboratory to probe these single-particle states. The experiment and preliminary data will be presented.

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