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Study of 11Be on 9Be one neutron transfer reactions at TRIUMF ISAC-II RYAN BRAID, FRED SARAZIN, Colorado Sch of Mines, TIGRESS COLLABORATION, $(PCB)^2$ COLLABORATION — The structure of neutron-rich Beryllium isotopes displays interesting properties arising from the interplay of alpha clustering and valence neutrons, leading in some cases to halo states. In this presentation, we will present the results of the ^{11}Be on ^{9}Be reaction at 55 MeV and 30.14 MeV, leading to two interesting exit channels. The first channel allows for the study of ^{12}Be, while the second enables the study of ^{10}Be. The emphasis of this paper will be on the latter, namely the analysis of the ^{9}Be(^{11}Be, ^{10}Be) ^{10}Be channel. This transfer reaction using a heavier-than-usual target has advantages over the traditional (d, p) methods, since the reactants are both equal in mass, they both scatter in the Printed Circuit Board-Based Charged Particle (PCB^2) detector setup. The addition of TIGRESS allows precise tagging of the ^{10}Be excited states. Some challenges in analysis include the ^{10}Be degeneracy, ^{11}Be breakup, and multiple particle excitation. The data and ongoing analysis will be presented. This work is partially supported by the US Department of Energy through Grant/Contract No. DE-FG03-93ER40789 (Colorado School of Mines).

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