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Study of ^{11}Be on ^{9}Be one neutron transfer reactions at TRIUMF ISAC-II RYAN BRAID, Colorado Sch of Mines, (PCB)^2 COLLABORATION, TIGRESS 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 nuclei. In this presentation, preliminary results of the ^{11}Be on ^{9}Be reaction at 55 MeV and 30.14 MeV leading to two interesting exit channels will be shown, the first one enabling the study of ^{12}Be and the second the study of ^{10}Be. This reaction has advantages over the traditional (d,p) or (d,t) methods, since the reactants are equal in mass they both scatter in a detectable angular range. Additionally, TIGRESS allows precise γ-tagging for the excited states. Some challenges in analysis include the ^{10}Be degeneracy, a large n breakup signature, 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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