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Study of ^{12}Be using the ^{11}Be(^{9}Be,^{8}Be) transfer reaction at TRIUMF ISAC-II RYAN BRAID, FRED SARAZIN, Colorado Sch of Mines, TIGRESS COLLABORATION, (PCB)^2 COLLABORATION — Recent results at TRIUMF and NSCL have called into question the structure of ^{12}Be, therefore another look at this nucleus is desirable. The structure is important information for theoretical models, since it constrains the mechanism that produces parity inversion in ^{11}Be. The ^{12}Be structure was probed in July 2014 using the (PCB)^2 array (Printed Circuit Board Based Charged Particle) inside TIGRESS (TRIUMF - ISAC Gamma Ray Escape Suppressed Spectrometer) at TRIUMF using the ^{11}Be(^{9}Be,^{8}Be)^{12}Be reaction at 55 MeV in inverse kinematics. A second set of data at 30 MeV was collected. This reaction has numerous advantages over the traditional (d,p) method, foremost of which is the ^{8}Be $\rightarrow$ 2 α breakup since it allows for very clean identification and tagging. Additionally, TIGRESS will allow precise γ-tagging for the excited states. The initial data and analysis will be presented in this talk. 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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