

Abstract Submitted  
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**Measurement of the  $^{14}\text{O}(\text{a,p})^{17}\text{F}$  reaction at  $E_{\text{cm}} = 2.2 \sim 5.3$  MeV** KEVIN HAHN, EWHA Woman's Univ, ARAM KIM, Sung Kyun Kwan University — The direct measurement of the astrophysically important  $^{14}\text{O}(\text{a,p})^{17}\text{F}$  reaction was performed using a low-energy  $^{14}\text{O}$  beam at the Center for Nuclear Study, University of Tokyo. The excitation function for  $E_x = 7.3 \sim 10.4$  MeV in  $^{18}\text{Ne}$  was measured with the thick target method and several new states as well as previously known states have been observed. In this study, we did not observe strong double proton decay events, compared to a previous study by Fu *et al.* We analyzed single proton decay events using the TOF (Time of Flight) information of the recoiled protons. Consequently, we report the excitation function of  $^{14}\text{O}(-; p)^{17}\text{F}$ , when we consider that two channels, which are decaying to the ground and 1st excited states of  $^{17}\text{F}$ , are mixed.

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