

## Elastic scattering Investigation of proton-rich 8B and 10C projectiles

Proton-rich nuclei have received less attention from both theory and experiments when compared to neutron-rich nuclei since proton-halo structure is relatively less pronounced as compared to those of neutron-halos [1,2]. The proton-halo configuration for 8B has already been established by the strong dynamic effects observed in elastic, breakup and fusion measurements [3,4,5]. However, the influence of the breakup in the elastic and fusion is not well established yet. The role of the breakup channel in the elastic for the 8B+208Pb system was recently calculated [7]. This work showed that the elastic cross sections at forward angles are damped and at backward angles are enhanced by the breakup channel also indicating that the Coulomb-nuclear interference on the breakup channel is relevant in such system. Another interesting light proton-rich nucleus to be investigated is 10C. This nucleus has a four-body cluster configuration p+p+a+a. It is the only nucleus supposed to have a Brunnian (super-borromean) structure where four rings interconnected are associated to the four body interactions [6]. These facts motivated us to perform two new measurements for the elastic scattering of 8B+208Pb and 10C+208Pb at energy close to the barrier at Cyclotron Institute of the Texas A&M University. In this work we will present the status of the analysis of these measurements. The preliminary results for elastic scattering experiments performed in April and November 2017 at TAMU with 8B and 10C radioactive ion beams on 208Pb target will be present.

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### Summary

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