Contribution ID: **323** Type: **Contributed Poster Presentation**

Cryogenic target development and performance test

Cryogenic targets in gas or liquid are essential for generating nuclear reactions in nuclear astrophysics and structure studies. The cryogenic targets possess high purity and density to compensate for low beam intensities, thereby reducing unnecessary background events and enhancing reaction yields in nuclear physics experiments. At the Center for Exotic Nuclear Studies (CENS), Institute for Basic Science (IBS), we have developed a cryogenic target system called CryoSTAR (Cryogenic Stable TARget) system. This system can achieve temperatures as low as ~10 K without beam irradiation. Several performance tests have been conducted in the laboratory phase. In this presentation, we will present the details and performance of the CryoSTAR system, as well as future plans for using beams.

Primary author: KIM, Sunji (Institute for Basic Science)

Co-authors: Dr AHN, Deuk Soon (Institute for Basic Science); Dr HWANG, Jongwon (Institute for Basic Science); Dr WON, Junho (Institute for Basic Science); Dr CHA, Soomi (Institute for Basic Science); Dr AHN, Sunghoon (Institute for Basic Science)

Presenter: KIM, Sunji (Institute for Basic Science)

Session Classification: Poster Session

Track Classification: New Facilities and Instrumentation