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## The Development of the Ion Source and Target for BRISOL

The Beijing Radioactive ion beam facility Isotope Separator On-Line (BRISOL) is a radioactive ion beam facility based on a 100 MeV cyclotron providing 200  $\mu$ A proton beam bombarding the thick target to produce radioactive nuclei, which are transferred into an ion source to produce singly charged ion beams. A FEBIAD ion source with MgO target are successful used to the first physics experiments, including the decay study of  $^{20}\text{Na}$  with the energy of 110 keV and the elastic scattering study of  $^{21}\text{Na}$  and  $^{22}\text{Na}$  beams, post-accelerated by a 13 MV tandem. The refractory carbide targets such as SiC, LaC<sub>2</sub> and UC<sub>2</sub> are also developing for more radioactive beams. The first online test of SiC target has been completed recently, and radioactivity beams of  $^{25}\text{Al}$ ,  $^{26}\text{Al}$ , and  $^{28}\text{Al}$  were produced. The details of the development of BRISOL facility and the online experimental results will be presented in this paper.

### E-mail for contact person

tangb364@126.com

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**Primary author:** TANG, Bing (China Institute of Atomic Energy)

**Presenter:** TANG, Bing (China Institute of Atomic Energy)

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