



Contribution ID: 267 Contribution code: PSA-41

Type: Poster

Background value reduction in $^{10}\text{Be}/^{9}\text{Be}$ measurement of 1MV AMS

Monday, 21 October 2024 17:35 (20 minutes)

The background value of $^{10}\text{Be}/^{9}\text{Be}$ in 1MV AMS was originally $\sim 10^{-14}$, so the use was limited for the measurement of low-value Be samples. Therefore, we started research to lower the background value without significantly changing the existing equipment itself. First, a sample with a low background value was obtained. Next, various attempts were made on the existing equipment to increase the energy of the tandem to the maximum value of 1.1 MV, and the Ar stripper gas pressure in the middle of the tandem was also adjusted and used, and the ion value after the Ar stripper gas was changed from 1+ to 2+, and the Si_3N_4 foil was tested by changing the thickness. Finally, it succeeded in lowering the background value of $^{10}\text{Be}/^{9}\text{Be}$ without installing additional Magnet or ESA in the equipment, and it was possible to measure the Be sample with a low value by reaching the background value of $^{10}\text{Be}/^{9}\text{Be}$ near 10^{-15} .

Student Submission

No

Primary authors: PARK, Junghun (KIGAM); Dr HONG, Wan (KIGAM); Dr CHOI, Yire (KIGAM); Dr PARK, G. (KIGAM)

Presenter: PARK, Junghun (KIGAM)

Session Classification: Poster Session A

Track Classification: New and Advanced AMS Techniques