



Contribution ID: 2676 Contribution code: TUPM039

Type: **Poster Presentation**

Commissioning of 70 MeV proton cyclotron system of IBS and a plan for its utilization

Tuesday, 9 May 2023 16:30 (2 hours)

A 70 MeV H⁻ cyclotron system has been installed at the Institute for Basic Science (IBS) from Nov. 2021 as a driver for ISOL system. Internal beam was first accelerated in May 2022 and utilized to highly isochronize the magnetic field using Smith-Garren method. In June, a beam of 70 MeV was extracted to two beam lines and beam emittance was measured by variations of quadrupole strengths and using a beam profile monitor. Site acceptance tests were carried out with a temporary beam line installed to measure beam profiles at the location of ISOL target employing a wobbling magnet to shape beam current distributions. A beam position monitor built in-house was also used to measure beam off-centers and currents. Commissioning was completed in Nov. and now we are planning to utilize this newly established facility for the productions of neutrons and medical isotopes. As spare spaces are available for both applications, we will present a design of full utilization along with beam commissioning results.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: KIM, Jong-Won (Institute for Basic Science)

Co-author: YEON, Yeong Heum (Institute for Basic Science)

Presenter: KIM, Jong-Won (Institute for Basic Science)

Session Classification: Tuesday Poster Session

Track Classification: MC4: Hadron Accelerators: MC4.A13: Cyclotrons