



Contribution ID: 30

Type: **not specified**

Beam-loss criteria for heavy ion accelerators

Monday, 28 April 2014 15:40 (25 minutes)

The activation of the high-energy heavy ion accelerators due to beam-losses is a serious issue for parts of accelerator as collimator systems, magnets, beam-line, fragment separator targets, etc. The beam-losses below 1 W/m are considered as a tolerable for “hands-on” maintenance on proton machines. In our previous studies FLUKA2008 code has been used for establishing a scaling law expanding the existing proton beam-loss tolerance to heavy-ion beams. This scaling law enabled specifying beam-loss criteria for projectile species from proton up to uranium at energies from 200 MeV/u up to 1 GeV/u. FLUKA2008 allowed nucleus-nucleus interactions down to 100 MeV/u only. In this work we revise our previous results and extend them towards lower energies with the help of new FLUKA code version. FLUKA2011 includes a nucleus-nucleus interaction below 100 MeV/u. This research has been done at GSI Darmstadt and is supported by project 05P12RDFN6.

Primary author: KATRÍK, Peter (Technische Universität Darmstadt)

Co-authors: HOFFMANN, Dieter H.H. (Technische Universität Darmstadt); MUSTAFIN, Edil (GSI Darmstadt); STRAŠÍK, Ivan (GSI Darmstadt); PAVLOVIČ, Márius (Slovak University of Technology in Bratislava)

Presenter: KATRÍK, Peter (Technische Universität Darmstadt)

Session Classification: Session 2b. Induced radioactivity, Convener: Sayed Rokni