Contribution ID: **1860** Contribution code: **TUPB066** Type: **Poster Presentation**

Design and calculation of the RF system of the U400R cyclotron

Tuesday 3 June 2025 16:00 (2 hours)

Flerov Laboratory of Nuclear Reaction of Joint Institute for Nuclear Research carries out the works under creating of FLNR JINR Irradiation Facility based on the cyclotron U400R. The main systems of U400R are based on the U400 cyclotron. The objectives of this project are:
- to increase the intensity of accelerated 48Ca ion beams from 1.2 puA to 2 puA;
- to expand the energy range of accelerated ions from 2–20 MeV per unit mass to 0.8–25 MeV per unit mass;
- to extract ion using stripping foil and deflector;
- to reduce the energy spread in the beam to 3×10^{-3}.
The results of calculating the parameters of the new RF-system are given in this work.

Footnotes

Paper preparation format

Word

Region represented

Europe

Funding Agency

Author: ZABANOV, Aleksey (Joint Institute for Nuclear Research)

Co-authors: FRANKO, Jozef (Joint Institute for Nuclear Research); GULBEKYAN, Georgy (Joint Institute for Nuclear Research); IVANENKO, Ivan (Joint Institute for Nuclear Research); KALAGIN, Igor (Joint Institute for Nuclear Research); KAZARINOV, Nikolay (Joint Institute for Nuclear Research); LISOV, Vladislav (Joint Institute for Nuclear Research); OSIPOV, Nikolay (Joint Institute for Nuclear Research); VERLAMOV, Kirill (Joint Institute for Nuclear Research)

Presenter: ZABANOV, Aleksey (Joint Institute for Nuclear Research)

Session Classification: Tuesday Poster Session

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