



Contribution ID: 1300 Contribution code: TUPA050

Type: **Poster Presentation**

Design of a compact superconducting recoil separator for HIE-ISOLDE

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

The High Intensity and Energy ISOLDE facility (HIE-ISOLDE) at CERN has unprecedentedly expanded the research capabilities to investigate the structure of the atomic nucleus and the nuclear interaction. In this context, to meet the high-resolution mass spectroscopy required by the HIE-ISOLDE physics program, an innovative spectrometer is currently being designed, the ISOLDE Superconducting Recoil Separator (ISRS). The ISRS is based on a compact storage ring formed of iron-free superconducting multifunction Canted-Cosine-Theta (CCT) magnets. In this contribution, we report on the current status of the ISRS design, paying special attention to its optics configuration and beam dynamics aspects.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: RESTA-LOPEZ, Javier (Instituto Universitario de Ciencia de los Materiales)

Co-authors: FOUSSAT, Arnaud (European Organization for Nuclear Research); Prof. WELSCH, Carsten (The University of Liverpool); KIRBY, Glyn (European Organization for Nuclear Research); MARTEL, Ismael (University of Huelva); RODIN, Volodymyr (CERN)

Presenter: RESTA-LOPEZ, Javier (Instituto Universitario de Ciencia de los Materiales)

Session Classification: Tuesday Poster Session

Track Classification: MC4: Hadron Accelerators: MC4.A20: Radioactive Ions