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Type: **Poster Presentation**

Studying the properties of particle accelerator cavity materials

Tuesday, 21 May 2024 16:00 (2 hours)

Structural Health Monitoring (SHM) program at European Spallation Source (ESS) aims to perform preventive studies on machine structure through the development and implementation of non-destructive techniques. The goal of this program is to: 1. Understand cavity material-ion beam interaction mechanisms 2. Quantify material damage at nominal operational parameters and abnormal scenarios, 3. Study the factors that affect cavity lifetime. This study will outline the need for such techniques in the field of particle accelerators and their implementation at ESS in an effort to assess high power/intensity Radio-Frequency Quadrupole (RFQ) lifetime.

Footnotes

Funding Agency

Paper preparation format

LaTeX

Region represented

Europe

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