Contribution ID: **1567** Contribution code: **WEPS142** Type: **Poster Presentation**

Specification, design, and production schedule of cryomodule for SRF 5-year plan at KEK

Wednesday 4 June 2025 16:00 (2 hours)

A five-year project (MEXT advanced Accelerator element Technology Development (MEXT-ATD)) funded by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) began at KEK in FY2023. The goal is to manufacture and construct a cryomodule (CM) that satisfies the ILC (International Linear Collider Project) specifications and conduct cooling tests. The 3D model of the cryomodule will be based on the Type-4 CM adopted in the Technical Design Report (TDR) published in 2013, moreover will also reflect the latest technology and experience obtained from the construction and operation of the European XFEL in Europe and LCLS-II in the United States since the TDR. In addition, in anticipation of future prospects, it has been decided that the design and production of every cavity and CM will be based on the refrigeration regulations of the High Pressure Gas Safety (HPGS) Act in Japan. This is first for the iCASA SRF group in KEK. In this presentation, the basic specifications and design of the cryomodule as well as the overall manufacturing schedule and recent progress will be reported in detailed.

Footnotes

Paper preparation format

Word

Region represented

Asia

Funding Agency

This work was supported by 【MEXT Development of key element technologies to improve the performance of future accelerators Program】 Japan Grant Number JPMXP1423812204.

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Session Classification: Wednesday Poster Session

Track Classification: MC7: Accelerator Technology and Sustainability: MC7.T07 Superconducting RF