Abstract

A heavy-ion accelerator facility is under construction for Rare Isotope Science Project (RISP) in Korea. Four types of superconducting cavities, QWR, HWR, SSR1, and SSR2 are developed to accelerate the ion beams. The QWR cryomodule is already installed in the tunnel. The HWR cryomodule is transport to the tunnel. Here, the status of HWR RF power coupler is presented. After the fabrication, the coupler is test with high power RF. The some of the test results are described.

Requirements

Fabrication

Test Setup

Test Results

Summary

- Mass production of the HWR RF coupler is completed.
- 86 coupler are test with high power RF (3.0 kW) before assembly with cryomodule.
- 1 coupler could not accepted for assembly with cryomodule due to the internal surface problems.

Reference

- Heetae Kim et al., “Control system and experiment for RAON HWR cryomodules”, (Proc. LINAC’18), Beijing, China, 2018, paper THPD097, pp.845-848
- Sangbeen Lee et al., “Design of RF power coupler for RISP Half Wave resonator”, (Proc. IPAC’16), Busan, Korea, 2016, paper WEPMB041, pp.2208-2210

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