

RFQ Commissioning of Linear IFMIF Prototype Accelerator (LIPAc)

Tuesday 23 October 2018 08:30 (20 minutes)

The IFMIF project aiming at material tests for a future fusion DEMO reactor is under the EVEDA phase in the BA Agreement of fusion program between Japan and EU. As the accelerator activity, the installation and commissioning of the Linear IFMIF Prototype Accelerator (LIPAc) is at the second stage of demonstration of the feasibility of the low energy section of an IFMIF deuteron accelerator up to 9 MeV with a beam current of 125 mA, CW. The installation of injector, RFQ, MEBT, D-Plate and LPBD for LIPAc with 8 coaxial high-power transmission lines and RF power system was just done in 2017 at Rokkasho, Japan. After that, the RF conditioning of RFQ for beam commissioning is underway. The beam commissioning of RFQ with H⁺/D⁺ and the acceleration demonstration up to 5MeV-125mA-0.1% duty cycle with D⁺ will be done.

Country or International Organization

Japan

Paper Number

FIP/P1-13

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Session Classification: P1 Posters

Track Classification: FIP - Fusion Engineering, Integration and Power Plant Design