

RFQ Commissioning of Linear IFMIF Prototype Accelerator (LIPAc)

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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.

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Author: Dr KASUGAI, Atsushi (Japan Agency for Quantum and Radiological Science and Technology (QST), Rokkasho Fusion Institute)

Co-authors: Dr MARQUETA, Alvaro (IFMIF/EVEDA Project Team); Dr PISENT, Andrea (Istituto Nazionale di Fisica Nucleare); Dr PALMIERI, Antonio (Istituto Nazionale di Fisica Nucleare); Dr JOKINEN, Antti (Fusion for Energy); Dr BOLZON, Benoit (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); Dr MORENA, Cristina De La (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr BORTOLATO, Damiano (Istituto Nazionale di Fisica Nucleare); Dr JIMENEZ-REY, David (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr REGIDOR, David (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr GEX, Dominique (Fusion for Energy); Dr FAGOTTI, Enrico (Istituto Nazionale di Fisica Nucleare); Dr SCANTAMBURLO, Francesco (IFMIF/EVEDA Project Team); Dr GRESpan, Francesco (Istituto Nazionale di Fisica Nucleare); Dr PRUNERI, Giuseppe (IFMIF/EVEDA Project Team); Dr PHILLIPS, Guy (Fusion for Energy); Dr DZITKO, Herve (Fusion for Energy); Dr KIRPITCHEV, Igor (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr MOYA, Ivan (Fusion for Energy); Dr MARRONCLE, Jacques (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); Dr MOLLA, Joaquin (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr SAKAMOTO, Keishi (National Institutes for Quantum and Radiological Science and Technology); Dr KONDO, Keitaro (National Institutes for Quantum and Radiological Science and Technology); Dr ANTONIAZZI, Loris (Istituto Nazionale di Fisica Nucleare); Dr BELLAN, Luca (Istituto Nazionale di Fisica Nucleare); Dr SUGIMOTO, Masayoshi (National Institutes for Quantum and Radiological Science and Technology); Dr MONTIS, Maurizio (Istituto Nazionale di Fisica Nucleare); Dr COMUNIAN, Michele (Istituto Nazionale di Fisica Nucleare); Dr WEBER, Moises (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr BAZIN, Nicolas (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); Dr CHAUVIN, Nicolas (Commissariat à l'énergie atomique et aux énergies alternatives (CEA)); Dr ABBON, Philippe (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); Dr CARA, Philippe (Fusion for Energy); Dr BEAUVAIS, Pierre-Yves (Fusion for Energy); Dr MENDEZ, Purificacion (Centro de Investigaciones Energéticas, Medioambientalesy Tecnológicas); Dr GOBIN, Raphael (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); Dr HEIDINGER, Roland (Fusion for Energy); Dr ICHIMIYA, Ryo (National Institutes for Quantum and Radiological Science and Technology); Dr CHEL, Stephan (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); Dr MAEBARA, Sunao (National Institutes for Quantum and Radiological Science and Technology); Dr SHINYA, Takahiro (National Institutes for Quantum and Radiological Science and Technology); Mr EBISAWA, Takashi (National Institutes for

Quantum and Radiological Science and Technology); Dr AKAGI, Tomoya (National Institutes for Quantum and Radiological Science and Technology); Dr HIRATA, Yosuke (National Institutes for Quantum and Radiological Science and Technology); Dr KMASTER, Juan (IFMIF/EVEDA)

Presenter: Dr KASUGAI, Atsushi (Japan Agency for Quantum and Radiological Science and Technology (QST), Rokkasho Fusion Institute)

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