

The Muon Science Facility of MLF J-PARC

The muon experiment facility called the Muon Science Establishment (MUSE) is the user facility at J-PARC MLF as well as the neutron facility.

The muon production target, which is 2 cm thick graphite consuming about 5% of 3 GeV proton beam and located 30 m upstream from the neutron mercury target, produces high-intensity muon beams to be utilized in versatile muon science studies. Four secondary muon beamlines are extended from the muon target and deliver the muon beam to the experimental apparatus. Each beamline has unique features and provides an intense muon beam with suitable properties, i.e., energy, polarity, etc., for an intended study like material science, elemental analysis, fundamental physics study, etc.

In the presentation, we present the current status of MUSE, which is still partially under construction or commissioning.

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