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High-power RF conditioning and 700 keV beam commissioning of the revised RFQ for the Frankfurt neutron source

Thursday, 23 May 2024 16:00 (2 hours)

We report the successful high power RF conditioning of the revised 175 MHz FRANZ RFQ up to 80 kW CW, as well as successful beam commissioning up to 700 keV in pulsed operation. After a revision of the RFQ electrodes, the RFQ accelerates protons from 60 keV to 700 keV. The Frankfurt Neutron Source FRANZ will be a compact accelerator driven neutron source utilizing the ${}^7\text{Li}(p,n){}^7\text{Be}$ reaction with a 2 MeV proton beam.

Footnotes

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