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Plan for the KOMAC proton linac upgrade to 200 MeV

Monday 2 June 2025 16:00 (2 hours)

A 100-MeV proton linac has been operated for over 10 years at KOMAC and used for proton beam services. We are planning to upgrade the linac energy to 200-MeV. By increasing the linac beam energy, we expect the machine to be capable of serving wider application fields including space radiation tests of semiconductor devices and material tests by using high-energy neutrons generated by bombarding a proton beam to a solid target. For the energy upgrade, we consider the SDTL structure for the 200-MeV section. The structure of SDTL is relatively simple so we may reduce the risk and time of development. In addition, we can avoid complex cryogenic systems by choosing a normal conducting approach. For the beamline, two separate target rooms (one for proton, and the other for proton and neutron irradiation) are under design. Details of the planning activity for the KOMAC linac upgrade will be reported in this presentation.

Footnotes

Paper preparation format

Word

Region represented

Asia

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