

Post-acceleration of laser generated protons by a high gradient CH-cavity

Monday, 12 January 2015 16:00 (20 minutes)

The linac activities are aimed to increase the accelerating field gradient. A high gradient CH – cavity operated at 325 MHz was developed at IAP – Frankfurt. The accelerating field gradient is expected to reach > 10 MV/m. Within a funded project, this cavity will be further developed towards a high gradient cavity. The new GSI 3 MW Thales klystron test stand will be used for the cavity RF power tests. The results will influence the rebuilt of the Unilac - Alvarez section, aiming to optimize and achieve finally the beam intensities specified for the GSI-FAIR project. Another option for this cavity, it might be used to post-accelerate a proton bunch, generated by an intense laser, from 10 – 16 MeV.

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Session Classification: LIGHT: Status Quo and Next Steps II