

Upgrade of HIT's slow extraction system and the first experience in medical operation

The Heidelberg Ion-Beam Therapy Centre HIT uses the RF-KO slow extraction method to extract the particles from the synchrotron. To improve the spill quality of the extracted beam a new RF-signal was investigated which increases the R-value from 92.5% to 97.5%. The signal is a multiband RF signal broadened with a random BPSK at 3 frequency bands. The new KO-DDS which generates the signal is in medical use since October 2023 and the first experience are presented in this talk.

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