

A laser-based hadrontherapy facility: current status at HZDR

Wednesday, 7 September 2016 16:50 (25 minutes)

Laser based ion acceleration has the potential to serve as a more flexible solution as compared to conventional ion beam therapies. In order to explore these potentials, several groups from physics, biology and medicine have joint forces in Dresden.

This talk will give an overview over the activities focusing especially on the proton source and the beam transport. The Dresden Ti:Sapph laser system Draco was upgraded to 500TW in order to produce higher energies and starts operation with full power this summer. Additionally, new target types such as solid hydrogen and liquid crystals were tested. For beam transport novel techniques with pulsed power magnets producing field of up to 20 Tesla are implemented.

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Session Classification: New generation Ion Acceleration Beamlines