

RECENT STATUS NEW SUPERCONDUCTING CW HEAVY ION LINAC@GSI

Summary

The demonstrator is a prototype of the first section of the proposed cw-LINAC@GSI, comprising a superconducting CH-cavity embedded by two superconducting solenoids. The sc CH-structure is the key component and offers a variety of research and development. The beam focusing solenoids provide maximum fields of 9.3 T at an overall length of 380 mm and a free beam aperture of 30 mm. The magnetic induction of the fringe is minimized to 50 mT at the inner NbTi-surface of the neighboring cavity. The fabrication of the key components is still in progress and is near to completion. The cold performance testing of the RF cavity is finished, the helium jacket will be welded on soon. The first cold test of the cryostat @GSI was successful. The test environment is completely prepared. Integration of the cryostat into the beam line and commissioning of the RF elements will be performed as next steps towards a complete testing of the demonstrator.

Primary author: Mr GETTMANN, Viktor (GSI Darmstadt, HIM Mainz)

Co-authors: Mr BÄNSCH, Daniel (IAP Frankfurt); Mr DZIUBA, Florian (IAP Frankfurt); Prof. PODLECH, Holger (IAP Frankfurt); Dr AULENBACHER, Kurt (HIM Mainz, IKP Mainz); Dr MISKI-OGU, Maksym (GSI Darmstadt, HIM Mainz); Mr HEILMANN, Manuel (GSI Darmstadt); Mr BASTEN, Markus (IAP Frankfurt); Dr MICKAT, Sascha (GSI Darmstadt); Dr YARAMYSHEV, Stephan (GSI Darmstadt, HIM Mainz); Prof. RATZINGER, Ulrich (IAP Frankfurt); Dr BARTH, Winfried (GSI Darmstadt, HIM Mainz)

Presenter: Mr GETTMANN, Viktor (GSI Darmstadt, HIM Mainz)