

EBIT at GSI and FSU Jena

Monday, 19 September 2016 18:00 (2 hours)

One of the goals of Helmholtz Institute Jena with respect to the Facility for Antiproton and Ion Research is to provide highly charged, low-energy ions by using the S-EBIT facility currently being installed at GSI [1]. This is of particular importance during the FAIR construction related shutdown period of the GSI accelerator complex, when little to no beam time can be provided. During this period the S-EBIT shall facilitate research and development works for SPARC experiments at FAIR. This accelerator-independent source of HCI will not only provide ions necessary for R&D of HITRAP [2] experimental stations but also serve as a standalone device for research and R&D activities (e.g. development of x-ray spectrometers, calorimeter detectors, x-ray optics etc. [3]). Furthermore, the combination of S-EBIT with the available laser infrastructure e.g. JETI200 will be a unique platform for the study of highly charged ions subject to intense laser radiation [4] as it is planned at a later stage once the SEBIT facility has been moved to Jena. An overview of the research program as well as the status of the current activities will be presented.

References

- [1] R. Schuch et al., JINST5, C12018 (2010)
- [2] F. Herfurth et al., Phys. Scr. T166, 014065 (2015)
- [3] D. Hengstler et al., Phys. Scr. T166, 014054 (2015)
- [4] M. Vogel et al., Nucl. Instr. Meth. B 285, 65 (2012)

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