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Injector-upgrade for FAIR (ACC)

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An UNILAC-upgrade program will be realized until FAIR commissioning starts, providing for the high heavy ion beam currents as required for the FAIR project. A new ion source terminal and a low energy beam line are dedicated to increase the primary low charge uranium beam intensity. Additionally an injector (HSI) upgrade programme is scheduled to improve beam transmission as well as beam brilliance. The replacement of the poststripper-DTL by a new high energy linac is advised to provide a stable operation for the next decades. Recently an ALVAREZ- and an IH-type DTL-design is under investigation. Design, prototyping and testing of the key components are the next major step. FAIR commissioning has to be accomplished with the upgraded HSI, while the new poststripper will be installed after 2020. As shown in machine experiments, UNILAC can serve also as a high current FAIR proton injector for the first time. Pushing the proton intensities to the required limit a new FAIR proton linac has to be build. The recent status of the FAIR upgrade program and an outlook will be presented.

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