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Status of construction of the new heavy ion synchrotron SIS100 at FAIR

Monday 2 June 2025 16:00 (2 hours)

The construction of the new FAIR heavy ion accelerator facility at GSI is progressing well. With the start of installation of SIS100 an important new milestone in project execusion has been reached. SIS100 is the first superconducting, fast ramped synchrotron with special design features dedicated to the acceleration of high intensity, low charge state heavy ions. The full performance of the specific functional systems, stabilizing the dynamic vacuum at operation with high Uranium intensities in combination with high repetition rates, was recently demonstrated at the SIS100 string test. Even under the influence of eddy current heating of the chamber walls at high ramp rates, its separatly cooled cryogenic vacuum system assures a stabilization of the residual gas pressure at extremely low values. The first straight sectors and arc modules have been installed heading towards a first hardware commissioning in 2026.

Footnotes

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Region represented

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