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Radioactive and Stable Ion Beam Production at GANIL-SPIRAL 1&2

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GANIL Facility delivers ion beams from Proton to Uranium up to 95MeV/A. The cyclotron facility provide stable (since 1983) and Radioactive Ion Beams (RIB) (since 2001) for Physics experiments. R&D of new stable and RIB beams are steadily under progress matching physicist requirements.

The SPIRAL1 facility was upgraded to extend its capabilities to RIB of condensable elements. After a new RIB produced in 2019, off-line R&D's were done on the Target Ions Source System and Charge Breeder to improve efficiencies and achieve an operational and reliable facility.

The commissioning of the LINAC-SPIRAL2 accelerator started in 2019 with a Proton beam. In 2020, a 16 kW proton beam was obtained and delivered for the first time on the NFS physic area, and a 4 mA beam of 4He2+ was produced with the PhoenixV3 ECR ion source.

An overview of Ion sources, beam properties and future developments will be described for a long-term operation mode.

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