# ECR ION SOURCES



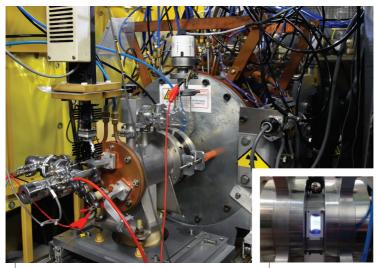
The GANIL Ion Source staff has been developing their expertise in the domain of ECR (Electron Cyclotron Resonance) ion sources for 35 years; they took out a first patent (CEA & CNRS) for an ECR ion source in 1991. They have also developed numerous methods for metallic ion beam production, are experts in 3D electromagnetic simulations and in the design of high temperature devices. Charge breeder in the middle of the SPIRAL1 LEBT

#### PERMANENT STAFF

5 researchers/engineers 7 technicians

## EQUIPMENT

- 6 ECR ion sources at the GANIL-SPIRAL2 facility
- 1 ECR ion sources at the ARIBE facility



GTS ECRIS providing beams to users of the ARIBE facility

Photo of an ECR plasma

## VALORISATION & TECHNOLOGY TRANSFER

- 5 patents (CEA-CNRS) in 1991, 1996, 1996, 2008, 2010
- Creation of the PANTECHNIK company in 1991 (GANIL spin-off)
- Patent license agreement with PANTECHNIK for these 5 patents
- 2 R&D collaboration agreements with PANTECHNIK

#### VARIOUS VALORISATION POTENTIALITIES

- Technology transfer
- R&D collaboration agreements
- Ion source expertise for accelerator projects (scientific, hadrontherapy) and application projects
- Test benches available for measurements, caracterisations, R&D









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