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ECR ions sources at CRC in UCLouvain, Belgium

Monday, September 16, 2024 5:00 PM (1h 30m)

The Cyclotron laboratory (CRC) was created in 1972 with the installation of the cyclotron "CYCLONE" (Kb = 110) in Louvain-la-Neuve, Belgium. Until late 90's, this cyclotron was dedicated to research in nuclear physics (ISOL RIBs, used for nuclear astrophysics measurements), nuclear chemistry and medicine (neutron and proton therapy). The CRC now mainly delivers ions beams for industrial applications as radiation hardness tests of electronic devices for space applications or micro-porous membrane production.

Our center has extensive experience (historically) with homemade ECR sources designed and built. Two ECR ions sources are used for our daily routine operations. The oldest, SCAMPI (Source Compacte Améliorée pour le Meilleur et pour le Pire, 6 GHz, 2 coils and permanent magnet, first beam in 1996), was used to produce heavy ions beams until the new ECR source came into operation and is mainly used nowadays to produce $^{40}\text{Ar}^{11+}$ and $^{40}\text{Ar}^{12+}$ beams. The second, BLUE WHALE (17,3 GHz, 3 coils and permanent magnet, first beam in 2016), is nowadays to produce heavy ions cocktail, including $^{124}\text{Xe}^{35+}$.

This poster presentation will present a status report on the variate applications, the performance of our ECR ion sources and our ongoing developments.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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