

Charge breeding ions for nuclear physics with the Phoenix Booster ECRIS

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At ISOLDE, CERN, an online test bench is dedicated to charge breeding experiments with the Daresbury Phoenix booster ECR ion source. The investigation of the $1+ \rightarrow n+$ scenario for next generation ISOL post-accelerators is ongoing for one more year, with charge breeding of stable and radioactive elements. Many technical developments have been undertaken to improve the flexibility of operation (60kV upgrade), as well as to reduce the background (vacuum improvement, calculations for an isotopic separator). Whether the ECR test bench will evolve towards a permanent setup still remains an open question. An overview of what has been achieved up to now with the ECR will be given, and possibilities for physics with the charge breeder will be discussed.

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