Contribution ID: **11** Type: **Parallel Session (Contributed Oral) talk**

Charge Breeder at GANIL: Metal Charge Bred Elements

Tuesday, 21 September 2021 07:35 (20 minutes)

The charge breeder of the SPIRAL1 (SP1CB) facility provided this year to physicists with new Radioactive Ion Beams (RIB) showing significantly improved performances. They were obtained thanks to studies conducted off-line with 1+ ion produced by FEBIAD and ECR ion sources. The SP1CB established its capability to boost efficiently condensable elements such as ^{19}Fn+, ^{24}Mgn+, ^{32}Sn+ and ^{54}Fen+. The charge breeding efficiencies have been investigated regarding several parameters. The deltaV curves of stable elements as well as radioactive ones were recorded for high charge states, trends will be discussed in more detail. Finally, as molecular beams provide some advantages compared to atomic ion beams for selecting isobaric species, one may wonder if the charge breeding efficiencies is still effective. The performances of the 1+/N+ process were investigated using SF6 molecules broken down into SFx1+ ions and compared to regular F1+ and S1+ ions. This contribution will deal with these topics.

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