New metallic stable ion beams for GANIL

F.Lemagnen, C. Barue, M.Dubois, R.Frigot, N.Lechartier, V.Metayer, B.Osmond.

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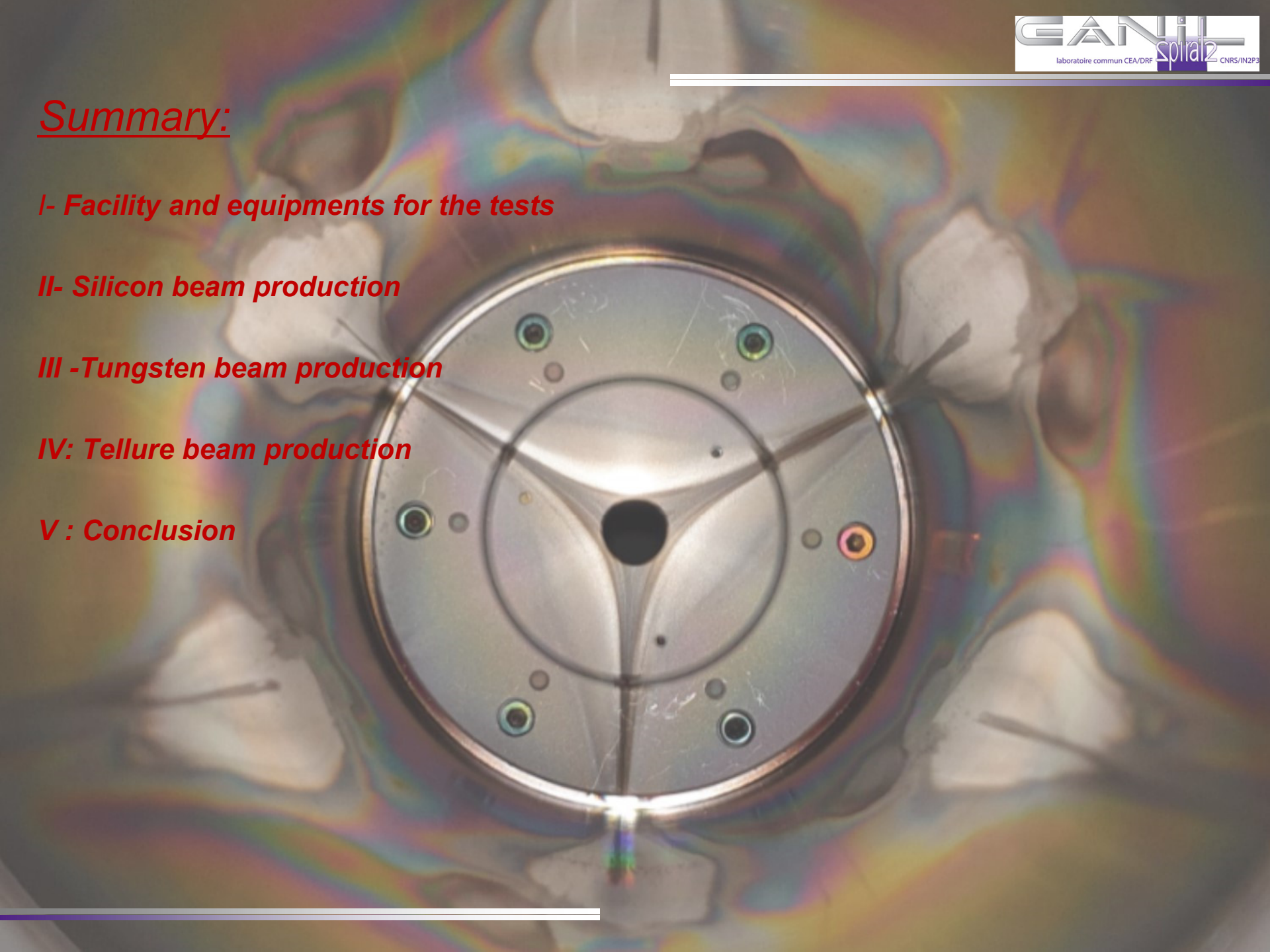
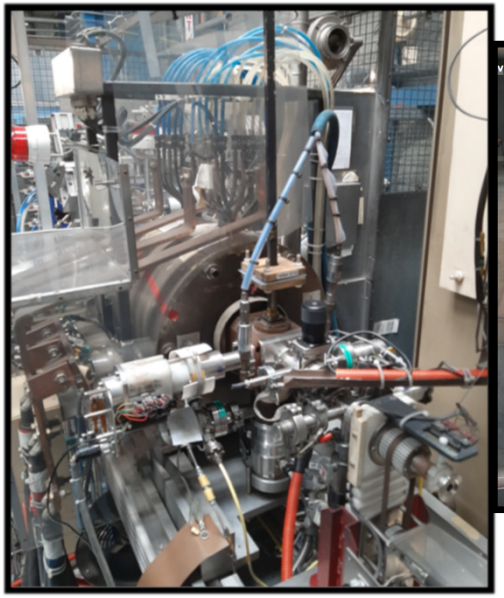
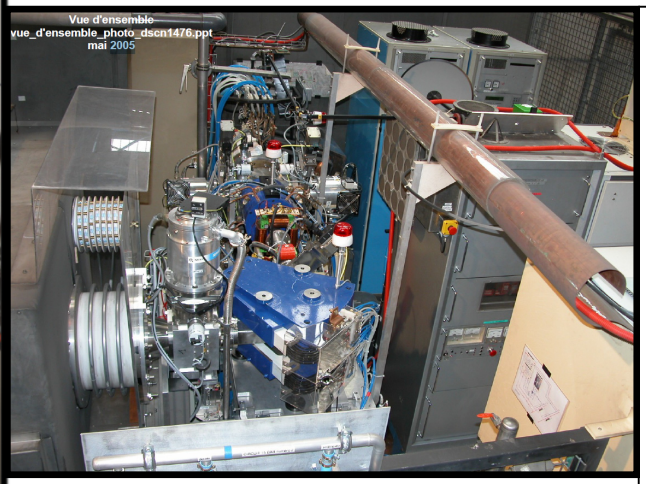
Summary:

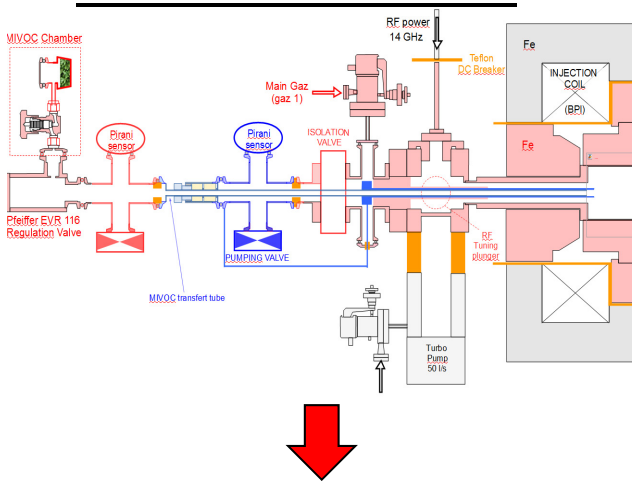


I- Facility and equipments

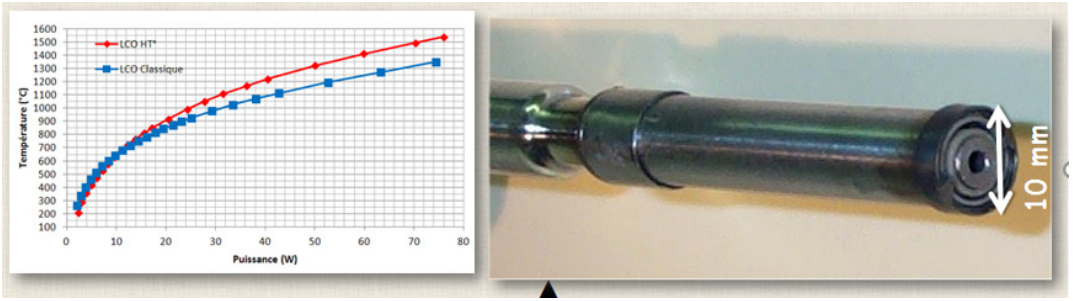




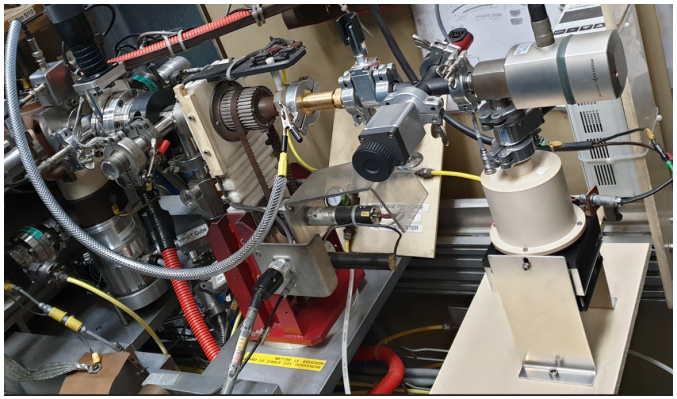
MIVOC method



GANIL oven

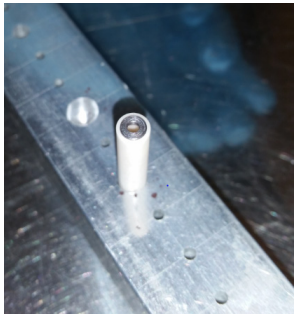


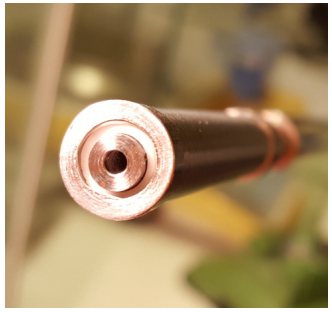
The Large Capacity Oven to evaporate SiO ,WO_3 and Te

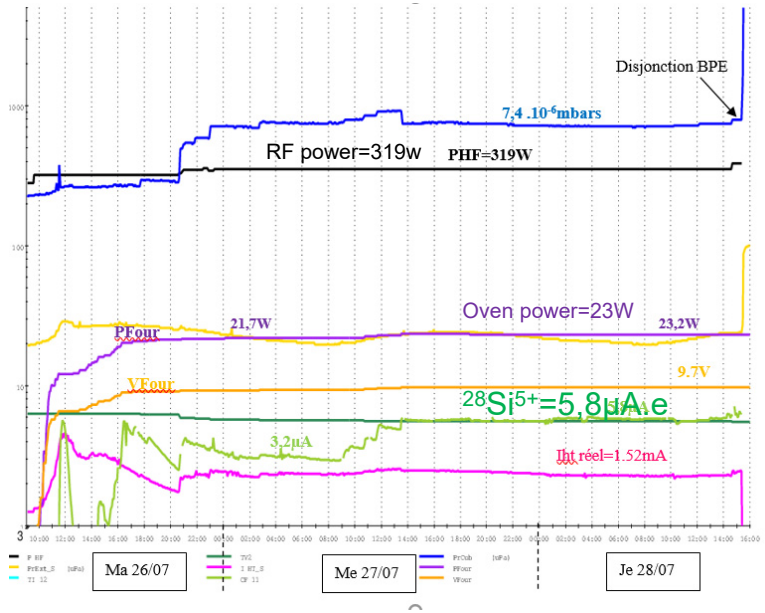


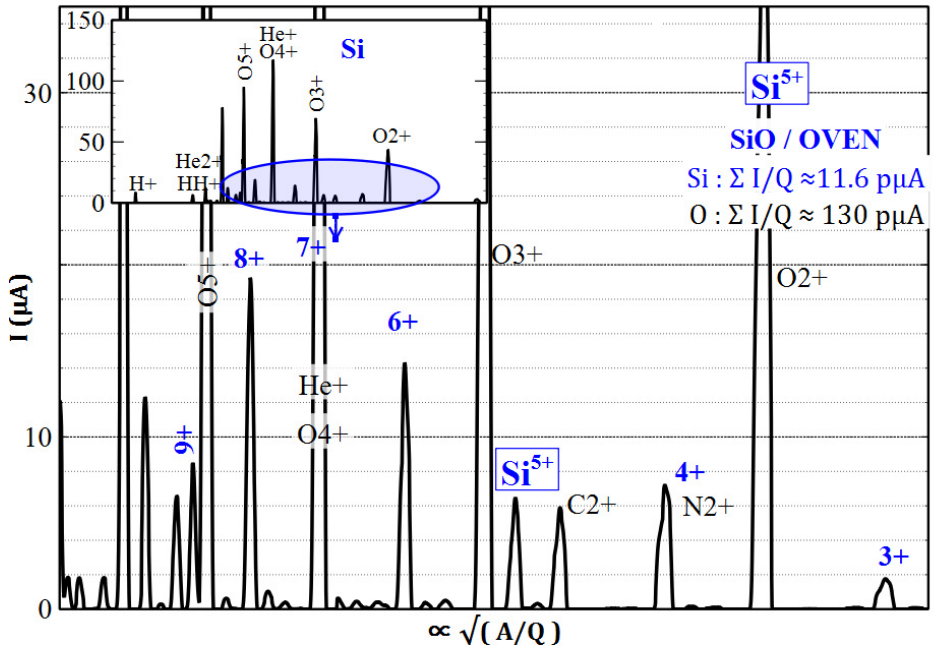
equipment to inject $W(CO)_6$

II-Silicon beam production







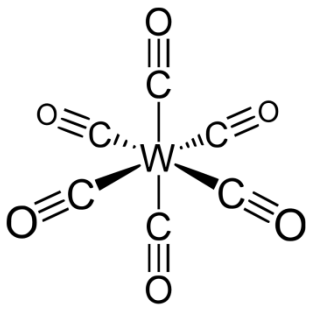


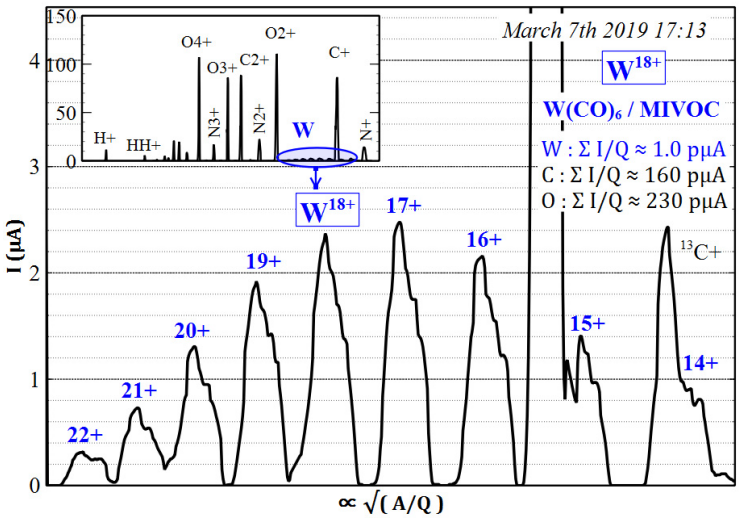
Compound: SiO natural
Vapor pressure : 10-2 mbar for 1080° C
Interest of using: Several isotopicaly enriched samples with this compound (^{30}SiO, ^{29}SiO)

Consumption: 0,59mg/h of Si (0,89mg/h of SiO)
Efficiency: 6%

III-Tungsten beam production

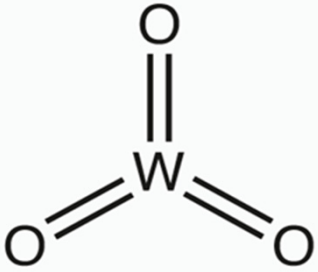
Compound: tungsten hexacarbonyl $W(CO)_6$

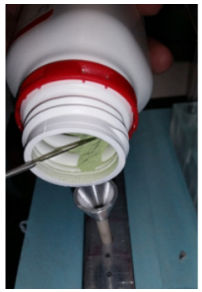


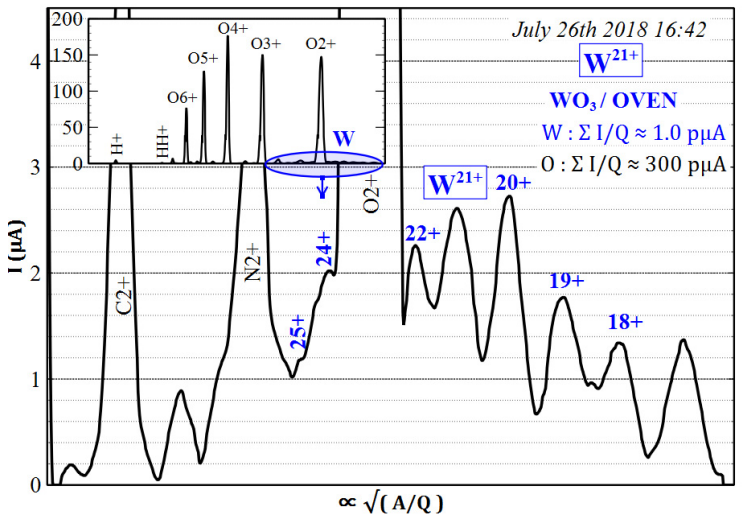


Consumption: 0,49mg/h of W (0,97mg/h of $W(CO)_6$)
Efficiency: 4,9%

Compound: tungsten trioxide- WO_3 natural
Vapor pressure : 10^{-2} mbar for 1176° C

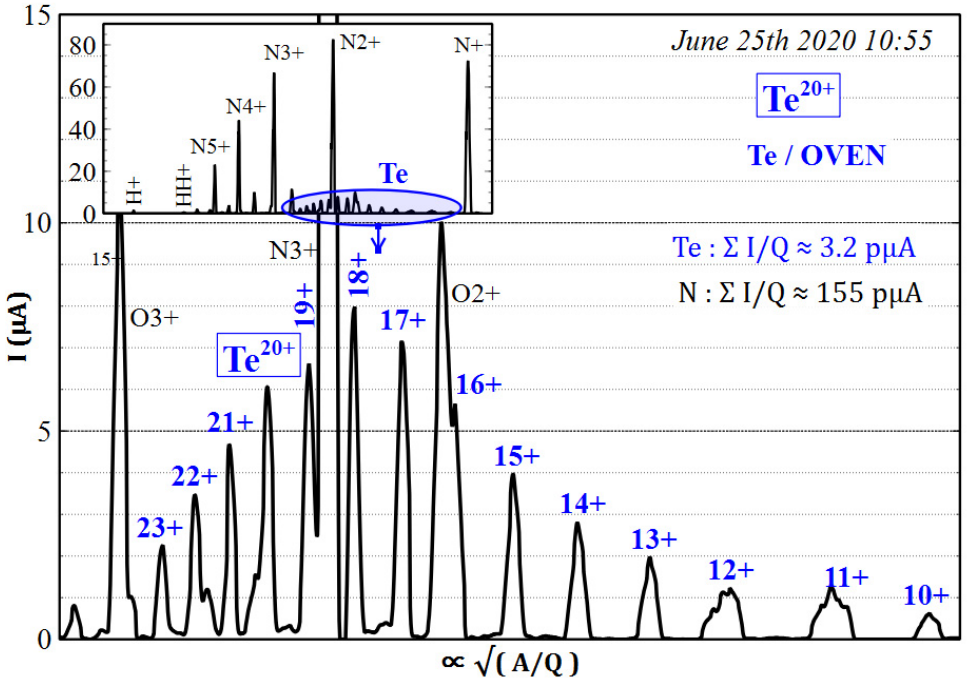


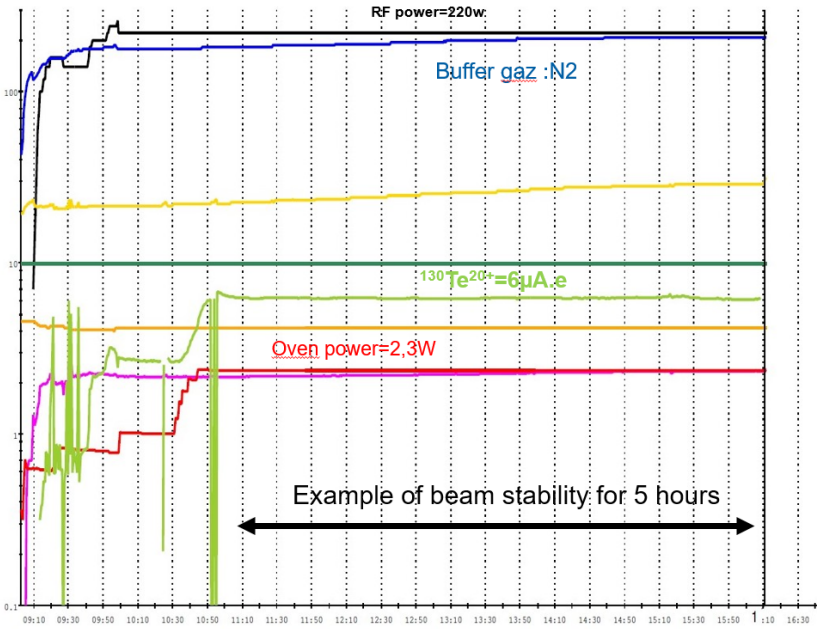




Consumption: 3,5 mg/h of W (4,5mg/h of WO_3
Efficiency: 1,4%

IV-Tellurium beam production



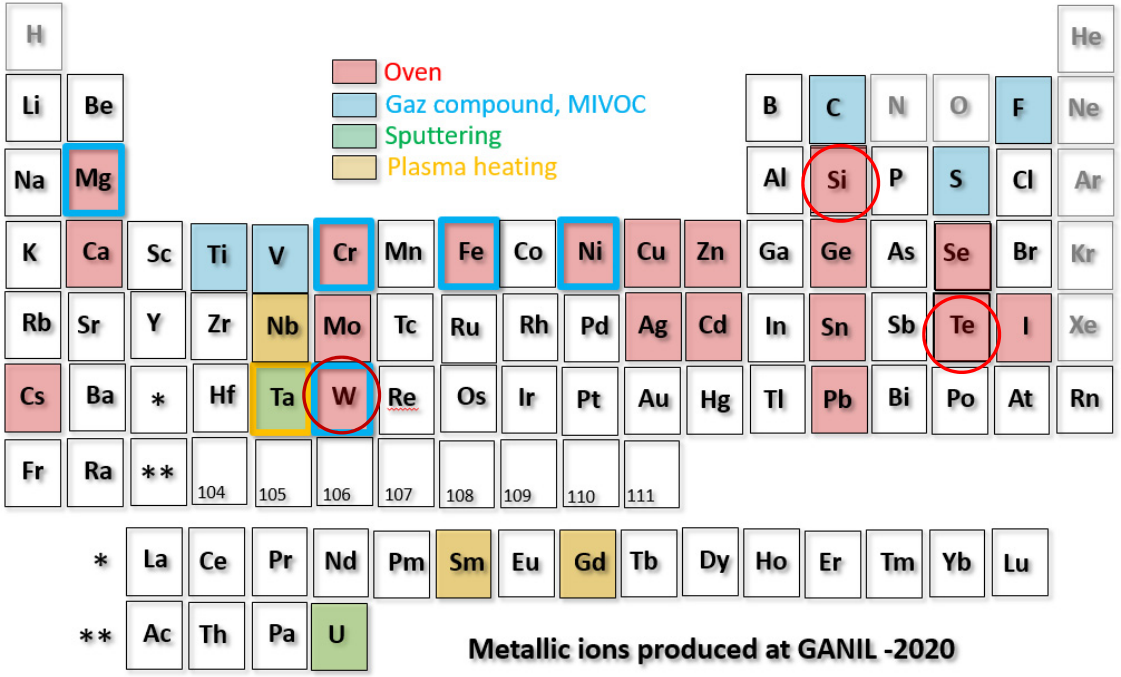


Compound: ^{130}Te (99,8% enriched sample)
Vapor pressure : 10^{-2} mbar for 360° C
Melting point: 452° C

Consumption: 0,52mg/h of ^{130}Te
Efficiency: 7,5%

V-Conclusion

- Three new ions beams availables
- Carbonyl compounds: New way to produce other metallic elements.



Thank you for you attention!