



Discussion about the technical problems and failures



Pantechnik:

- Production of Al ion beams
- Beam transport problem
- Minimization of memory effect when CO₂ is injected into the ion source

GANIL:

- Condensation of metal at the front-end of the oven
- Reproducibility of beam stability
- Beam properties vs injection into accelerator



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GANIL:

- Efficiency with the oven: is it possible to find out an oven geometry output which can increase the ionization efficiency by targeting some specific parts of the plasma?
- double stage ecris plasma: one ionized with high frequency (28GHz) gas and metallic vapour and the second stage (18GHz) multi-charged the previous 1+ one: compact 1+/n+ system
- Stabilities: very low frequency (from minutes to tens of minutes range); low frequency (second or less range); high frequency requesting a scope (tens of ms range). These stabilities lead with different features of the source: long term material degradation, material consumption (metallic beam), gas flow injection system, but also with pure ECR plasma processes. At GANIL either with GTS or with the Charge Breeder, it seems that the center coil as well as the gas flow (support gas) can really get rid of the low and high frequency instabilities.





ATOMKI:

- Transportation beam-line system is not satisfactory, less than 30%.

LPSC:

- Problem with the calcium oven
- Solutions to braze iron wire on refractory metal like molybdenum and tantalum

JYFL:

- How to cool permanent magnets safely for example below -100°C ? How to define the critical point - any tools?

