

Ion Source Status

October 9, 2018



- Test of Bi electrodes for the beam time on Ter. North – **successfully completed**
(there is the solution for both Bi^{4+} and Bi^{5+})
R&D program for inhouse Bi-cathode production – **ongoing**
- Engineering run: Ar (MUCIS / PIG / ECR) and Ag (VARIS) – **prepared**
- PRIDE: Planning (fire protection concept, timeline, financial) – **ongoing**
“Kickoff-meeting” is shifted on 24.10.2018
- 2.7 Hz activity: Inhouse soldering U on Cu as well as fabrication of water cooled electrode holder – **ongoing**
- ZBS for BH1:
 - the system works
 - fire-security key-cylinders have to be installed on the doors – (**ordering** → Doris Ossot)
 - list of personnel authorized to access – **ready** (could be completed if necessary)
- Post Doc position for ECR team – **not yet signed** by Mr. Blaurock
- EU-collaboration for ECR:
 - Klaus Tinschert is doing coordination

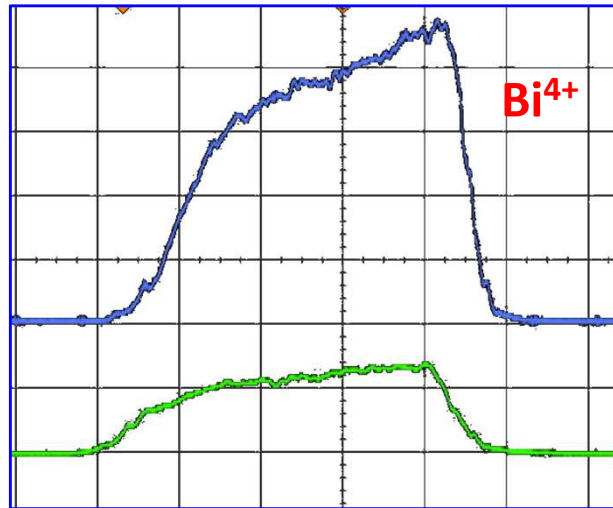
Bi-tests on Terminal North



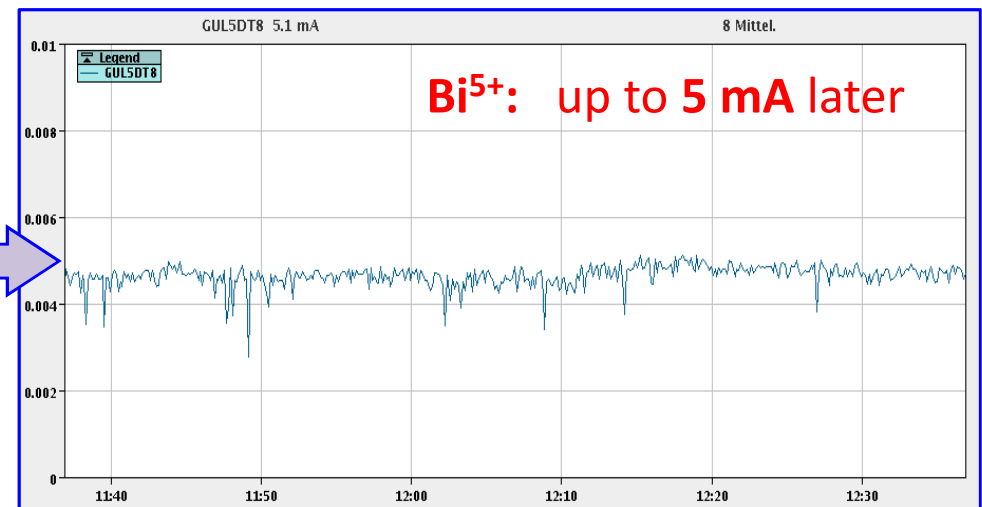
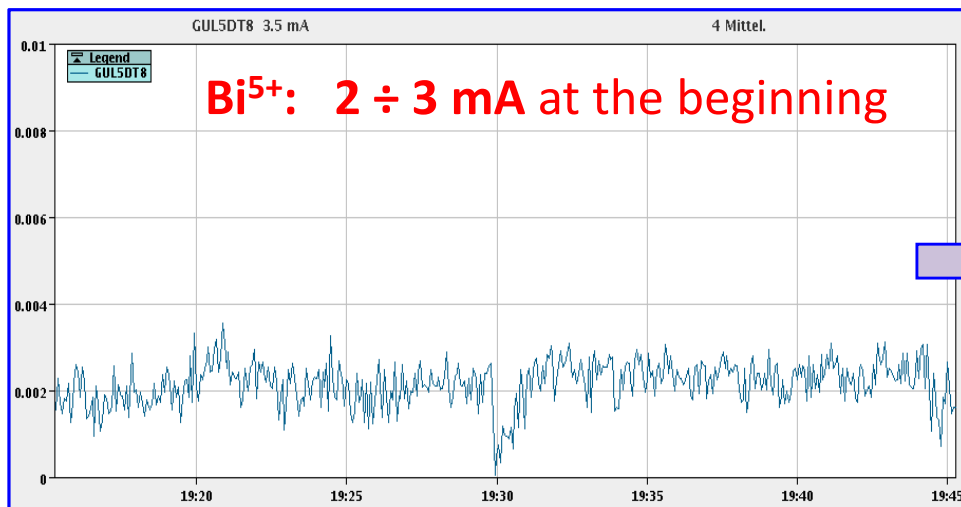
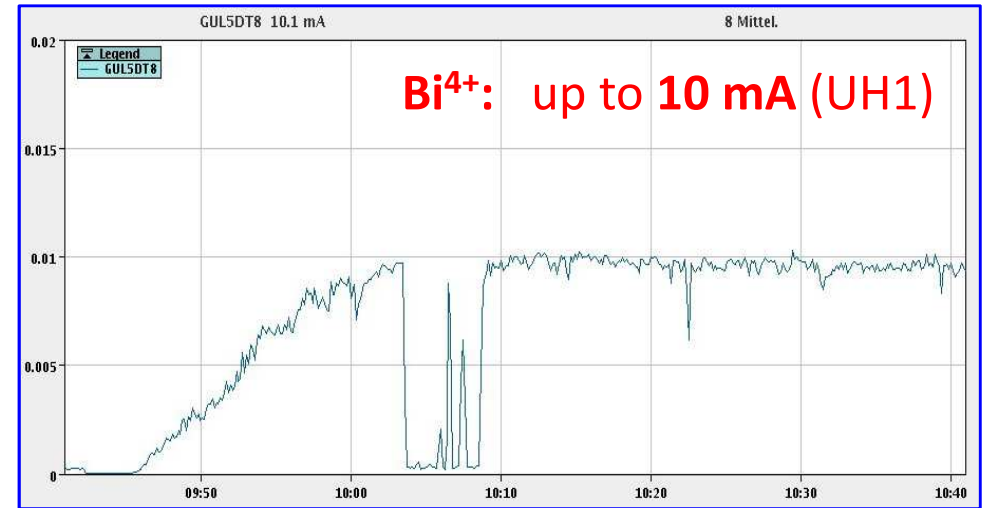
Bi-Cu (40% Wt.)
SM or Cu-litze



Temporal profile of Bi-ion beam



Operation stability over 1 hour

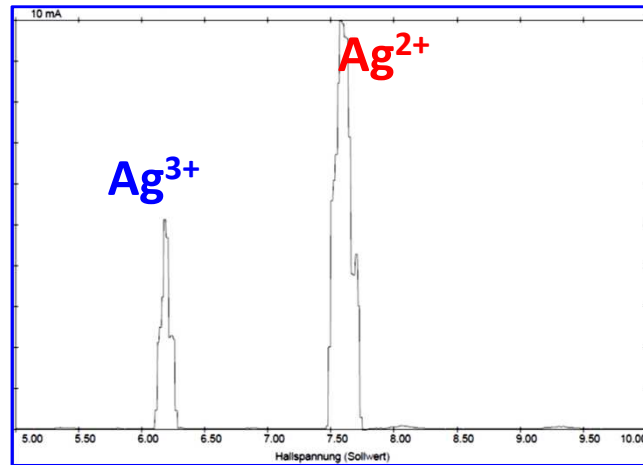


Ag²⁺ and Ag³⁺ from VARIS

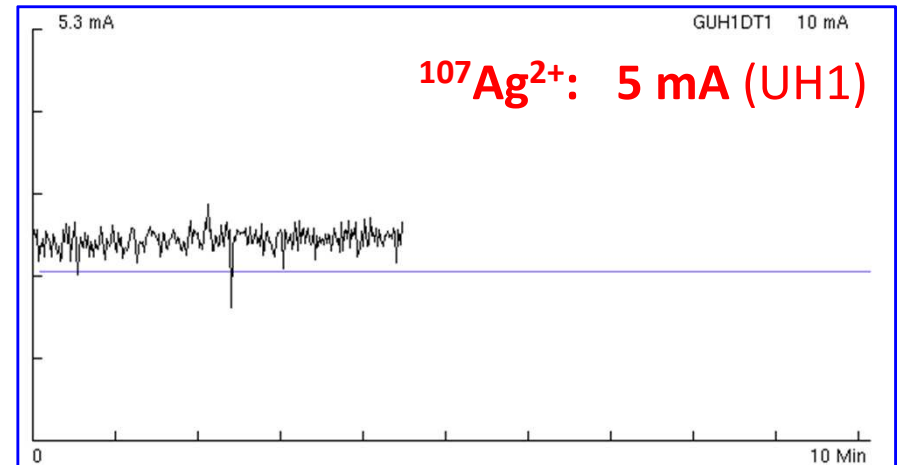
Ready for the
Beamtime



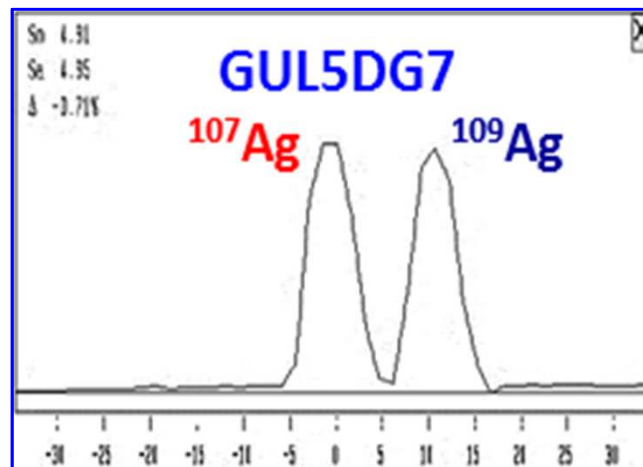
Mass-spectrum



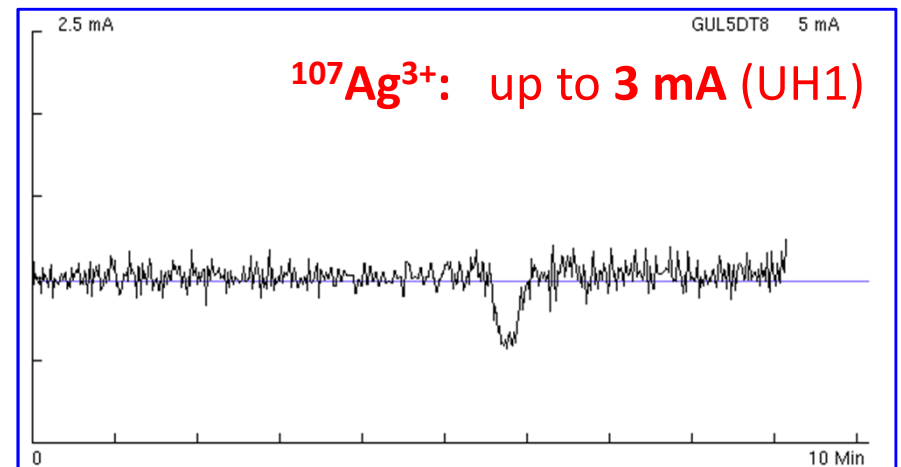
Operation stability over 10 min



Isotope separation in LEBT



107Ag³⁺: up to 3 mA (UH1)

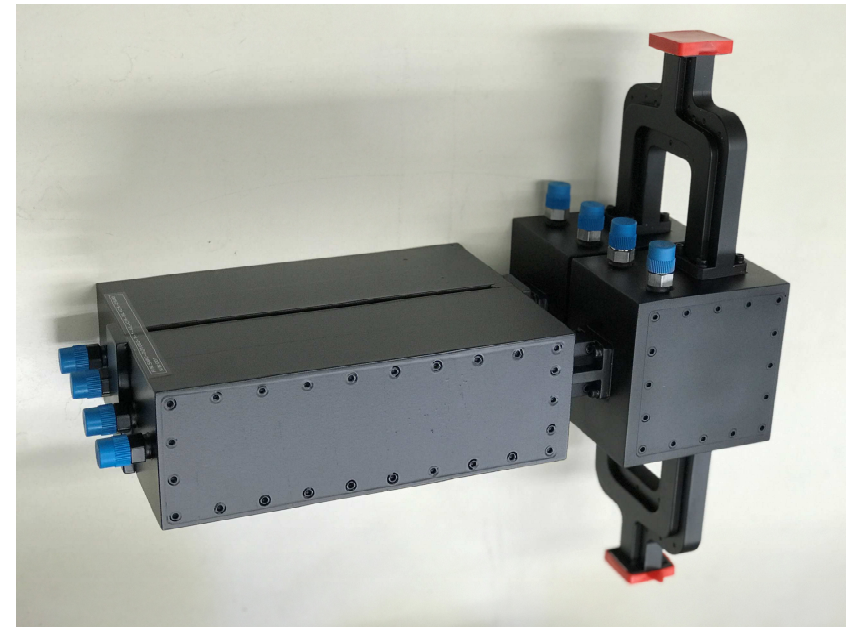


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Microwave components for new 18 GHz ECRIS

- High power CPI Klystron amplifier 17.3-18.1 GHz Bandwidth, 24 Channels, 2400 W CW power: **DELIVERED**- Acceptance test to be completed by the end of November
- High power waveguide isolator 12.75-18.1 GHz band, 2500 W CW: **DELIVERED**



- Signal generators Rohde&Schwarz: delivery expected by the end of October
- High power waveguide bends: delivery expected by the beginning of December