Strahentwicklung October 10th, 2024 – MXB2B and RRL

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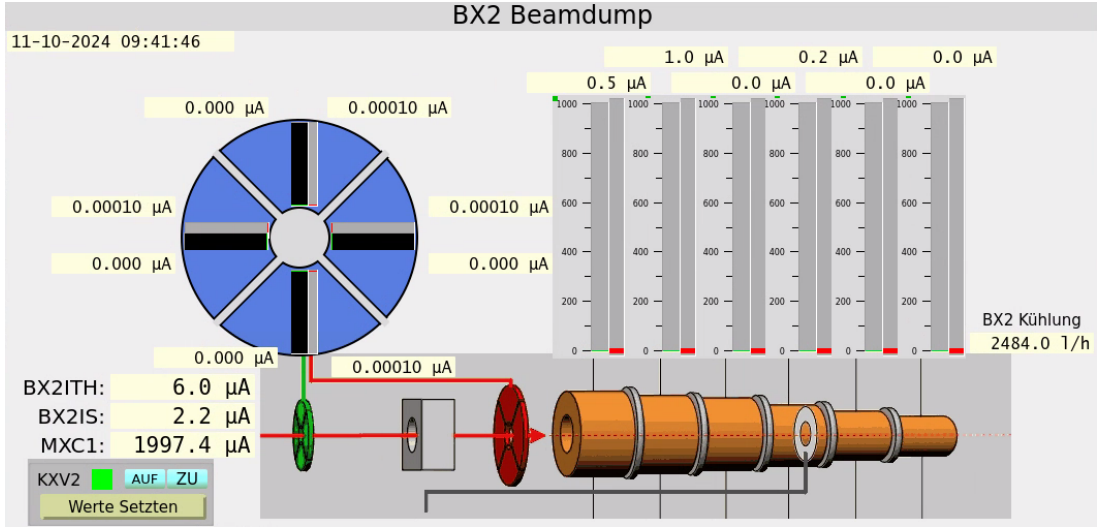
PSI, Oct 16th, 2024

BX2 issues

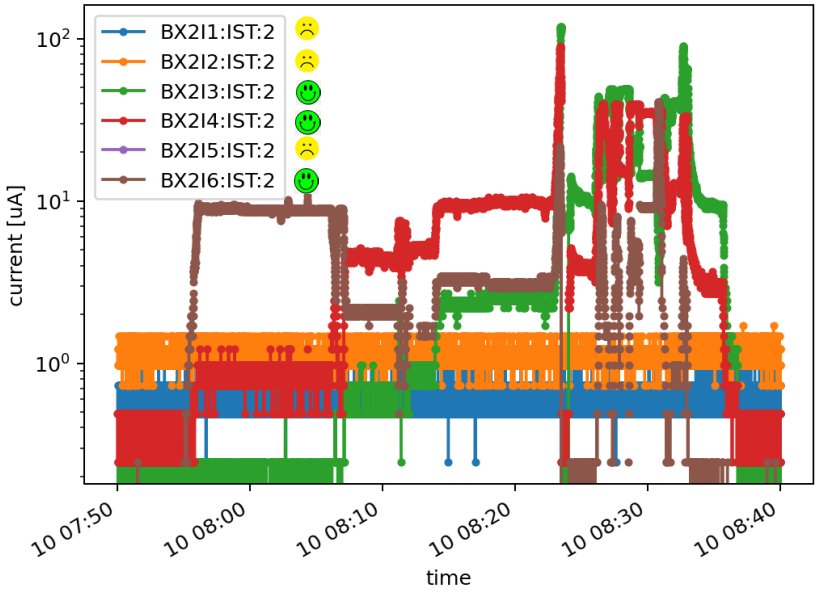


Issues:

1. BX2I1, BX2I2 & BX2I5 sind ausgefallen – bridged interlock, potential danger of equipment damage
2. MXB2B blende – not all signals present – investigation
3. MXB2A blende – status unclear
4. Both blende have interlocks

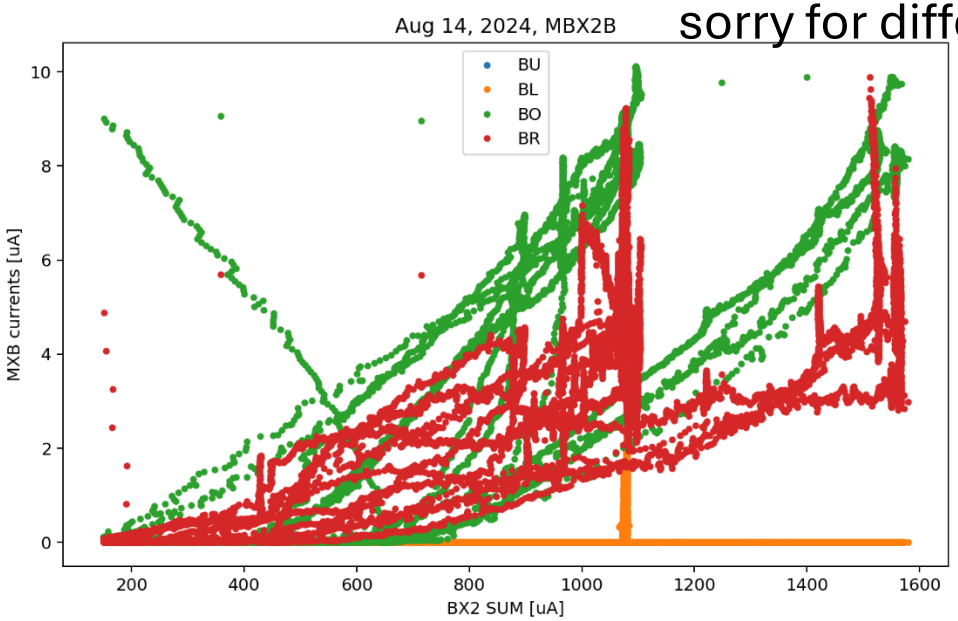
October 10th test:

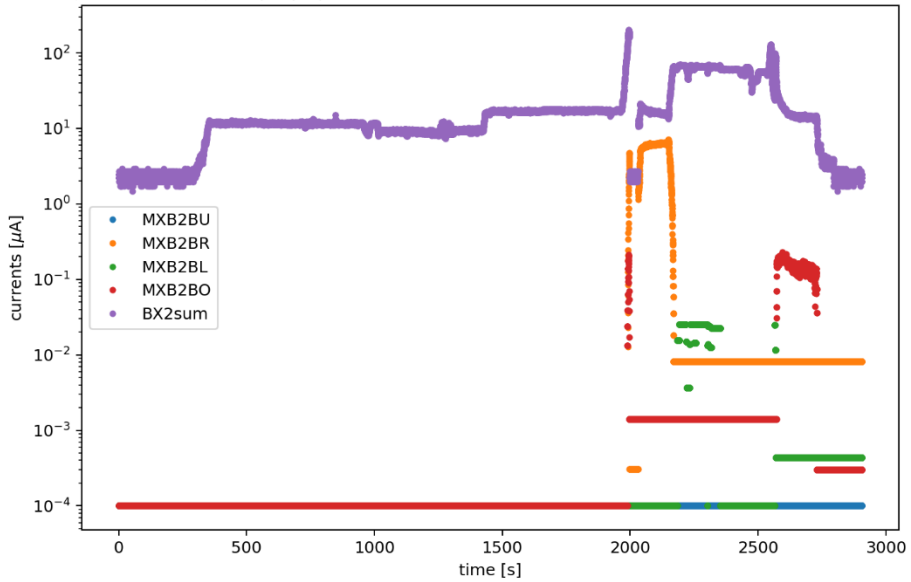
- Use low beam current (10 uA… but we increased to 100 uA, frustrated by lack of signals).
- Scan beam position in 4 directions: up-down and left-right.



MXB2B issues

sorry for different color codes!





Database – older data analysis:

- Injector 2 setup data, beam current up to 2 mA
- Lack of signal from bottom foil (U = unten)
- Strange signal from left foil

October 10th data analysis:

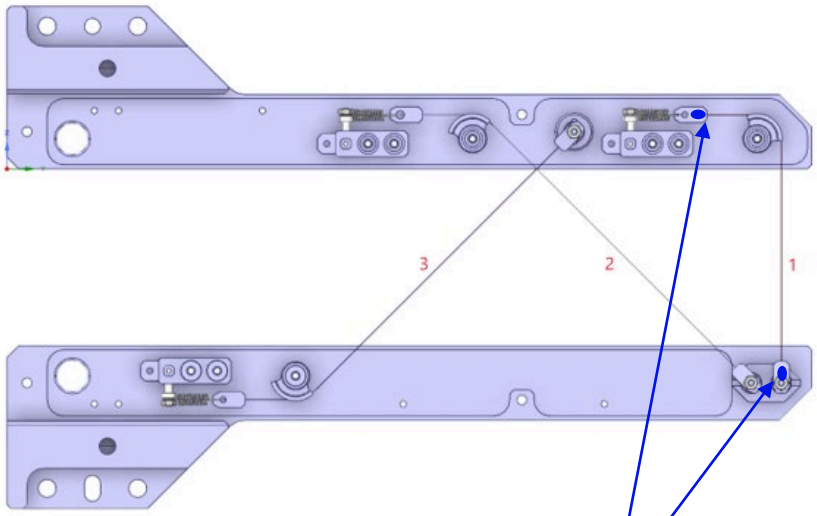
- Lack of signal from bottom foil
- Strange, low signal from left foil again

Conclusions:

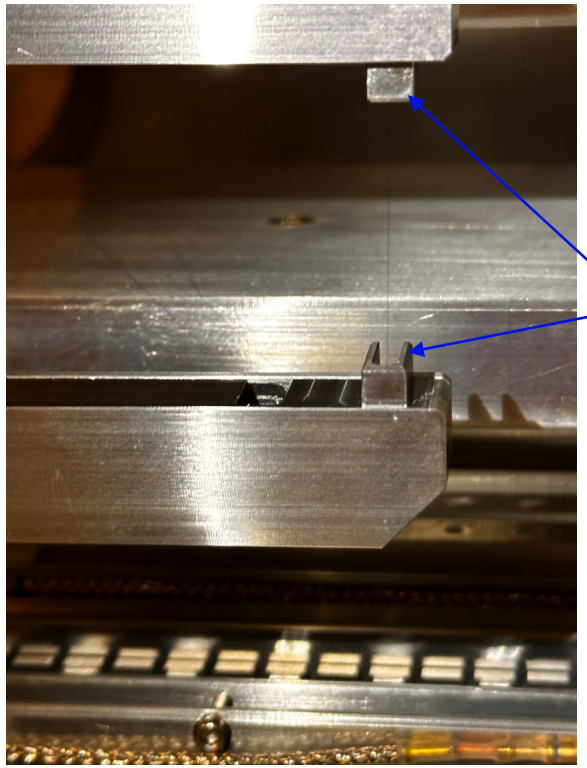
- The position interlock must be bridged!
- We have spare for this blende
- Status of MXB2A? No signals observed last week, but there are some in DB.

RRL test

For 2 years we had issues with breaking RRL wires.
Now it seems that we have found a right way of attaching and protecting the wires.



Conductive
epoxy glue



Protective
“chimneys”

RRL test

Glue and chimneys tested on October 10th.
Several scans performed; no wire broken: