Janne Pakarinen on behalf of Peter Reiter

MINIBALL preparations 2016

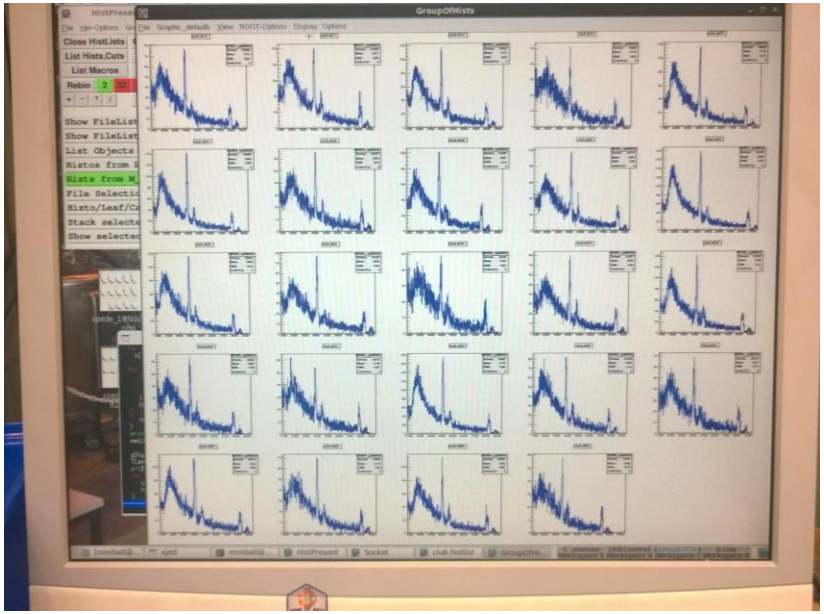
SPEDE tests

- Background: in-beam tests in November 2015

- Modified chamber mounted at MINIBALL, vacuum ~8.6e-7mbar
- Modified detector mounted together with new GO-box

  => no instabilities
- Married to MINIBALL DAQ
- Tests with sources

- No stable beam in June 2016

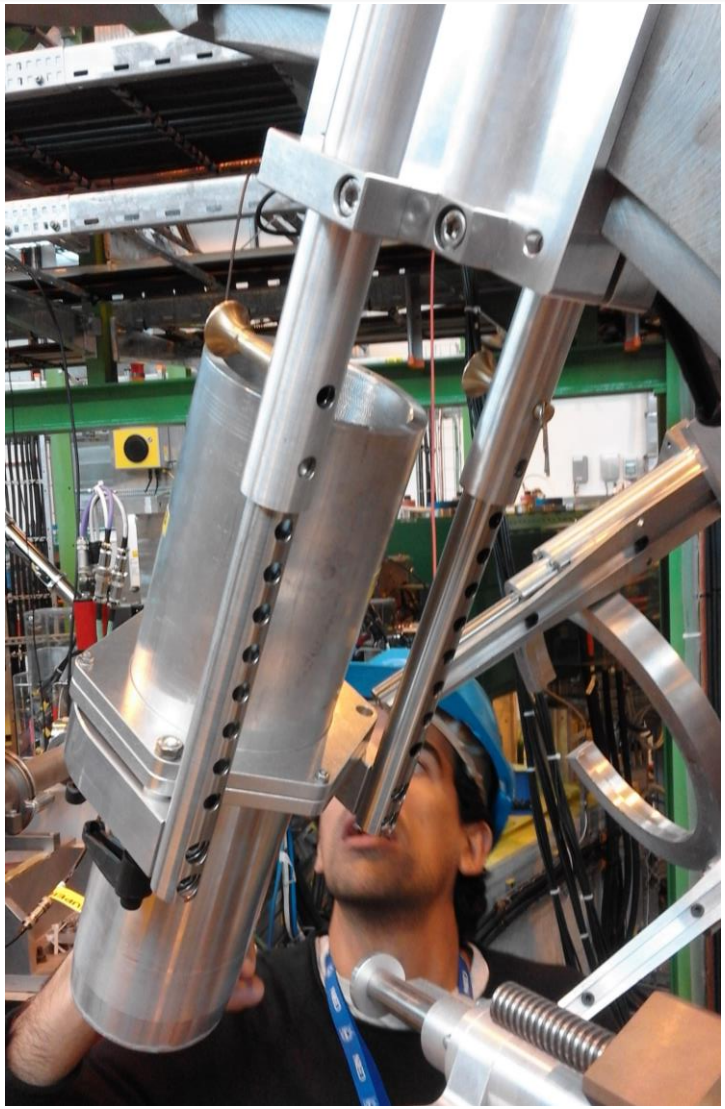


$LaBr_3$ tests - summary

- Analogue resolution good (2.5% as measured in Oslo)
- Digital resolution decent (3.0% better measurement with revised preamp)
- Energy range suitable for experiment

  →Two methods to instrument 6 detectors ☺
- Development of preamps now at Oslo for experiment with improved noise/longer tail to match DGF

Adapters for $LaBr_3$-detectors



- Adapter fits and is easy to mount
- Some improvements to be made

  => new adapter back at CERN in July
- IS559 is ready to do experiments

  from the end of August

MINIBALL set-up

- Now:
  - 2 Clusters mounted
- Week 27:
  - finishing SPEDE tests
  - pumping 3 Clusters pumping and cooling
- Week 28:
  - pumping 3 Clusters pumping and cooling
- Week 29 ->
  - mounting Clusters
  - mounting C-REX

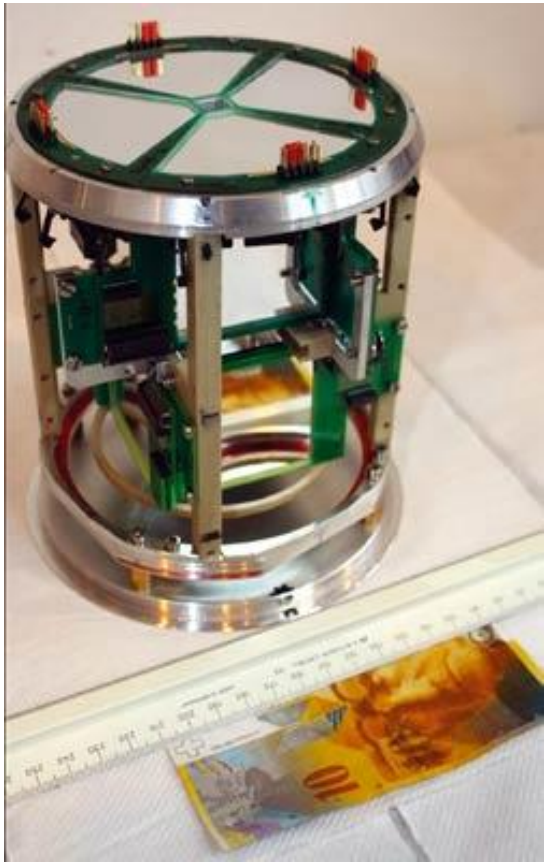
C-REX … T-REX modified for Coulex

T-REX - Si detector array designed for transfer experiments at REX-ISOLDE
- several experiments successfully performed since 2009
- several publications on physics results
- several PhD theses

Technical description
V. Bildstein et al., EPJA 48, 85 (2012)

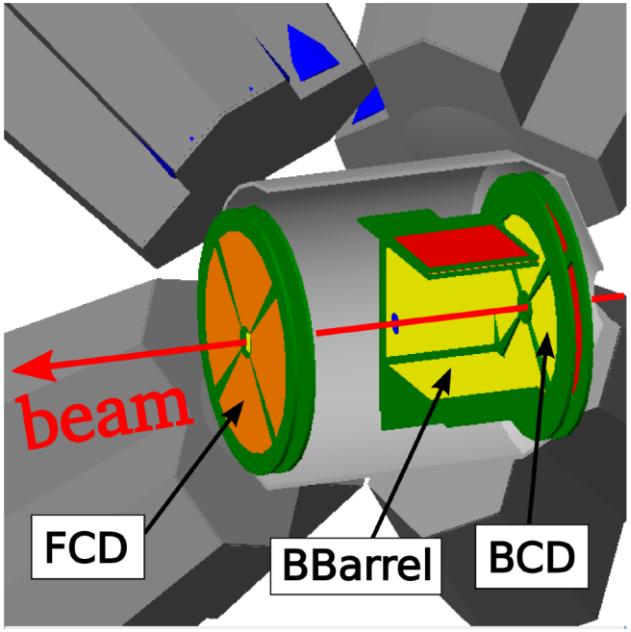
Different requirements for Coulex
- heavy ions, higher energies, smaller range in Si
- elastic scattering (Rutherford)

➔ C-REX (modified detector arrangement)
- large angular coverage, also in backward direction
- multiple Coulex, reorientation (Q_2 moments) peak in backward direction



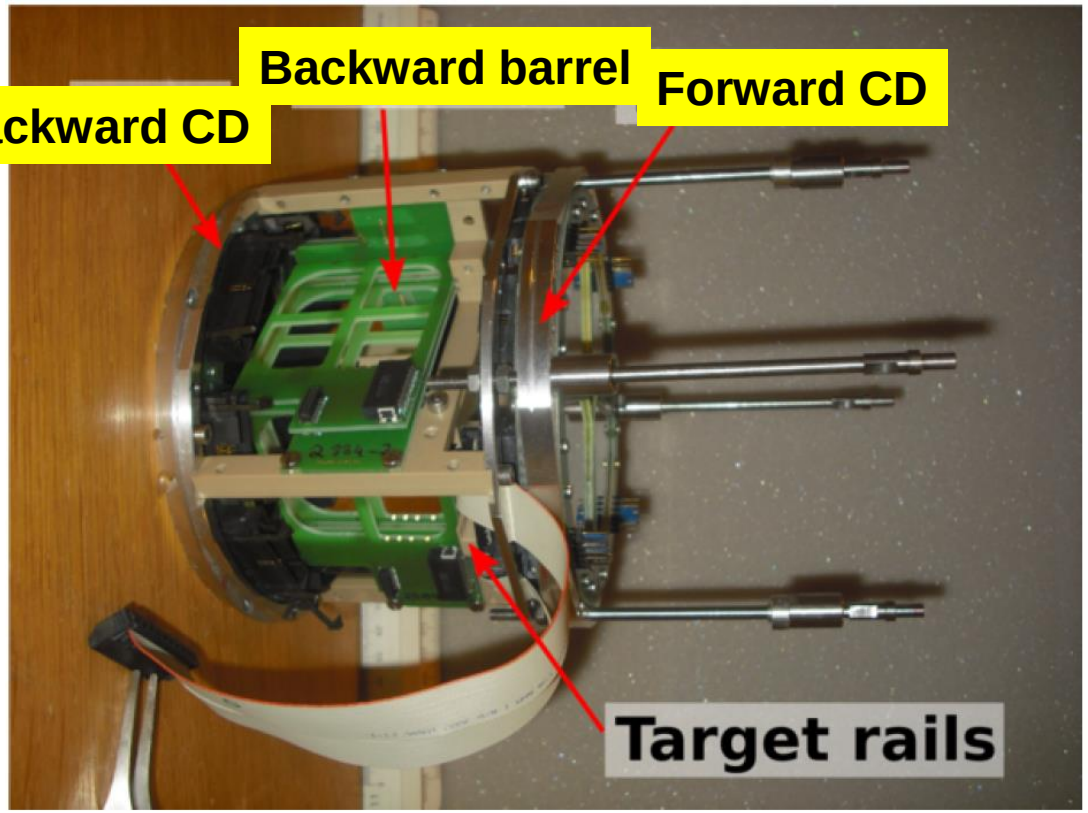
CERN Courier Aug 2011

C-REX … T-REX modified for Coulex



- C-REX will be delivered on 17. July to ISOLDE for being mounted for the 2016 campaign
- All MINIBALL experiments planned to be scheduled agreed to use C-REX

… works successfully@ intensity > 10^7/s
D. Mücher et al. (IS510)



Stefanie Hellgartner, PhD thesis (TU München, 2015)

Back matter

- MINIBALL ready for campaign early August
- Set-up team as declared today:

  J. Pakarinen, D. Cox, J. Ojala, T. Kröll, D. Rosiak, M. Seidlitz, N. Warr, M. von Schmid, C. Henrich, L. Gaffney, A. Illana, J. Snäll, T. Davinson

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