



The ATTA-USTC Instrument for Radio-Kr Dating

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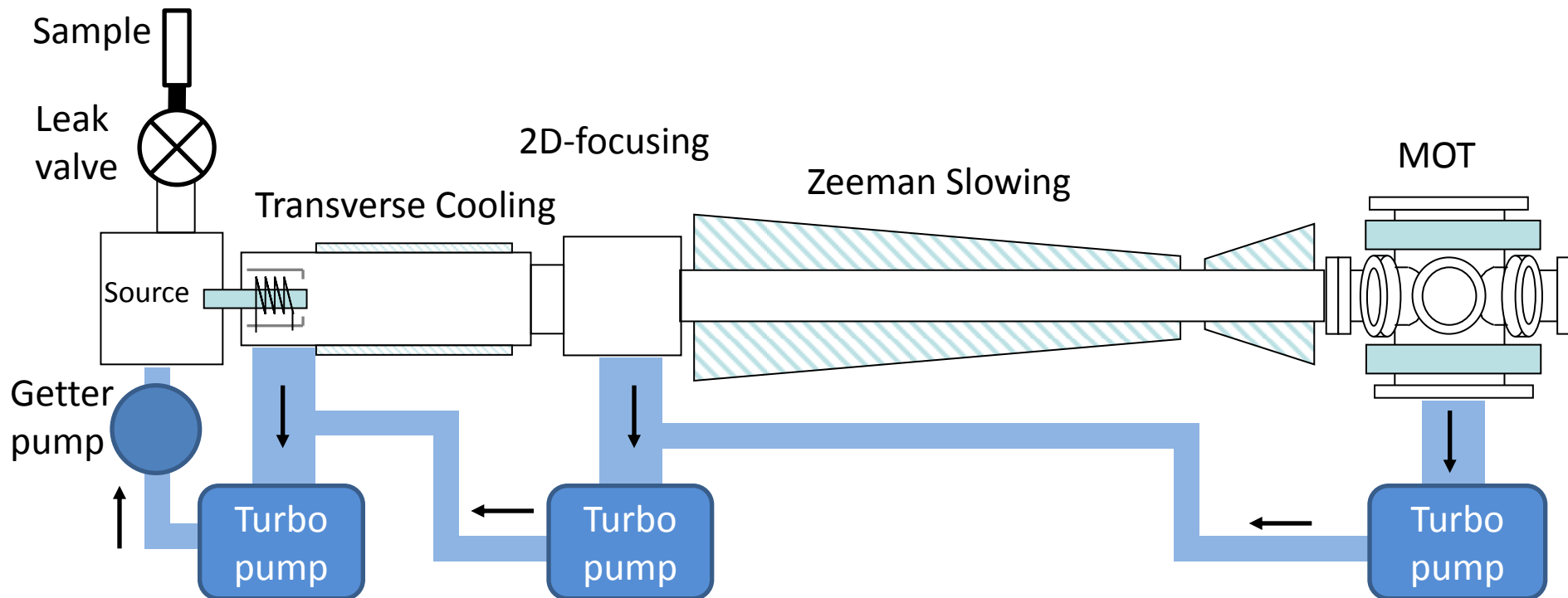
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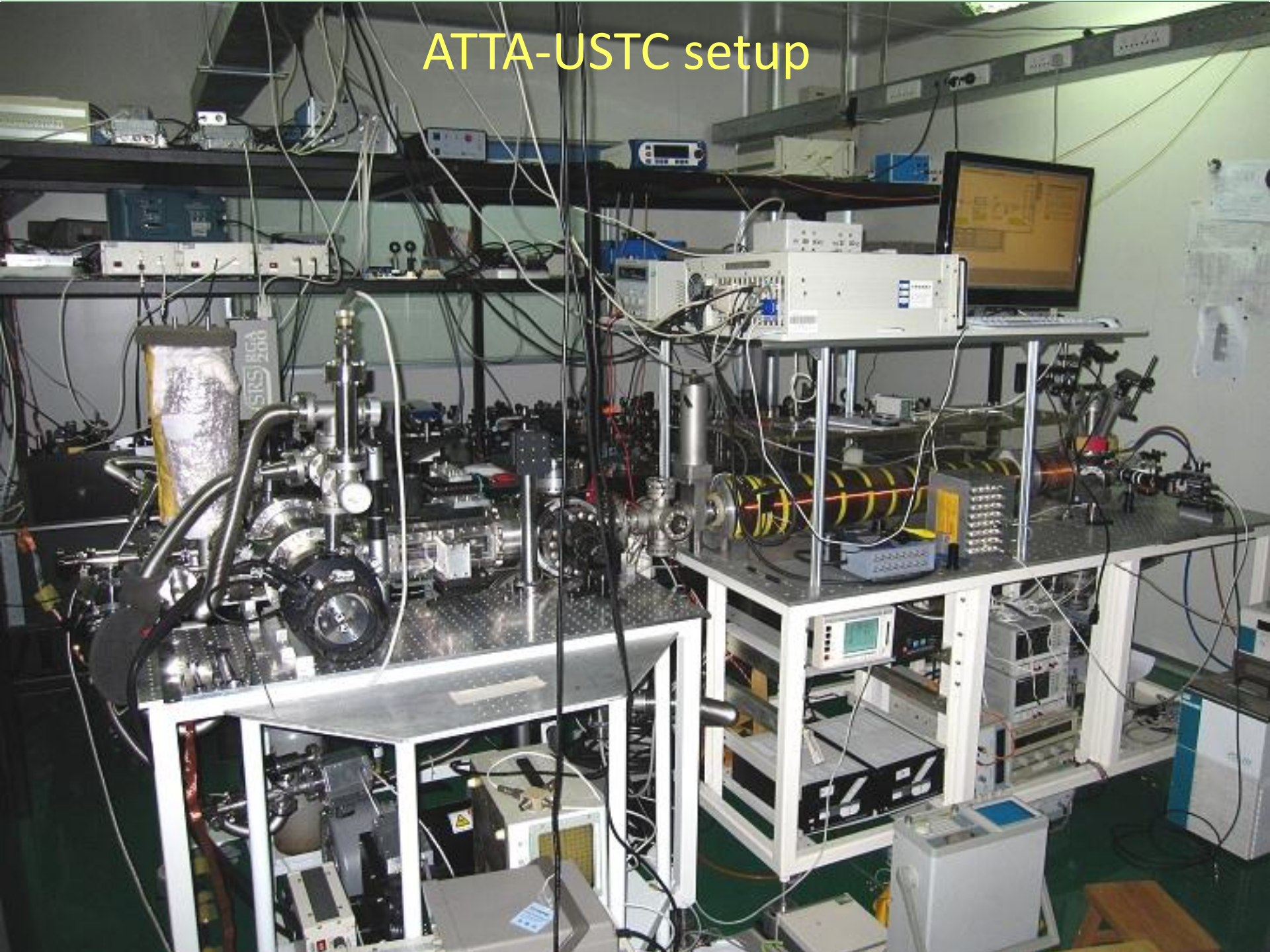


ATTA-USTC setup

- Continuous counting of single atoms.
- New method for Kr-85 calibration.



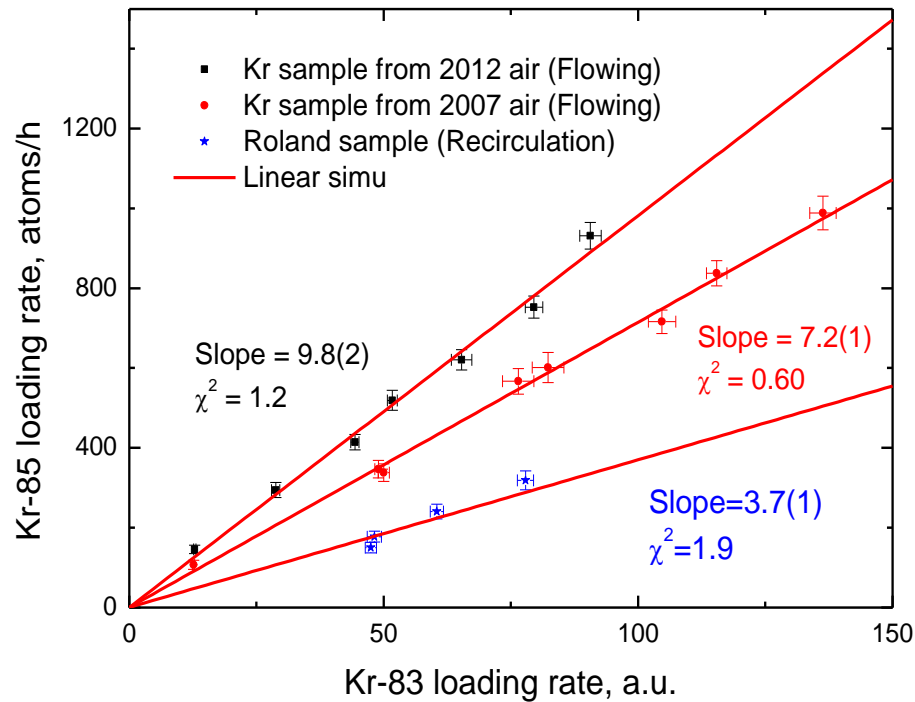
ATTA-USTC setup



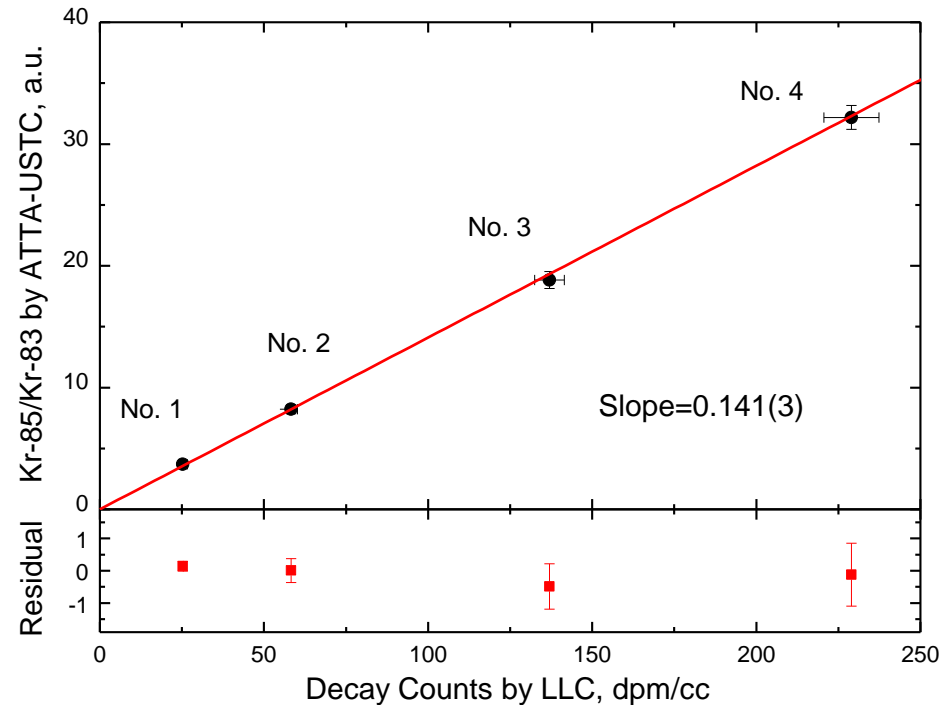


Using ^{83}Kr as a control isotope for quantitative analysis on ^{85}Kr

Consistency Check



Calibration with LLC





Summary and outlook

- Sample size : $\sim 6 \mu\text{L STP}$
- Measurement time: ~ 5 hours
- Outgassing rate : $\sim 0.004 \mu\text{L STP/h}$
- Counting efficiency : $\sim 0.1\%$
- Isotopic ratio uncertainty : $\sim 5\%$

^{85}Kr -dating : available now!

^{81}Kr -dating : coming soon!





Thanks!

