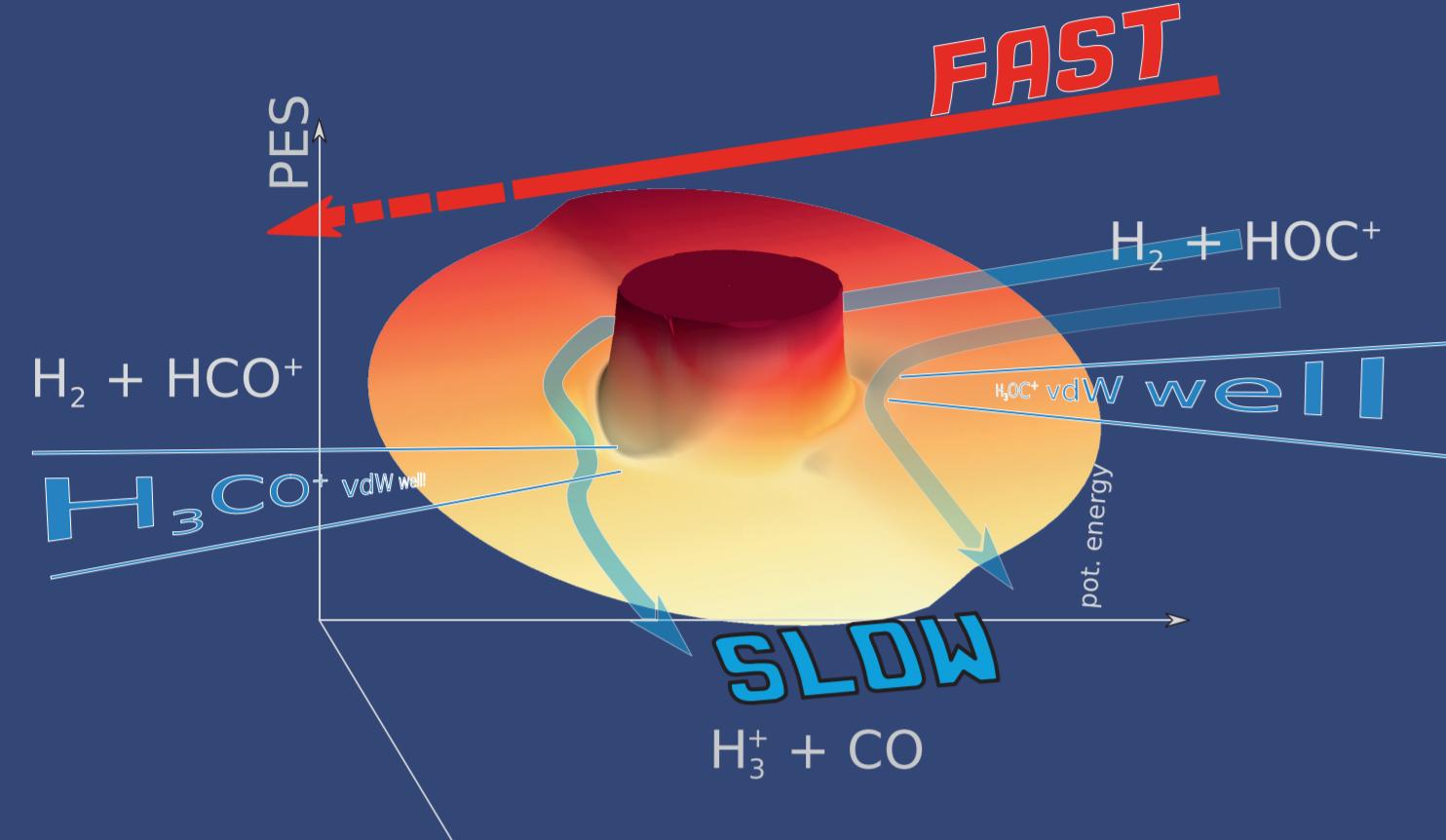


# [Ultra]cold ion-neutral collisions For new [astro]chemistry

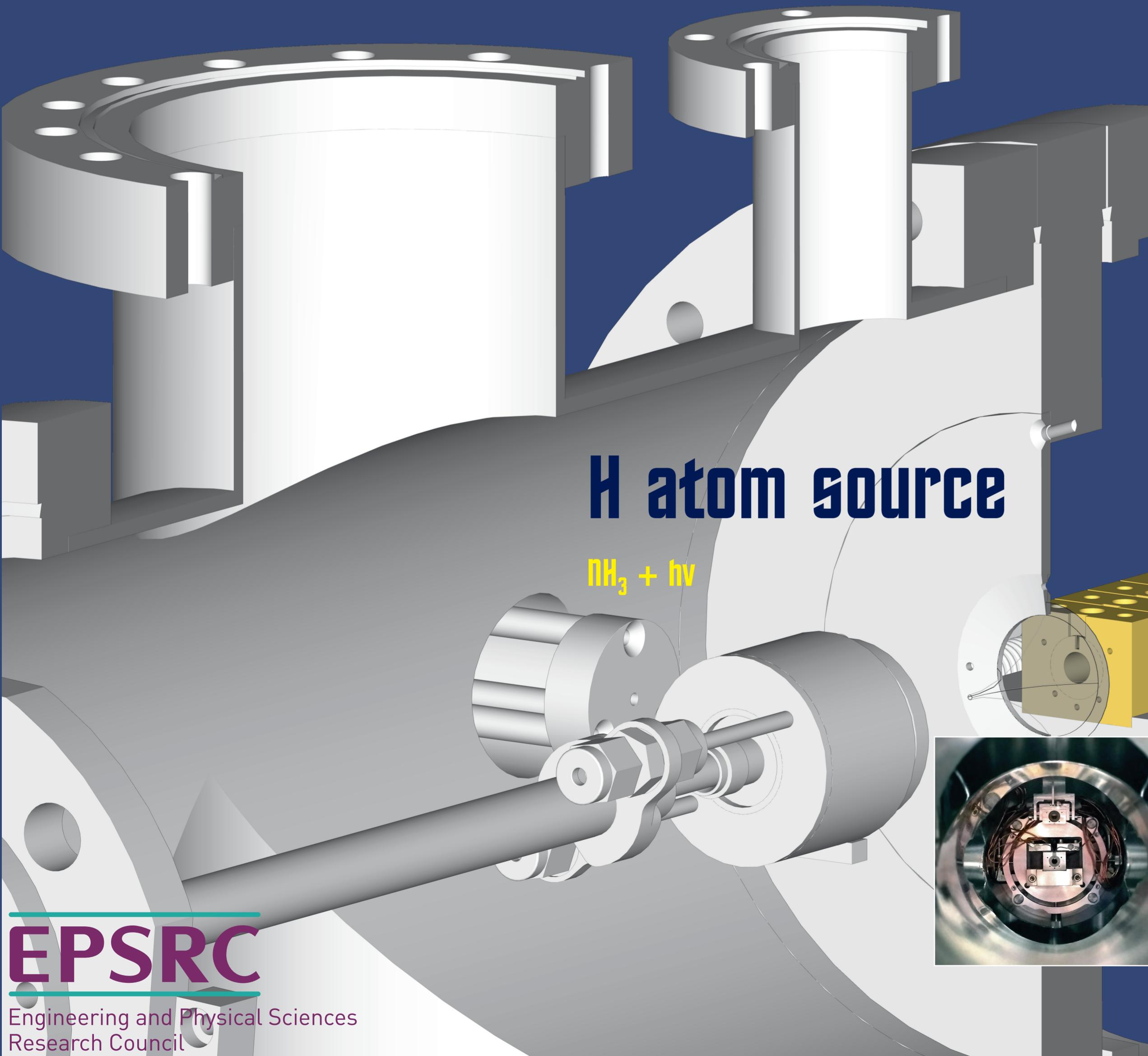
Michał Hejduk, N. Coughlan, J. Toscano  
and @HeazlewoodGroup

## Ion-radical collisions at low energies

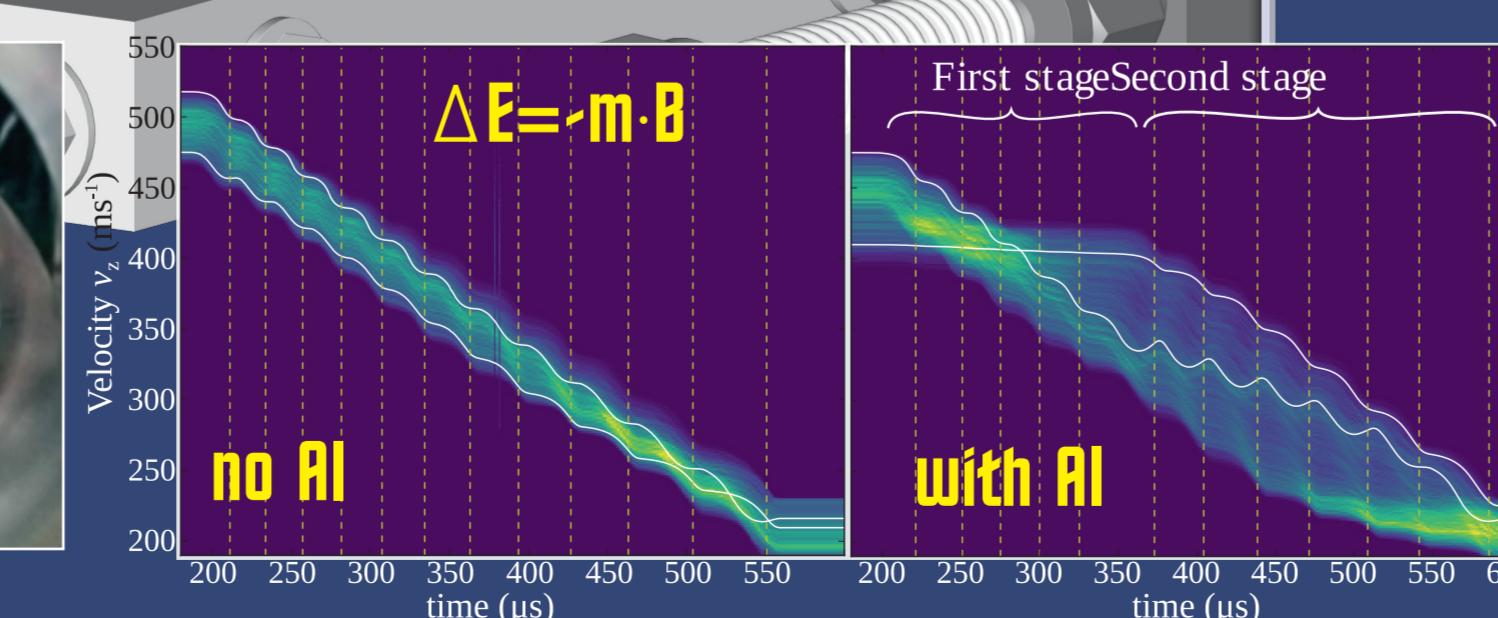


**Stabilisation of intermediate collisional complexes at ultra-low temperatures.**

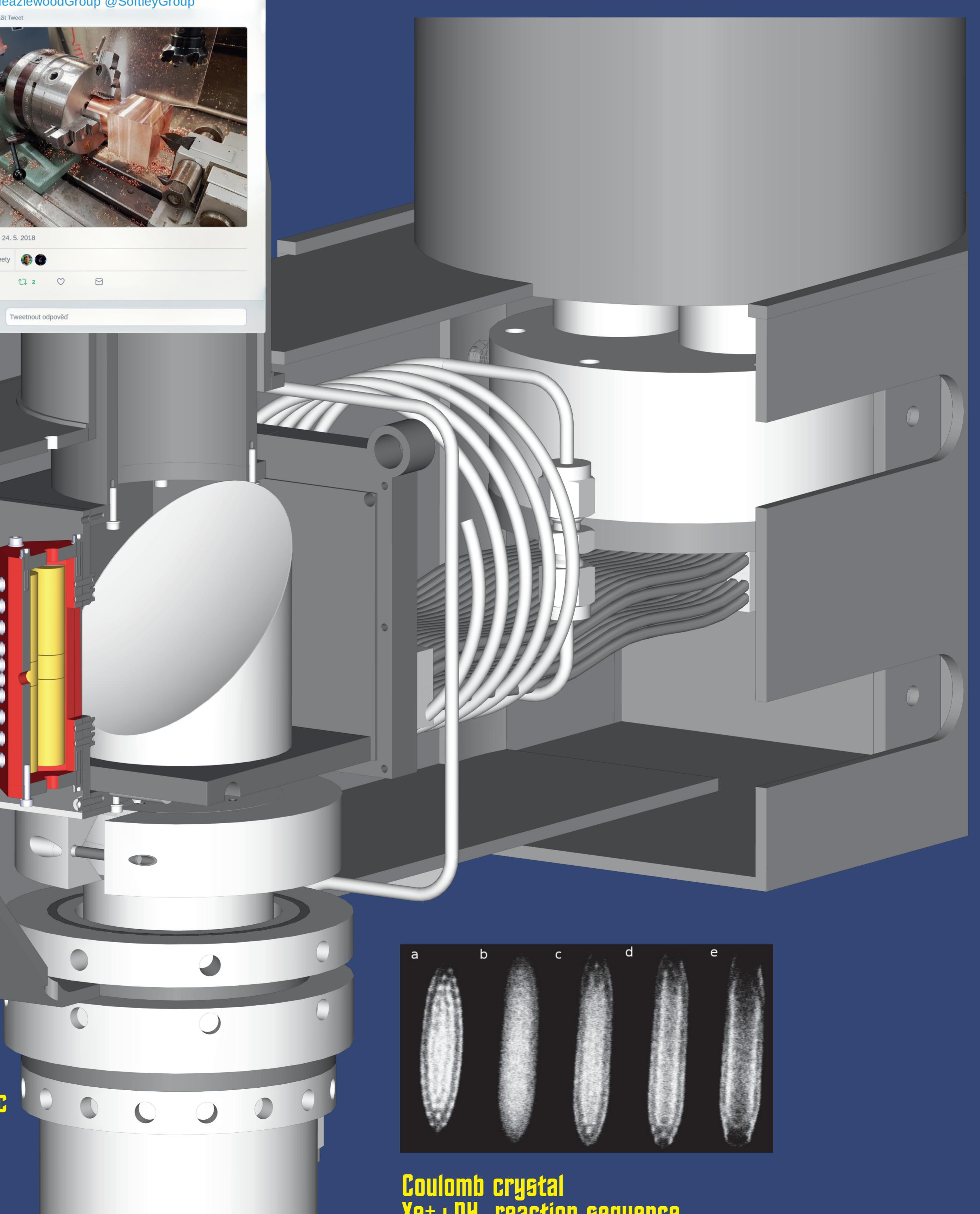
(R.-G. Yu. Phys. Scr. 04 (2011), p. 028010)



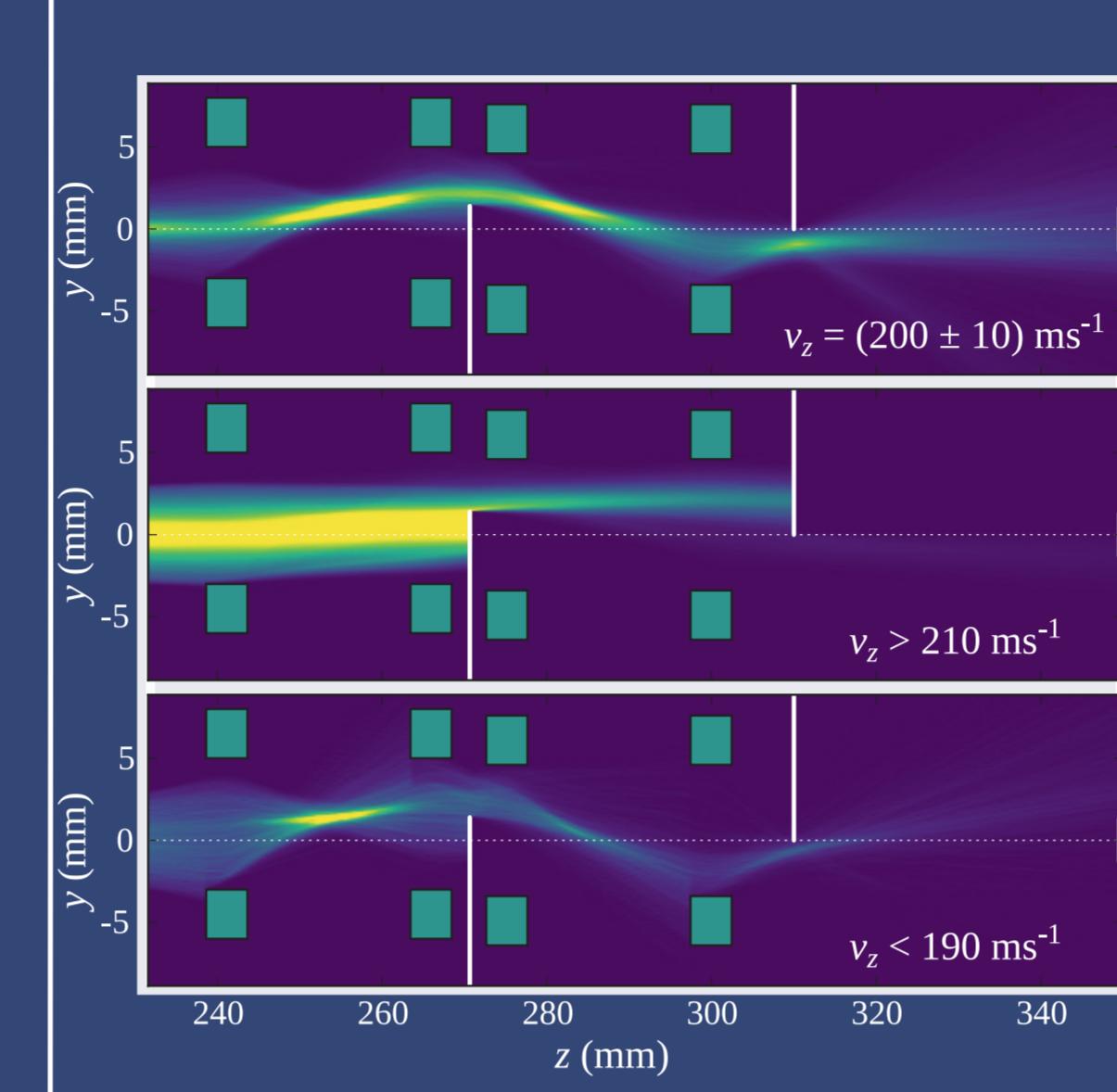
## Zeeman decelerator



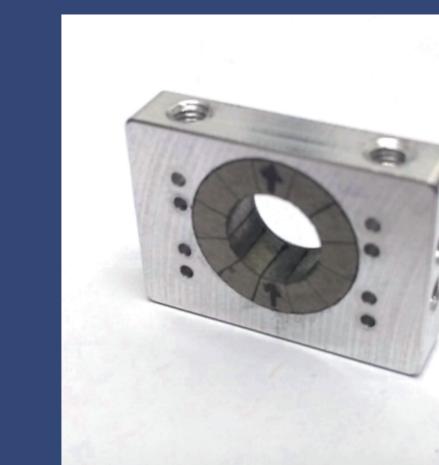
## Cryogenic ion trap



## Magnetic guide



## Magnetic velocity filter



Halbach array

**Deceleration of paramagnetic molecules**