

SAXSPACE@JCNS1

Manufacturer : Anton-Paar, Graz

Type : Kratky Camera

FZJ 4.8 Room 379 (NMR Lab)

Responsible : Ralf Biehl (Tel 4685)

SAXSpace : Kratky Camera

Source 40 kV/ 50 mA sealed tube

q: 0.03-6 nm⁻¹ SAXS
0.5-18 nm⁻¹ WAXS

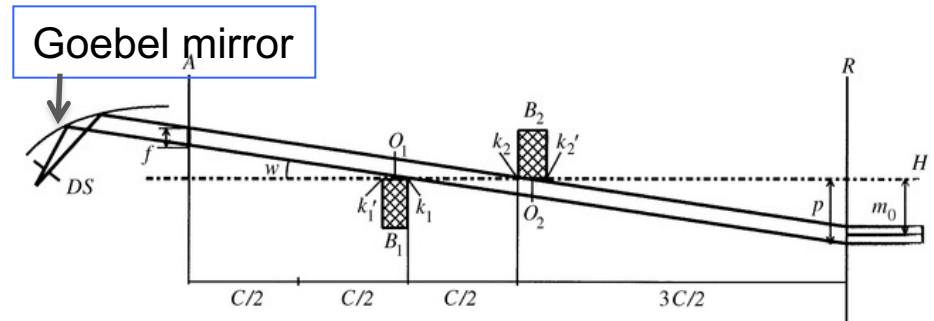
T -20 – 300° C

semi transparent beam stop
alignment ~30 min
measurement time ~1-min-1h

flux 10⁹ counts/sec (line)
beam size 0.3 x 20 mm

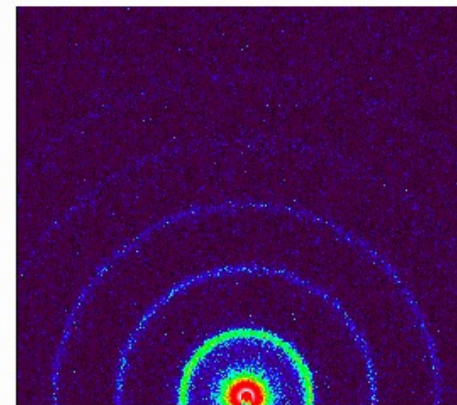
SAXSPACE

- Focused to detector
- sample position can be changed
- SAXS + WAXS

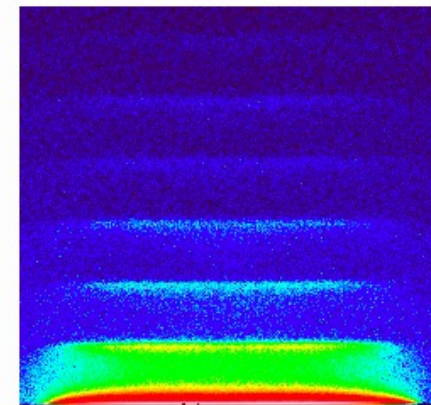


New apparatus combination creates outstanding performance of Kratky SAXS systems

J. Appl. Cryst. (2000). 33, 869-875



point focus



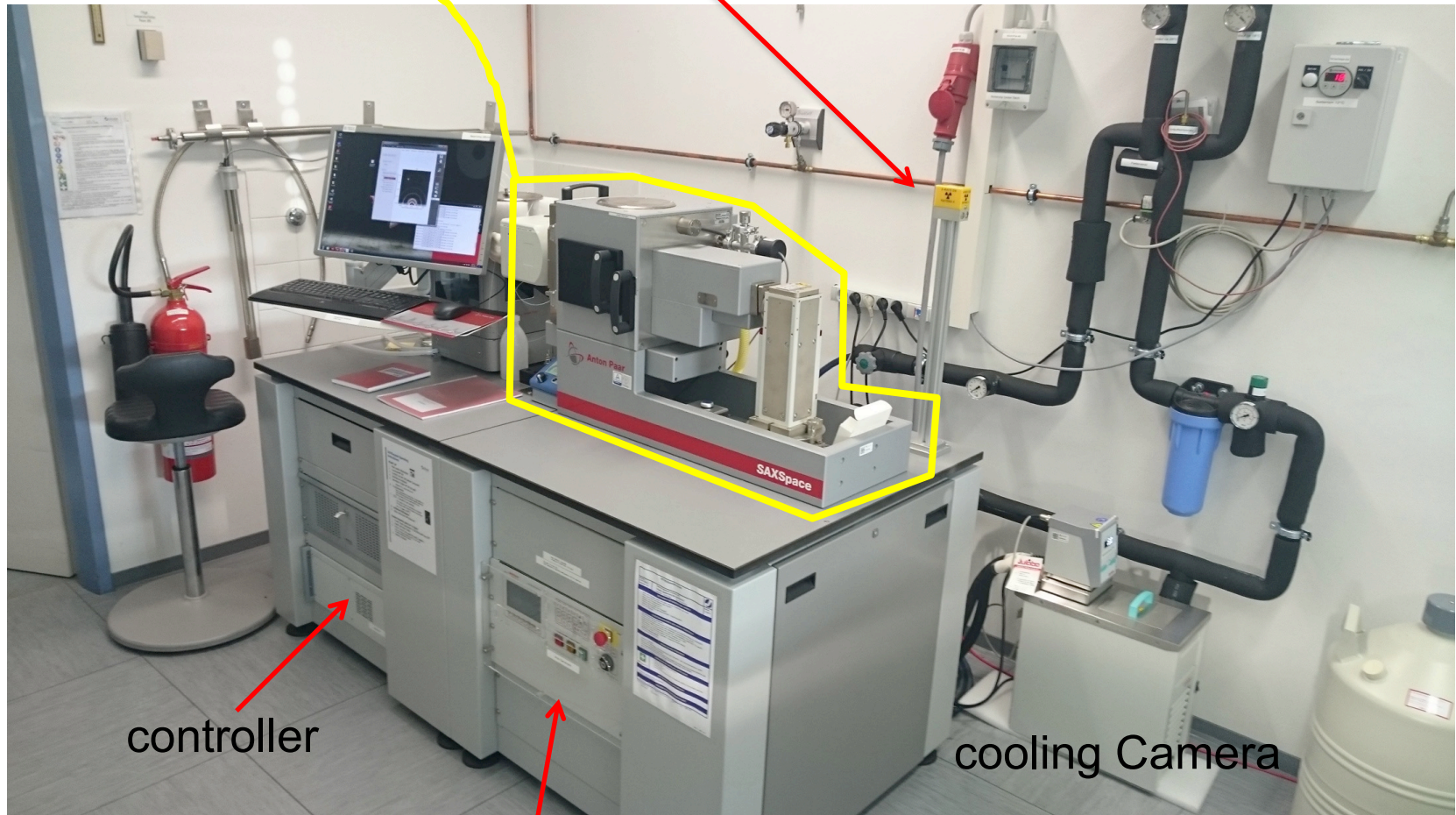
line focus

SAXS Camera

X-ray warning sign

power

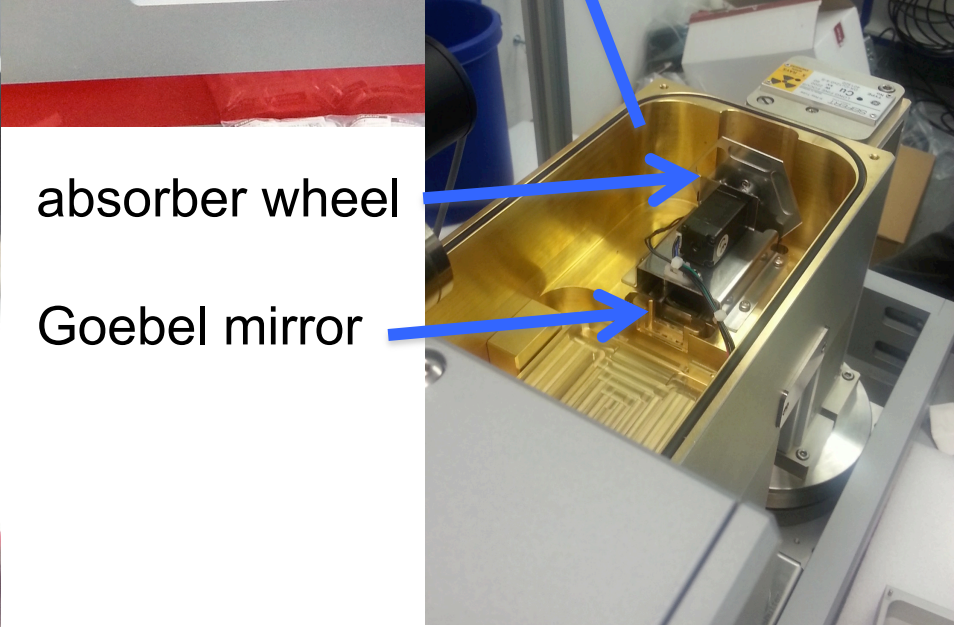
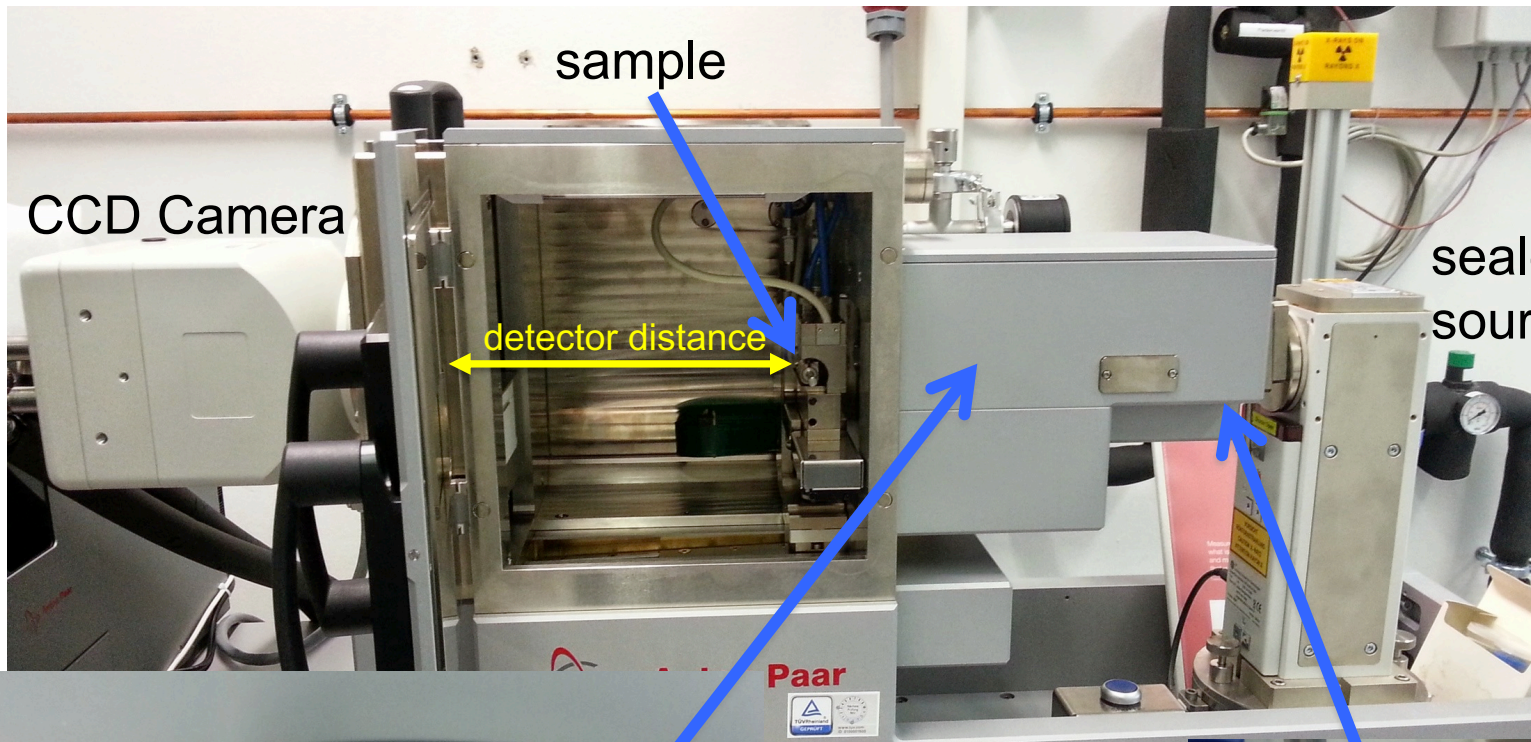
cooling

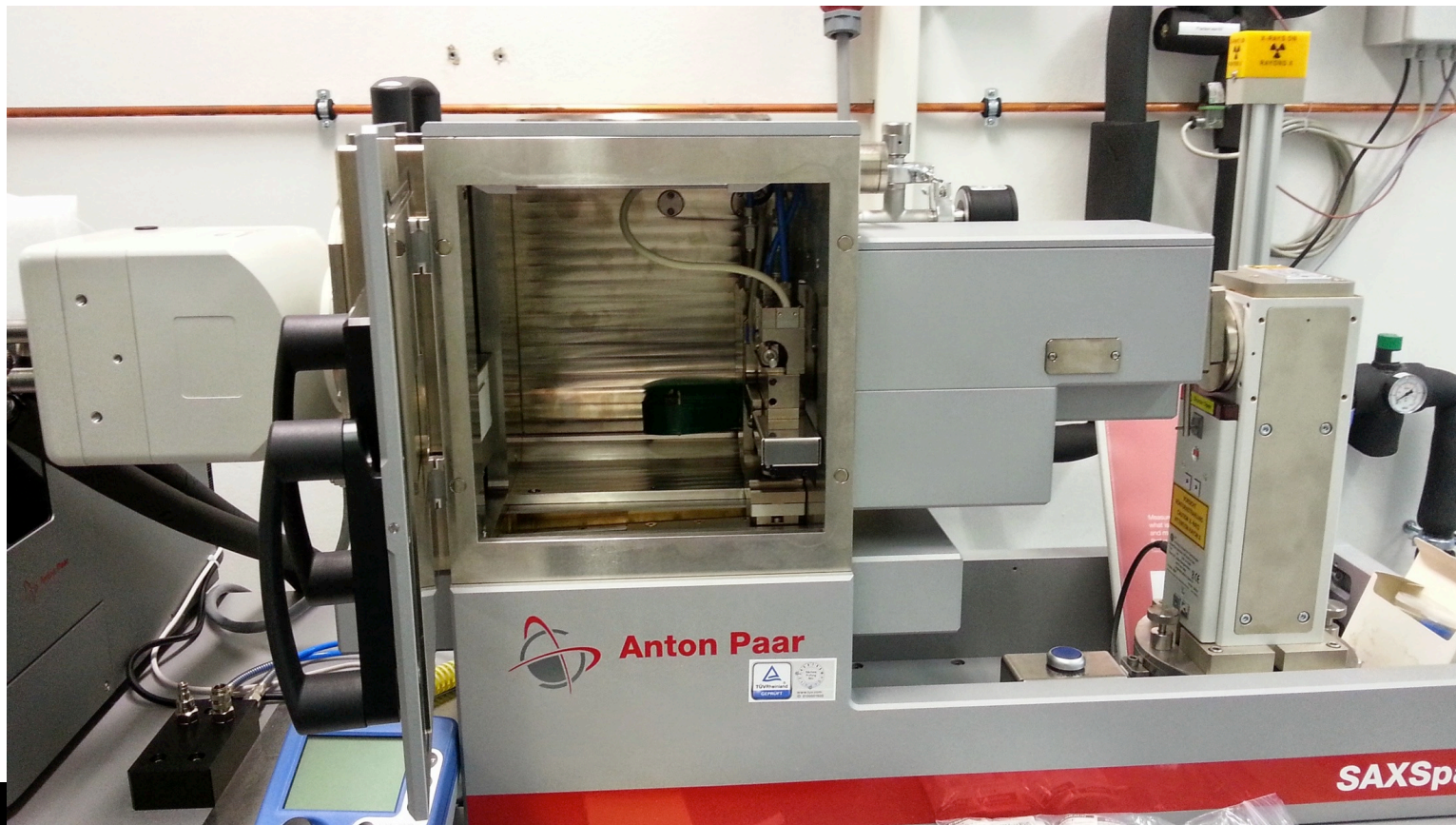


controller

cooling Camera

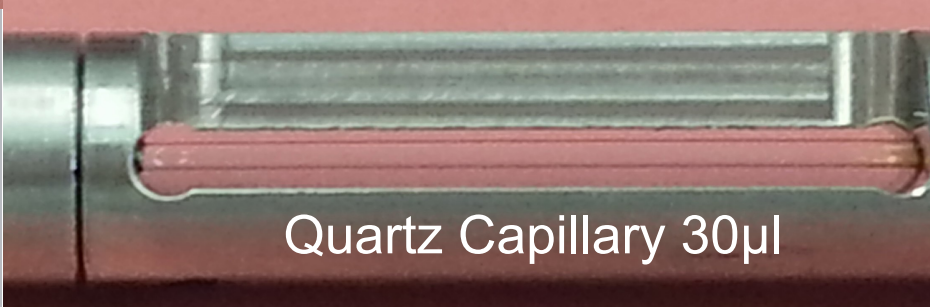
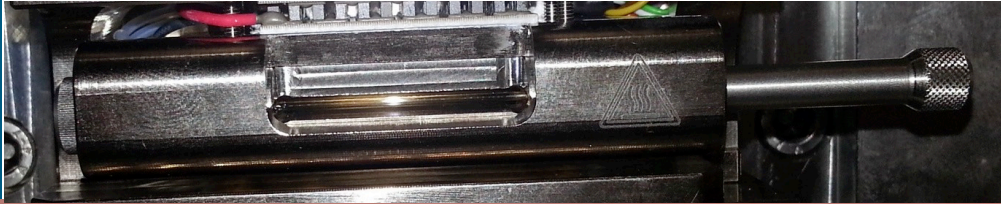
HV-Generator



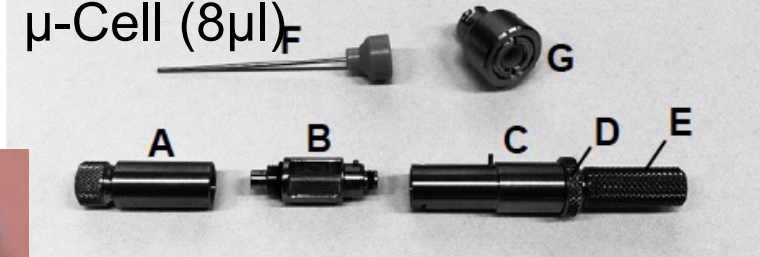


CCD camera
Beryllium surface

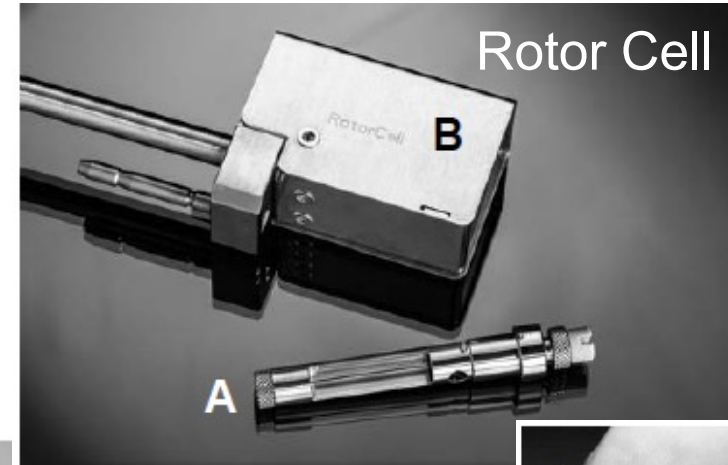




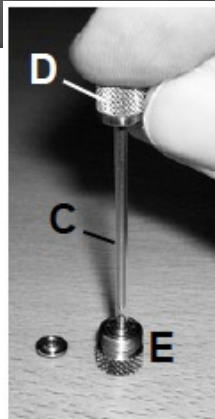
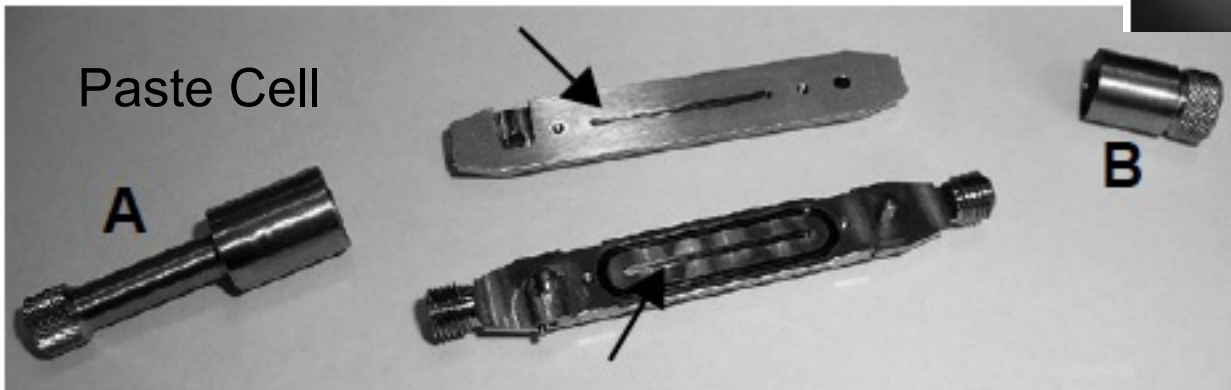
μ -Cell (8 μ l)_F



Rotor Cell

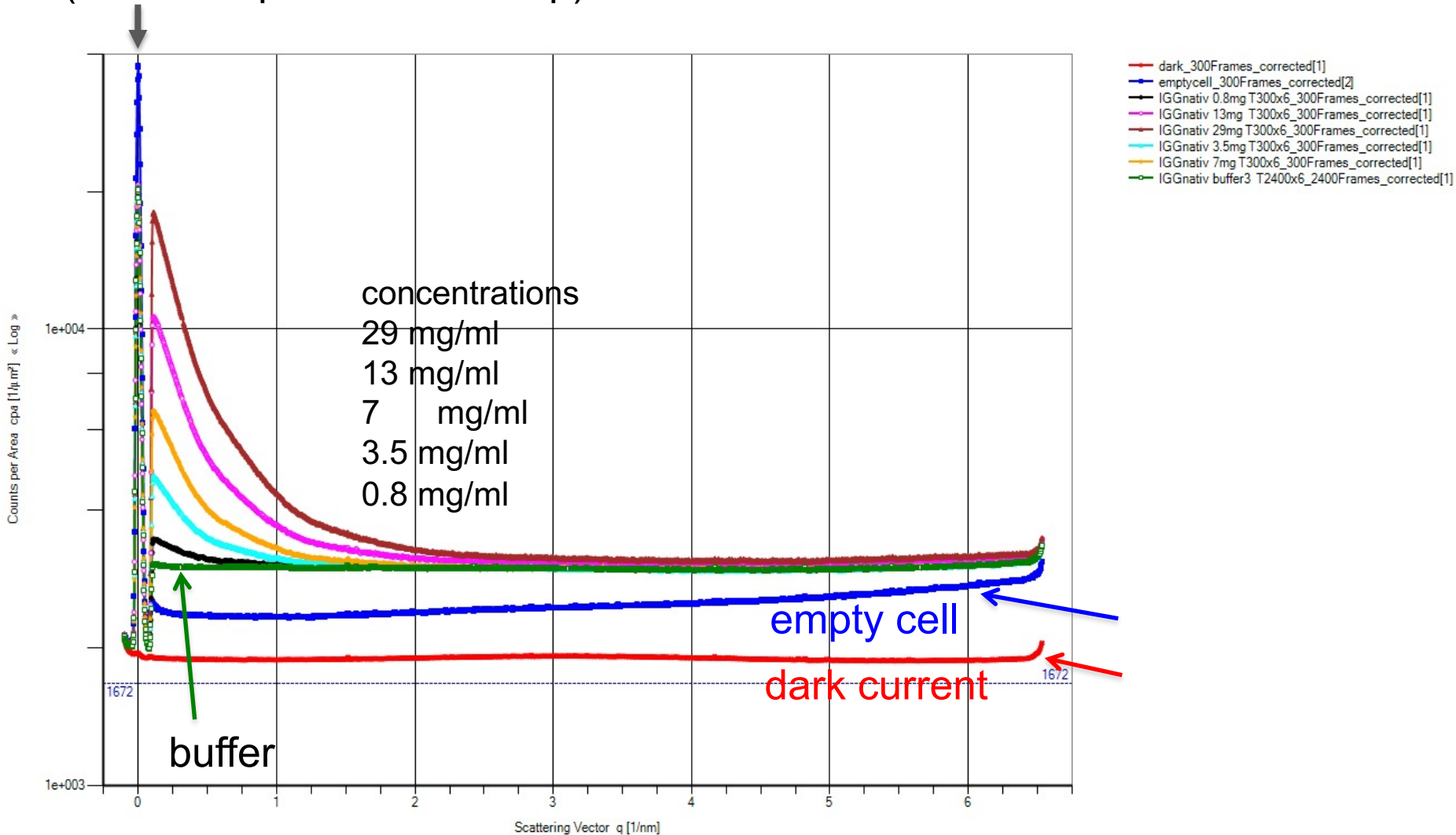


Paste Cell

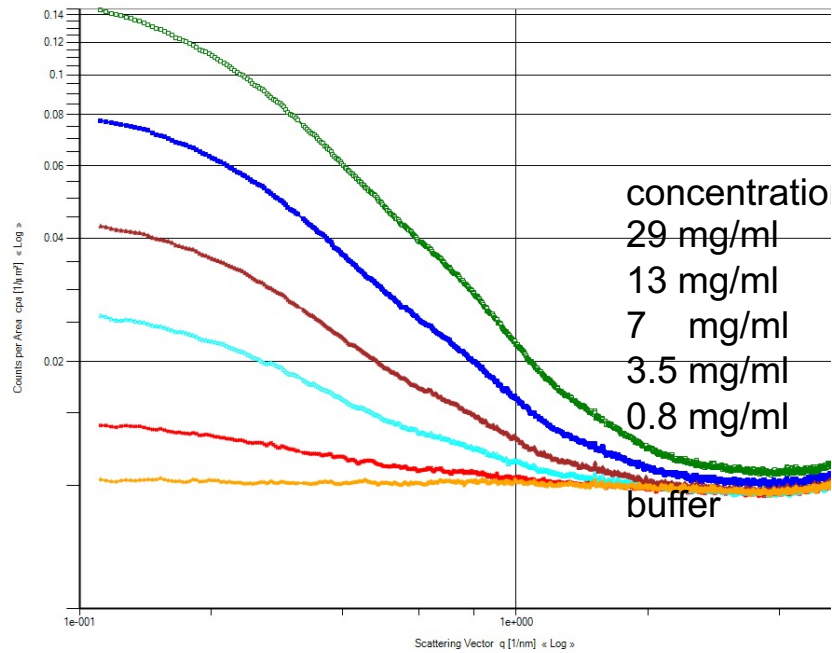


IGG1 raw data

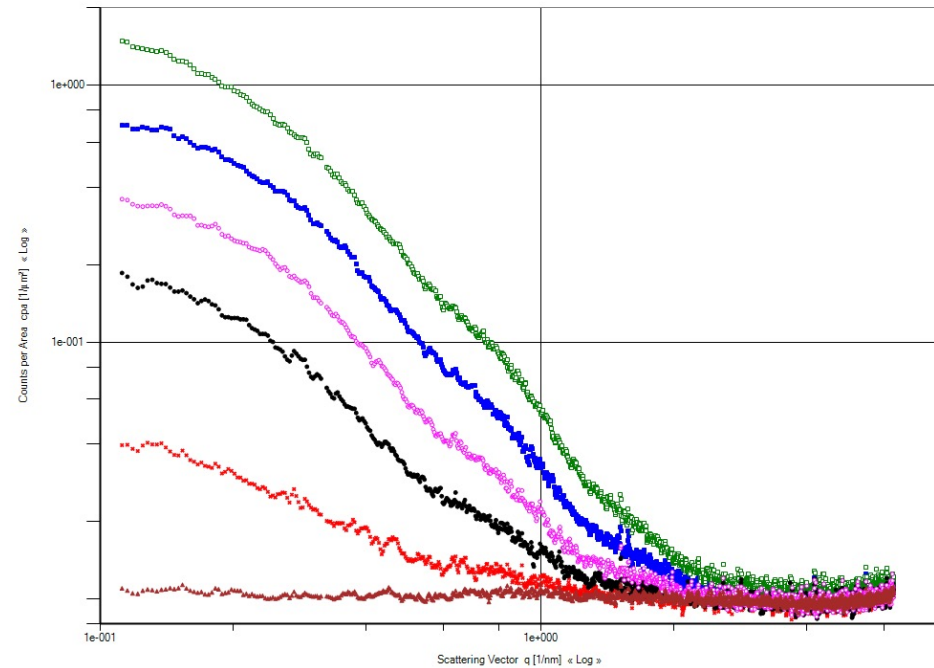
primary beam
(semitransparent beamstop)



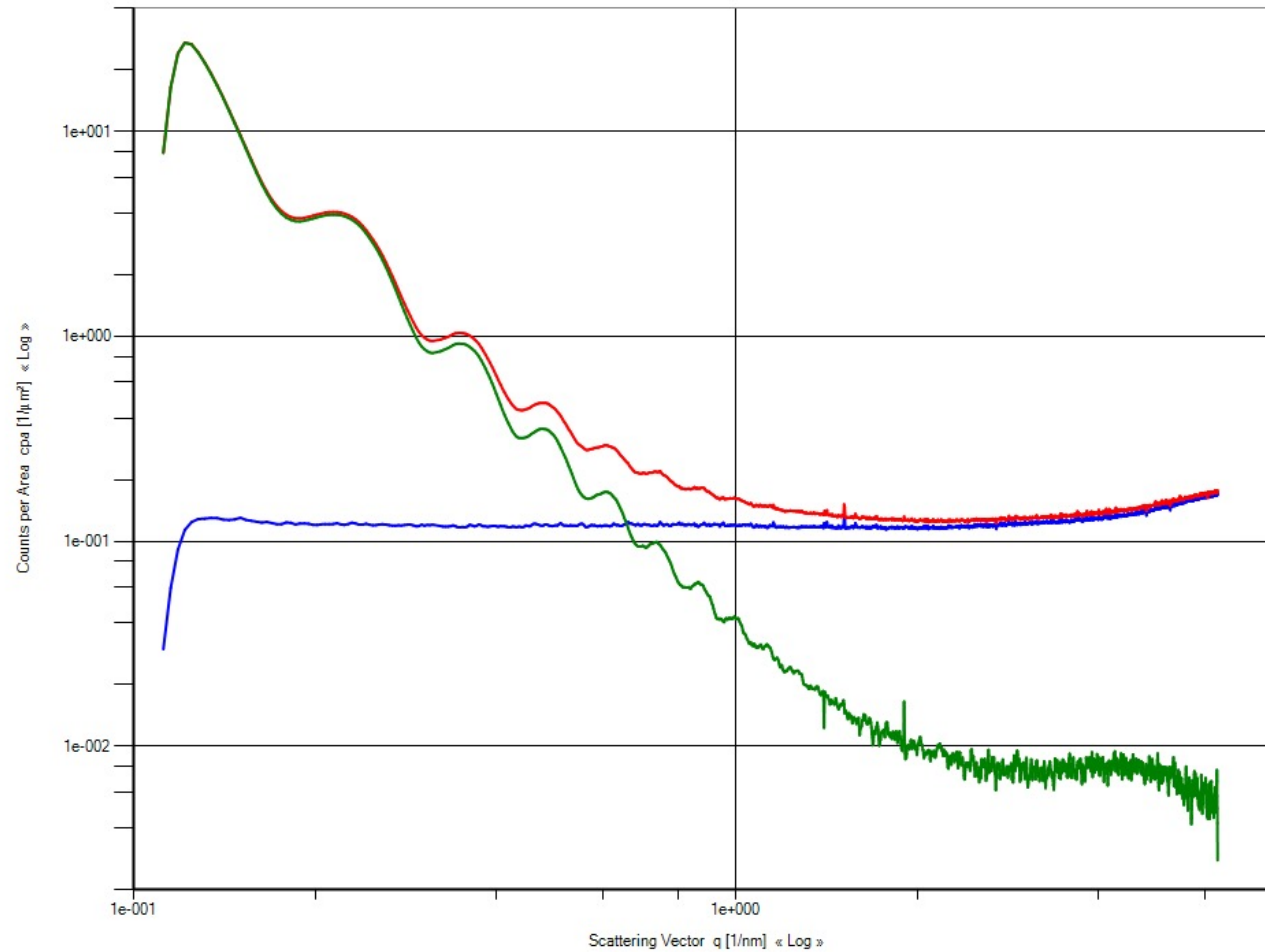
IGG background corrected and desmeared



desmearing with Lake algorithm

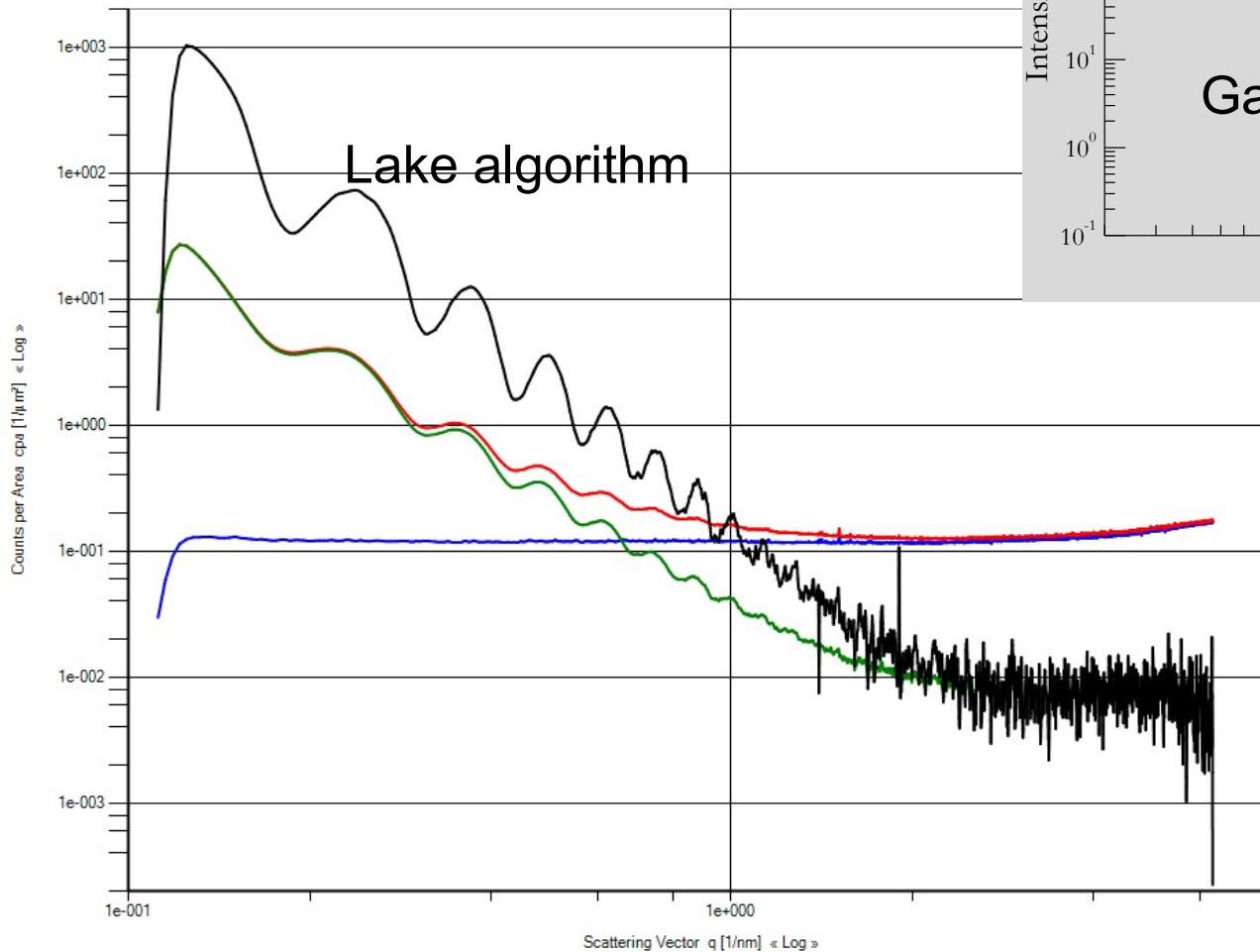
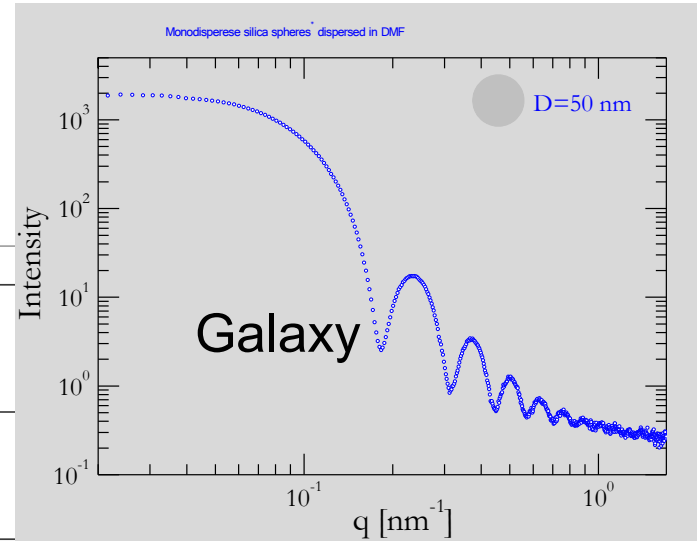


50 nm silica spheres in DMF

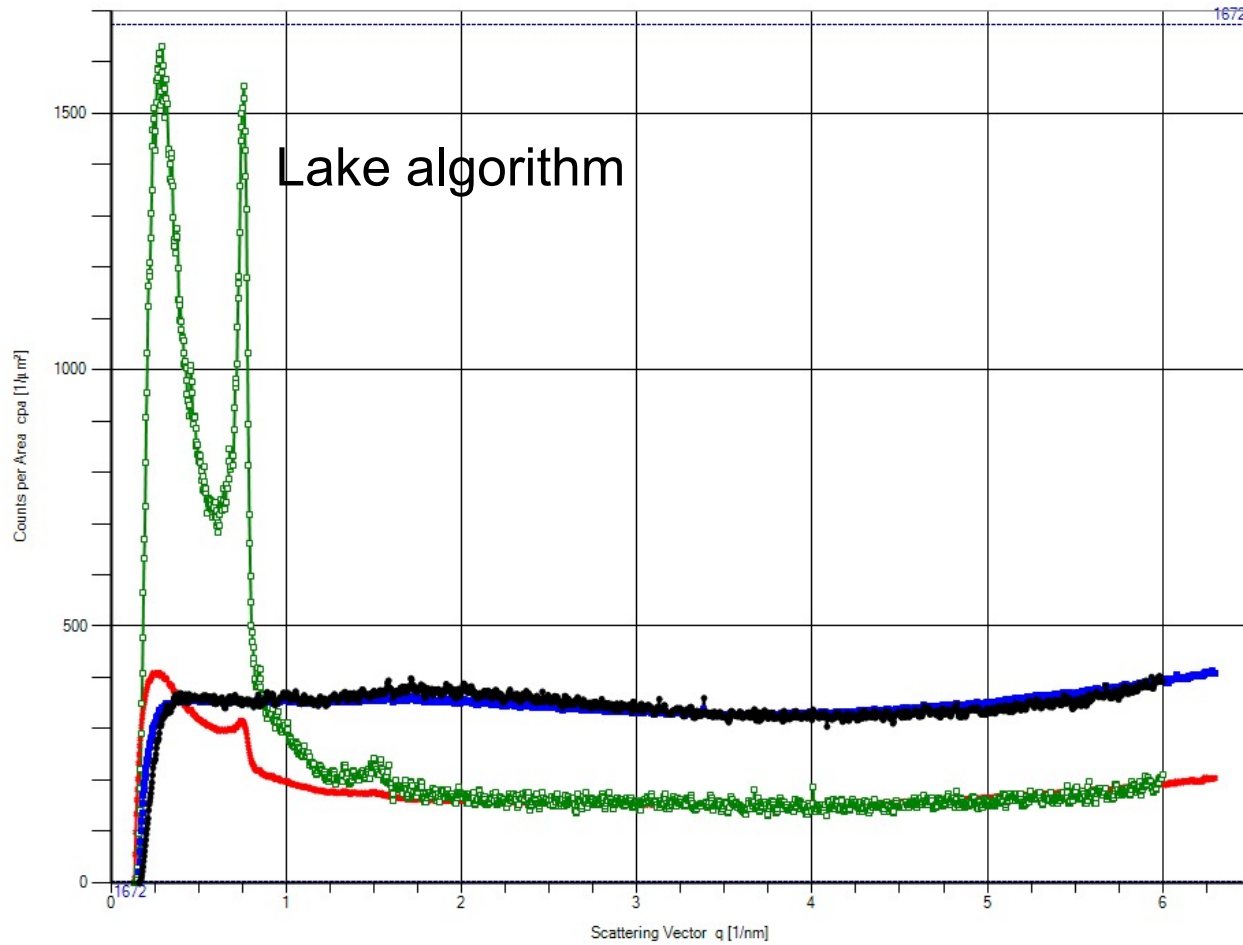


50 nm silica spheres in DMF desmeared

measurement time 1h



E. Stiakakis ICS-3



- Temperature_303.2K_SDD_305mm_180Frames_corrected1[8]
- Temperature_303.2K_SDD_305mm_180Frames_corrected1[9]
- Temperature_373.2K_SDD_305mm_180Frames_corrected1[7]
- Temperature_373.2K_SDD_305mm_180Frames_corrected1[8]

Strahlenschutzprüfbericht Graz

measurement outside 10 cm from surface

<0.1 μ Sv/h

closed shutter inside

<0.1 μ Sv/h

background

<0.1 μ Sv/h

TÜV → all within limits of test equipment

Vollschutzgerät <3 μ Sv/h

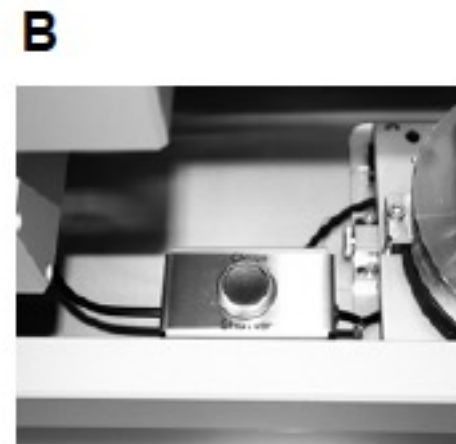
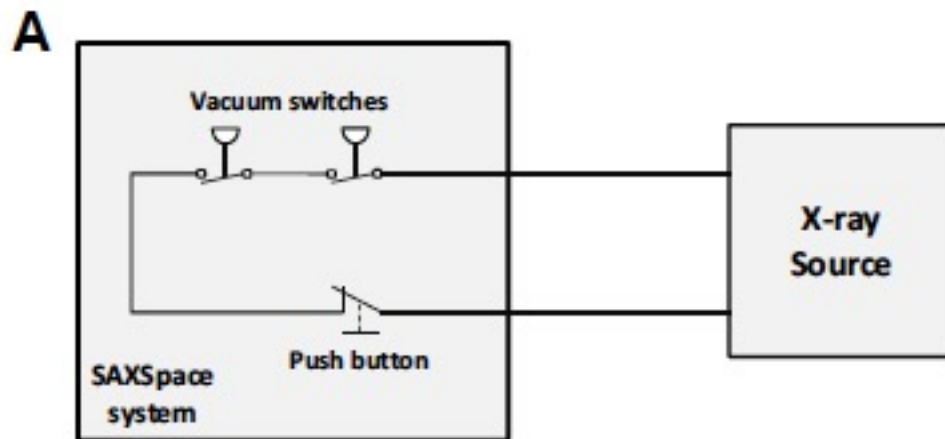


Fig. 3 - 3 Connection diagram of the safety switches [A] and push button [B] of the SAXSpace system.