



| The European Synchrotron

MASSIF-3 Overview

ESRF BAG meeting

Igor Melnikov

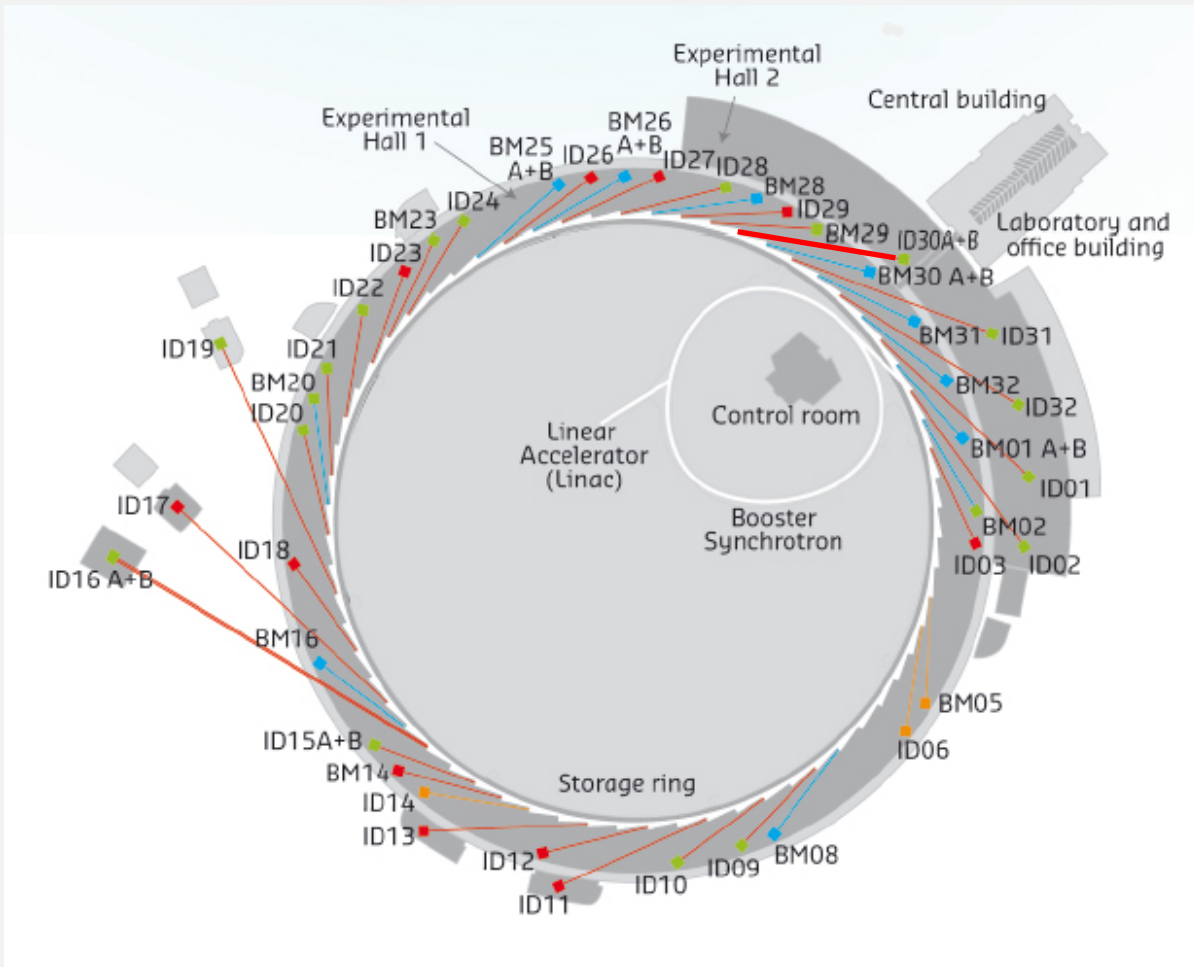
February 08, 2021

Grenoble

1. Info refresher/MASSIF-3 features

2. Perspectives/Extras

OVERVIEW



ID30A-3 (MASSIF-3)

Straight section

1x 2.3m-U21.2
(formerly 2x 1.4m-U21.2)

Flux

$\sim 2 \cdot 10^{13}$ ph/s

Beam size, FWHM

H~V~15 μ m

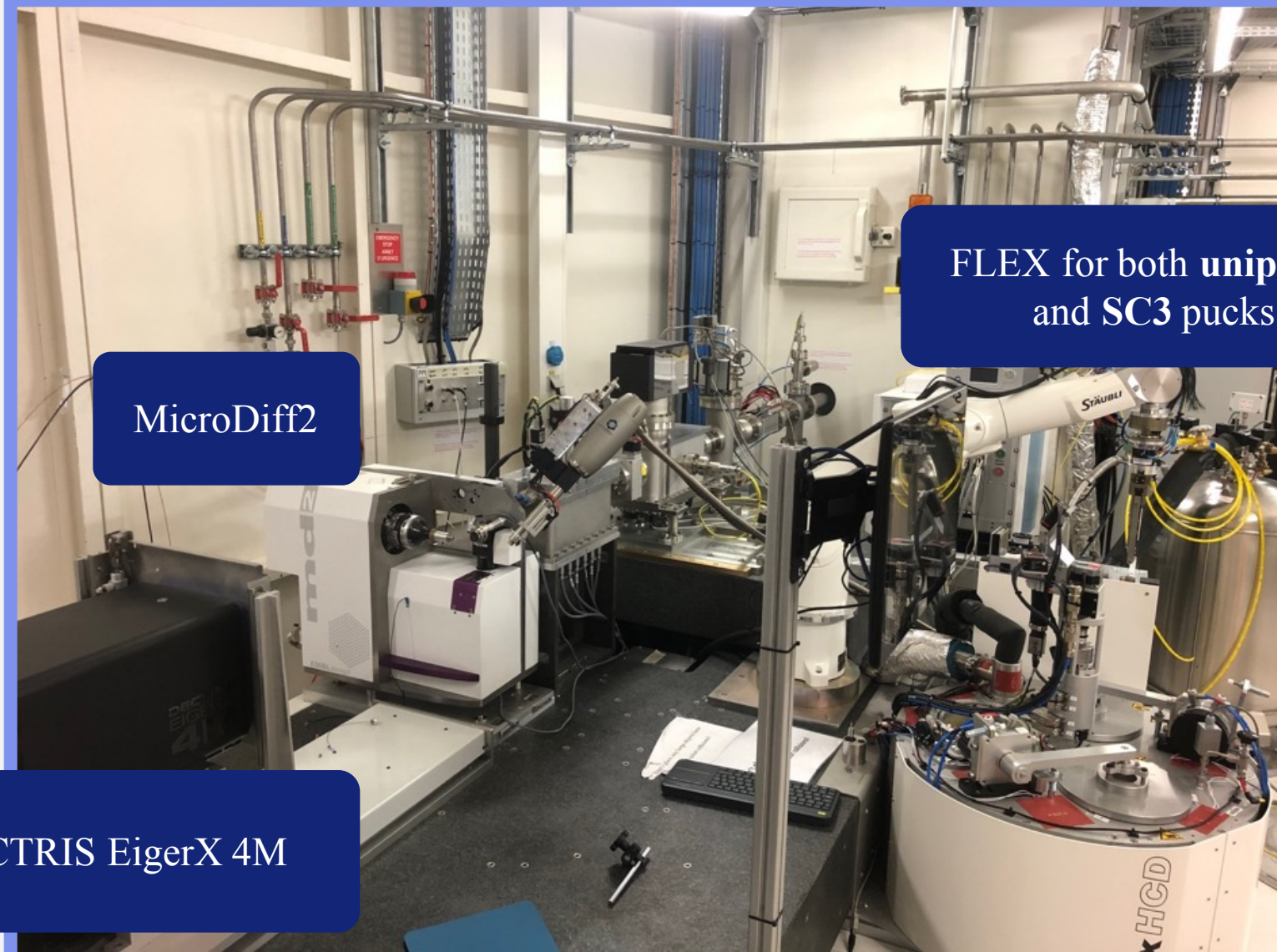
Fixed energy

**~ 12.8123 keV,
1.5 $\cdot 10^{-4}$ BW**

Dose rate

>10MGy/s

OVERVIEW

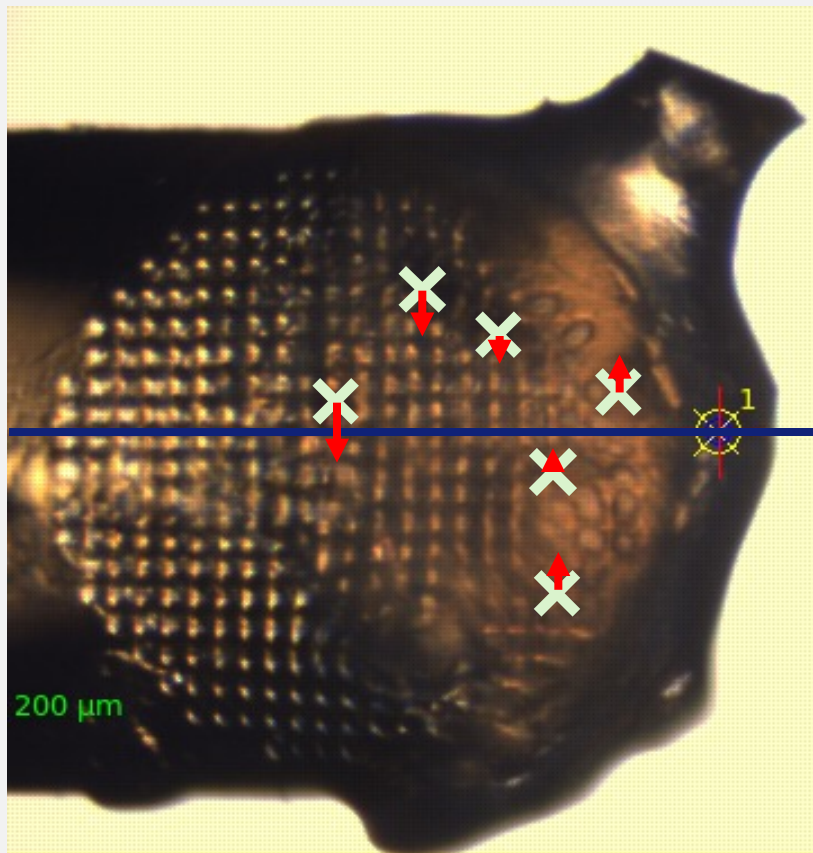


MicroDiff2

FLEX for both unipucks
and SC3 pucks

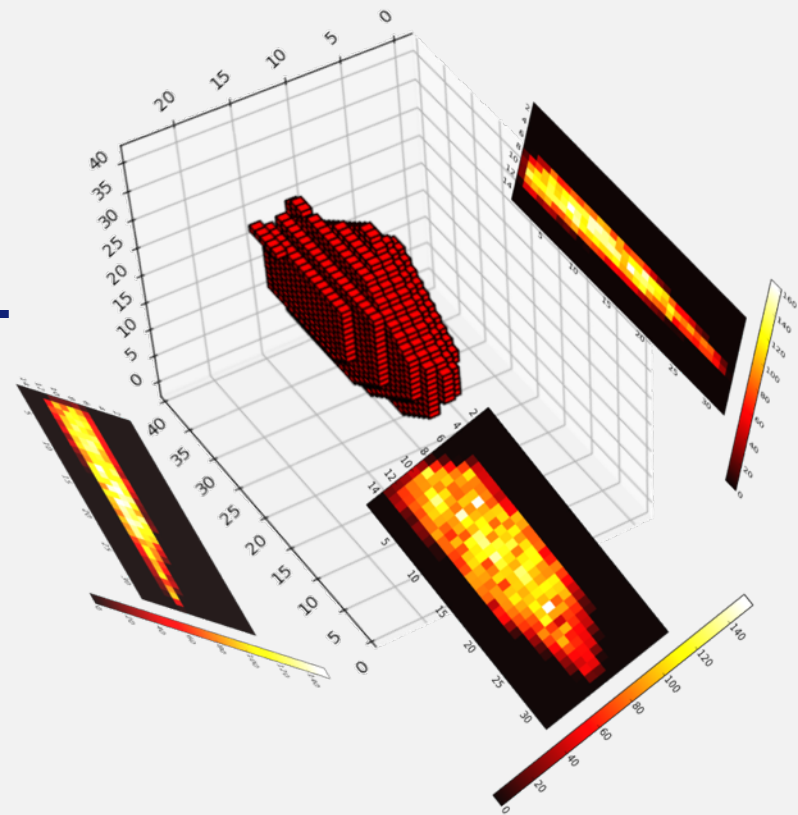
DECTRIS EigerX 4M

Perspectives/Extras



Melnikov *et al.* 2018

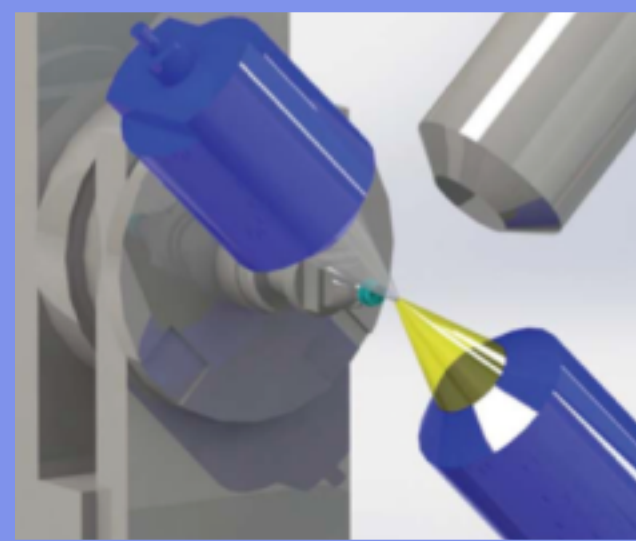
20°



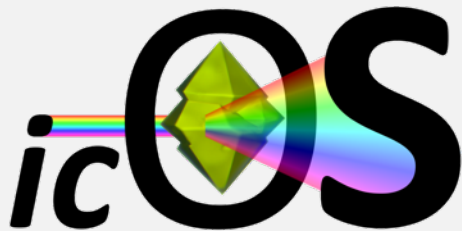
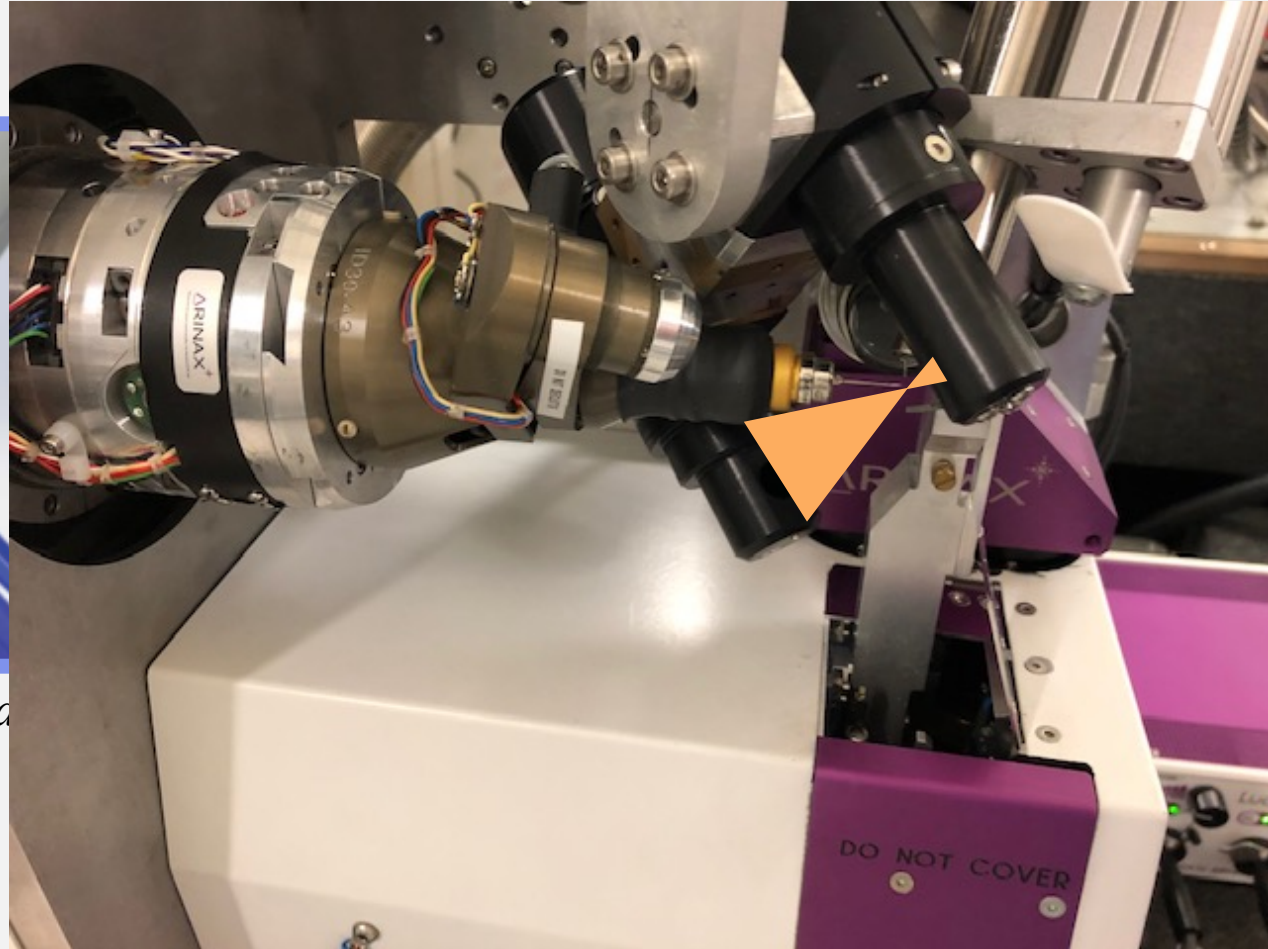
Mesh&Collect may suffer from not taking into account sample depth

ON-LINE MICROSPEC SETUP

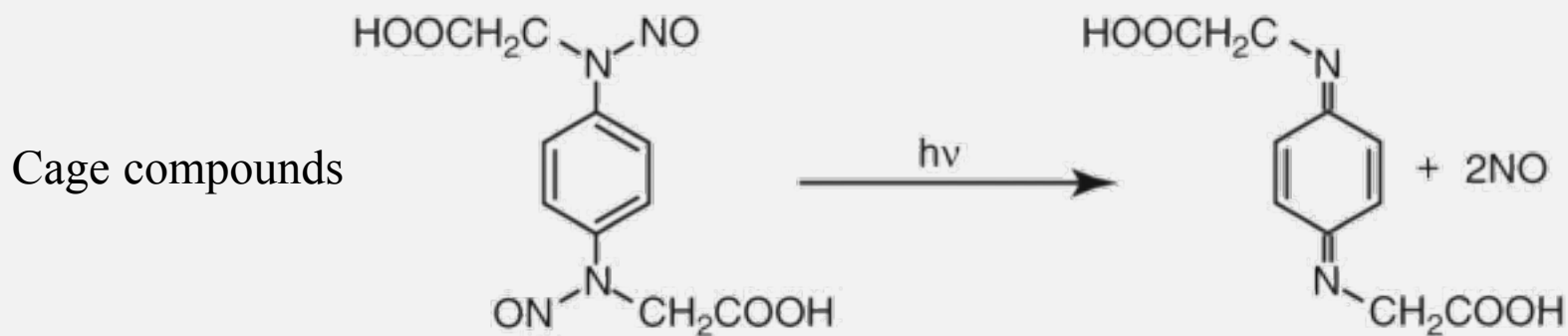
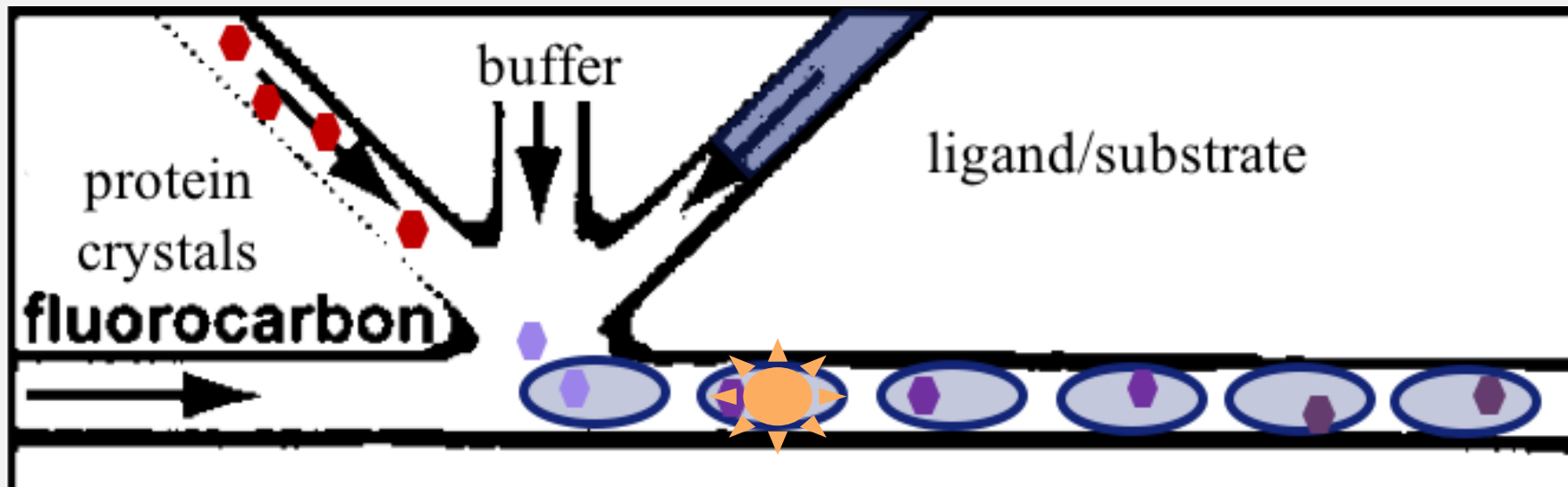
UV-vis absorption



Adapted from D. von Stetten *et al.*



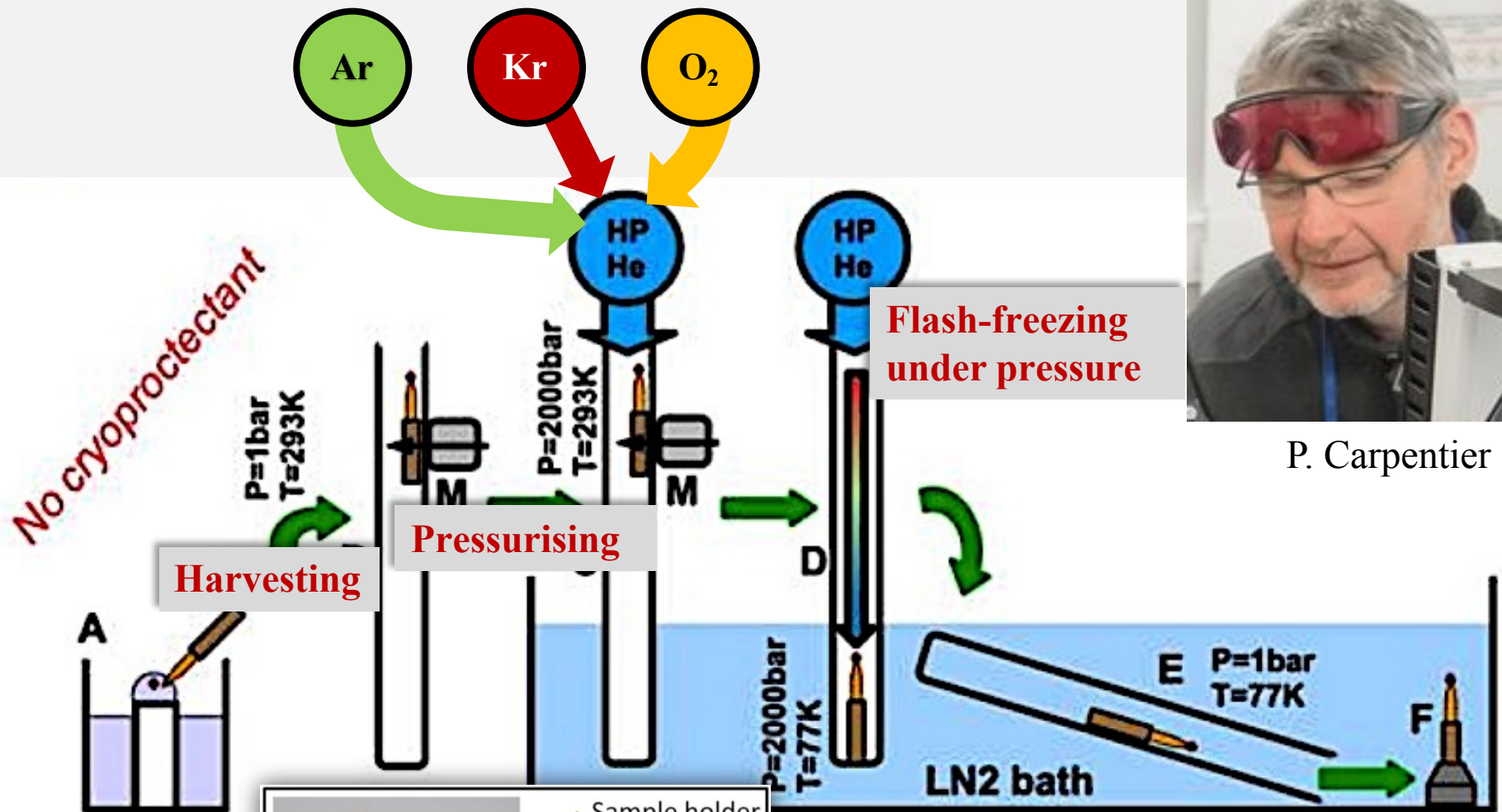
IN-CRYSTALLO REACTION SURVEILLANCE



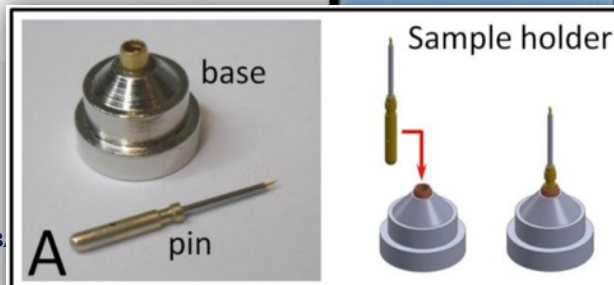
Caged-NO photolysis. One caged-NO releases two NO molecules upon UV light illumination

Tosha *et al.* 2017

CRYSTAL DERIVATISATION WITH GASES AT HIGH PRESSURE



P. Carpentier



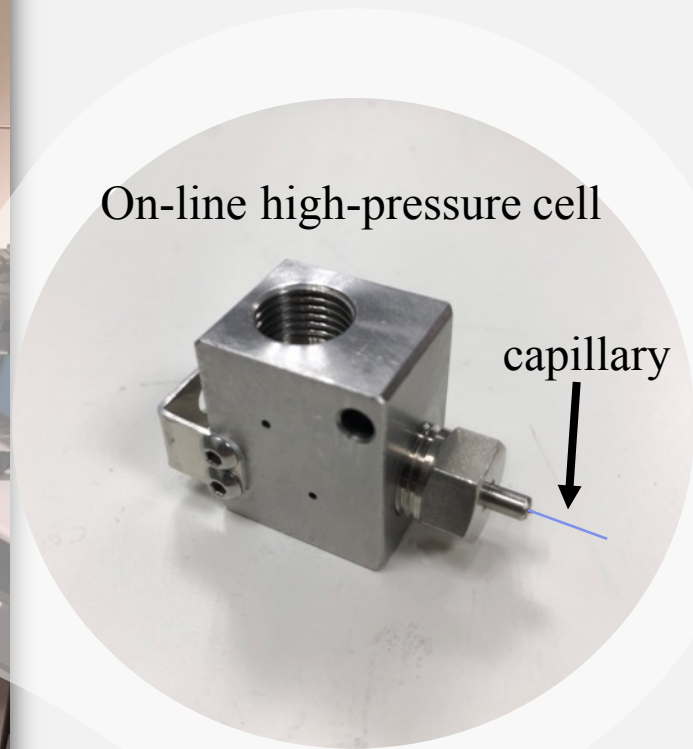
From P. van der Linden, P. Carpentier

HIGH-PRESSURE FACILITY



New pressurising equipment has been installed

On-line high-pressure cell



RT high-pressure experiments!



Bring out your samples!