

BM14-U1041 – BM30A

March 4 and 5, 2010

There was a problem with the phi encoder on BM14.
We have thus been transferred on BM30A

We are studying neuroprotection by metabolically inert gas, using globular proteins as model of target for xenon and nitrous oxide. We are also studying the oxygen and carbon monoxide binding site in different proteins, like globins and oxidases.

Data collection are done at room temperature, with protein crystal located in a quartz capillary mounted on the specially designed pressurization cell on a standard goniometer head, which is connected to the gas tank. Experiments at room temperature require good quality large crystals, it was the case with urate oxidase, myoglobins and neuroglobins, but the crystal of HOD were too small to diffract at a sufficient resolution.

$\lambda = 0.979 \text{ \AA}$

16 bunch mode

Beam size $200 * 200 \text{ }\mu\text{m}$

Local contacts : Michel Pirocchi

We collected 7 data set of urate oxidase at different pressure of various gas (oxygen, carbon monoxide, nitrogen, xenon), our best data set had a resolution of 1.5 Å.

We collected one data set with HOD under oxygen pressure (resolution around 2.6 Å).

We also collected 4 data set of urate oxidase under standard cryo condition