

Submission Form (HC1)

Dear Colleague,

At the Grenoble Outstation of the EMBL, under EU FP6 Integrated project [SPINE2-Complexes](#), we have been developing a humidity control device (HC1) used to improve the diffraction quality of crystals. This device can be easily placed on a home source setup or a synchrotron beamline. It has been tested with numerous crystals and the results so far are very promising. In order to further assess the capabilities of the new device we need to test as many proteins as possible. This is why we would like to offer the opportunity of testing your crystals with this new dehydration device.

So if:

- you have poorly diffracting crystals that are close to useful resolution
- you would like to push your good crystals to even higher resolution
- your crystals do not cryo-protect well but diffract at room temperature
- your crystals change space group upon binding compounds or due to environmental changes
- you have a high solvent content and/or areas of loose packing in your crystal
- or you have managed to improve your crystals by dehydrating but it is difficult to monitor and/or reproduce the results

... then the HC1 may be just what you need.

We are looking for people who will share some of their protein or crystals in order for us to test them with the *HC1* at the ESRF. We will apply for beam time and perform dehydration experiments. If a suitable crystal is found then it will be frozen and a dataset will be collected for you.

In order to evaluate the chance of success with the new humidity control system we need certain information. This information will be confidential. The more information we have the better the chances of finding a suitable test crystal. Please complete a submission form in either [MS Office 03](#) or [PDF format](#). Feel free to add any extra information you think is useful. For help see additional notes at the end of the documents.

Once you have filled in the questionnaire either save it or convert it to PDF and send it to weather@embl.fr. If you find it easier, fill it in by hand, and then send it to the following address. Please feel free to contact me if you require any further information.

Juan Sanchez-Weatherby
EMBL c/o ILL, Polygone Scientifique
6 Rue Jules Horowitz, BP181
38042 Grenoble Cedex 9
France

User Information:

Title¹: _____

Name/s: _____

Surname/s: _____

Address: _____

E-mail Address: _____

Tel. Number²: _____

Sample Information

Protein Name/Acronym³: _____

Original Source⁴: _____

Expression Source⁵: _____

Any Safety Issues⁶: _____

Availability: Expression Vector

Expression Clone

Purified Protein

Crystals

Quantity and Age of Crystals Available for Tests⁷: _____

X-ray Information

	Crystal 1	Crystal 2	Crystal 3	Crystal 4
Typical Crystal Resolution	Å	Å	Å	Å
Maximum Resolution Achieved	Å	Å	Å	Å
Desired Resolution	Å	Å	Å	Å
Space Group				
a	Å	Å	Å	Å
b	Å	Å	Å	Å
c	Å	Å	Å	Å
α	°	°	°	°
β	°	°	°	°
γ	°	°	°	°
Beamline or X-ray Source				
Exposure Time				
MW	kDa	kDa	kDa	kDa
Solvent Content	%	%	%	%
Numb. Mols per AU				
Phasing method ¹⁰				
PDB code/s (if available)				
Temperature ¹¹				
Sensitivity to X-rays ¹²				

Previous Dehydration Information

Have you done any dehydration experiments? Yes

No

Type of experiment/s: Salts in Well solution

Successive Soaking

Annealing

Simple evaporation

F.M.S. (Rigaku)

Other

Brief description of experiment:

Brief description of results:
