



Experiment title: FRANKFURT BAG:
**ATOMIC MECHANISMS OF MEMBRANE
PROTEINS**

**Experiment
number:**
MX-450

Beamline:
ID14-EH1

Date of experiment:
from: 27-APR-2006 8:30 to: 28-APR-2006 8:00

Date of report:
26-MAY-2006

Shifts:
3

Local contact(s):
Dr. Gianluca CIOCI

Received at ESRF:

Names and affiliations of applicants (* indicates experimentalists):

Hanno D. Juhnke*, Florian Müller*, Nicole Hilgendorff*, C. Roy D. Lancaster
Max Planck Institute of Biophysics,
Department of Molecular Membrane Biology
Max-von-Laue-Str. 3,
D-60438 Frankfurt am Main

Report:

Variant Photosynthetic Reaction Center from *Rhodopseudomonas viridis*

The beam time was devoted to recording several data sets of variant photosynthetic reaction centers from *Rhodopseudomonas viridis*. The data sets are summarized in Table 1. Refinement of an atomic model with the best data set is in progress.

Table 1. Diffraction data sets collected at ESRF ID14-EH1 on crystals of variant *Rp. viridis* RCs (P₄₃₂₁₂, a = b = 224.3 Å, c = 113.6 Å)

Data set	Resol. Low	Resol. High	Measured reflections	Unique Refl.	Redundancy	Complete [%]	I/σ(I)	> 2 σ	R _{sym}
RC09III_B4	20	3.0	112,634	52152	2.2	89.3	5.5	64.1	0.082
	3.07	3.0		3317	2.1	86.6		28.3	0.362
RC09IV_B5	20	2.8	202,030	60718	3.3	84.7	6.4	65.2	0.097
	2.86	2.8		3624	2.9	77.0		34.0	0.485
RC09IV_C10	20	2.7	208,815	64893	3.2	81.4	7.5	64.7	0.073
	2.76	2.7		3619	2.6	69.3		31.0	0.358
RC09IV_D7	20	3.0	79,798	34816	2.3	60.0	6.5	44.1	0.068
	3.07	3.0		2256	2.3	59.2		24.0	0.289
RC09IV_D8	20	3.0	90,220	47300	1.9	80.8	5.7	55.4	0.089
	3.07	3.0		2873	1.9	74.3		18.6	0.435
RC09IV_I4	20	2.8	345,687	56082	6.2	78.2	5.5	58.7	0.074
	2.86	2.8		3724	6.0	79.3		35.2	0.409
RC09IV_I5	20	2.5	322,564	79155	4.1	79.1	7.1	61.8	0.076
	2.56	2.5		5019	3.1	76.5		35.6	0.341
RC09IV_I6	20	3.0	175,658	42078	4.2	70.3	6.5	56.9	0.097
	3.07	3.0		2501	3.5	63.5		27.5	0.459