ESRF	**Experiment title:** The Mechanism of Isopenicillin N Synthase	**Experiment number:** LS 1940
Beamline: ID14-2	**Date of experiment:** from: 03-05-2001 to: 04-05-2001	**Date of report:** 10-08-2001
Shifts: 1	**Local contact(s):** Dr Steffi Arzt	*Received at ESRF:*

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Report:

The principal focus for this shift was the continuation of our pseudo-time resolved studies on the non-haem iron oxygenase isopenicillin N synthase (IPNS). Six datasets were collected from crystals of IPNS containing the substrate analogue δ-(L-α-aminoadipoyl)-3*R*-methyl-L-cysteine D-α-hydroxyisovaleryl ester (AmCoV): one set from an anaerobic crystal of the IPNS:Fe^{2+}:AmCoV complex, and five from crystals that had been exposed to hyperbaric oxygen for a range of time periods (10 s, 30 s, 1 min, 5 min and 10 min).

We also collected data from an aerobically-grown crystal of the taurine/α-ketoglutarate dioxygenase, although this failed to give diffraction to high enough resolution.