	Experiment title: Stuctural studies of *E. coli* ribokinase.	**Experiment number**: LS-1804
Beamline: ID14:4	**Date of experiment**: from: 4-6 November, 00	**Date of report**: 24 August 2001
Shifts: approx. 3 out of 6	**Local contact(s)**: Dr. Sigrid Stuhrmann	*Received at ESRF:*

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Report:

Ribokinase is the only known enzyme capable of phosphorylating ribose at O5 using ATP as the phosphate group donor. It is found in all procaryotic and eucaryotic species tested so far. We are currently looking at complexes of ribokinase with various substrates, products and activating ions, trying to get a detailed picture of the reaction pathway.

After testing a number of crystals, two sets were untimately collected on ribokinase. The first was a complex with the activating ion cesium, and the substrate ribose, at 1.8 Å resolution. This was shown to be very similar to the structure of the ribose complex without added ion.The second set was a complex with cesium and the product ribose-5-P, at 2 Å resolution. The phosphate group was not apparent in the electron density, indicating that the enzyme hydrolyzed the product to give the substrate, ribose. These results are currently in preparation for publication, together with the results of enzyme kinetics studies.