ESRF	Experiment title: MAD experiment on a plant heat shock protein	Experiment number : LS-1527
Beamline:	Date of experiment:	Date of report:
BM14	from: 21/01/2000 to: 22/01/2000	23/02/2000
Shifts:	Local contact(s):	Received at ESRF:
3	Gordon Leonard	
Names and affiliations of applicants (* indicates experimentalists):		
Dr. Christine Slingsby		
Dr. Rob van Montfort*		
Department of Crystallography		
Birkbeck College		
University of London		
Malet Street		
London WC1E 7HX		

Report:

We have carried out a three wavelength MAD experiment on a selenium variant of a plant heat shock protein. The data sets, which were collected at a resolution of 3.1 Å, were about 99% percent complete with Rmerge's in the range of 4%. Although the protein contains only one selenium atom per 151 amino acids, the anomalous patterson of the f" optimised wavelength showed strong peaks, corresponding to six selenium sites in the asymmetric unit. Nevertheless, the electron density calculated with phases obtained from the selenium sites could not be interpreted unambiguously. Currently we try to improve the phases using density modification techniques.