



	Experiment title: Structural studies on dynein-2 linker remodeling.	Experiment number: MX-2441
Beamline: CM01	Date of experiment: from: 28/04/2023 to: 30/04/2023	Date of report: 04/09/2023
Shifts: 6	Local contact(s): Gregory Effantin	<i>Received at ESRF:</i>
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Report:

We have applied for time on the Titan KRIOS (CM01) as a member of the France BAG (MX2441) coordinated by Laurent TERRADOT. We collected the data on dynein-2 motor domain mutant. The aim of the experiment was to find out if a rare, catalytically important conformation was stabilized by chemical crosslinking.

The session was scheduled on 28th April and we collected the data remotely by sending the dewar to ESRF 5 days in advance. We prepared 4 quantifoil grids (Cu/Rh 1.2/1.3) on thin carbon support with identical concentration and varying ice thickness. The data collection started on Friday afternoon and finished on Sunday morning.

We have collected around 15000 micrographs, of which 5000 micrographs were of sufficient quality for further image processing. This was mainly due to the varying ice thickness, which was for many micrographs too thick. The 2D classes shown in figure 1. Unfortunately, the 3D classification and refinement only led to structures that were already known. The crosslinking did not stabilize the rare conformation we were interested in.

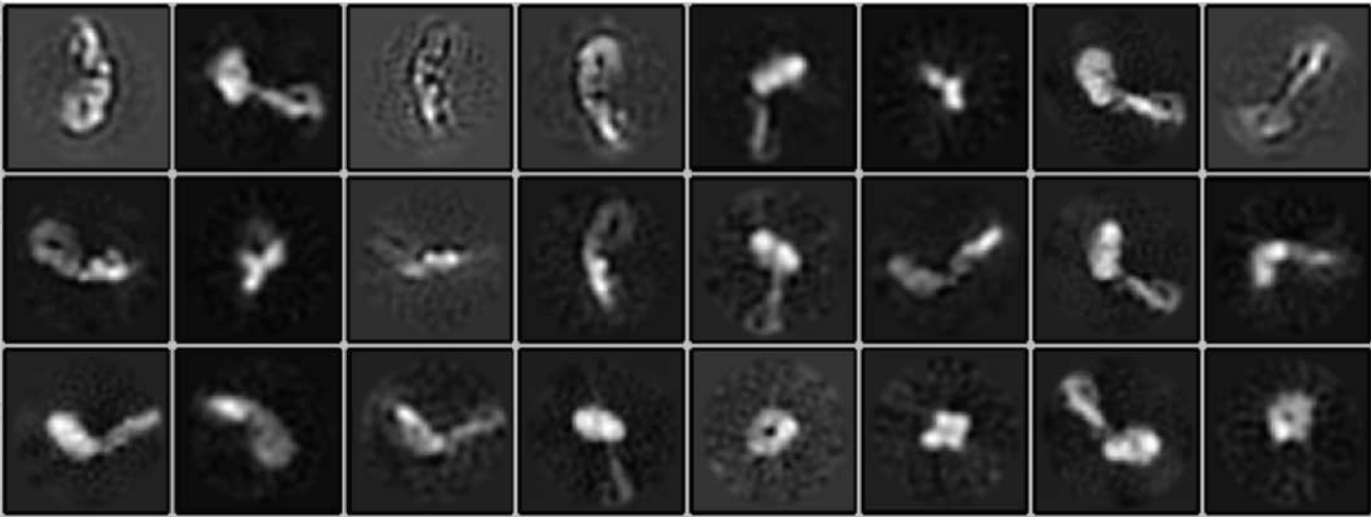


Figure 1. 2D class averages.