



wwPDB EM Validation Summary Report ⓘ

Nov 22, 2021 – 11:09 am GMT

EMDB ID : EMD-12749
Title : In situ cryo-electron tomogram of a pyrenoid inside a *Chlamydomonas reinhardtii* cell
Authors : Cuellar, L.K.; Schaffer, M.; Strauss, M.; Martinez-Sanchez, A.; Plitzko, J.M.; Foerster, F.; Engel, B.D.
Deposited on : 2021-04-13
Resolution : Not provided

This is a wwPDB EM Validation Summary Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMTomogramValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.0.dev97
Validation Pipeline (wwPDB-VP) : 2.23.2

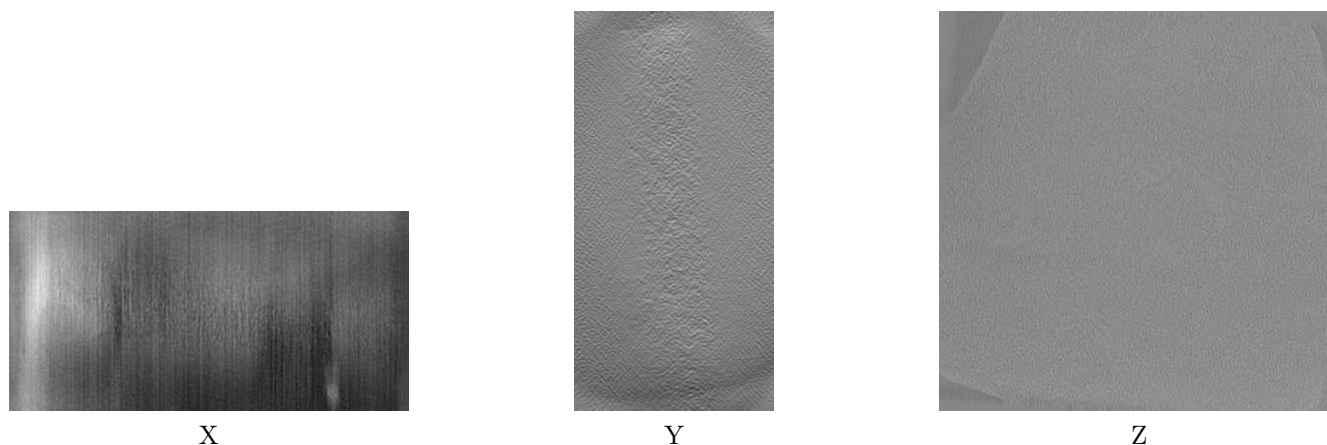
1 Experimental information

| Property | Value | Source |
|--------------------------------------|-----------------------------|-----------|
| EM reconstruction method | TOMOGRAPHY | Depositor |
| Imposed symmetry | Not Provided | |
| Number of tilted images used | 65 | Depositor |
| Resolution determination method | Not provided | |
| CTF correction method | Not provided | |
| Microscope | FEI TITAN KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 2.0 | Depositor |
| Minimum defocus (nm) | Not provided | |
| Maximum defocus (nm) | Not provided | |
| Magnification | 42000.0 | Depositor |
| Image detector | GATAN K2 BASE (4k x 4k) | Depositor |
| Maximum voxel value | 66.000 | Depositor |
| Minimum voxel value | -92.000 | Depositor |
| Average voxel value | 2.288 | Depositor |
| Voxel value standard deviation | 9.711 | Depositor |
| Recommended contour level | Not applicable | |
| Tomogram size (\AA) | 12695.04, 12695.04, 6347.52 | wwPDB |
| Tomogram dimensions | 928, 928, 464 | wwPDB |
| Tomogram angles ($^\circ$) | 90.0, 90.0, 90.0 | wwPDB |
| Grid spacing (\AA) | 13.68, 13.68, 13.68 | Depositor |

2 Tomogram visualisation [i](#)

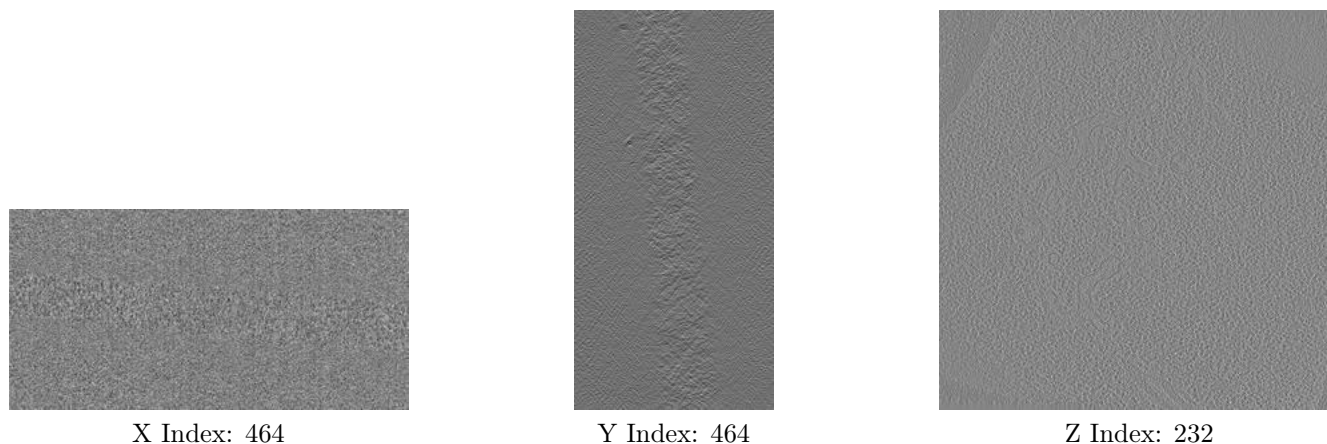
This section contains visualisations of the EMDB entry EMD-12749. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

2.1 Orthogonal projections [i](#)



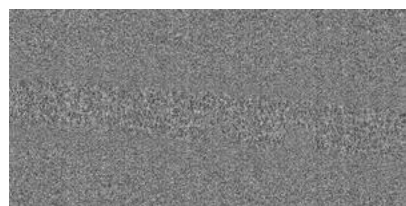
The images above show the tomogram projected in three orthogonal directions.

2.2 Central slices [i](#)



The images above show central slices of the tomogram in three orthogonal directions.

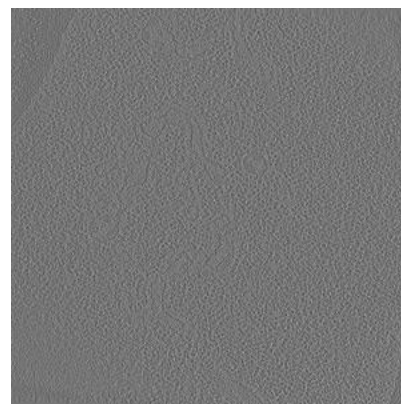
2.3 Largest variance slices [i](#)



X Index: 648



Y Index: 92



Z Index: 224

The images above show the largest variance slices of the tomogram in three orthogonal directions.

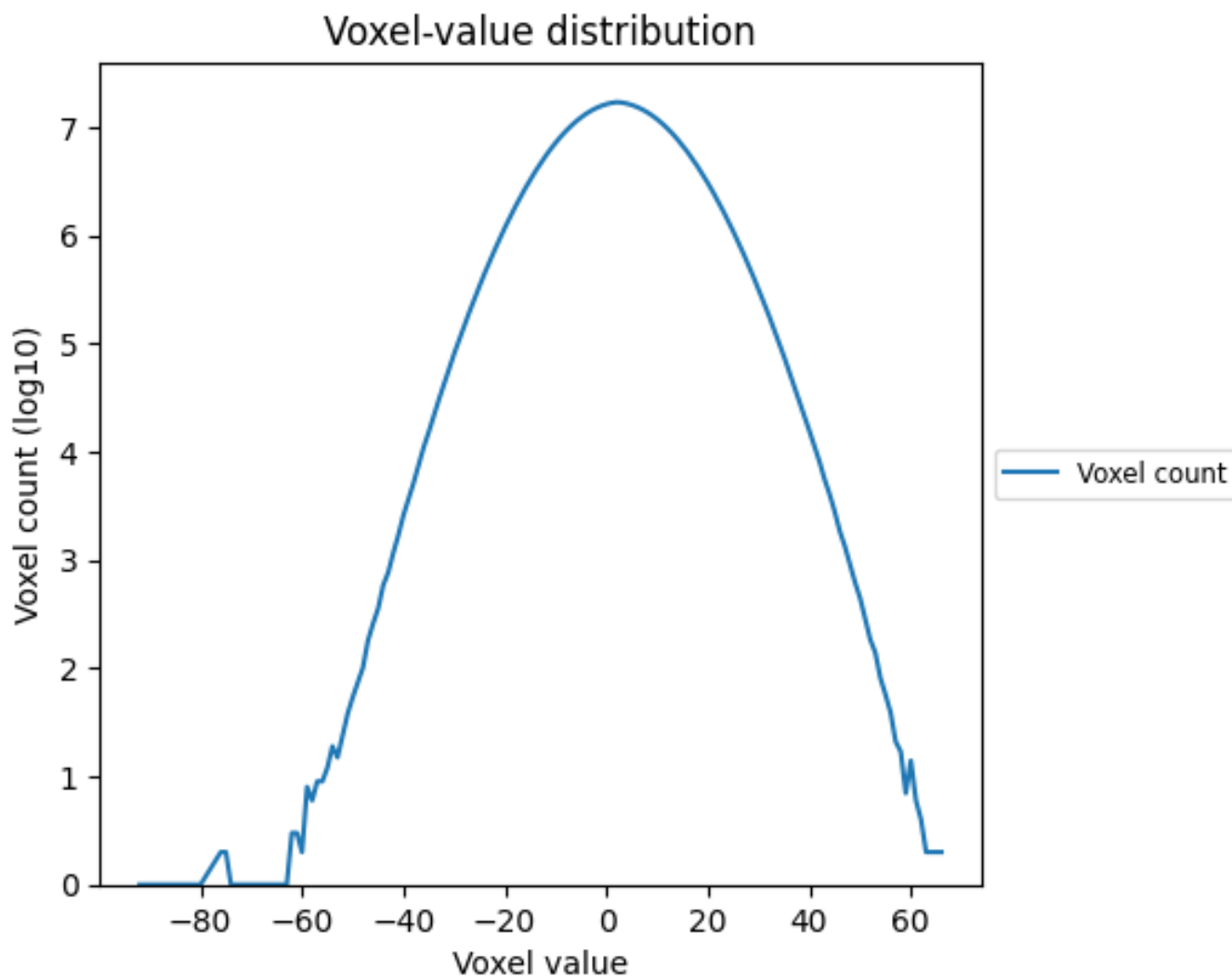
2.4 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

3 Tomogram analysis [i](#)

This section contains the results of statistical analysis of the tomogram.

3.1 Voxel-value distribution [i](#)



The voxel-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic.