# Full wwPDB EM Validation Report

Nov 10, 2026 – 03:40 pm GMT

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|---|---|---|
| EMDB ID | : | EMD-100380 |
| Title | : | Cryo-electron tomogram of Chroococcidiopsis thermalis PCC 7203 in far-red light |
| Authors | : | van Dorst, S.; Wietrzynski, W.; Engel, B.D. |
| Deposited on | : | 2026-10-20 |
| Resolution | : | Not provided |

This is a Full wwPDB EM Validation 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 (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

| | | |
|---|---|---|
| EMDB validation analysis | : | 0.0.1.dev133 |
| Validation Pipeline (wwPDB-VP) | : | 2.51 |

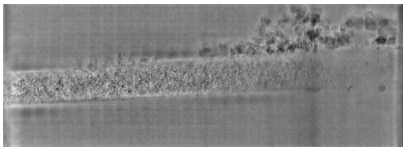
# 1 Experimental information (i)

| Property | Value | Source |
|---|---|---|
| EM reconstruction method | TOMOGRAPHY | Depositor |
| Imposed symmetry | Not Provided | |
| Number of tilted images used | 57 | Depositor |
| Resolution determination method | Not provided | |
| CTF correction method | Not provided | |
| Microscope | TFS KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/Å^2$) | 120.0 | Depositor |
| Minimum defocus (nm) | 2.5 | Depositor |
| Maximum defocus (nm) | 5.0 | Depositor |
| Magnification | Not provided | |
| Image detector | GATAN K3 BIOQUANTUM (6k x 4k) | Depositor |
| Maximum voxel value | 8.981 | Depositor |
| Minimum voxel value | -25.471 | Depositor |
| Average voxel value | 0.191 | Depositor |
| Voxel value standard deviation | 0.350 | Depositor |
| Recommended contour level | Not applicable | |
| Tomogram size (Å) | 10987.02, 15465.6, 5498.88 | wwPDB |
| Tomogram dimensions | 1023, 1440, 512 | wwPDB |
| Tomogram angles (°) | 90.0, 90.0, 90.0 | wwPDB |
| Grid spacing (Å) | 10.74, 10.74, 10.74 | Depositor |

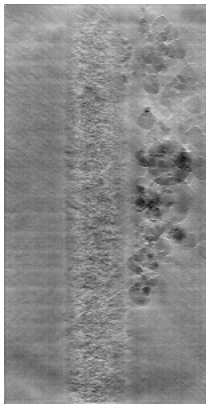
# 2 Tomogram visualisation

This section contains visualisations of the EMDB entry EMD-100380. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

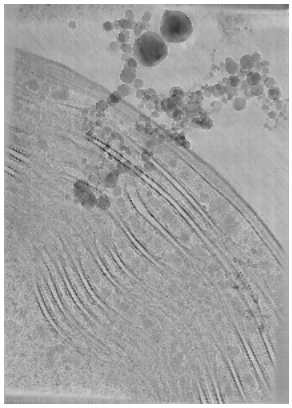
## 2.1 Orthogonal projections



X



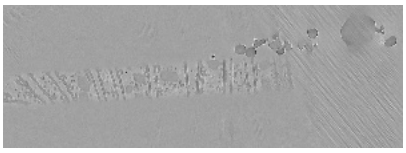
Y



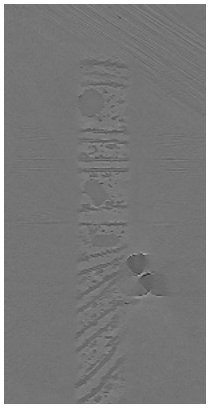
Z

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

## 2.2 Central slices



X Index: 511



Y Index: 720



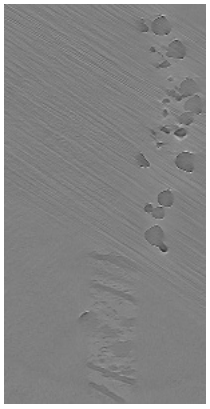
Z Index: 256

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

## 2.3 Largest variance slices (i)



X Index: 888



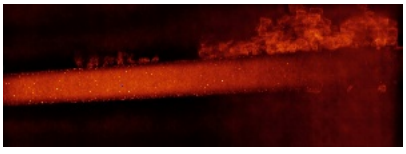
Y Index: 1124



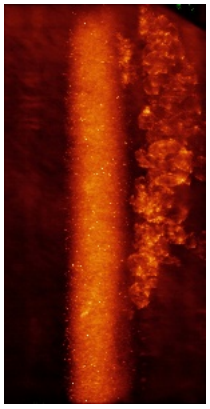
Z Index: 227

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

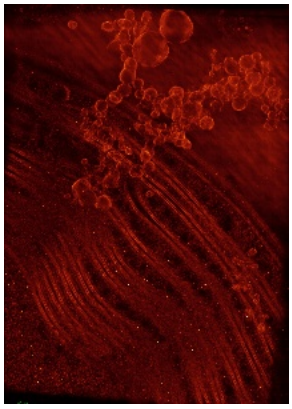
## 2.4 Orthogonal standard-deviation projections (False-color) (i)



X



Y



Z

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

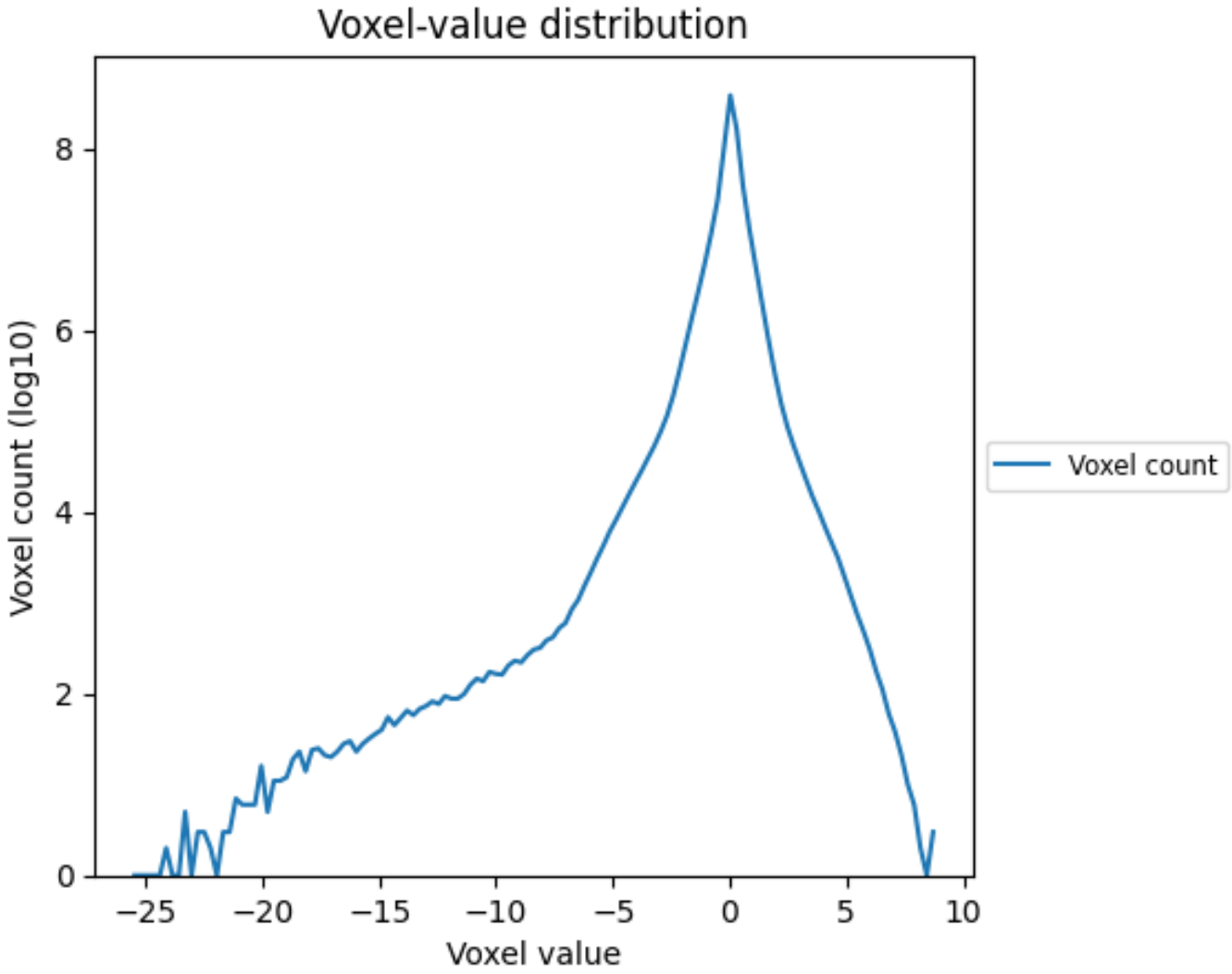
## 2.5 Mask visualisation (i)

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

# 3 Tomogram analysis

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

## 3.1 Voxel-value distribution




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