



## Full wwPDB EM Validation Report ⓘ

Mar 31, 2021 – 10:40 am BST

EMDB ID : EMD-3441  
Title : Subtomogram average of the mitochondrial ATP synthase dimer from the ciliate *Paramecium tetraurelia*  
Authors : Muehleip, A.W.; Kuehlbrandt, W.; Davies, K.M.  
Deposited on : 2016-06-17  
Resolution : 26.00 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto: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.dev75  
Validation Pipeline (wwPDB-VP) : 2.18

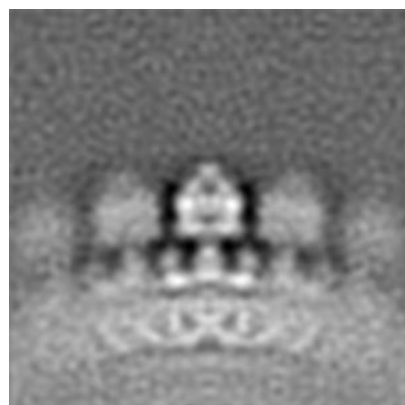
# 1 Experimental information

Property	Value	Source
EM reconstruction method	TOMOGRAPHY	Depositor
Imposed symmetry	Not Provided	
Number of tilted images used	60	Depositor
Resolution determination method	OTHER	Depositor
CTF correction method	each projection, strip-based approach	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	100	Depositor
Minimum defocus (nm)	2.5	Depositor
Maximum defocus (nm)	4.0	Depositor
Magnification	64000.0	Depositor
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum voxel value	161.085	Depositor
Minimum voxel value	134.865	Depositor
Average voxel value	146.917	Depositor
Voxel value standard deviation	1.126	Depositor
Recommended contour level	151.0	Depositor
Tomogram size ( $\text{\AA}$ )	624.4, 624.4, 624.4	wwPDB
Tomogram dimensions	140, 140, 140	wwPDB
Tomogram angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Grid spacing ( $\text{\AA}$ )	4.46, 4.46, 4.46	Depositor

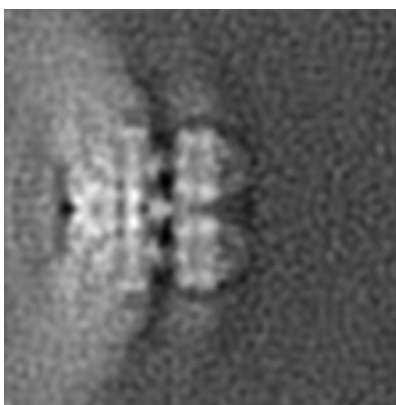
## 2 Tomogram visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3441. These allow visual inspection of the internal detail of the tomogram and identification of artifacts.

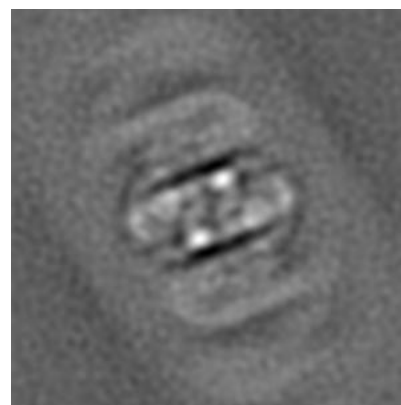
### 2.1 Orthogonal projections [i](#)



X



Y



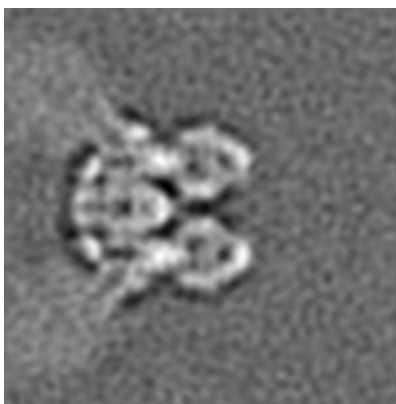
Z

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

### 2.2 Central slices [i](#)



X Index: 70



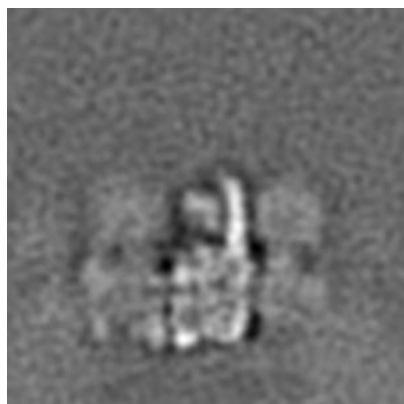
Y Index: 70



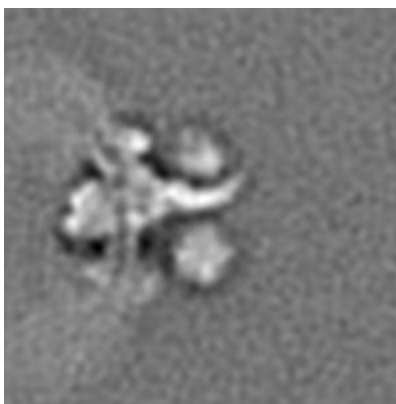
Z Index: 70

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

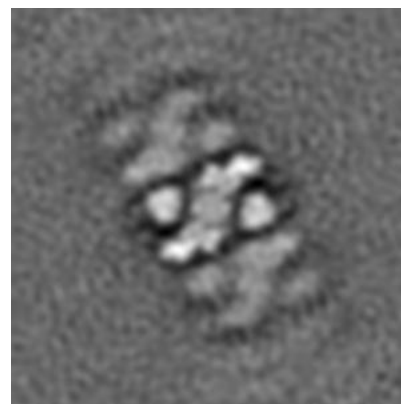
## 2.3 Largest variance slices [i](#)



X Index: 74



Y Index: 79



Z Index: 52

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

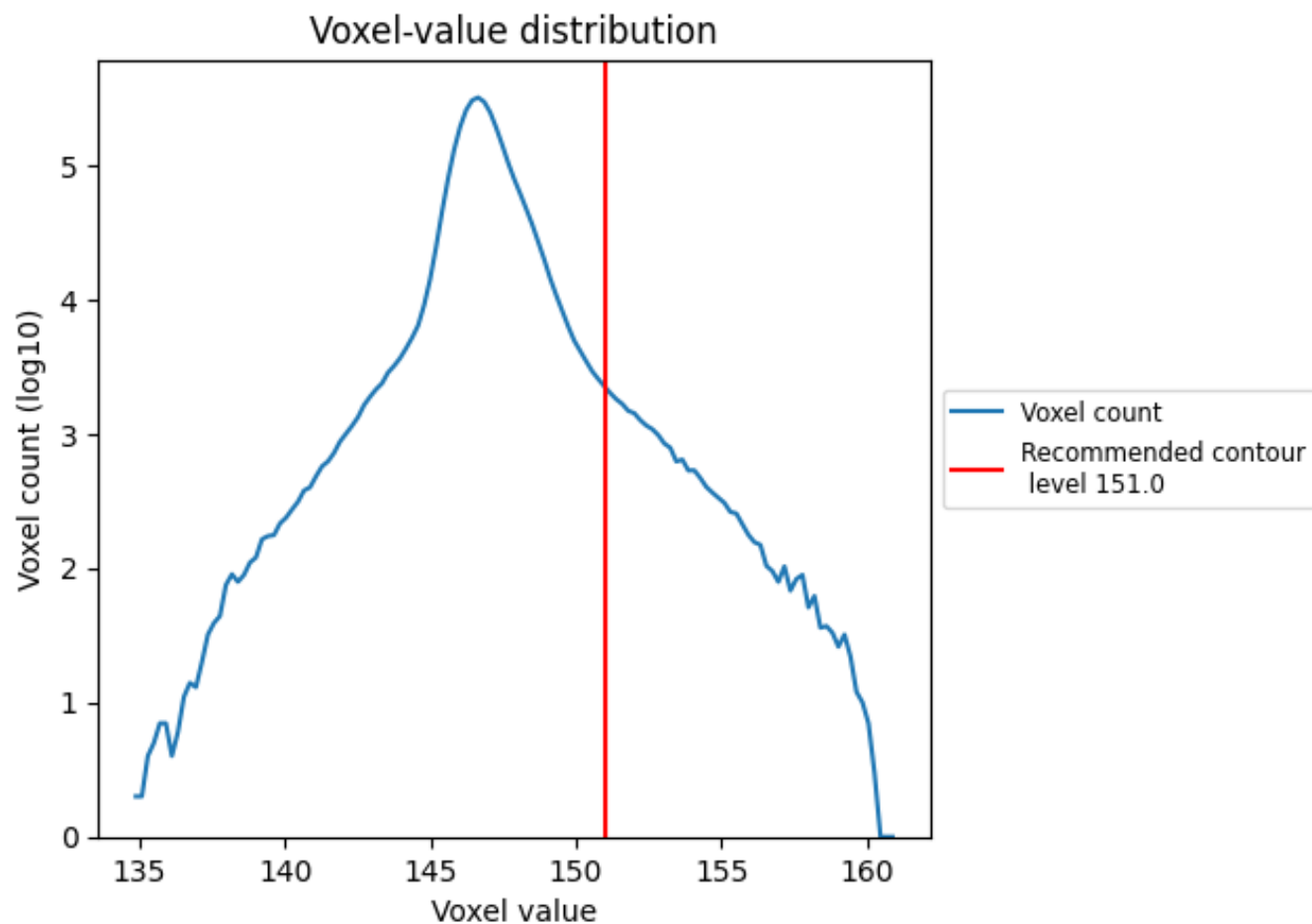
## 2.4 Mask visualisation [i](#)

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.