



Full wwPDB EM Validation Report ⓘ

Dec 14, 2020 – 01:25 PM JST

EMDB ID : EMD-5510
Title : Dissecting the in vivo assembly of the 30S ribosomal subunit reveals the role of RimM
Authors : , Guo.Q.; , Goto.S.; , Chen.Y.; , Muto.A.; , Himeno.H.; , Deng.H.; , Lei.J.; , Gao.N.
Deposited on : 2012-09-28
Resolution : 18.80 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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMMapValidationReportHelp>

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.dev61
Validation Pipeline (wwPDB-VP) : 2.15.1

1 Experimental information

Property	Value	Source
EM reconstruction method	singleParticle	Depositor
Imposed symmetry	Not Provided	
Number of images used	11474	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Weiner filter	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	1.5	Depositor
Maximum defocus (nm)	3.8	Depositor
Magnification	59000.0	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	4.629	Depositor
Minimum map value	-7.414	Depositor
Average map value	-4.262	Depositor
Map value standard deviation	0.653	Depositor
Recommended contour level	-2.3	Depositor
Map size (Å)	375.0, 375.0, 375.0	wwPDB
Map dimensions	125, 125, 125	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	3.0, 3.0, 3.0	Depositor

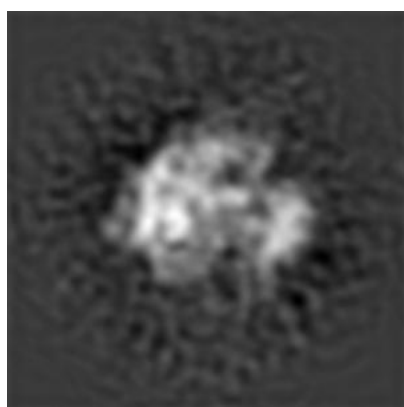
2 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5510. These allow visual inspection of the internal detail of the map and identification of artifacts.

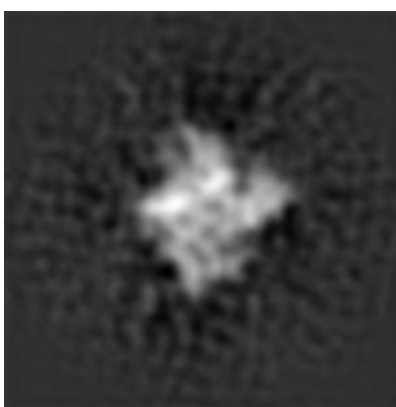
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

2.1 Orthogonal projections [i](#)

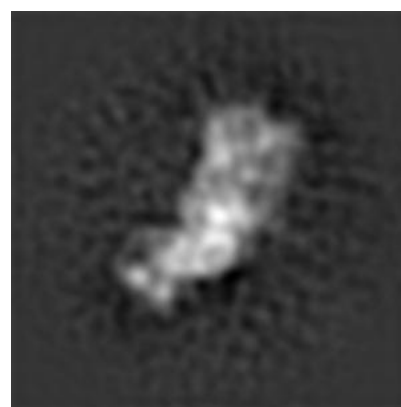
2.1.1 Primary map



X



Y

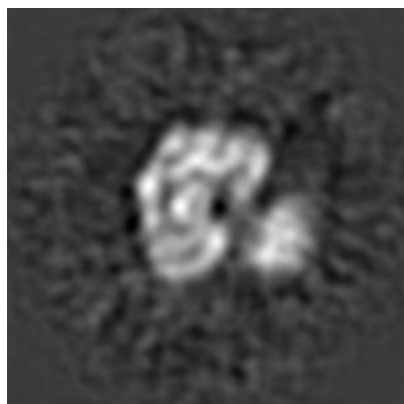


Z

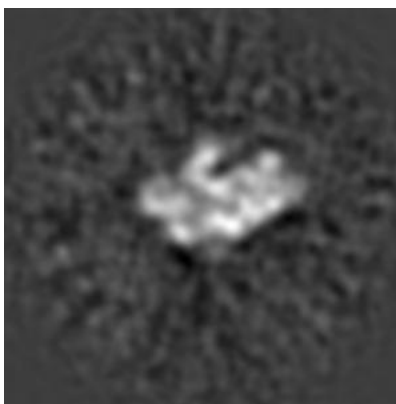
The images above show the map projected in three orthogonal directions.

2.2 Central slices [i](#)

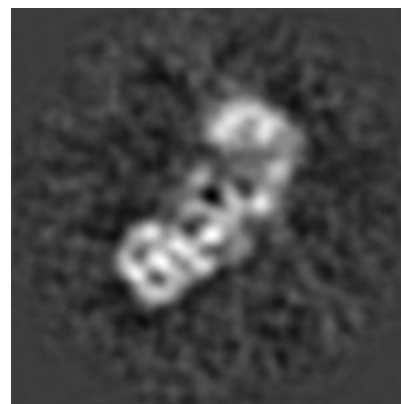
2.2.1 Primary map



X Index: 62



Y Index: 62

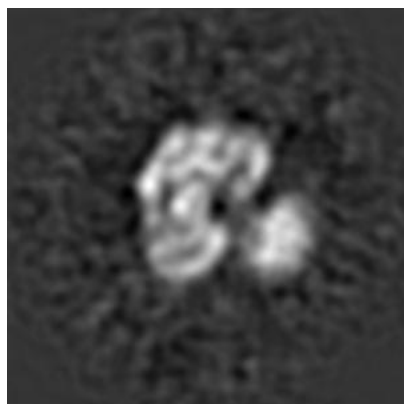


Z Index: 62

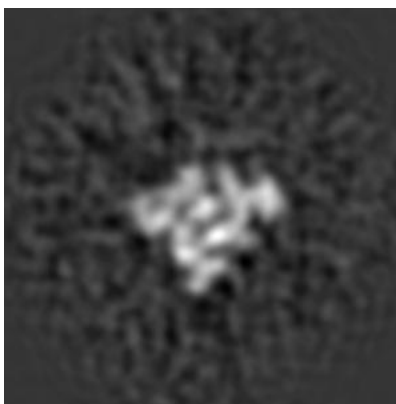
The images above show central slices of the map in three orthogonal directions.

2.3 Largest variance slices [i](#)

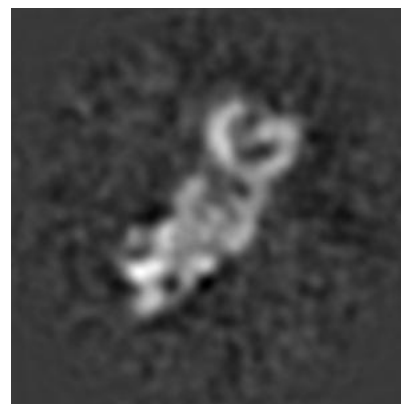
2.3.1 Primary map



X Index: 63



Y Index: 53

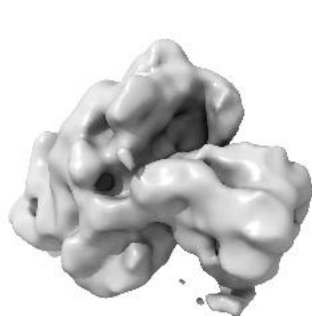


Z Index: 58

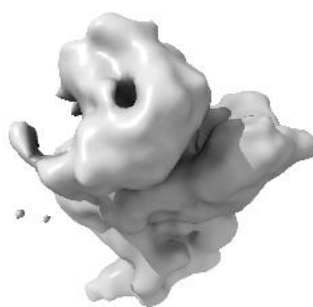
The images above show the largest variance slices of the map in three orthogonal directions.

2.4 Orthogonal surface views [i](#)

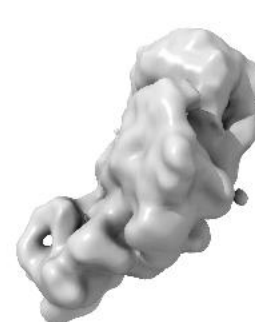
2.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level - 2.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

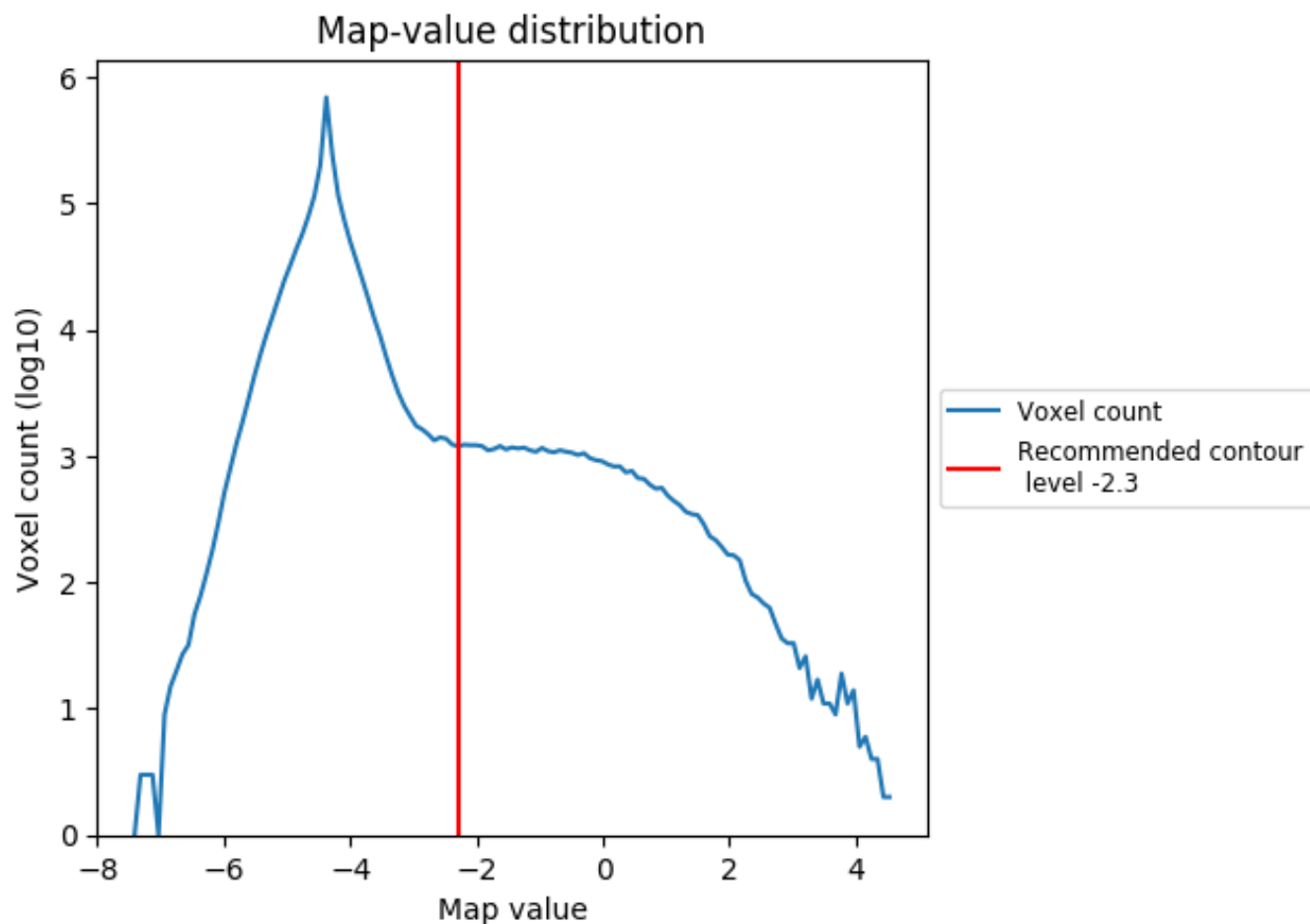
2.5 Mask visualisation

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

3 Map analysis [i](#)

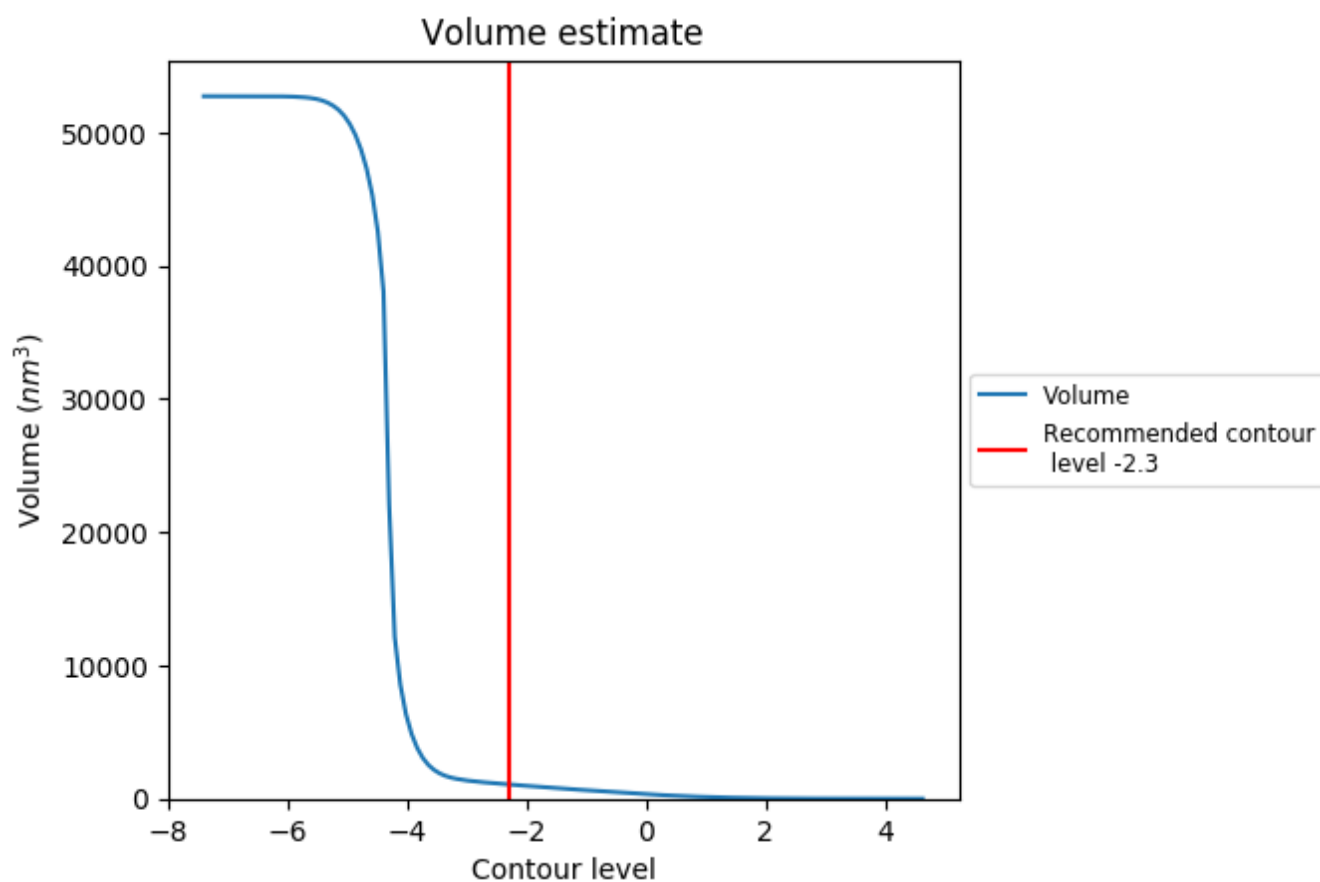
This section contains the results of statistical analysis of the map.

3.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

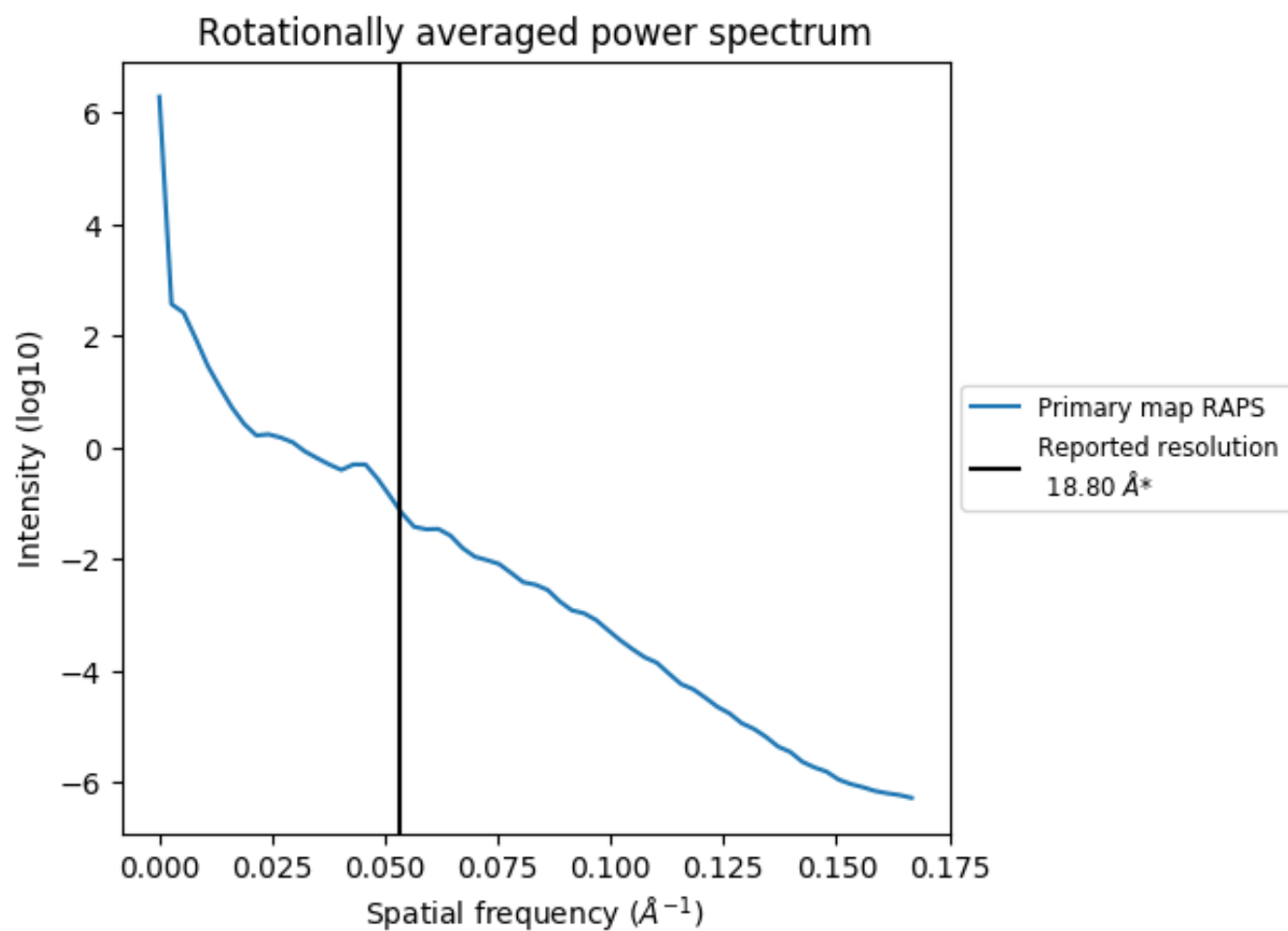
3.2 Volume estimate [i](#)



The volume at the recommended contour level is 1065 nm³; this corresponds to an approximate mass of 962 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

3.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.053 Å⁻¹

4 Fourier-Shell correlation ⓘ

This section was not generated. No FSC curve or half-maps provided.