



## Full wwPDB EM Validation Report ⓘ

Dec 14, 2020 – 01:05 PM JST

EMDB ID : EMD-5503  
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 : 13.60 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/EMMapValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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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	30892	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Weiner filter	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	20	Depositor
Minimum defocus (nm)	1.3	Depositor
Maximum defocus (nm)	4.0	Depositor
Magnification	80000.0	Depositor
Image detector	GENERIC GATAN (4k x 4k)	Depositor
Maximum map value	5.345	Depositor
Minimum map value	-7.752	Depositor
Average map value	-4.176	Depositor
Map value standard deviation	0.605	Depositor
Recommended contour level	-2.8	Depositor
Map size (Å)	345.0, 345.0, 345.0	wwPDB
Map dimensions	125, 125, 125	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.76, 2.76, 2.76	Depositor

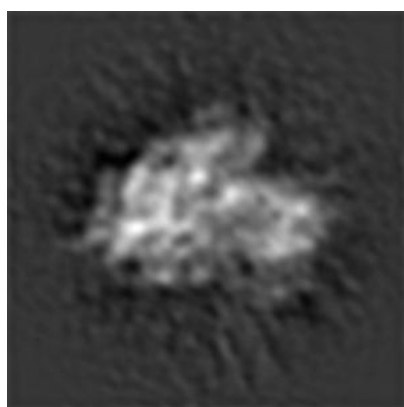
## 2 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5503. These allow visual inspection of the internal detail of the map and identification of artifacts.

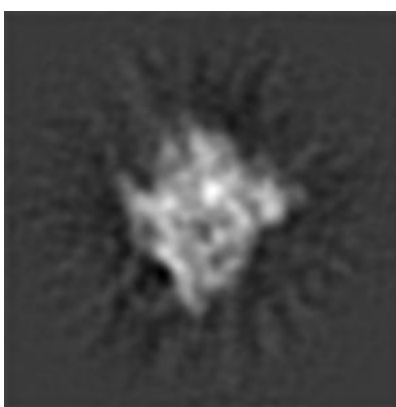
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

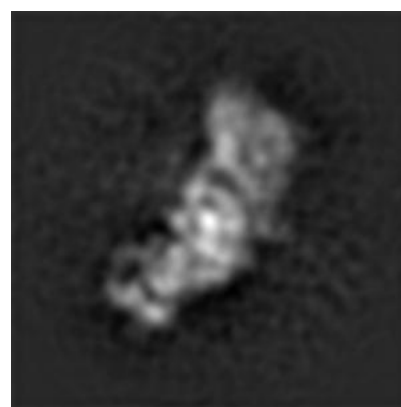
#### 2.1.1 Primary map



X



Y

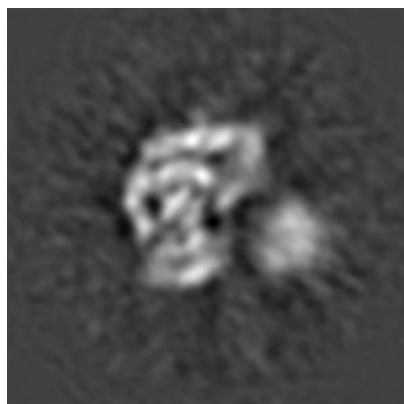


Z

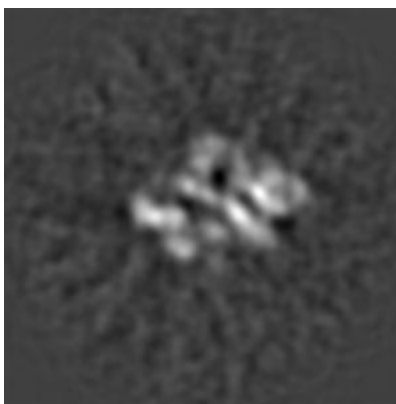
The images above show the map projected in three orthogonal directions.

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

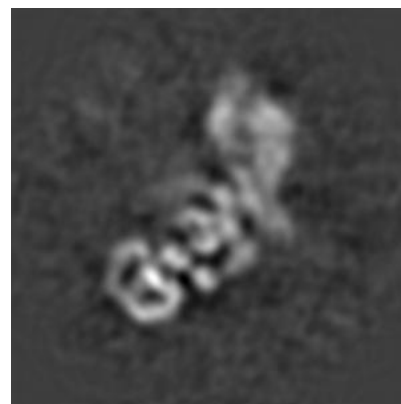
#### 2.2.1 Primary map



X Index: 62



Y Index: 62

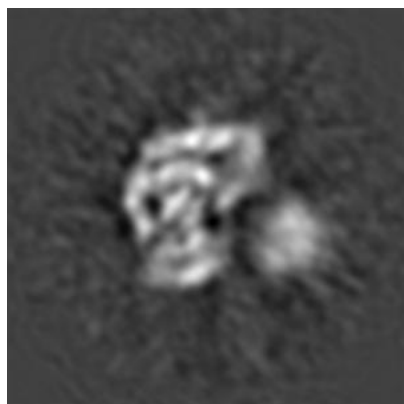


Z Index: 62

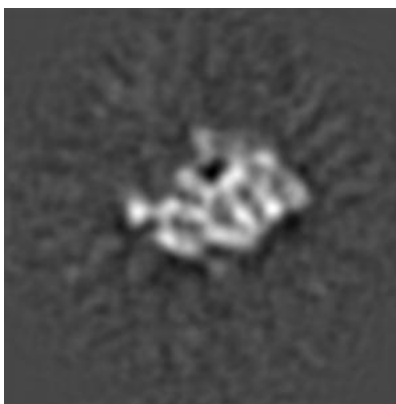
The images above show central slices of the map in three orthogonal directions.

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

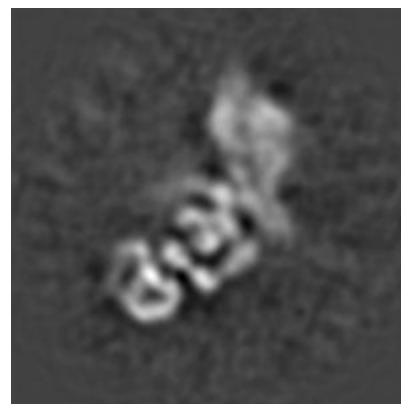
### 2.3.1 Primary map



X Index: 62



Y Index: 58

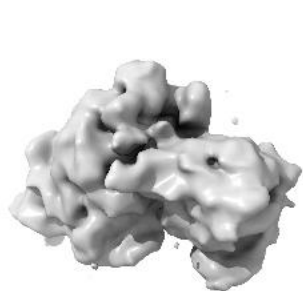


Z Index: 63

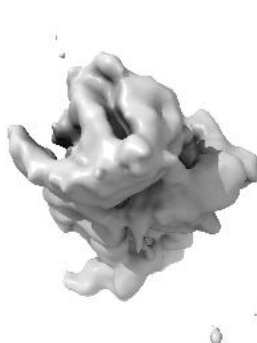
The images above show the largest variance slices of the map in three orthogonal directions.

## 2.4 Orthogonal surface views [i](#)

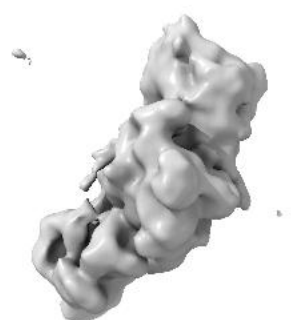
### 2.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level - 2.8. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

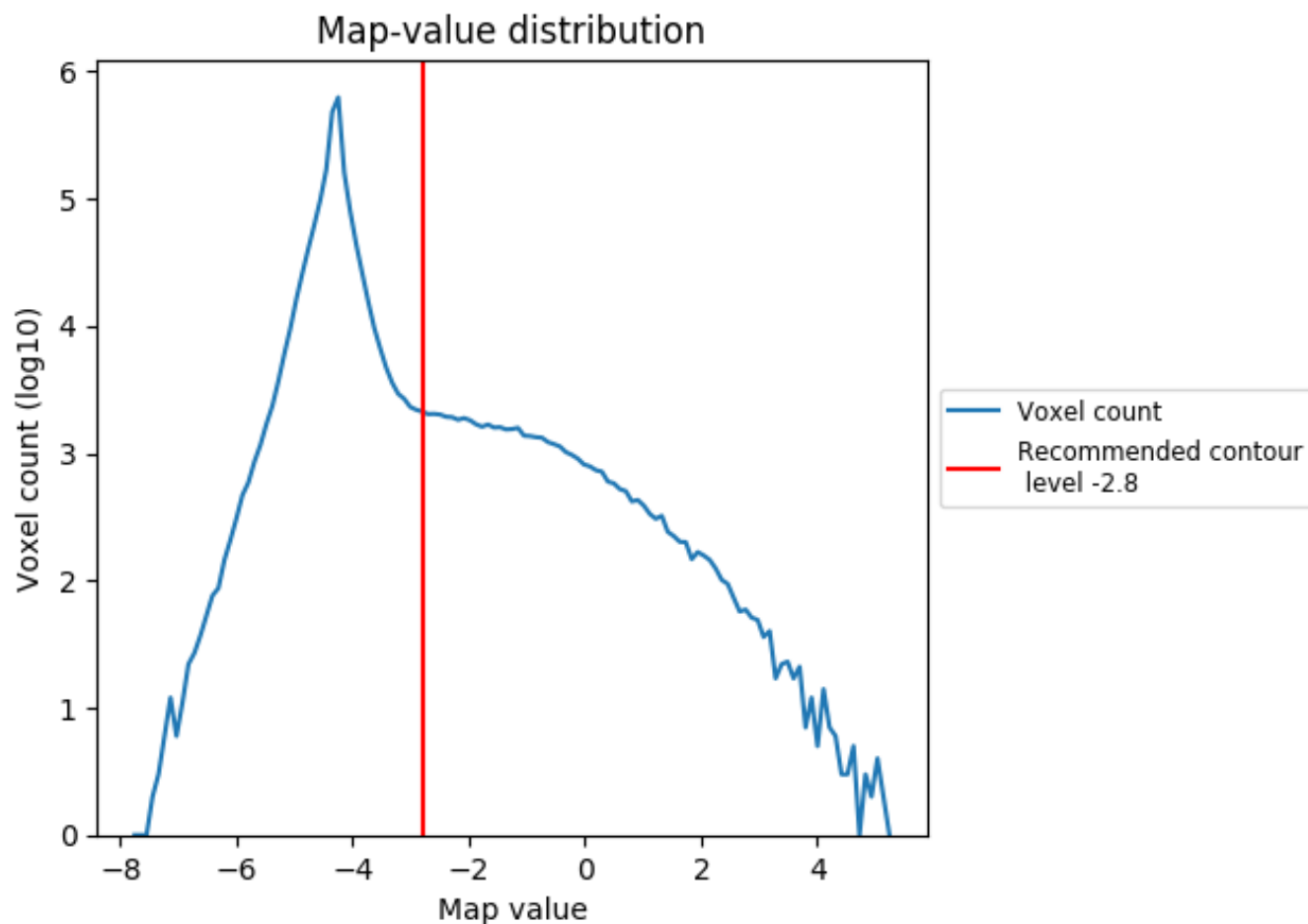
## 2.5 Mask visualisation

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

### 3 Map analysis [i](#)

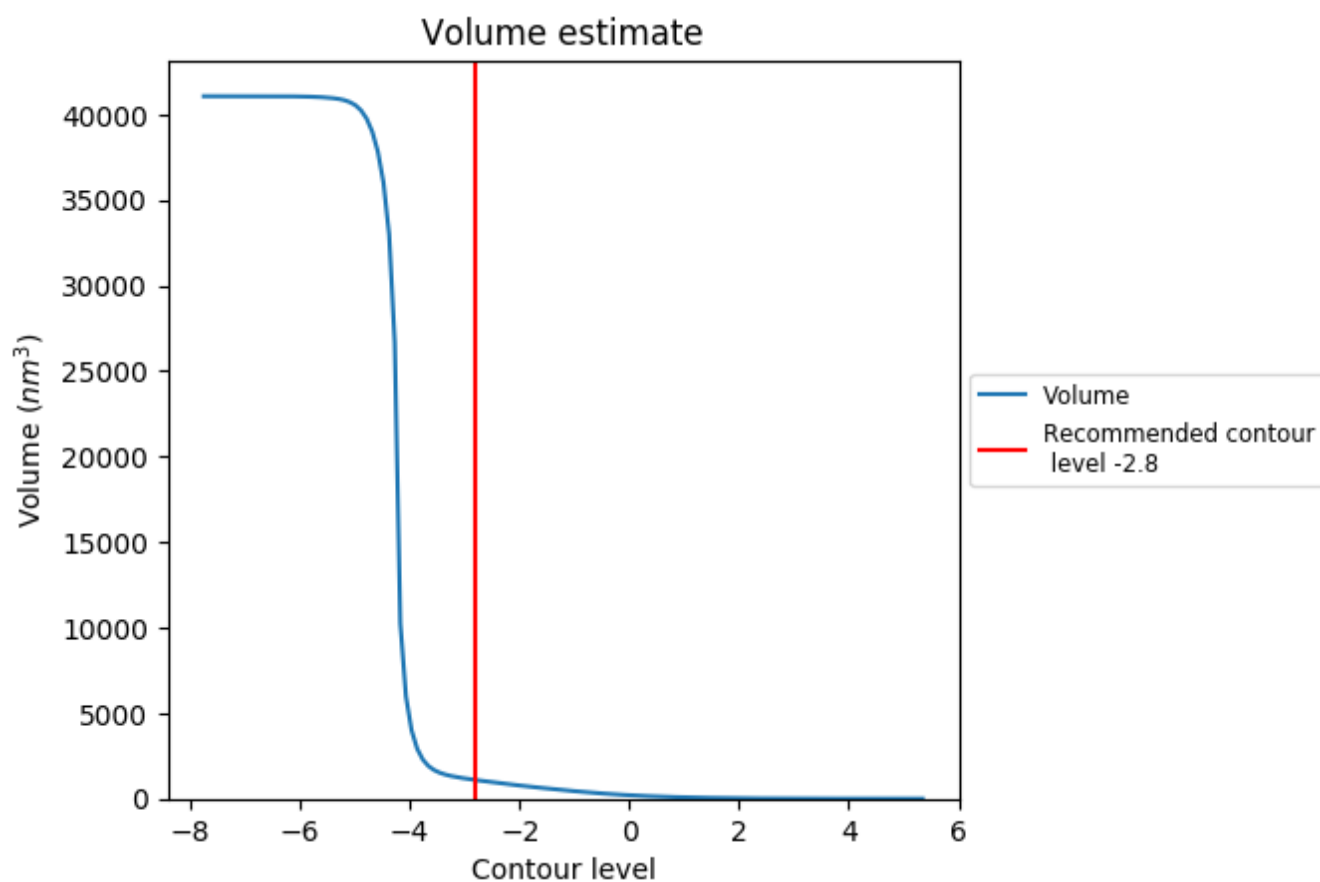
This section contains the results of statistical analysis of the map.

#### 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.

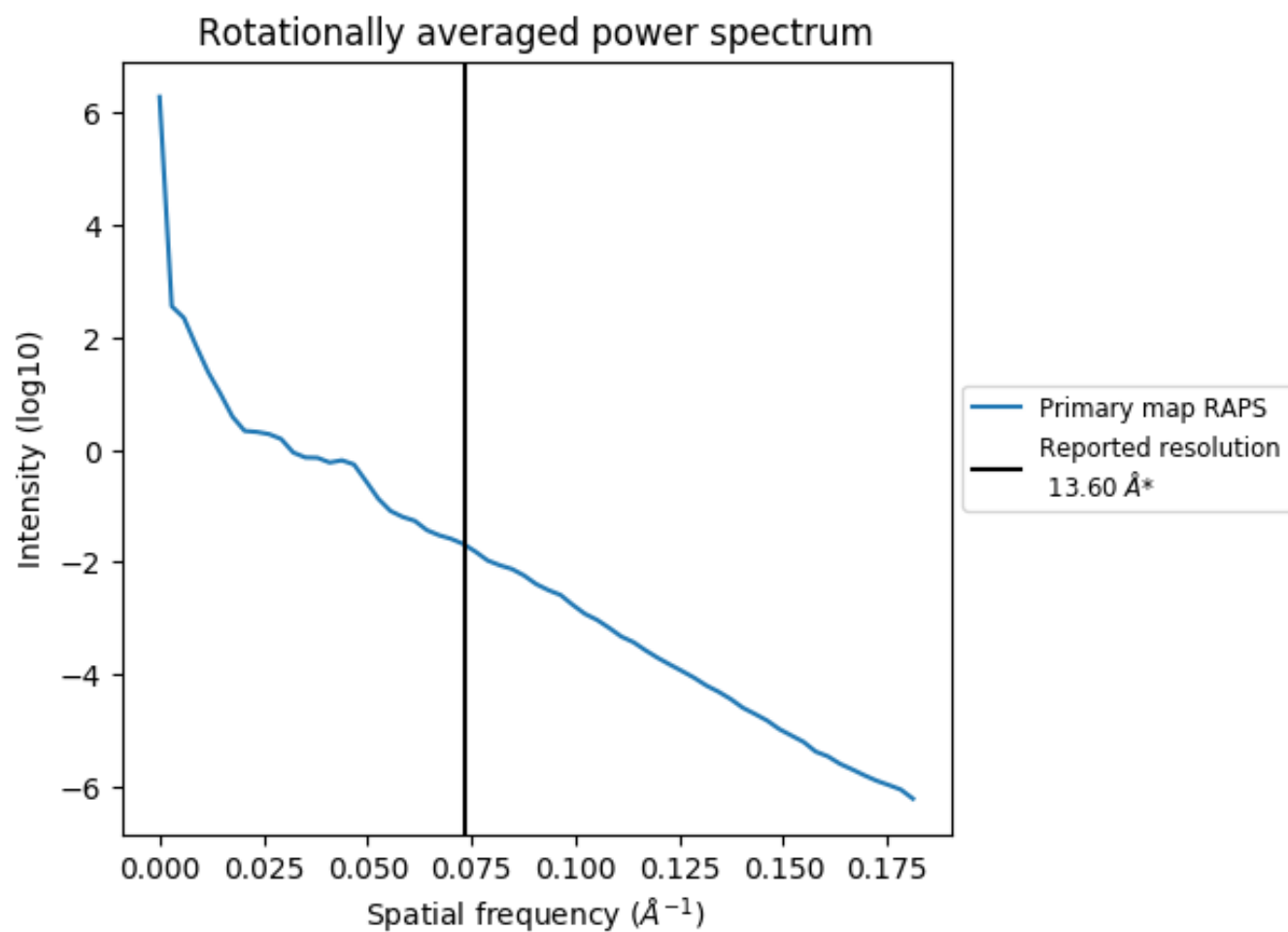
### 3.2 Volume estimate [i](#)



The volume at the recommended contour level is 1092  $\text{nm}^3$ ; this corresponds to an approximate mass of 986 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 0.074 Å<sup>-1</sup>



## 4 Fourier-Shell correlation ⓘ

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