



Full wwPDB EM Validation Report ⓘ

Mar 31, 2021 – 09:57 am BST

EMDB ID : EMD-1582
Title : Three-dimensional structure of the 70S E. coli ribosome in its native 3D organization in polysomes.
Authors : Brandt, F.; Elcock, A.H.; Etchells, S.A.; Ortiz, J.O.; Hartl, F.U.; Baumeister, W.
Deposited on : 2008-11-07
Resolution : 30.00 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

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.dev75
Validation Pipeline (wwPDB-VP) : 2.18

1 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	Not Provided	
Number of subtomograms used	Not provided	
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Not provided	
Microscope	FEI/PHILIPS CM200FEG	Depositor
Voltage (kV)	160	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	3.0	Depositor
Maximum defocus (nm)	4.0	Depositor
Magnification	53960.0	Depositor
Image detector	GENERIC TVIPS (4k x 4k)	Depositor
Maximum map value	0.000	Depositor
Minimum map value	-0.000	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.000	Depositor
Recommended contour level	9.2e-09	Depositor
Map size (Å)	716.8, 716.8, 716.8	wwPDB
Map dimensions	128, 128, 128	wwPDB
Map angles (°)	90, 90, 90	wwPDB
Pixel spacing (Å)	5.6, 5.6, 5.6	Depositor

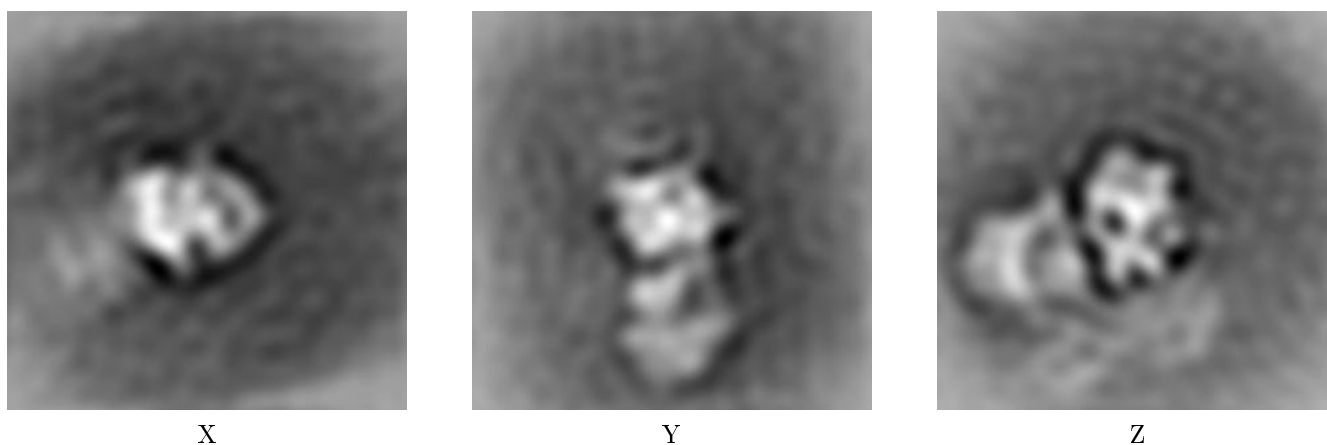
2 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-1582. 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](#)

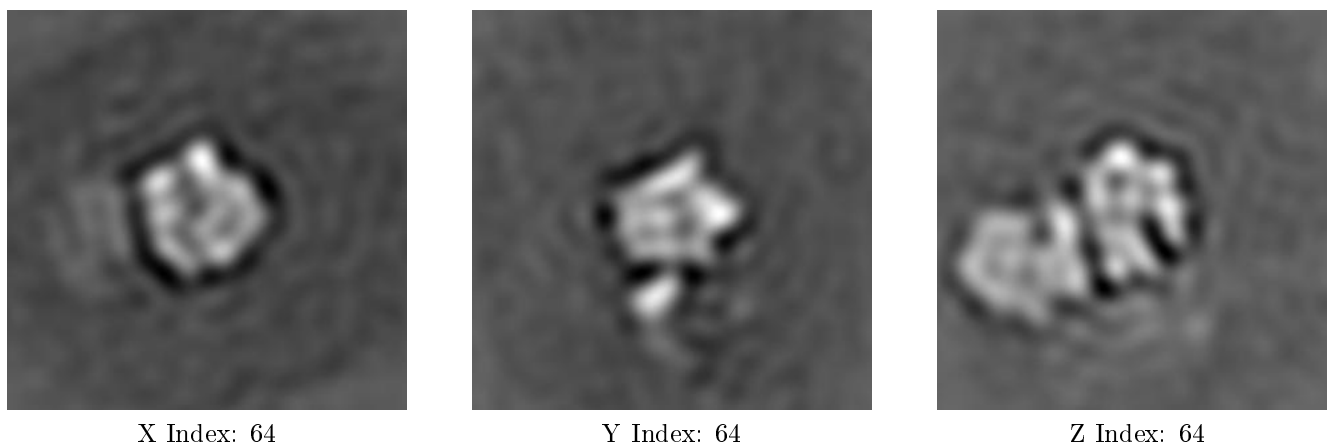
2.1.1 Primary map



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

2.2 Central slices [i](#)

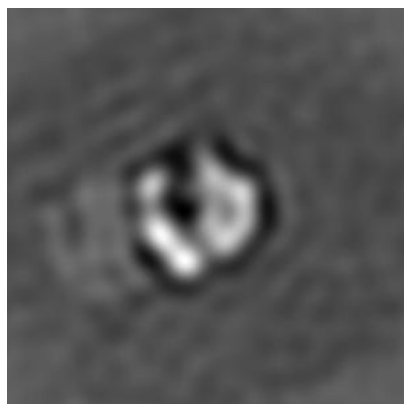
2.2.1 Primary map



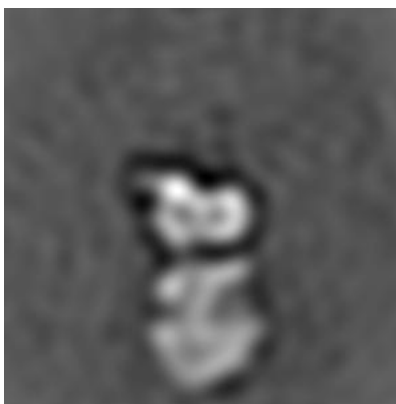
The images above show central slices of the map in three orthogonal directions.

2.3 Largest variance slices [i](#)

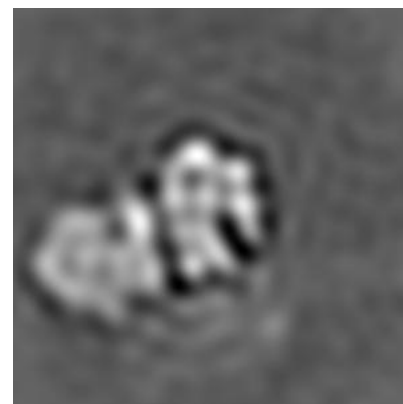
2.3.1 Primary map



X Index: 69



Y Index: 49

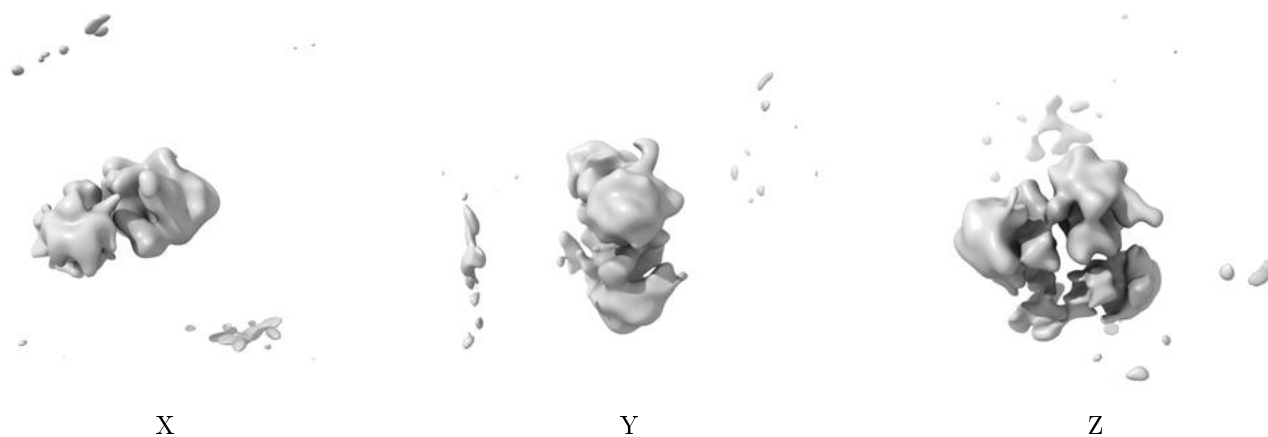


Z Index: 63

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



The images above show the 3D surface view of the map at the recommended contour level 9.2e-09. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

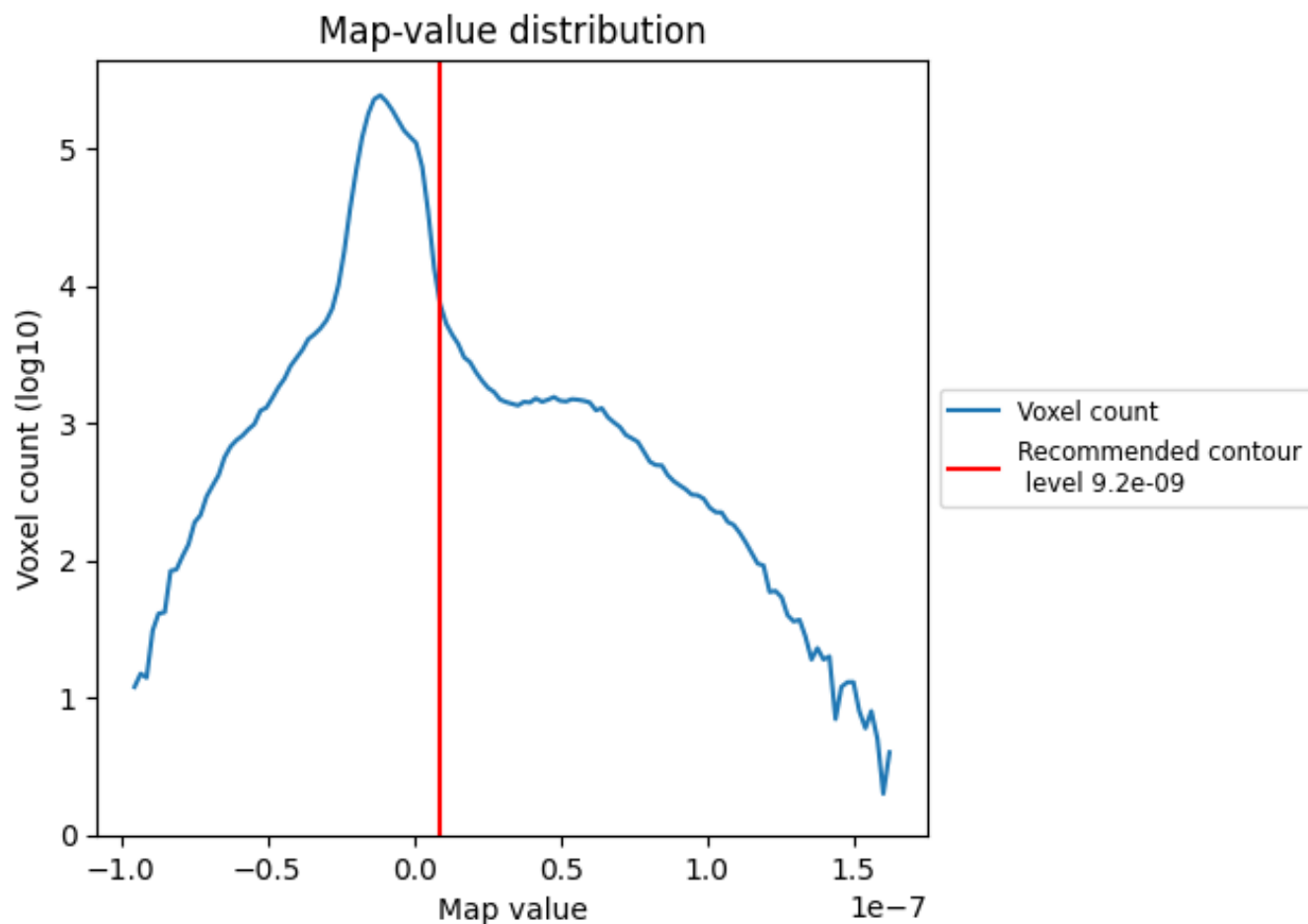
2.5 Mask visualisation

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

3 Map analysis [i](#)

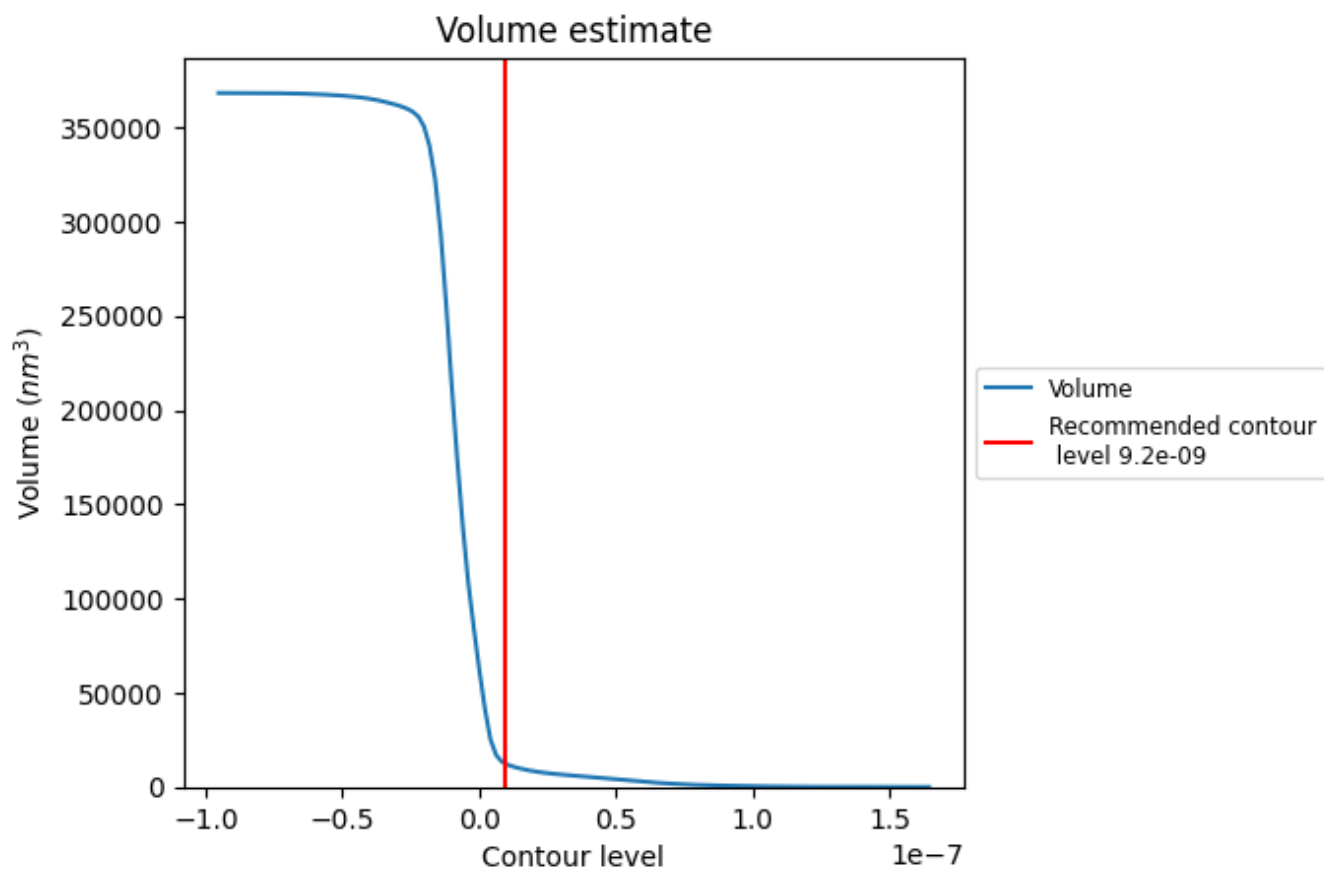
This section contains the results of statistical analysis of the map.

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.

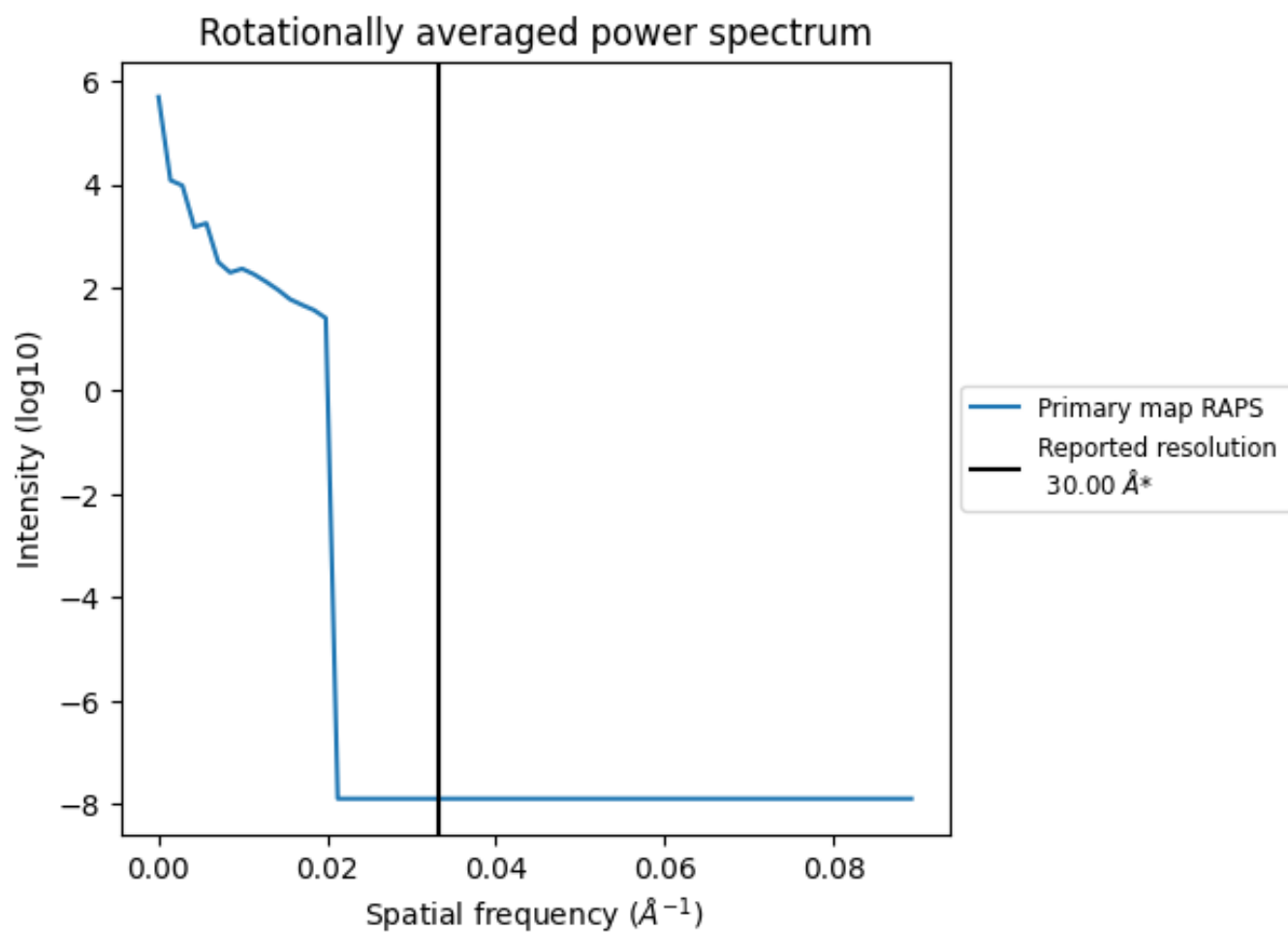
3.2 Volume estimate [i](#)



The volume at the recommended contour level is 12656 nm^3 ; this corresponds to an approximate mass of 11433 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 [i](#)



*Reported resolution corresponds to spatial frequency of 0.033 Å⁻¹

4 Fourier-Shell correlation

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