

Resource Summary Report

Generated by [kravitz2](#) on Jul 31, 2026

IMOD

RRID:SCR_003297

Type: Tool

Proper Citation

IMOD (RRID:SCR_003297)

Resource Information

URL: <http://bio3d.colorado.edu/imod>

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Description: A free, cross-platform set of image processing, modeling and display programs used for tomographic reconstruction and for 3D reconstruction of EM serial sections and optical sections. The package contains tools for assembling and aligning data within multiple types and sizes of image stacks, viewing 3-D data from any orientation, and modeling and display of the image files. IMOD 4.1.8 Is Now Available for Linux, Windows, and Mac OS X

Abbreviations: IMOD

Synonyms: IMOD - 3D Reconstruction and Analysis

Resource Type: image analysis software, source code, software application, software resource, data processing software, image processing software

Defining Citation: [PMID:27444392](#)

Keywords: electron microscopy, magnetic resonance, tomographic reconstruction, reconstruction, segmentation, 3d volume

Funding: NCRR ;
NIGMS ;
NIBIB

Availability: Free, Available for download, Freely available

Resource Name: IMOD

Resource ID: SCR_003297

Alternate IDs: nif-0000-31686

Alternate URLs: <http://www.nitrc.org/projects/imod>

Record Creation Time: 20220129T080218+0000

Record Last Update: 20260801T042530+0000

Ratings and Alerts

No rating or validation information has been found for IMOD.

No alerts have been found for IMOD.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1585 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#).

Medina M, et al. (2026) Surface Morphometrics reveals local membrane thickness variation in organellar subcompartments. The Journal of cell biology, 225(3).

Hou Z, et al. (2026) In situ chromatin dynamics and HIV-1 nuclear trafficking. bioRxiv : the preprint server for biology.

Lovatt C, et al. (2026) Memory engram synapse 3D macromolecular architecture visualized by cryoCLEM-guided cryoET. Structure (London, England : 1993), 34(1), 100.

Müller TG, et al. (2026) Lenacapavir-induced capsid damage uncovers HIV-1 genomes emanating from nuclear speckles. The EMBO journal, 45(2), 449.

Purnell C, et al. (2025) Training Generalized Segmentation Networks with Real and Synthetic Cryo-ET data. bioRxiv : the preprint server for biology.

Trachsel-Moncho L, et al. (2025) SNX10 functions as a modulator of piecemeal mitophagy and mitochondrial bioenergetics. The Journal of cell biology, 224(5).

Wilson JS, et al. (2025) Molecular mechanism of bacteriophage contraction structure of an S-layer-penetrating bacteriophage. Life science alliance, 8(6).

Fekete R, et al. (2025) Microglia dysfunction, neurovascular inflammation and focal neuropathologies are linked to IL-1- and IL-6-related systemic inflammation in COVID-19. Nature neuroscience, 28(3), 558.

Sun WW, et al. (2025) Cryo-electron tomography pipeline for plasma membranes. Nature communications, 16(1), 855.

Chen Y, et al. (2025) Tetrameric PilZ protein stabilizes stator ring in complex flagellar motor and is required for motility in *Campylobacter jejuni*. *Proceedings of the National Academy of Sciences of the United States of America*, 122(1), e2412594121.

Das SM, et al. (2025) Correlating Grain Boundary Character and Composition in 3-Dimensions Using 4D-Scanning Precession Electron Diffraction and Atom Probe Tomography. *Small methods*, 9(5), e2401650.

Adeleke RA, et al. (2025) Replication-incompetent VSV-based vaccine elicits protective responses against SARS-CoV-2 and influenza virus. *Science advances*, 11(5), eadq4545.

Leung MR, et al. (2025) Structural diversity of axonemes across mammalian motile cilia. *Nature*, 637(8048), 1170.

Uckelmann M, et al. (2025) Dynamic PRC1-CBX8 stabilizes a porous structure of chromatin condensates. *Nature structural & molecular biology*, 32(3), 520.

Kable B, et al. (2025) Compromised two-start zigzag chromatin folding in immature mouse retina cells driven by irregularly spaced nucleosomes with short DNA linkers. *Nucleic acids research*, 53(10).

Chaillet ML, et al. (2025) pytom-match-pick: A tophat-transform constraint for automated classification in template matching. *Journal of structural biology: X*, 11, 100125.

Tyutyunyk-Massey L, et al. (2025) CDK2 inhibition produces a persistent population of polyploid cancer cells. *JCI insight*, 10(10).

Choy J, et al. (2025) Population-level morphological analysis of paired CO₂- and odor-sensing olfactory neurons in *D. melanogaster* via volume electron microscopy. *eLife*, 14.

Tavakoli A, et al. (2025) Hemifusomes and interacting proteolipid nanodroplets mediate multi-vesicular body formation. *Nature communications*, 16(1), 4609.

Böhning J, et al. (2025) Structure of the virulence-associated *Neisseria meningitidis* filamentous bacteriophage MDA?. *Proceedings of the National Academy of Sciences of the United States of America*, 122(25), e2420157122.