## Sriram Subramaniam

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/9207310/publications.pdf

Version: 2024-02-01

162 papers 13,522 citations

18482 62 h-index 26613 107 g-index

194 all docs

194 docs citations

194 times ranked 15309 citing authors

| #  | Article                                                                                                                                                                                                             | IF   | Citations |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Molecular architecture of native HIV-1 gp120 trimers. Nature, 2008, 455, 109-113.                                                                                                                                   | 27.8 | 720       |
| 2  | A collaborative framework for 3D alignment and classification of heterogeneous subvolumes in cryo-electron tomography. Journal of Structural Biology, 2013, 181, 116-127.                                           | 2.8  | 524       |
| 3  | SARS-CoV-2 Omicron variant: Antibody evasion and cryo-EM structure of spike protein–ACE2 complex.<br>Science, 2022, 375, 760-764.                                                                                   | 12.6 | 488       |
| 4  | Breaking Cryo-EM Resolution Barriers to Facilitate Drug Discovery. Cell, 2016, 165, 1698-1707.                                                                                                                      | 28.9 | 458       |
| 5  | Molecular mechanism of vectorial proton translocation by bacteriorhodopsin. Nature, 2000, 406, 653-657.                                                                                                             | 27.8 | 451       |
| 6  | 2.2 $\tilde{A}$ resolution cryo-EM structure of $\hat{I}^2$ -galactosidase in complex with a cell-permeant inhibitor. Science, 2015, 348, 1147-1151.                                                                | 12.6 | 440       |
| 7  | Mitochondrial reticulum for cellular energy distribution in muscle. Nature, 2015, 523, 617-620.                                                                                                                     | 27.8 | 355       |
| 8  | Site-specific 3D imaging of cells and tissues with a dual beam microscope. Journal of Structural Biology, 2006, 155, 63-73.                                                                                         | 2.8  | 311       |
| 9  | 2.3 $\tilde{A}$ resolution cryo-EM structure of human p97 and mechanism of allosteric inhibition. Science, 2016, 351, 871-875.                                                                                      | 12.6 | 305       |
| 10 | Protein conformational changes in the bacteriorhodopsin photocycle 1 1Edited by B. Honig. Journal of Molecular Biology, 1999, 287, 145-161.                                                                         | 4.2  | 244       |
| 11 | Cryo-EM structure of human rhodopsin bound to an inhibitory G protein. Nature, 2018, 558, 553-558.                                                                                                                  | 27.8 | 230       |
| 12 | Structural mechanism of glutamate receptor activation and desensitization. Nature, 2014, 514, 328-334.                                                                                                              | 27.8 | 207       |
| 13 | Cryoâ€electron microscopy – a primer for the nonâ€microscopist. FEBS Journal, 2013, 280, 28-45.                                                                                                                     | 4.7  | 194       |
| 14 | Structure of $\hat{l}^2$ -galactosidase at 3.2- $\hat{A}$ resolution obtained by cryo-electron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11709-11714. | 7.1  | 184       |
| 15 | Focused ion beams in biology. Nature Methods, 2015, 12, 1021-1031.                                                                                                                                                  | 19.0 | 184       |
| 16 | Structural Mechanism of Trimeric HIV-1 Envelope Glycoprotein Activation. PLoS Pathogens, 2012, 8, e1002797.                                                                                                         | 4.7  | 182       |
| 17 | Direct visualization of Escherichia coli chemotaxis receptor arrays using cryo-electron microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3777-3781.          | 7.1  | 176       |
| 18 | Cryo-electron microscopy structures of the N501Y SARS-CoV-2 spike protein in complex with ACE2 and 2 potent neutralizing antibodies. PLoS Biology, 2021, 19, e3001237.                                              | 5.6  | 171       |

| #  | Article                                                                                                                                                                                                                                                            | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | 3D visualization of HIV transfer at the virological synapse between dendritic cells and T cells.  Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13336-13341.                                                         | 7.1  | 169       |
| 20 | Electron Tomography of the Contact between T Cells and SIV/HIV-1: Implications for Viral Entry. PLoS Pathogens, 2007, 3, e63.                                                                                                                                      | 4.7  | 165       |
| 21 | Molecular Architectures of Trimeric SIV and HIV-1 Envelope Glycoproteins on Intact Viruses: Strain-Dependent Variation in Quaternary Structure. PLoS Pathogens, 2010, 6, e1001249.                                                                                 | 4.7  | 161       |
| 22 | Cryo-EM Structures Reveal Mechanism and Inhibition of DNA Targeting by a CRISPR-Cas Surveillance Complex. Cell, 2017, 171, 414-426.e12.                                                                                                                            | 28.9 | 158       |
| 23 | Power Grid Protection of the Muscle Mitochondrial Reticulum. Cell Reports, 2017, 19, 487-496.                                                                                                                                                                      | 6.4  | 155       |
| 24 | Prefusion structure of trimeric HIV-1 envelope glycoprotein determined by cryo-electron microscopy. Nature Structural and Molecular Biology, 2013, 20, 1352-1357.                                                                                                  | 8.2  | 152       |
| 25 | Ion-Abrasion Scanning Electron Microscopy Reveals Surface-Connected Tubular Conduits in HIV-Infected Macrophages. PLoS Pathogens, 2009, 5, e1000591.                                                                                                               | 4.7  | 151       |
| 26 | Trimeric HIV-1 glycoprotein gp140 immunogens and native HIV-1 envelope glycoproteins display the same closed and open quaternary molecular architectures. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11440-11445. | 7.1  | 149       |
| 27 | Cryo-electron tomography of bacteria: progress, challenges and future prospects. Nature Reviews Microbiology, 2009, 7, 666-675.                                                                                                                                    | 28.6 | 144       |
| 28 | Critical mixing in monolayer mixtures of phospholipid and cholesterol. The Journal of Physical Chemistry, 1987, 91, 1715-1718.                                                                                                                                     | 2.9  | 132       |
| 29 | Cryo-EM structure of a dimeric B-Raf:14-3-3 complex reveals asymmetry in the active sites of B-Raf kinases. Science, 2019, 366, 109-115.                                                                                                                           | 12.6 | 127       |
| 30 | Molecular architecture and mechanism of an icosahedral pyruvate dehydrogenase complex: a multifunctional catalytic machine. EMBO Journal, 2002, 21, 5587-5598.                                                                                                     | 7.8  | 115       |
| 31 | Atomic Resolution Cryo-EM Structure of Î <sup>2</sup> -Galactosidase. Structure, 2018, 26, 848-856.e3.                                                                                                                                                             | 3.3  | 115       |
| 32 | Three-dimensional structure of a bacterial oxalate transporter. Nature Structural Biology, 2002, 9, 597-600.                                                                                                                                                       | 9.7  | 114       |
| 33 | 3D Imaging of mammalian cells with ion-abrasion scanning electron microscopy. Journal of Structural Biology, 2009, 166, 1-7.                                                                                                                                       | 2.8  | 113       |
| 34 | Cryo-EM Structures of the Magnesium Channel CorA Reveal Symmetry Break upon Gating. Cell, 2016, 164, 747-756.                                                                                                                                                      | 28.9 | 111       |
| 35 | Structural Model for 12-Helix Transporters Belonging to the Major Facilitator Superfamily. Journal of Bacteriology, 2003, 185, 1712-1718.                                                                                                                          | 2.2  | 103       |
| 36 | High Potency of a Bivalent Human VH Domain in SARS-CoV-2 Animal Models. Cell, 2020, 183, 429-441.e16.                                                                                                                                                              | 28.9 | 100       |

| #  | Article                                                                                                                                                                                                                                        | IF           | Citations |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------|
| 37 | Structure and accessibility of HA trimers on intact 2009 H1N1 pandemic influenza virus to stem region-specific neutralizing antibodies. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4592-4597. | 7.1          | 99        |
| 38 | Multi-resolution correlative focused ion beam scanning electron microscopy: Applications to cell biology. Journal of Structural Biology, 2014, 185, 278-284.                                                                                   | 2.8          | 99        |
| 39 | Structural mechanisms of centromeric nucleosome recognition by the kinetochore protein CENP-N. Science, 2018, 359, 339-343.                                                                                                                    | 12.6         | 98        |
| 40 | Cryo-EM structures reveal coordinated domain motions that govern DNA cleavage by Cas9. Nature Structural and Molecular Biology, 2019, 26, 679-685.                                                                                             | 8.2          | 97        |
| 41 | Broadly protective murine monoclonal antibodies against influenza B virus target highly conserved neuraminidase epitopes. Nature Microbiology, 2017, 2, 1415-1424.                                                                             | 13.3         | 96        |
| 42 | Resolution advances in cryo-EM enable application to drug discovery. Current Opinion in Structural Biology, 2016, 41, 194-202.                                                                                                                 | 5.7          | 95        |
| 43 | Protein Secondary Structure Determination by Constrained Single-Particle Cryo-Electron Tomography. Structure, 2012, 20, 2003-2013.                                                                                                             | 3.3          | 90        |
| 44 | Self-assembled monolayers improve protein distribution on holey carbon cryo-EM supports. Scientific Reports, 2014, 4, 7084.                                                                                                                    | 3.3          | 88        |
| 45 | Cryo-EM structure of the bacteriophage T4 portal protein assembly at near-atomic resolution. Nature Communications, 2015, 6, 7548.                                                                                                             | 12.8         | 88        |
| 46 | Correlative 3D imaging of whole mammalian cells with light and electron microscopy. Journal of Structural Biology, 2011, 176, 268-278.                                                                                                         | 2.8          | 81        |
| 47 | Single-particle cryo-EM structure of a voltage-activated potassium channel in lipid nanodiscs. ELife, 2018, 7, .                                                                                                                               | 6.0          | 80        |
| 48 | HIV-1 activates Cdc42 and induces membrane extensions in immature dendritic cells to facilitate cell-to-cell virus propagation. Blood, 2011, 118, 4841-4852.                                                                                   | 1.4          | 79        |
| 49 | Structural basis of kainate subtype glutamate receptor desensitization. Nature, 2016, 537, 567-571.                                                                                                                                            | 27.8         | 78        |
| 50 | A core-weighted fitting method for docking atomic structures into low-resolution maps: Application to cryo-electron microscopy. Journal of Structural Biology, 2003, 141, 63-76.                                                               | 2.8          | 77        |
| 51 | Cell Surface Filaments of the Gliding Bacterium <i>Flavobacterium johnsoniae</i> Revealed by Cryo-Electron Tomography. Journal of Bacteriology, 2007, 189, 7503-7506.                                                                          | 2.2          | 76        |
| 52 | Cryo-EM: beyond the microscope. Current Opinion in Structural Biology, 2017, 46, 71-78.                                                                                                                                                        | 5.7          | 76        |
| 53 | Cryo-EM Analysis of the Conformational Landscape of Human P-glycoprotein (ABCB1) During its Catalytic Cycle. Molecular Pharmacology, 2016, 90, 35-41.                                                                                          | 2.3          | 75        |
| 54 | HIV-1 envelope glycoprotein structure. Current Opinion in Structural Biology, 2013, 23, 268-276.                                                                                                                                               | 5 <b>.</b> 7 | 73        |

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|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|
| 55 | Molecular Structure of a 9-MDa Icosahedral Pyruvate Dehydrogenase Subcomplex Containing the E2 and E3 Enzymes Using Cryoelectron Microscopy. Journal of Biological Chemistry, 2006, 281, 4364-4370.           | 3.4        | 72        |
| 56 | Chemoreceptors in <i>Caulobacter crescentus</i> : Trimers of Receptor Dimers in a Partially Ordered Hexagonally Packed Array. Journal of Bacteriology, 2008, 190, 6805-6810.                                  | 2.2        | 72        |
| 57 | Role of HAMP domains in chemotaxis signaling by bacterial chemoreceptors. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16555-16560.                            | 7.1        | 72        |
| 58 | 3D imaging of diatoms with ion-abrasion scanning electron microscopy. Journal of Structural Biology, 2009, 166, 316-328.                                                                                      | 2.8        | 71        |
| 59 | Structural and biochemical rationale for enhanced spike protein fitness in delta and kappa SARS-CoV-2 variants. Nature Communications, 2022, 13, 742.                                                         | 12.8       | 71        |
| 60 | Three-Dimensional Electron Microscopic Imaging of Membrane Invaginations in Escherichia coli Overproducing the Chemotaxis Receptor Tsr. Journal of Bacteriology, 2004, 186, 5052-5061.                        | 2.2        | 70        |
| 61 | Electron tomography in nanoparticle imaging and analysis. Nanomedicine, 2008, 3, 125-131.                                                                                                                     | 3.3        | 70        |
| 62 | Bridging the imaging gap: visualizing subcellular architecture with electron tomography. Current Opinion in Microbiology, 2005, 8, 316-322.                                                                   | 5.1        | 68        |
| 63 | Structural analysis of receptor binding domain mutations in SARS-CoV-2 variants of concern that modulate ACE2 and antibody binding. Cell Reports, 2021, 37, 110156.                                           | 6.4        | 67        |
| 64 | Three-Dimensional Electron Microscopy at Molecular Resolution. Annual Review of Biophysics and Biomolecular Structure, 2004, 33, 141-155.                                                                     | 18.3       | 65        |
| 65 | Membrane protein structure determination using cryo-electron tomography and 3D image averaging. Current Opinion in Structural Biology, 2009, 19, 402-407.                                                     | <b>5.7</b> | 65        |
| 66 | Structural snapshots of conformational changes in a seven-helix membrane protein: lessons from bacteriorhodopsin. Current Opinion in Structural Biology, 2009, 19, 433-439.                                   | 5.7        | 64        |
| 67 | Electron Microscopic Analysis of Membrane Assemblies Formed by the Bacterial Chemotaxis Receptor Tsr. Journal of Bacteriology, 2003, 185, 3636-3643.                                                          | 2.2        | 62        |
| 68 | CCD detectors in high-resolution biological electron microscopy. Quarterly Reviews of Biophysics, 2000, 33, 1-27.                                                                                             | 5.7        | 61        |
| 69 | Three-Dimensional Imaging of HIV-1 Virological Synapses Reveals Membrane Architectures Involved in Virus Transmission. Journal of Virology, 2014, 88, 10327-10339.                                            | 3.4        | 61        |
| 70 | Structure and Transport Mechanism of the Bacterial Oxalate Transporter OxIT. Biophysical Journal, 2004, 87, 3600-3607.                                                                                        | 0.5        | 59        |
| 71 | Automated image acquisition and processing using a new generation of 4K×4K CCD cameras for cryo electron microscopic studies of macromolecular assemblies. Journal of Structural Biology, 2003, 143, 135-144. | 2.8        | 57        |
| 72 | Electron tomography of degenerating neurons in mice with abnormal regulation of iron metabolism. Journal of Structural Biology, 2005, 150, 144-153.                                                           | 2.8        | 55        |

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|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 73         | Three-Dimensional Imaging of the Highly Bent Architecture of <i>Bdellovibrio bacteriovorus</i> by Using Cryo-Electron Tomography. Journal of Bacteriology, 2008, 190, 2588-2596.                                       | 2.2  | 55        |
| 74         | Electron tomography of viruses. Current Opinion in Structural Biology, 2007, 17, 596-602.                                                                                                                              | 5.7  | 54        |
| <b>7</b> 5 | CryoEM at <b>IUCrJ</b> : a new era. IUCrJ, 2016, 3, 3-7.                                                                                                                                                               | 2.2  | 54        |
| 76         | Glutamate receptor desensitization is mediated by changes in quaternary structure of the ligand binding domain. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5921-5926. | 7.1  | 53        |
| 77         | Spatial Localization of the Ebola Virus Glycoprotein Mucin-Like Domain Determined by Cryo-Electron Tomography. Journal of Virology, 2014, 88, 10958-10962.                                                             | 3.4  | 53        |
| 78         | Targeted conformational search with map-restrained self-guided Langevin dynamics: Application to flexible fitting into electron microscopic density maps. Journal of Structural Biology, 2013, 183, 429-440.           | 2.8  | 50        |
| 79         | Electron Crystallography of Bacteriorhodopsin with Millisecond Time Resolution. Journal of Structural Biology, 1999, 128, 19-25.                                                                                       | 2.8  | 49        |
| 80         | Data management challenges in three-dimensional EM. Nature Structural and Molecular Biology, 2012, 19, 1203-1207.                                                                                                      | 8.2  | 49        |
| 81         | Three-Dimensional Imaging of Viral Infections. Annual Review of Virology, 2014, 1, 453-473.                                                                                                                            | 6.7  | 49        |
| 82         | Maturation of the HIV-1 core by a non-diffusional phase transition. Nature Communications, 2015, 6, 5854.                                                                                                              | 12.8 | 49        |
| 83         | Mono- and bilayers of phospholipids at interfaces: interlayer coupling and phase stability. The Journal of Physical Chemistry, 1985, 89, 3592-3595.                                                                    | 2.9  | 48        |
| 84         | Automated Data Collection with a Tecnai 12 Electron Microscope: Applications for Molecular Imaging by Cryomicroscopy. Journal of Structural Biology, 2001, 135, 251-261.                                               | 2.8  | 47        |
| 85         | Spiral Architecture of the Nucleoid in <i>Bdellovibrio bacteriovorus</i> . Journal of Bacteriology, 2011, 193, 1341-1350.                                                                                              | 2.2  | 47        |
| 86         | A 3D cellular context for the macromolecular world. Nature Structural and Molecular Biology, 2014, 21, 841-845.                                                                                                        | 8.2  | 47        |
| 87         | Three-Dimensional Structures of Soluble CD4-Bound States of Trimeric Simian Immunodeficiency Virus Envelope Glycoproteins Determined by Using Cryo-Electron Tomography. Journal of Virology, 2011, 85, 12114-12123.    | 3.4  | 46        |
| 88         | The structure of bacteriorhodopsin: an emerging consensus. Current Opinion in Structural Biology, 1999, 9, 462-468.                                                                                                    | 5.7  | 45        |
| 89         | Structural plasticity of a transmembrane peptide allows self-assembly into biologically active nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9798-9803.   | 7.1  | 45        |
| 90         | Crystallographic analysis of protein conformational changes in the bacteriorhodopsin photocycle. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1460, 157-165.                                                   | 1.0  | 44        |

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|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 91  | Molecular structures of trimeric HIV-1 Env in complex with small antibody derivatives. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 513-518.             | 7.1  | 44        |
| 92  | Frontiers in Cryo Electron Microscopy of Complex Macromolecular Assemblies. Annual Review of Biomedical Engineering, 2019, 21, 395-415.                                                                 | 12.3 | 44        |
| 93  | A molecular mechanism for the generation of ligand-dependent differential outputs by the epidermal growth factor receptor. ELife, 2021, 10, .                                                           | 6.0  | 44        |
| 94  | Stoichiometry and Absolute Quantification of Proteins with Mass Spectrometry Using Fluorescent and Isotope-labeled Concatenated Peptide Standards. Molecular and Cellular Proteomics, 2008, 7, 442-447. | 3.8  | 42        |
| 95  | Automatic joint classification and segmentation of whole cell 3D images. Pattern Recognition, 2009, 42, 1067-1079.                                                                                      | 8.1  | 42        |
| 96  | Compositional Mapping of the Surface and Interior of Mammalian Cells at Submicrometer Resolution. Analytical Chemistry, 2011, 83, 1207-1213.                                                            | 6.5  | 42        |
| 97  | Chemical mapping of mammalian cells by atom probe tomography. Journal of Structural Biology, 2012, 178, 98-107.                                                                                         | 2.8  | 41        |
| 98  | Using Cryo-EM to Map Small Ligands on Dynamic Metabolic Enzymes: Studies with Glutamate Dehydrogenase. Molecular Pharmacology, 2016, 89, 645-651.                                                       | 2.3  | 41        |
| 99  | Structure of trimeric HIV-1 envelope glycoproteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4172-4.                                                | 7.1  | 39        |
| 100 | An energy-based three-dimensional segmentation approach for the quantitative interpretation of electron tomograms. IEEE Transactions on Image Processing, 2005, 14, 1314-1323.                          | 9.8  | 38        |
| 101 | Evaluation of denoising algorithms for biological electron tomography. Journal of Structural Biology, 2008, 164, 7-17.                                                                                  | 2.8  | 38        |
| 102 | Protein Conformational Changes in the Bacteriorhodopsin Photocycle: Comparison of Findings from Electron and X-Ray Crystallographic Analyses. PLoS ONE, 2009, 4, e5769.                                 | 2.5  | 38        |
| 103 | Chemotaxis kinase CheA is activated by three neighbouring chemoreceptor dimers as effectively as by receptor clusters. Molecular Microbiology, 2011, 79, 677-685.                                       | 2.5  | 38        |
| 104 | Lateral density of receptor arrays in the membrane plane influences sensitivity of the E. coli chemotaxis response. EMBO Journal, 2011, 30, 1719-1729.                                                  | 7.8  | 37        |
| 105 | From structure to mechanism: electron crystallographic studies of bacteriorhodopsin. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2002, 360, 859-874.         | 3.4  | 36        |
| 106 | Structural insights into the mechanism of proton pumping by bacteriorhodopsin. FEBS Letters, 2003, 545, 2-8.                                                                                            | 2.8  | 35        |
| 107 | Cryoelectron Tomographic Analysis of an HIV-neutralizing Protein and Its Complex with Native Viral gp120*. Journal of Biological Chemistry, 2007, 282, 27754-27759.                                     | 3.4  | 35        |
| 108 | A versatile nano display platform from bacterial spore coat proteins. Nature Communications, 2015, 6, 6777.                                                                                             | 12.8 | 35        |

| #   | Article                                                                                                                                                                                                                   | IF   | Citations |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 109 | The democratization of cryo-EM. Nature Methods, 2016, 13, 607-608.                                                                                                                                                        | 19.0 | 35        |
| 110 | Malaria parasites use a soluble RhopH complex for erythrocyte invasion and an integral form for nutrient uptake. ELife, $2021,10,10$                                                                                      | 6.0  | 35        |
| 111 | Griffithsin tandemers: flexible and potent lectin inhibitors of the human immunodeficiency virus. Retrovirology, 2015, 12, 6.                                                                                             | 2.0  | 34        |
| 112 | Mapping of Ebolavirus Neutralization by Monoclonal Antibodies in the ZMapp Cocktail Using Cryo-Electron Tomography and Studies of Cellular Entry. Journal of Virology, 2016, 90, 7618-7627.                               | 3.4  | 32        |
| 113 | The cryo-EM revolution: fueling the next phase. IUCrJ, 2019, 6, 1-2.                                                                                                                                                      | 2.2  | 32        |
| 114 | Ion-abrasion scanning electron microscopy reveals distorted liver mitochondrial morphology in murine methylmalonic acidemia. Journal of Structural Biology, 2010, 171, 125-132.                                           | 2.8  | 31        |
| 115 | A Tail-Based Mechanism Drives Nucleosome Demethylation by the LSD2/NPAC Multimeric Complex. Cell Reports, 2019, 27, 387-399.e7.                                                                                           | 6.4  | 31        |
| 116 | Automated 100-position specimen loader and image acquisition system for transmission electron microscopy. Journal of Structural Biology, 2007, 158, 318-326.                                                              | 2.8  | 30        |
| 117 | Structure of the primed state of the ATPase domain of chromatin remodeling factor ISWI bound to the nucleosome. Nucleic Acids Research, 2019, 47, 9400-9409.                                                              | 14.5 | 30        |
| 118 | HIV-1 Envelope Glycoprotein Trimers Display Open Quaternary Conformation When Bound to the gp41 Membrane-Proximal External-Region-Directed Broadly Neutralizing Antibody Z13e1. Journal of Virology, 2013, 87, 7191-7196. | 3.4  | 27        |
| 119 | A paradigm shift in structural biology. Nature Methods, 2022, 19, 20-23.                                                                                                                                                  | 19.0 | 27        |
| 120 | Derivation of Neural Stem Cells from Human Adult Peripheral CD34+ Cells for an Autologous Model of Neuroinflammation. PLoS ONE, 2013, 8, e81720.                                                                          | 2.5  | 26        |
| 121 | Cryo-electron Microscopy Structures of Chimeric Hemagglutinin Displayed on a Universal Influenza<br>Vaccine Candidate. MBio, 2016, 7, e00257.                                                                             | 4.1  | 26        |
| 122 | 1.8 à resolution structure of β-galactosidase with a 200â€kV CRYO ARM electron microscope. IUCrJ, 2020, 7, 639-643.                                                                                                       | 2,2  | 26        |
| 123 | Projection structure of the bacterial oxalate transporter OxlT at 3.4Ã resolution. Journal of Structural Biology, 2003, 144, 320-326.                                                                                     | 2.8  | 25        |
| 124 | Biochemical and structural analyses reveal that the tumor suppressor neurofibromin (NF1) forms a high-affinity dimer. Journal of Biological Chemistry, 2020, 295, 1105-1119.                                              | 3.4  | 25        |
| 125 | Deep-Learning-Assisted Volume Visualization. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 1378-1391.                                                                                               | 4.4  | 24        |
| 126 | Extended Polypeptide Linkers Establish the Spatial Architecture of a Pyruvate Dehydrogenase Multienzyme Complex. Structure, 2008, 16, 93-103.                                                                             | 3.3  | 22        |

| #   | Article                                                                                                                                                                                                           | IF   | CITATIONS |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 127 | Glycan reactive anti-HIV-1 antibodies bind the SARS-CoV-2 spike protein but do not block viral entry. Scientific Reports, 2021, 11, 12448.                                                                        | 3.3  | 22        |
| 128 | The SIV Surface Spike Imaged by Electron Tomography: One Leg or Three?. PLoS Pathogens, 2006, 2, e91.                                                                                                             | 4.7  | 21        |
| 129 | Catching HIV â€~in the act' with 3D electron microscopy. Trends in Microbiology, 2013, 21, 397-404.                                                                                                               | 7.7  | 21        |
| 130 | Single-Particle Cryo-Electron Microscopy (Cryo-EM). Advances in Imaging and Electron Physics, 2014, , 113-137.                                                                                                    | 0.2  | 20        |
| 131 | Host membrane lipids are trafficked to membranes of intravacuolar bacterium <i>Ehrlichia chaffeensis</i> . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8032-8043. | 7.1  | 20        |
| 132 | Computational separation of conformational heterogeneity using cryo-electron tomography and 3D sub-volume averaging. Journal of Structural Biology, 2012, 178, 165-176.                                           | 2.8  | 19        |
| 133 | Semi-automated 3D segmentation of human skeletal muscle using Focused Ion Beam-Scanning Electron Microscopic images. Journal of Structural Biology, 2019, 207, 1-11.                                              | 2.8  | 18        |
| 134 | Complexes of Neutralizing and Non-Neutralizing Affinity Matured Fabs with a Mimetic of the Internal Trimeric Coiled-Coil of HIV-1 gp41. PLoS ONE, 2013, 8, e78187.                                                | 2.5  | 17        |
| 135 | Studies of Rh1 Metarhodopsin Stabilization in Wild-TypeDrosophilaand in Mutants Lacking One or Both Arrestinsâ€. Biochemistry, 1997, 36, 2188-2196.                                                               | 2.5  | 16        |
| 136 | Cryo-EM of viruses and vaccine design. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8903-8905.                                                                     | 7.1  | 16        |
| 137 | Determination of Molecular Structures of HIV Envelope Glycoproteins using Cryo-Electron<br>Tomography and Automated Sub-tomogram Averaging. Journal of Visualized Experiments, 2011, , .                          | 0.3  | 14        |
| 138 | The crystal structure of human GlnRS provides basis for the development of neurological disorders. Nucleic Acids Research, 2016, 44, 3420-3431.                                                                   | 14.5 | 14        |
| 139 | Structural basis for early-onset neurological disorders caused by mutations in human selenocysteine synthase. Scientific Reports, 2016, 6, 32563.                                                                 | 3.3  | 13        |
| 140 | AAA+ ATPase p97/VCP mutants and inhibitor binding disrupt inter-domain coupling and subsequent allosteric activation. Journal of Biological Chemistry, 2021, 297, 101187.                                         | 3.4  | 13        |
| 141 | A coiled-coil-repeat protein â€~Ccrp' in Bdellovibrio bacteriovorus prevents cellular indentation, but is not essential for vibroid cell morphology. FEMS Microbiology Letters, 2010, 313, 89-95.                 | 1.8  | 11        |
| 142 | Shape-Based Regularization of Electron Tomographic Reconstruction. IEEE Transactions on Medical Imaging, 2012, 31, 2241-2252.                                                                                     | 8.9  | 10        |
| 143 | Modulation of Arrestin Release in the Light-Driven Regeneration of Rh1DrosophilaRhodopsinâ€.<br>Biochemistry, 1996, 35, 1848-1855.                                                                                | 2.5  | 9         |
| 144 | Electron Tomography of Bacterial Chemotaxis Receptor Assemblies. Methods in Cell Biology, 2007, 79, 373-384.                                                                                                      | 1.1  | 9         |

| #   | Article                                                                                                                                                               | IF  | CITATIONS |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 145 | Microbiology catches the cryo-EM bug. Current Opinion in Microbiology, 2018, 43, 199-207.                                                                             | 5.1 | 9         |
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