John E Johnson

List of Publications by Citations

181 papers	12,595 citations	61 h-index	108 g-index
193 ext. papers	13,540 ext. citations	8.3 avg, IF	6.04 L-index

#	Paper	IF	Citations
181	Structure of a human common cold virus and functional relationship to other picornaviruses. *Nature*, **1985**, 317, 145-53	50.4	1307
180	Structures of the native and swollen forms of cowpea chlorotic mottle virus determined by X-ray crystallography and cryo-electron microscopy. *Structure*, **1995**, 3, 63-78	5.2	589
179	Topologically linked protein rings in the bacteriophage HK97 capsid. *Science*, **2000**, 289, 2129-33	33.3	553
178	Structure of southern bean mosaic virus at 2.8 A resolution. *Nature*, **1980**, 286, 33-9	50.4	386
177	Icosahedral virus particles as addressable nanoscale building blocks. *Angewandte Chemie - International Edition*, **2002**, 41, 459-62	16.4	325
176	VIPERdb2: an enhanced and web API enabled relational database for structural virology. *Nucleic Acids Research*, **2009**, 37, D436-42	20.1	317
175	Quasi-equivalent viruses: a paradigm for protein assemblies. *Journal of Molecular Biology*, **1997**, 269, 665-75	6.5	248
174	The structure of an infectious P22 virion shows the signal for headful DNA packaging. *Science*, **2006**, 312, 1791-5	33.3	248
173	The refined crystal structure of cowpea mosaic virus at 2.8 A resolution. *Virology*, **1999**, 265, 20-34	3.6	227
172	Ordered duplex RNA controls capsid architecture in an icosahedral animal virus. *Nature*, **1993**, 361, 176-9	50.4	220
171	Natural supramolecular building blocks. Wild-type cowpea mosaic virus. *Chemistry and Biology*, **2002**, 9, 805-11		215
170	The structure of a thermophilic archaeal virus shows a double-stranded DNA viral capsid type that spans all domains of life. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 7716-20	11.5	192
169	Cowpea Mosaic Virus as a Scaffold for 3-D Patterning of Gold Nanoparticles. *Nano Letters*, **2004**, 4, 867-870	11.5	190
168	Natural supramolecular building blocks. Cysteine-added mutants of cowpea mosaic virus. *Chemistry and Biology*, **2002**, 9, 813-9		165
167	Virus Particle Explorer (VIPER), a website for virus capsid structures and their computational analyses. *Journal of Virology*, **2001**, 75, 11943-7	6.6	163
166	Fabrication of assembled virus nanostructures on templates of chemoselective linkers formed by scanning probe nanolithography. *Journal of the American Chemical Society*, **2003**, 125, 6848-9	16.4	159
165	Structure of an archaeal virus capsid protein reveals a common ancestry to eukaryotic and bacterial viruses. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 18944-9	11.5	158

164	Evidence of viral capsid dynamics using limited proteolysis and mass spectrometry. *Journal of Biological Chemistry*, **1998**, 273, 673-6	5.4	149
163	The structure of pariacoto virus reveals a dodecahedral cage of duplex RNA. *Nature Structural Biology*, **2001**, 8, 77-83		142
162	Studying 18 MDa virus assemblies with native mass spectrometry. *Angewandte Chemie - International Edition*, **2013**, 52, 4020-3	16.4	140
161	Functional implications of quasi-equivalence in a T = 3 icosahedral animal virus established by cryo-electron microscopy and X-ray crystallography. *Structure*, **1994**, 2, 271-82	5.2	136
160	The refined structure of a protein catenane: the HK97 bacteriophage capsid at 3.44 A resolution. *Journal of Molecular Biology*, **2003**, 334, 885-99	6.5	135
159	Bacteriophage lambda stabilization by auxiliary protein gpD: timing, location, and mechanism of attachment determined by cryo-EM. *Structure*, **2008**, 16, 1399-406	5.2	132
158	New addresses on an addressable virus nanoblock; uniquely reactive Lys residues on cowpea mosaic virus. *Chemistry and Biology*, **2004**, 11, 855-63		130
157	L-A virus at 3.4 A resolution reveals particle architecture and mRNA decapping mechanism. *Nature Structural Biology*, **2002**, 9, 725-8		130
156	P22 coat protein structures reveal a novel mechanism for capsid maturation: stability without auxiliary proteins or chemical crosslinks. *Structure*, **2010**, 18, 390-401	5.2	127
155	Maturation dynamics of a viral capsid: visualization of transitional intermediate states. *Cell*, **2000**, 100, 253-63	56.2	125
154	Three-dimensional structure of a viral genome-delivery portal vertex. *Nature Structural and Molecular Biology*, **2011**, 18, 597-603	17.6	117
153	An unexpected twist in viral capsid maturation. *Nature*, **2009**, 458, 646-50	50.4	110
152	VIPERdb: a relational database for structural virology. *Nucleic Acids Research*, **2006**, 34, D386-9	20.1	108
151	An engineered virus as a scaffold for three-dimensional self-assembly on the nanoscale. *Small*, **2005**, 1, 702-6	11	105
150	DNA packaging and delivery machines in tailed bacteriophages. *Current Opinion in Structural Biology*, **2007**, 17, 237-43	8.1	101
149	Identification of a Fab interaction footprint site on an icosahedral virus by cryoelectron microscopy and X-ray crystallography. *Nature*, **1992**, 355, 275-8	50.4	98
148	Large conformational changes in the maturation of a simple RNA virus, nudaurelia capensis omega virus (NomegaV). *Journal of Molecular Biology*, **2000**, 299, 573-84	6.5	95
147	Heterologous expression of the modified coat protein of Cowpea chlorotic mottle bromovirus results in the assembly of protein cages with altered architectures and function. *Journal of General Virology*, **2004**, 85, 1049-1053	4.9	94

146	The structure and function of nodavirus particles: a paradigm for understanding chemical biology. *Advances in Virus Research*, **1998**, 50, 381-446	10.7	93
145	The crystal structure of cricket paralysis virus: the first view of a new virus family. *Nature Structural Biology*, **1999**, 6, 765-74		93
144	The 2.8 A structure of a T = 4 animal virus and its implications for membrane translocation of RNA. *Journal of Molecular Biology*, **1996**, 261, 1-10	6.5	93
143	Mechanics of bacteriophage maturation. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 2342-7	11.5	91
142	Presentation of heterologous peptides on plant viruses: genetics, structure, and function. *Annual Review of Phytopathology*, **1997**, 35, 67-86	10.8	91
141	The combination of chemical fixation procedures with high pressure freezing and freeze substitution preserves highly labile tissue ultrastructure for electron tomography applications. *Journal of Structural Biology*, **2008**, 161, 359-71	3.4	90
140	Peering down the barrel of a bacteriophage portal: the genome packaging and release valve in p22. *Structure*, **2011**, 19, 496-502	5.2	87
139	Host RNAs, including transposons, are encapsidated by a eukaryotic single-stranded RNA virus. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 1907-12	11.5	85
138	Virus particle maturation: insights into elegantly programmed nanomachines. *Current Opinion in Structural Biology*, **2010**, 20, 210-6	8.1	84
137	Low resolution meets high: towards a resolution continuum from cells to atoms. *Current Opinion in Structural Biology*, **1996**, 6, 585-94	8.1	83
136	Particle polymorphism caused by deletion of a peptide molecular switch in a quasiequivalent icosahedral virus. *Journal of Virology*, **1998**, 72, 6024-33	6.6	82
135	Structures of virus and virus-like particles. *Current Opinion in Structural Biology*, **2000**, 10, 229-35	8.1	81
134	The refined three-dimensional structure of an insect virus at 2.8 A resolution. *Journal of Molecular Biology*, **1994**, 235, 565-86	6.5	77
133	Crystallographically identical virus capsids display different properties in solution. *Nature Structural Biology*, **1999**, 6, 114-6		75
132	A cowpea mosaic virus nanoscaffold for multiplexed antibody conjugation: application as an immunoassay tracer. *Biosensors and Bioelectronics*, **2006**, 21, 1668-73	11.8	74
131	3D domain swapping modulates the stability of members of an icosahedral virus group. *Structure*, **2000**, 8, 1095-103	5.2	72
130	Three-dimensional structure of the bacteriophage P22 tail machine. *EMBO Journal*, **2005**, 24, 2087-95	13	70
129	Structure-based design of peptide presentation on a viral surface: the crystal structure of a plant/animal virus chimera at 2.8 A resolution. *Folding & Design*, **1996**, 1, 179-87		70

128	Use of macromolecular assemblies as expression systems for peptides and synthetic vaccines. *Current Opinion in Structural Biology*, **1996**, 6, 176-82	8.1	69
127	Influence of three-dimensional structure on the immunogenicity of a peptide expressed on the surface of a plant virus. *Journal of Molecular Recognition*, **2000**, 13, 71-82	2.6	66
126	Nucleic acid packaging in viruses. *Current Opinion in Structural Biology*, **2012**, 22, 65-71	8.1	65
125	An animal virus-derived peptide switches membrane morphology: possible relevance to nodaviral transfection processes. *Biochemistry*, **1999**, 38, 5328-36	3.2	65
124	Virus maturation. *Annual Review of Biophysics*, **2012**, 41, 473-96	21.1	64
123	Analysis of rapid, large-scale protein quaternary structural changes: time-resolved X-ray solution scattering of Nudaurelia capensis omega virus (NomegaV) maturation. *Journal of Molecular Biology*, **2001**, 311, 803-14	6.5	62
122	Atomic structure of the 75 MDa extremophile Sulfolobus turreted icosahedral virus determined by CryoEM and X-ray crystallography. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5504-9	11.5	61
121	Large-scale, pH-dependent, quaternary structure changes in an RNA virus capsid are reversible in the absence of subunit autoproteolysis. *Journal of Virology*, **2002**, 76, 9972-80	6.6	61
120	Icosahedral Virus Particles as Addressable Nanoscale Building Blocks. *Angewandte Chemie*, **2002**, 114, 477-480	3.6	58
119	The P22 tail machine at subnanometer resolution reveals the architecture of an infection conduit. *Structure*, **2009**, 17, 789-99	5.2	57
118	The structure of tobacco ringspot virus: a link in the evolution of icosahedral capsids in the picornavirus superfamily. *Structure*, **1998**, 6, 157-71	5.2	57
117	Structures of picorna-like plant viruses: implications and applications. *Advances in Virus Research*, **2003**, 62, 167-239	10.7	55
116	A highly membrane-active peptide in Flock House virus: implications for the mechanism of nodavirus infection. *Chemistry and Biology*, **1999**, 6, 473-81		55
115	Capsid conformational sampling in HK97 maturation visualized by X-ray crystallography and cryo-EM. *Structure*, **2006**, 14, 1655-65	5.2	54
114	The structure of southern bean mosaic virus at 22.5 a resolution. *Virology*, **1976**, 75, 394-400	3.6	54
113	Activation, exposure and penetration of virally encoded, membrane-active polypeptides during non-enveloped virus entry. *Current Protein and Peptide Science*, **2008**, 9, 16-27	2.8	53
112	Time-resolved molecular dynamics of bacteriophage HK97 capsid maturation interpreted by electron cryo-microscopy and X-ray crystallography. *Journal of Structural Biology*, **2006**, 153, 300-6	3.4	52
111	All-atom multiscale simulation of cowpea chlorotic mottle virus capsid swelling. *Journal of Physical Chemistry B*, **2010**, 114, 11181-95	3.4	51

110	In vivo assembly of an archaeal virus studied with whole-cell electron cryotomography. *Structure*, **2010**, 18, 1579-86	5.2	51
109	The refined structure of Nudaurelia capensis omega virus reveals control elements for a T = 4 capsid maturation. *Virology*, **2004**, 318, 192-203	3.6	51
108	Assembly of the T = 4 Nudaurelia capensis omega virus capsid protein, post-translational cleavage, and specific encapsidation of its mRNA in a baculovirus expression system. *Virology*, **1995**, 207, 89-97	3.6	49
107	The Prohead-I structure of bacteriophage HK97: implications for scaffold-mediated control of particle assembly and maturation. *Journal of Molecular Biology*, **2011**, 408, 541-54	6.5	48
106	Generation and structural analysis of reactive empty particles derived from an icosahedral virus. *Chemistry and Biology*, **2006**, 13, 771-8		48
105	Discovery of functional genomic motifs in viruses with ViReMa-a Virus Recombination Mapper-for analysis of next-generation sequencing data. *Nucleic Acids Research*, **2014**, 42, e11	20.1	47
104	Visualizing flock house virus infection in Drosophila cells with correlated fluorescence and electron microscopy. *Journal of Structural Biology*, **2008**, 161, 439-46	3.4	47
103	Bacteriophage HK97 capsid assembly and maturation. *Advances in Experimental Medicine and Biology*, **2012**, 726, 351-63	3.6	46
102	Control of crosslinking by quaternary structure changes during bacteriophage HK97 maturation. *Molecular Cell*, **2004**, 14, 559-69	17.6	46
101	Differences in pressure stability of the three components of cowpea mosaic virus: implications for virus assembly and disassembly. *Biochemistry*, **1994**, 33, 8339-46	3.2	44
100	Virus particle dynamics. *Advances in Protein Chemistry*, **2003**, 64, 197-218		42
99	Sequence and analysis of the capsid protein of Nudaurelia capensis omega virus, an insect virus with T = 4 icosahedral symmetry. *Virology*, **1992**, 190, 806-14	3.6	42
98	ClickSeq: Fragmentation-Free Next-Generation Sequencing via Click Ligation of Adaptors to Stochastically Terminated 3SAzido cDNAs. *Journal of Molecular Biology*, **2015**, 427, 2610-6	6.5	41
97	Low endocytic pH and capsid protein autocleavage are critical components of Flock House virus cell entry. *Journal of Virology*, **2009**, 83, 8628-37	6.6	41
96	Assembly architecture and DNA binding of the bacteriophage P22 terminase small subunit. *Journal of Molecular Biology*, **2008**, 383, 494-501	6.5	41
95	Macromolecular mass spectrometry and electron microscopy as complementary tools for investigation of the heterogeneity of bacteriophage portal assemblies. *Journal of Structural Biology* , **2007**, 157, 371-83	3.4	41
94	Preliminary crystallographic analysis of the bacteriophage P22 portal protein. *Journal of Structural Biology*, **2002**, 139, 46-54	3.4	41
93	Flock house virus: a model system for understanding non-enveloped virus entry and membrane penetration. *Current Topics in Microbiology and Immunology*, **2010**, 343, 1-22	3.3	39

92	Exploring icosahedral virus structures with VIPER. *Nature Reviews Microbiology*, **2005**, 3, 809-17	22.2	36
91	Maturation of a tetravirus capsid alters the dynamic properties and creates a metastable complex. *Virology*, **2005**, 334, 17-27	3.6	36
90	Evidence that a local refolding event triggers maturation of HK97 bacteriophage capsid. *Journal of Molecular Biology*, **2004**, 340, 419-33	6.5	35
89	Direct imaging of interactions between an icosahedral virus and conjugate F(ab) fragments by cryoelectron microscopy and X-ray crystallography. *Virology*, **1994**, 204, 777-88	3.6	35
88	Dynamics in cryo EM reconstructions visualized with maximum-likelihood derived variance maps. *Journal of Structural Biology*, **2013**, 181, 195-206	3.4	34
87	Pseudo-atomic models of swollen CCMV from cryo-electron microscopy data. *Journal of Structural Biology*, **2003**, 142, 356-63	3.4	34
86	Virus capsid expansion driven by the capture of mobile surface loops. *Structure*, **2008**, 16, 1491-502	5.2	32
85	A statistical approach to computer processing of cryo-electron microscope images: virion classification and 3-D reconstruction. *Journal of Structural Biology*, **2003**, 144, 24-50	3.4	32
84	Architecture of a dsDNA viral capsid in complex with its maturation protease. *Structure*, **2014**, 22, 230-7	5.2	30
83	Complex Pattern Formation by Cowpea Mosaic Virus Nanoparticles. *Langmuir*, **2002**, 18, 308-310	4	28
82	The packing of southern bean mosaic virus in various crystal cells. *Journal of Ultrastructure Research* , **1975**, 53, 306-18		28
81	Maximizing the potential of electron cryomicroscopy data collected using direct detectors. *Journal of Structural Biology*, **2013**, 184, 193-202	3.4	27
80	The architecture and chemical stability of the archaeal Sulfolobus turreted icosahedral virus. *Journal of Virology*, **2010**, 84, 9575-83	6.6	27
79	Cooperative reorganization of a 420 subunit virus capsid. *Journal of Molecular Biology*, **2005**, 352, 723-35	6.5	27
78	Virus maturation targets the protein capsid to concerted disassembly and unfolding. *Journal of Biological Chemistry*, **2000**, 275, 16037-43	5.4	27
77	Crystalline cowpea mosaic virus. *Virology*, **1980**, 101, 319-24	3.6	27
76	Virus-templated plasmonic nanoclusters with icosahedral symmetry via directed self-assembly. *Small*, **2014**, 10, 3058-63	11	26
75	Structure and cell biology of archaeal virus STIV. *Current Opinion in Virology*, **2012**, 2, 122-7	7.5	26

74	Critical salt bridges guide capsid assembly, stability, and maturation behavior in bacteriophage HK97. *Molecular and Cellular Proteomics*, **2010**, 9, 1752-63	7.6	26
73	HK97 maturation studied by crystallography and H/2H exchange reveals the structural basis for exothermic particle transitions. *Journal of Molecular Biology*, **2010**, 397, 560-74	6.5	26
72	The spherically averaged structures of cowpea mosaic virus components by X-ray solution scattering. *Virology*, **1983**, 127, 65-73	3.6	26
71	Structural fingerprinting: subgrouping of comoviruses by structural studies of red clover mottle virus to 2.4-A resolution and comparisons with other comoviruses. *Journal of Virology*, **2000**, 74, 493-504	6.6	25
70	Dissecting the functional domains of a nonenveloped virus membrane penetration peptide. *Journal of Virology*, **2009**, 83, 6929-33	6.6	24
69	Folding and particle assembly are disrupted by single-point mutations near the autocatalytic cleavage site of Nudaurelia capensis omega virus capsid protein. *Protein Science*, **2005**, 14, 401-8	6.3	24
68	A virus-based nanoplasmonic structure as a surface-enhanced Raman biosensor. *Biosensors and Bioelectronics*, **2016**, 77, 306-14	11.8	23
67	Single-particle EM reveals plasticity of interactions between the adenovirus penton base and integrin ▯▯. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 8815-9	11.5	23
66	Virus assembly and maturation: auto-regulation through allosteric molecular switches. *Journal of Molecular Biology*, **2013**, 425, 1488-96	6.5	22
65	Balanced electrostatic and structural forces guide the large conformational change associated with maturation of T = 4 virus. *Biophysical Journal*, **2010**, 98, 1337-43	2.9	22
64	Dissecting quasi-equivalence in nonenveloped viruses: membrane disruption is promoted by lytic peptides released from subunit pentamers, not hexamers. *Journal of Virology*, **2012**, 86, 9976-82	6.6	21
63	Protein-RNA interactions and virus stability as probed by the dynamics of tryptophan side chains. *Journal of Biological Chemistry*, **2002**, 277, 47596-602	5.4	21
62	The structure of southern bean mosaic virus at 5 A resolution. *Virology*, **1978**, 85, 187-97	3.6	21
61	Capsomer dynamics and stabilization in the T = 12 marine bacteriophage SIO-2 and its procapsid studied by CryoEM. *Structure*, **2012**, 20, 498-503	5.2	20
60	Structure and function of a genetically engineered mimic of a nonenveloped virus entry intermediate. *Journal of Virology*, **2010**, 84, 4737-46	6.6	20
59	VIPERdb: A Tool for Virus Research. *Annual Review of Virology*, **2018**, 5, 477-488	14.6	20
58	Maturation in action: CryoEM study of a viral capsid caught during expansion. *Structure*, **2012**, 20, 1384-90	5.2	19
57	Evidence for assembly-dependent folding of protein and RNA in an icosahedral virus. *Virology*, **2003**, 314, 26-33	3.6	19

56	Crystallographic studies of cowpea mosaic virus by electron microscopy and x-ray diffraction. *Journal of Ultrastructure Research*, **1981**, 74, 223-31		19
55	Characterization of large conformational changes and autoproteolysis in the maturation of a T=4 virus capsid. *Journal of Virology*, **2009**, 83, 1126-34	6.6	18
54	Morphological changes in the T=3 capsid of Flock House virus during cell entry. *Journal of Virology*, **2006**, 80, 615-22	6.6	18
53	Crystal Structure and Proteomics Analysis of Empty Virus-like Particles of Cowpea Mosaic Virus. *Structure*, **2016**, 24, 567-575	5.2	18
52	Architecture of the Complex Formed by Large and Small Terminase Subunits from Bacteriophage P22. *Journal of Molecular Biology*, **2015**, 427, 3285-3299	6.5	17
51	Dynamics and stability in maturation of a T=4 virus. *Journal of Molecular Biology*, **2009**, 392, 803-12	6.5	17
50	Nucleotide-resolution profiling of RNA recombination in the encapsidated genome of a eukaryotic RNA virus by next-generation sequencing. *Journal of Molecular Biology*, **2012**, 424, 257-69	6.5	16
49	Rescue of maturation-defective flock house virus infectivity with noninfectious, mature, viruslike particles. *Journal of Virology*, **2008**, 82, 2025-7	6.6	16
48	Correlation of chemical reactivity of Nudaurelia capensis omega virus with a pH-induced conformational change. *Chemical Communications*, **2003**, 2770-1	5.8	16
47	Subunits fold at position-dependent rates during maturation of a eukaryotic RNA virus. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 14111-5	11.5	15
46	CoVaMa: Co-Variation Mapper for disequilibrium analysis of mutant loci in viral populations using next-generation sequence data. *Methods*, **2015**, 91, 40-47	4.6	14
45	Isolation and Characterization of Metallosphaera Turreted Icosahedral Virus, a Founding Member of a New Family of Archaeal Viruses. *Journal of Virology*, **2017**, 91,	6.6	14
44	Steric and electrostatic complementarity in the assembly of two-dimensional virus arrays. *Langmuir*, **2010**, 26, 3498-505	4	14
43	Near-atomic resolution reconstructions using a mid-range electron microscope operated at 200 kV. *Journal of Structural Biology*, **2014**, 188, 183-7	3.4	13
42	Multi-disciplinary studies of viruses: the role of structure in shaping the questions and answers. *Journal of Structural Biology*, **2008**, 163, 246-53	3.4	13
41	Exact reduced-complexity maximum likelihood reconstruction of multiple 3-D objects from unlabeled unoriented 2-D projections and electron microscopy of viruses. *IEEE Transactions on Image Processing*, **2007**, 16, 2865-78	8.7	13
40	Dynamic and geometric analyses of Nudaurelia capensis virus maturation reveal the energy landscape of particle transitions. *Journal of Molecular Recognition*, **2014**, 27, 230-7	2.6	12
39	Evolution in action: N and C termini of subunits in related T = 4 viruses exchange roles as molecular switches. *Structure*, **2010**, 18, 700-9	5.2	12

38	Intracellular Delivery of Luminescent Quantum Dots Mediated by a Virus-Derived Lytic Peptide. *Bioconjugate Chemistry*, **2017**, 28, 64-74	6.3	11
37	Cryo-EM Elucidation of the Structure of Bacteriophage P22 Virions after Genome Release. *Biophysical Journal*, **2018**, 114, 1295-1301	2.9	11
36	Pass the jelly rolls. *Structure*, **2011**, 19, 904-6	5.2	11
35	Data to knowledge: how to get meaning from your result. *IUCrJ*, **2015**, 2, 45-58	4.7	10
34	Long term storage of virus templated fluorescent materials for sensing applications. *Nanotechnology*, **2008**, 19, 105504	3.4	9
33	Virus particle dynamics derived from CryoEM studies. *Current Opinion in Virology*, **2016**, 18, 57-63	7.5	9
32	Confessions of an icosahedral virus crystallographer. *Microscopy (Oxford, England)*, **2013**, 62, 69-79	1.3	8
31	Binding and entry of a non-enveloped T=4 insect RNA virus is triggered by alkaline pH. *Virology*, **2016**, 498, 277-287	3.6	8
30	Hibiscus chlorotic ringspot virus coat protein is essential for cell-to-cell and long-distance movement but not for viral RNA replication. *PLoS ONE*, **2014**, 9, e113347	3.7	7
29	Assembly and maturation of a T = 4 quasi-equivalent virus is guided by electrostatic and mechanical forces. *Viruses*, **2014**, 6, 3348-62	6.2	7
28	Ab initio maximum likelihood reconstruction from cryo electron microscopy images of an infectious virion of the tailed bacteriophage P22 and maximum likelihood versions of Fourier Shell Correlation appropriate for measuring resolution of spherical or cylindrical objects. *Journal of Structural Biology* , **2009**, 167, 185-99	3.4	7
27	Small compounds targeted to subunit interfaces arrest maturation in a nonenveloped, icosahedral animal virus. *Journal of Virology*, **2004**, 78, 7208-16	6.6	7
26	VIPERdb v3.0: a structure-based data analytics platform for viral capsids. *Nucleic Acids Research*, **2021**, 49, D809-D816	20.1	7
25	Untersuchung von 18 MDa großen Viruspartikeln mit nativer Massenspektrometrie. *Angewandte Chemie*, **2013**, 125, 4112-4115	3.6	6
24	In vivo virus structures: simultaneous classification, resolution enhancement, and noise reduction in whole-cell electron tomography. *Journal of Structural Biology*, **2011**, 174, 425-33	3.4	6
23	Allosteric effects in bacteriophage HK97 procapsids revealed directly from covariance analysis of cryo EM data. *Journal of Structural Biology*, **2018**, 202, 129-141	3.4	5
22	Effect of the viral protease on the dynamics of bacteriophage HK97 maturation intermediates characterized by variance analysis of cryo EM particle ensembles. *Journal of Structural Biology*, **2016** , 193, 188-195	3.4	5
21	Enzymes and Enzyme Activity Encoded by Nonenveloped Viruses. *Annual Review of Virology*, **2017**, 4, 221-240	14.6	5

20	Multiclass maximum-likelihood symmetry determination and motif reconstruction of 3-D helical objects from projection images for electron microscopy. *IEEE Transactions on Image Processing*, **2011**, 20, 1962-76	8.7	4
19	Crystallization and preliminary analysis of a dsDNA bacteriophage capsid intermediate: Prohead II of HK97. *Acta Crystallographica Section D: Biological Crystallography*, **2003**, 59, 2060-4		4
18	Detecting asymmetry in the presence of symmetry with maximum likelihood three-dimensional reconstructions of viruses from electron microscope images. *IET Image Processing*, **2016**, 10, 624-629	1.7	3
17	An optimal exposure strategy for cryoprotected virus crystals with lattice constants greater than 1000 A. *Journal of Synchrotron Radiation*, **2008**, 15, 223-6	2.4	3
16	Icosahedral virus structures and the protein data bank. *Journal of Biological Chemistry*, **2021**, 296, 100554	3.4	3
15	Integration of X-ray crystallography and electron cryo-microscopy in the analysis of virus structure and function. *Crystallography Reviews*, **2016**, 22, 102-127	1.3	2
14	Reciprocal space representations of helical objects and their projection images for helices constructed from motifs without spherical symmetry. *Ultramicroscopy*, **2009**, 109, 253-63	3.1	2
13	A new dimension in structural biology: fully fledged high-pressure macromolecular crystallography. *High Pressure Research*, **2004**, 24, 173-182	1.6	2
12	Dynamics and stability in the maturation of a eukaryotic virus: a paradigm for chemically programmed large-scale macromolecular reorganization. *Archives of Virology*, **2021**, 166, 1547-1563	2.6	2
11	Nanoclusters: Virus-Templated Plasmonic Nanoclusters with Icosahedral Symmetry via Directed Self-Assembly (Small 15/2014). *Small*, **2014**, 10, 3196-3196	11	1
10	Maximum likelihood 3D reconstruction of multiple viruses from mixtures of cryo electron microscope images **2005**,		1
9	Nodavirus endopeptidase **2004**, 197-201		1
8	Small protein sequences can induce cellular uptake of complex nanohybrids. *Beilstein Journal of Nanotechnology*, **2019**, 10, 2477-2482	3	1
7	Michael G. Rossmann (1930–2019): Leadership in structural biology for 60 years. *Protein Science*, **2019**, 28, 1538	6.3	0
6	Plant-expressed virus-like particles reveal the intricate maturation process of a eukaryotic virus. *Communications Biology*, **2021**, 4, 619	6.7	0
5	Virus structure analysis with synchrotron radiation: methods and results. *Journal of Synchrotron Radiation*, **2004**, 11, 89-92	2.4	
4	Macromolecular assemblages Atomic-resolution structural biology of the cell: a progress report. *Current Opinion in Structural Biology*, **1996**, 6, 139-41	8.1	
3	Identification of the DNA Binding Surface on the SIRV Capsid Protein. *FASEB Journal*, **2013**, 27, 1000.1	0.9	

2	Michael G. Rossmann (1930-2019), pioneer in macromolecular and virus crystallography: scientist, mentor and friend. *Acta Crystallographica Section D: Structural Biology*, **2019**, 75, 523-527	5.5
1	Raising the Curtain on the Structure of Luteovirids. *Structure*, **2019**, 27, 1735-1736	5.2