Thomas A Steitz

List of Publications by Year
in descending order

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128 papers	18,920 citations	20797 60 h-index	30058 103 g-index
132 all docs	132 docs citations	132 times ranked	12620 citing authors

#	Article	IF	Citations
1	RNA stabilization by a poly(A) tail 3â€²-end binding pocket and other modes of poly(A)-RNA interaction. Science, 2021, 371, .	6.0	29
2	Structural Insights into Transcription Initiation from De Novo RNA Synthesis to Transitioning into Elongation. IScience, 2020, 23, 101445.	1.9	4
3	Crystal structure of the C-terminal domain of DENR. Computational and Structural Biotechnology Journal, 2020, 18, 696-704.	1.9	3
4	Molecular dynamics analysis of Mg²⁺â€dependent cleavage of a pistol ribozyme reveals a failâ€safe secondary ion for catalysis. Journal of Computational Chemistry, 2020, 41, 1345-1352.	1.5	4
5	Crystal Structure of a CAP-DNA Complex: The DNA Is Bent by 90Â°. journal of hand surgery Asian-Pacific volume, The, 2020, , 210-216.	0.2	0
6	Building a Replisome from Interacting Pieces: Sliding Clamp Complexed to a Peptide from DNA Polymerase and a Polymerase Editing Complex. journal of hand surgery Asian-Pacific volume, The, 2020, , 306-317.	0.2	1
7	Structural Insights into the Roles of Water and the 2â€² Hydroxyl of the P Site tRNA in the Peptidyl Transferase Reaction. journal of hand surgery Asian-Pacific volume, The, 2020, , 557-568.	0.2	0
8	DNA Polymerases: Structural Diversity and Common Mechanisms. journal of hand surgery Asian-Pacific volume, The, 2020, , 318-321.	0.2	0
9	The Structural Mechanism of Translocation and Helicase Activity in T7 RNA Polymerase. journal of hand surgery Asian-Pacific volume, The, 2020, , 342-353.	0.2	0
10	Structural basis for initiation of transcription from an RNA polymerase-promoter complex. journal of hand surgery Asian-Pacific volume, The, 2020, , 297-300.	0.2	0
11	Revisiting the structures of several antibiotics bound to the bacterial ribosome. journal of hand surgery Asian-Pacific volume, The, 2020, , 589-594.	0.2	0
12	Structures of Five Antibiotics Bound at the Peptidyl Transferase Center of the Large Ribosomal Subunit. journal of hand surgery Asian-Pacific volume, The, 2020, , 537-551.	0.2	0
13	Structure of Catabolite Gene Activator Protein at 2.9-Ã... Resolution. journal of hand surgery Asian-Pacific volume, The, 2020, , 187-193.	0.2	0
14	Crystal structure of Thermus aquaticus DNA polymerase. journal of hand surgery Asian-Pacific volume, The, 2020, , 288-292.	0.2	0
15	Structure of Taq polymerase with DNA at the polymerase active site. journal of hand surgery Asian-Pacific volume, The, 2020, , 293-296.	0.2	0
16	Structural basis for the 3â€² â€“ 5â€² exonuclease activity of Escherichia coli DNA polymerase I: a two metal ion mechanism. journal of hand surgery Asian-Pacific volume, The, 2020, , 245-253.	0.2	0
17	Structure of a Complex Between Yeast Hexokinase A and Glucose. journal of hand surgery Asian-Pacific volume, The, 2020, , 108-127.	0.2	0
18	A general two-metal-ion mechanism for catalytic RNA. journal of hand surgery Asian-Pacific volume, The, 2020, , 597-601.	0.2	0

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19	Structure of a Complex of Catabolite Gene Activator Protein and Cyclic AMP Refined at 2Â·5 Ã... Resolution. journal of hand surgery Asian-Pacific volume, The, 2020, , 194-209.	0.2	0
20	Structure of DNA Polymerase I Klenow Fragment Bound to Duplex DNA. journal of hand surgery Asian-Pacific volume, The, 2020, , 270-273.	0.2	3
21	Structure of a Synaptic Î³Î´ Resolvase Tetramer Covalently Linked to Two Cleaved DNAs. journal of hand surgery Asian-Pacific volume, The, 2020, , 447-452.	0.2	0
22	Glucose-induced conformational change in yeast hexokinase. journal of hand surgery Asian-Pacific volume, The, 2020, , 65-69.	0.2	0
23	Structural Basis for the Transition from Initiation to Elongation Transcription in T7 RNA Polymerase. journal of hand surgery Asian-Pacific volume, The, 2020, , 333-341.	0.2	0
24	Structural Basis for Transfer RNA Aminoacylation by Escherichia coli Glutaminyl-tRNA Synthetase. journal of hand surgery Asian-Pacific volume, The, 2020, , 401-414.	0.2	0
25	Structure of a Complex Between Yeast Hexokinase A and Glucose. journal of hand surgery Asian-Pacific volume, The, 2020, , 81-107.	0.2	0
26	The Hexameric Helicase DnaB Adopts a Nonplanar Conformation during Translocation. journal of hand surgery Asian-Pacific volume, The, 2020, , 365-375.	0.2	0
27	The Structures of Four Macrolide Antibiotics Bound to the Large Ribosomal Subunit. journal of hand surgery Asian-Pacific volume, The, 2020, , 525-536.	0.2	5
28	The Structural Basis of Ribosome Activity in Peptide Bond Synthesis. journal of hand surgery Asian-Pacific volume, The, 2020, , 501-511.	0.2	1
29	Crystal structure of the DENR-MCT-1 complex revealed zinc-binding site essential for heterodimer formation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 528-533.	3.3	19
30	Identification of Dihydrofuro[3,4-d]pyrimidine Derivatives as Novel HIV-1 Non-Nucleoside Reverse Transcriptase Inhibitors with Promising Antiviral Activities and Desirable Physicochemical Properties. Journal of Medicinal Chemistry, 2019, 62, 1484-1501.	2.9	70
31	Ribosome-Targeting Antibiotics: Modes of Action, Mechanisms of Resistance, and Implications for Drug Design. Annual Review of Biochemistry, 2018, 87, 451-478.	5.0	199
32	Structural basis for potent and broad inhibition of HIV-1 RT by thiophene[3,2-d]pyrimidine non-nucleoside inhibitors. ELife, 2018, 7, .	2.8	57
33	Crystal structure of Pistol, a class of self-cleaving ribozyme. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1021-1026.	3.3	56
34	Perspectives on the ribosome. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160537.	1.8	4
35	Crystal Structure of the Human Ribosome in Complex with DENR-MCT-1. Cell Reports, 2017, 20, 521-528.	2.9	47
36	Crystal Structure of the C-terminal Domain of Human eIF2D and Its Implications on Eukaryotic Translation Initiation. Journal of Molecular Biology, 2017, 429, 2765-2771.	2.0	13

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37	Structural basis of bacterial transcription activation. Science, 2017, 358, 947-951.	6.0	71
38	A structure-based kinetic model of transcription. Transcription, 2017, 8, 1-8.	1.7	11
39	Structural insights into NusG regulating transcription elongation. Nucleic Acids Research, 2017, 45, 968-974.	6.5	33
40	Elongation factor 4 remodels the A-site tRNA on the ribosome. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4994-4999.	3.3	19
41	Insights into RNA binding by the anticancer drug cisplatin from the crystal structure of cisplatin-modified ribosome. Nucleic Acids Research, 2016, 44, 4978-4987.	6.5	69
42	Structures of E . coli Ïƒ ^S -transcription initiation complexes provide new insights into polymerase mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4051-4056.	3.3	80
43	Structures of proline-rich peptides bound to the ribosome reveal a common mechanism of protein synthesis inhibition. Nucleic Acids Research, 2016, 44, 2439-2450.	6.5	132
44	Structural insights into the role of rRNA modifications in protein synthesis and ribosome assembly. Nature Structural and Molecular Biology, 2015, 22, 342-344.	3.6	224
45	The mechanism of inhibition of protein synthesis by the proline-rich peptide oncocin. Nature Structural and Molecular Biology, 2015, 22, 466-469.	3.6	144
46	Distinct tRNA Accommodation Intermediates Observed on the Ribosome with the Antibiotics Hygromycin A and A201A. Molecular Cell, 2015, 58, 832-844.	4.5	79
47	Conformational Changes of Elongation Factor G on the Ribosome during tRNA Translocation. Cell, 2015, 160, 219-227.	13.5	117
48	Structural basis for transcription reactivation by RapA. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2006-2010.	3.3	53
49	Crystal Structure of Human Profilaggrin S100 Domain and Identification of Target Proteins Annexin II, Stratifin, and HSP27. Journal of Investigative Dermatology, 2015, 135, 1801-1809.	0.3	13
50	Crystal Structures of the E.Âcoli Transcription Initiation Complexes with a Complete Bubble. Molecular Cell, 2015, 58, 534-540.	4.5	220
51	Antimicrobial peptides targeting bacterial ribosome. Oncotarget, 2015, 6, 18744-18745.	0.8	3
52	Amicoumacin A Inhibits Translation by Stabilizing mRNA Interaction with the Ribosome. Molecular Cell, 2014, 56, 531-540.	4.5	73
53	Polyspecific pyrrolysyl-tRNA synthetases from directed evolution. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16724-16729.	3.3	101
54	A proton wire to couple aminoacyl-tRNA accommodation and peptide-bond formation on the ribosome. Nature Structural and Molecular Biology, 2014, 21, 787-793.	3.6	191

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55	Crystal structure of elongation factor 4 bound to a clockwise ratcheted ribosome. Science, 2014, 345, 684-687.	6.0	36
56	Negamycin Interferes with Decoding and Translocation by Simultaneous Interaction with rRNA and tRNA. Molecular Cell, 2014, 56, 541-550.	4.5	41
57	Structural basis for the fast self-cleavage reaction catalyzed by the twister ribozyme. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13028-13033.	3.3	75
58	Structural insights into the stabilization of MALAT1 noncoding RNA by a bipartite triple helix. Nature Structural and Molecular Biology, 2014, 21, 633-640.	3.6	213
59	The Antibiotics Dityromycin and GE82832 Bind Protein S12 and Block EF-G-Catalyzed Translocation. Cell Reports, 2014, 6, 357-365.	2.9	36
60	Exploiting large non-isomorphous differences for phase determination of a G-segment invertaseâ€“DNA complex. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 685-693.	2.5	4
61	The initiation of mammalian protein synthesis and mRNA scanning mechanism. Nature, 2013, 500, 307-311.	13.7	163
62	Structure of the PolIIIÎ±-Ï„c-DNA Complex Suggests an Atomic Model of the Replisome. Structure, 2013, 21, 658-664.	1.6	15
63	The Mechanism of E.Âcoli RNA Polymerase Regulation by ppGpp Is Suggested by the Structure of their Complex. Molecular Cell, 2013, 50, 430-436.	4.5	159
64	Crystal structure of an intermediate of rotating dimers within the synaptic tetramer of the G-segment invertase. Nucleic Acids Research, 2013, 41, 2673-2682.	6.5	24
65	The Antibiotic Thermorubin Inhibits Protein Synthesis by Binding to Inter-Subunit Bridge B2a of the Ribosome. Journal of Molecular Biology, 2012, 416, 571-578.	2.0	42
66	Elements of ribosomal drug resistance and specificity. Current Opinion in Structural Biology, 2012, 22, 750-758.	2.6	17
67	Structural Basis for the Rescue of Stalled Ribosomes: Structure of YaeJ Bound to the Ribosome. Science, 2012, 335, 1370-1372.	6.0	101
68	How Hibernation Factors RMF, HPF, and YfiA Turn Off Protein Synthesis. Science, 2012, 336, 915-918.	6.0	193
69	Crystallization of Escherichia coli 70S Ribosome in complex with tRNAs. FASEB Journal, 2012, 26, 550.1.	0.2	0
70	Revisiting the structures of several antibiotics bound to the bacterial ribosome. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17158-17163.	3.3	240
71	Poly(A) Tail Recognition by a Viral RNA Element Through Assembly of a Triple Helix. Science, 2010, 330, 1244-1247.	6.0	144
72	The structures of the anti-tuberculosis antibiotics viomycin and capreomycin bound to the 70S ribosome. Nature Structural and Molecular Biology, 2010, 17, 289-293.	3.6	194

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73	How the CCA-Adding Enzyme Selects Adenine over Cytosine at Position 76 of tRNA. Science, 2010, 330, 937-940.	6.0	29
74	Frederic M. Richards (1925-2009). Science, 2009, 323, 1181-1181.	6.0	2
75	Structures of Triacetyloleandomycin and Mycalamide A Bind to the Large Ribosomal Subunit of Haloarcula marismortui. Antimicrobial Agents and Chemotherapy, 2009, 53, 5010-5014.	1.4	50
76	The structural changes of T7 RNA polymerase from transcription initiation to elongation. Current Opinion in Structural Biology, 2009, 19, 683-690.	2.6	74
77	U2504 Determines the Species Specificity of the A-Site Cleft Antibiotics:. Journal of Molecular Biology, 2009, 389, 146-156.	2.0	154
78	Formation of the First Peptide Bond: The Structure of EF-P Bound to the 70 S Ribosome. Science, 2009, 325, 966-970.	6.0	201
79	A structural understanding of the dynamic ribosome machine. Nature Reviews Molecular Cell Biology, 2008, 9, 242-253.	16.1	364
80	Crystal Structure of the Oxazolidinone Antibiotic Linezolid Bound to the 50S Ribosomal Subunit. Journal of Medicinal Chemistry, 2008, 51, 3353-3356.	2.9	267
81	Mutations Outside the Anisomycin-Binding Site Can Make Ribosomes Drug-Resistant. Journal of Molecular Biology, 2008, 379, 505-519.	2.0	75
82	Insights into the Replisome from the Structure of a Ternary Complex of the DNA Polymerase III Î±-Subunit. Journal of Molecular Biology, 2008, 382, 859-869.	2.0	85
83	The Structure of a Transcribing T7 RNA Polymerase in Transition from Initiation to Elongation. Science, 2008, 322, 553-557.	6.0	98
84	The structure of LepA, the ribosomal back translocase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4673-4678.	3.3	66
85	Structural Insights into the Functions of the Large Ribosomal Subunit, a Major Antibiotic Target. Keio Journal of Medicine, 2008, 57, 1-14.	0.5	4
86	Structural basis for base discrimination by RB69 DNA polymerase. FASEB Journal, 2008, 22, 593.2.	0.2	0
87	The Structures of Antibiotics Bound to the E Site Region of the 50 S Ribosomal Subunit of Haloarcula marismortui: 13-Deoxytedanolide and Girodazole. Journal of Molecular Biology, 2007, 367, 1471-1479.	2.0	45
88	Structures of phi29 DNA polymerase complexed with substrate: the mechanism of translocation in B-family polymerases. EMBO Journal, 2007, 26, 3494-3505.	3.5	140
89	Collecting Butterflies and the Protein Structure Initiative: The Right Questions?. Structure, 2007, 15, 1523-1524.	1.6	4
90	The Structure of T. aquaticus DNA Polymerase III Is Distinct from Eukaryotic Replicative DNA Polymerases. Cell, 2006, 126, 893-904.	13.5	127

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91	Visualizing polynucleotide polymerase machines at work. EMBO Journal, 2006, 25, 3458-3468.	3.5	76
92	A story with a good ending: tRNA 3â€²-end maturation by CCA-adding enzymes. Current Opinion in Structural Biology, 2006, 16, 12-17.	2.6	75
93	Implications of structures of synaptic tetramers of ÂÂ resolvase for the mechanism of recombination. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10642-10647.	3.3	47
94	The roles of RNA in the peptidyl transferase reaction and its inhibition by antibiotics. FASEB Journal, 2006, 20, A422.	0.2	0
95	An induced-fit mechanism to promote peptide bond formation and exclude hydrolysis of peptidyl-tRNA. Nature, 2005, 438, 520-524.	13.7	326
96	Structural Insights into the Roles of Water and the 2â€² Hydroxyl of the P Site tRNA in the Peptidyl Transferase Reaction. Molecular Cell, 2005, 20, 437-448.	4.5	253
97	Structures of MLSBK Antibiotics Bound to Mutated Large Ribosomal Subunits Provide a Structural Explanation for Resistance. Cell, 2005, 121, 257-270.	13.5	401
98	On the structural basis of peptide-bond formation and antibiotic resistance from atomic structures of the large ribosomal subunit. FEBS Letters, 2005, 579, 955-958.	1.3	32
99	Structure of a Synaptic ÂÂ Resolvase Tetramer Covalently Linked to Two Cleaved DNAs. Science, 2005, 309, 1210-1215.	6.0	114
100	Accuracy, lesion bypass, strand displacement and translocation by DNA polymerases. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 17-23.	1.8	39
101	Mechanism of transfer RNA maturation by CCA-adding enzyme without using an oligonucleotide template. Nature, 2004, 430, 640-645.	13.7	120
102	The structural basis of the transition from initiation to elongation phases of transcription, as well as translocation and strand separation, by T7 RNA polymerase. Current Opinion in Structural Biology, 2004, 14, 4-9.	2.6	59
103	The Structural Mechanism of Translocation and Helicase Activity in T7 RNA Polymerase. Cell, 2004, 116, 393-404.	13.5	310
104	RNA, the first macromolecular catalyst: the ribosome is a ribozyme. Trends in Biochemical Sciences, 2003, 28, 411-418.	3.7	255
105	Structures of Five Antibiotics Bound at the Peptidyl Transferase Center of the Large Ribosomal Subunit. Journal of Molecular Biology, 2003, 330, 1061-1075.	2.0	372
106	Crystal Structures of an Archaeal Class I CCA-Adding Enzyme and Its Nucleotide Complexes. Molecular Cell, 2003, 12, 1165-1172.	4.5	66
107	Structures of deacylated tRNA mimics bound to the E site of the large ribosomal subunit. Rna, 2003, 9, 1345-1352.	1.6	81
108	Structural insights into peptide bond formation. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11670-11675.	3.3	267

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109	Crystal Structures of the Bacillus stearothermophilus CCA-Adding Enzyme and Its Complexes with ATP or CTP. Cell, 2002, 111, 815-824.	13.5	115
110	The Structures of Four Macrolide Antibiotics Bound to the Large Ribosomal Subunit. Molecular Cell, 2002, 10, 117-128.	4.5	520
111	Structural Basis for the Transition from Initiation to Elongation Transcription in T7 RNA Polymerase. Science, 2002, 298, 1387-1395.	6.0	309
112	Crystal Structure of a DinB Lesion Bypass DNA Polymerase Catalytic Fragment Reveals a Classic Polymerase Catalytic Domain. Molecular Cell, 2001, 8, 427-437.	4.5	190
113	Structure of the Replicating Complex of a Pol Î± Family DNA Polymerase. Cell, 2001, 105, 657-667.	13.5	547
114	The Complete Atomic Structure of the Large Ribosomal Subunit at 2.4 A Resolution. Science, 2000, 289, 905-920.	6.0	3,132
115	The Structural Basis of Ribosome Activity in Peptide Bond Synthesis. Science, 2000, 289, 920-930.	6.0	2,045
116	Structural basis for initiation of transcription from an RNA polymeraseâ€“promoter complex. Nature, 1999, 399, 80-83.	13.7	295
117	DNA Polymerases: Structural Diversity and Common Mechanisms. Journal of Biological Chemistry, 1999, 274, 17395-17398.	1.6	741
118	Insights into Editing from an Ile-tRNA Synthetase Structure with tRNAIle and Mupirocin. Science, 1999, 285, 1074-1077.	6.0	425
119	Structures of Normal Single-Stranded DNA and Deoxyribo-3â€˜-S-phosphorothiolates Bound to the 3â€˜-5â€˜ Exonucleolytic Active Site of DNA Polymerase I from Escherichia coli,. Biochemistry, 1999, 38, 696-704.	1.2	77
120	A mechanism for all polymerases. Nature, 1998, 391, 231-232.	13.7	557
121	Use of Chemically Modified Nucleotides to Determine a 62-Nucleotide RNA Crystal Structure: A Survey of Phosphorothioates, Br, Pt and Hg. Journal of Biomolecular Structure and Dynamics, 1997, 15, 165-172.	2.0	31
122	Structure of Taq polymerase with DNA at the polymerase active site. Nature, 1996, 382, 278-281.	13.7	333
123	Crystal structure of the site-specific recombinase Î³Î´ resolvase complexed with a 34 by cleavage site. Cell, 1995, 82, 193-207.	13.5	259
124	The crystal structure of the catalytic domain of the site-specific recombination enzyme Î³Î´ resolvase at 2.7 Ã... resolution. Cell, 1990, 63, 1323-1329.	13.5	121
125	Structure of catabolite gene activator protein at 2.9 Ã... resolution suggests binding to left-handed B-DNA. Nature, 1981, 290, 744-749.	13.7	690
126	Protomer Structure of Oligomeric Enzymes: Symmetry and Allosteric Interactions in Yeast Hexokinase. Biochemical Society Transactions, 1977, 5, 620-623.	1.6	5

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127	The Structure of Yeast Hexokinase and its Complexes with Substrates. Biochemical Society Transactions, 1974, 2, 52-54.	1.6	4
128	Crystal Structure of the Large Ribosomal Subunit at 5-Angstrom Resolution. , 0, , 11-20.		1