

Scott A Strobel

List of Publications by Year in descending order

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102
papers

6,281
citations

57758

44
h-index

69250

77
g-index

108
all docs

108
docs citations

108
times ranked

4215
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal structure of a self-splicing group I intron with both exons. <i>Nature</i> , 2004, 430, 45-50.	27.8	431
2	An induced-fit mechanism to promote peptide bond formation and exclude hydrolysis of peptidyl-tRNA. <i>Nature</i> , 2005, 438, 520-524.	27.8	326
3	Substrate-assisted catalysis of peptide bond formation by the ribosome. <i>Nature Structural and Molecular Biology</i> , 2004, 11, 1101-1106.	8.2	264
4	Structural basis of ligand binding by a c-di-GMP riboswitch. <i>Nature Structural and Molecular Biology</i> , 2009, 16, 1218-1223.	8.2	257
5	Structural Insights into the Roles of Water and the 2'-OH Hydroxyl of the P Site tRNA in the Peptidyl Transferase Reaction. <i>Molecular Cell</i> , 2005, 20, 437-448.	9.7	253
6	Structural Investigation of the GlmS Ribozyme Bound to Its Catalytic Cofactor. <i>Chemistry and Biology</i> , 2007, 14, 97-105.	6.0	253
7	A Single Adenosine with a Neutral pKa in the Ribosomal Peptidyl Transferase Center. <i>Science</i> , 2000, 289, 947-950.	12.6	243
8	Structural Evidence for a Two-Metal-Ion Mechanism of Group I Intron Splicing. <i>Science</i> , 2005, 309, 1587-1590.	12.6	205
9	A specific monovalent metal ion integral to the AA platform of the RNA tetraloop receptor. <i>Nature Structural Biology</i> , 1998, 5, 986-992.	9.7	199
10	Important Contribution to Catalysis of Peptide Bond Formation by a Single Ionizing Group within the Ribosome. <i>Molecular Cell</i> , 2002, 10, 339-346.	9.7	152
11	Catalytic Strategies of Self-Cleaving Ribozymes. <i>Accounts of Chemical Research</i> , 2008, 41, 1027-1035.	15.6	151
12	Principles of fluoride toxicity and the cellular response: a review. <i>Archives of Toxicology</i> , 2020, 94, 1051-1069.	4.2	148
13	Crystal structure of a group I intron splicing intermediate. <i>Rna</i> , 2004, 10, 1867-1887.	3.5	112
14	Complementary sets of noncanonical base pairs mediate RNA helix packing in the group I intron active site. <i>Nature Structural Biology</i> , 1998, 5, 60-66.	9.7	110
15	A pre-translocational intermediate in protein synthesis observed in crystals of enzymatically active 50S subunits. <i>Nature Structural Biology</i> , 2002, 9, 225-30.	9.7	108
16	Eukaryotic resistance to fluoride toxicity mediated by a widespread family of fluoride export proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 19018-19023.	7.1	108
17	RNA catalysis: ribozymes, ribosomes, and riboswitches. <i>Current Opinion in Chemical Biology</i> , 2007, 11, 636-643.	6.1	101
18	Bioactive Endophytes Warrant Intensified Exploration and Conservation. <i>PLoS ONE</i> , 2008, 3, e3052.	2.5	98

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19	The chemical basis of adenosine conservation throughout the Tetrahymena ribozyme. <i>Rna</i> , 1998, 4, 498-519.	3.5	95
20	The 2,6-Diaminopurine Riboside.cntdot.5-Methylisocytidine Wobble Base Pair: An Isoenergetic Substitution for the Study of G.cntdot.U Pairs in RNA. <i>Biochemistry</i> , 1994, 33, 13824-13835.	2.5	93
21	RNA splicing: group I intron crystal structures reveal the basis of splice site selection and metal ion catalysis. <i>Current Opinion in Structural Biology</i> , 2006, 16, 319-326.	5.7	90
22	Structural Basis of Cooperative Ligand Binding by the Glycine Riboswitch. <i>Chemistry and Biology</i> , 2011, 18, 293-298.	6.0	90
23	A minor groove RNA triple helix within the catalytic core of a group I intron. <i>Nature Structural Biology</i> , 1998, 5, 1037-1042.	9.7	82
24	Structural and Chemical Basis for Glucosamine 6-Phosphate Binding and Activation of the <i>glmS</i> Ribozyme. <i>Biochemistry</i> , 2009, 48, 3239-3246.	2.5	78
25	Genomic Analysis of the Hydrocarbon-Producing, Cellulolytic, Endophytic Fungus <i>Ascocoryne sarcoides</i> . <i>PLoS Genetics</i> , 2012, 8, e1002558.	3.5	76
26	Nucleotide Analog Interference Mapping. <i>Methods</i> , 1999, 18, 38-50.	3.8	75
27	Chemical basis of glycine riboswitch cooperativity. <i>Rna</i> , 2008, 14, 25-34.	3.5	72
28	Volatile organic compound production by organisms in the genus <i>Ascocoryne</i> and a re-evaluation of myco-diesel production by NRRL 50072. <i>Microbiology (United Kingdom)</i> , 2010, 156, 3814-3829.	1.8	72
29	A two-step chemical mechanism for ribosome-catalysed peptide bond formation. <i>Nature</i> , 2011, 476, 236-239.	27.8	69
30	Identification of a Fungal 1,8-Cineole Synthase from <i>Hypoxyylon</i> sp. with Specificity Determinants in Common with the Plant Synthases. <i>Journal of Biological Chemistry</i> , 2015, 290, 8511-8526.	3.4	66
31	Structural Basis for Ligand Binding to the Guanidine-I Riboswitch. <i>Structure</i> , 2017, 25, 195-202.	3.3	62
32	Thiophilic metal ion rescue of phosphorothioate interference within the Tetrahymena ribozyme P4-P6 domain. <i>Rna</i> , 1999, 5, 1399-1407.	3.5	60
33	Student-Directed Discovery of the Plant Microbiome and Its Products. <i>Science</i> , 2012, 338, 485-486.	12.6	58
34	[6] Chemical probing of RNA by nucleotide analog interference mapping. <i>Methods in Enzymology</i> , 2000, 317, 92-109.	1.0	57
35	A chemogenetic approach to RNA function/structure analysis. <i>Current Opinion in Structural Biology</i> , 1999, 9, 346-352.	5.7	55
36	Mycofumigation by the Volatile Organic Compound-Producing Fungus <i>Muscodor albus</i> Induces Bacterial Cell Death through DNA Damage. <i>Applied and Environmental Microbiology</i> , 2015, 81, 1147-1156.	3.1	53

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37	Multiple, Novel Biologically Active Endophytic Actinomycetes Isolated from Upper Amazonian Rainforests. <i>Microbial Ecology</i> , 2009, 58, 374-383.	2.8	52
38	Structural Metals in the Group I Intron: A Ribozyme with a Multiple Metal Ion Core. <i>Journal of Molecular Biology</i> , 2007, 372, 89-102.	4.2	49
39	A chemical phylogeny of group I introns based upon interference mapping of a bacterial ribozyme 1 Edited by D. Draper. <i>Journal of Molecular Biology</i> , 2000, 302, 339-358.	4.2	48
40	Bacterial Toxin RelE: A Highly Efficient Ribonuclease with Exquisite Substrate Specificity Using Atypical Catalytic Residues. <i>Biochemistry</i> , 2013, 52, 8633-8642.	2.5	47
41	N2-Methylguanosine is iso-energetic with guanosine in RNA duplexes and GNRA tetraloops. <i>Nucleic Acids Research</i> , 1998, 26, 3640-3644.	14.5	46
42	Identification of an Active Site Ligand for a Group I Ribozyme Catalytic Metal Ion. <i>Biochemistry</i> , 2002, 41, 2516-2525.	2.5	46
43	Repopulating the RNA world. <i>Nature</i> , 2001, 411, 1003-1005.	27.8	45
44	Structural basis for ligand binding to the guanine-II riboswitch. <i>Rna</i> , 2017, 23, 1338-1343.	3.5	45
45	An Uncharged Amine in the Transition State of the Ribosomal Peptidyl Transfer Reaction. <i>Chemistry and Biology</i> , 2008, 15, 493-500.	6.0	44
46	Riboswitch effectors as protein enzyme cofactors. <i>Rna</i> , 2008, 14, 993-1002.	3.5	44
47	Biosynthesis and genomic analysis of medium-chain hydrocarbon production by the endophytic fungal isolate <i>Nigrograna mackinnonii</i> E5202H. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 3715-3728.	3.6	44
48	glmS Riboswitch Binding to the Glucosamine-6-phosphate α -Anomer Shifts the p <i>K_a</i> toward Neutrality. <i>Biochemistry</i> , 2011, 50, 7236-7242.	2.5	42
49	RNA kink turns to the left and to the right. <i>Rna</i> , 2004, 10, 1852-1854.	3.5	39
50	Kinetic Isotope Effect Analysis of the Ribosomal Peptidyl Transferase Reaction. <i>Biochemistry</i> , 2005, 44, 4018-4027.	2.5	39
51	Toward Ribosomal RNA Catalytic Activity in the Absence of Protein. <i>Journal of Molecular Evolution</i> , 2007, 64, 472-483.	1.8	38
52	Thin Layer Chromatography. <i>Methods in Enzymology</i> , 2013, 533, 303-324.	1.0	37
53	Identification of a tertiary interaction important for cooperative ligand binding by the glycine riboswitch. <i>Rna</i> , 2011, 17, 74-84.	3.5	33
54	<i>Biatrispora</i> (Ascomycota: Pleosporales) is an ecologically diverse genus including facultative marine fungi and endophytes with biotechnological potential. <i>Plant Systematics and Evolution</i> , 2017, 303, 35-50.	0.9	33

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55	Uncovering the Enzymatic pKa of the Ribosomal Peptidyl Transferase Reaction Utilizing a Fluorinated Puromycin Derivative. <i>Biochemistry</i> , 2005, 44, 6675-6684.	2.5	32
56	Plant endophytes as a platform for discovery-based undergraduate science education. <i>Nature Chemical Biology</i> , 2007, 3, 356-359.	8.0	31
57	Yeast Fex1p Is a Constitutively Expressed Fluoride Channel with Functional Asymmetry of Its Two Homologous Domains. <i>Journal of Biological Chemistry</i> , 2015, 290, 19874-19887.	3.4	31
58	Fluoride export (FEX) proteins from fungi, plants and animals are 'single barreled' channels containing one functional and one vestigial ion pore. <i>PLoS ONE</i> , 2017, 12, e0177096.	2.5	29
59	Ligand binding by the tandem glycine riboswitch depends on aptamer dimerization but not double ligand occupancy. <i>Rna</i> , 2014, 20, 1775-1788.	3.5	27
60	Structures of two aptamers with differing ligand specificity reveal ruggedness in the functional landscape of RNA. <i>ELife</i> , 2018, 7, .	6.0	27
61	The chemical versatility of RNA. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 2929-2935.	4.0	26
62	Regiospecificity of the Peptidyl tRNA Ester within the Ribosomal P Site. <i>Journal of the American Chemical Society</i> , 2006, 128, 3108-3109.	13.7	25
63	Biosynthesis of hydrocarbons and volatile organic compounds by fungi: bioengineering potential. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 4943-4951.	3.6	25
64	Fusaric acid induces a notochord malformation in zebrafish via copper chelation. <i>BioMetals</i> , 2015, 28, 783-789.	4.1	25
65	Biochemical Detection of Cytidine Protonation within RNA. <i>Journal of the American Chemical Society</i> , 2000, 122, 10259-10267.	13.7	24
66	Identification of A-Minor Tertiary Interactions within a Bacterial Group I Intron Active Site by 3-Deazaadenosine Interference Mapping. <i>Biochemistry</i> , 2002, 41, 10426-10438.	2.5	24
67	Enzymatic synthesis of cyclic dinucleotide analogs by a promiscuous cyclic-AMP-GMP synthetase and analysis of cyclic dinucleotide responsive riboswitches. <i>Nucleic Acids Research</i> , 2018, 46, 2765-2776.	14.5	23
68	Endophyte Strain NRRL 50072 producing volatile organics is a species of <i>Ascocoryne</i> . <i>Mycology</i> , 2010, 1, 187-194.	4.4	21
69	Minimal Transition State Charge Stabilization of the Oxyanion during Peptide Bond Formation by the Ribosome. <i>Biochemistry</i> , 2011, 50, 10491-10498.	2.5	19
70	Singlet glycine riboswitches bind ligand as well as tandem riboswitches. <i>Rna</i> , 2016, 22, 1728-1738.	3.5	19
71	Mycofumigation through production of the volatile DNA-methylating agent N-methyl-N-nitrosoisobutyramide by fungi in the genus <i>Muscodor</i> . <i>Journal of Biological Chemistry</i> , 2017, 292, 7358-7371.	3.4	19
72	Gene regulation by a glycine riboswitch singlet uses a finely tuned energetic landscape for helical switching. <i>Rna</i> , 2018, 24, 1813-1827.	3.5	18

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73	Nucleotide Analog Interference Mapping. <i>Methods in Enzymology</i> , 2009, 468, 3-30.	1.0	17
74	Stelliosphaerols A and B, Sesquiterpene Polyol Conjugates from an Ecuadorian Fungal Endophyte. <i>Journal of Natural Products</i> , 2015, 78, 3005-3010.	3.0	16
75	Nuclease-Resistant c-di-AMP Derivatives That Differentially Recognize RNA and Protein Receptors. <i>Biochemistry</i> , 2016, 55, 837-849.	2.5	16
76	Transition State Chirality and Role of the Vicinal Hydroxyl in the Ribosomal Peptidyl Transferase Reaction. <i>Biochemistry</i> , 2008, 47, 8822-8827.	2.5	15
77	Ribozyme chemogenetics. , 1998, 48, 65-81.		14
78	Transition State Charge Stabilization and Acid-Base Catalysis of mRNA Cleavage by the Endoribonuclease RelE. <i>Biochemistry</i> , 2015, 54, 7048-7057.	2.5	14
79	Genome of <i>Diaporthe</i> sp. provides insights into the potential inter-phylum transfer of a fungal sesquiterpenoid biosynthetic pathway. <i>Fungal Biology</i> , 2016, 120, 1050-1063.	2.5	13
80	Transition States of Uncatalyzed Hydrolysis and Aminolysis Reactions of a Ribosomal P-Site Substrate Determined by Kinetic Isotope Effects. <i>Biochemistry</i> , 2010, 49, 3868-3878.	2.5	12
81	The asymmetry and cooperativity of tandem glycine riboswitch aptamers. <i>Rna</i> , 2020, 26, 564-580.	3.5	12
82	Analysis of Enzymatic Transacylase Brønsted Studies with Application to the Ribosome. <i>Accounts of Chemical Research</i> , 2012, 45, 495-503.	15.6	11
83	Nitrate and Phosphate Transporters Rescue Fluoride Toxicity in Yeast. <i>Chemical Research in Toxicology</i> , 2019, 32, 2305-2319.	3.3	11
84	The fluoride transporter FLUORIDE EXPORTER (FEX) is the major mechanism of tolerance to fluoride toxicity in plants. <i>Plant Physiology</i> , 2021, 186, 1143-1158.	4.8	11
85	SITE SPECIFIC INCORPORATION OF 6-AZAUridine INTO THE GENOMIC HDV RIBOZYME ACTIVE SITE. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2001, 20, 1851-1858.	1.1	10
86	Probing RNA Structure and Function by Nucleotide Analog Interference Mapping. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2004, 17, Unit 6.9.	0.5	9
87	Genome-Wide Identification of Genes Involved in General Acid Stress and Fluoride Toxicity in <i>Saccharomyces cerevisiae</i> . <i>Frontiers in Microbiology</i> , 2020, 11, 1410.	3.5	9
88	The Synthesis of RNA Containing the Modified Nucleotides m^2G and m^6A . <i>Nucleosides & Nucleotides</i> , 1998, 17, 2281-2288.	0.5	8
89	The Biological Diversity and Production of Volatile Organic Compounds by Stem-Inhabiting Endophytic Fungi of Ecuador. <i>Journal of Fungi (Basel, Switzerland)</i> , 2015, 1, 384-396.	3.5	8
90	The hairpin's turn. <i>Nature</i> , 2001, 410, 761-762.	27.8	7

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91	Metal ghosts in the splicing machine. <i>Nature</i> , 2013, 503, 201-202.	27.8	6
92	A Modular RNA Domain That Confers Differential Ligand Specificity. <i>Biochemistry</i> , 2020, 59, 1361-1366.	2.5	5
93	The Positively Charged Active Site of the Bacterial Toxin RelE Causes a Large Shift in the General Base p <i>K_a</i> . <i>Biochemistry</i> , 2020, 59, 1665-1671.	2.5	4
94	Biochemical detection of adenosine and cytidine ionization within RNA by interference analysis. <i>Nucleic Acids Symposium Series</i> , 2003, 3, 229-230.	0.3	3
95	Pyrolocin A, a 3-Decalinoyltetramic Acid with Selective Biological Activity, Isolated from Amazonian Cultures of the Novel Endophyte <i>Diaporthe</i> sp. E6927E. <i>Natural Product Communications</i> , 2015, 10, 1934578X1501001.	0.5	3
96	A new RNA performs old chemistry. <i>Nature Chemical Biology</i> , 2022, 18, 438-439.	8.0	3
97	Competencies: A Cure for Pre-Med Curriculum. <i>Science</i> , 2011, 334, 760-761.	12.6	2
98	A DNA Repair Inhibitor Isolated from an Ecuadorian Fungal Endophyte Exhibits Synthetic Lethality in PTEN-Deficient Glioblastoma. <i>Journal of Natural Products</i> , 2020, 83, 1899-1908.	3.0	2
99	Pyrolocin A, a 3-Decalinoyltetramic Acid with Selective Biological Activity, Isolated from Amazonian Cultures of the Novel Endophyte <i>Diaporthe</i> sp. E6927E. <i>Natural Product Communications</i> , 2015, 10, 1649-54.	0.5	2
100	Mechanisms of RNA Catalysis. <i>FASEB Journal</i> , 2007, 21, A41.	0.5	0
101	RNA Catalysis: Ribozymes, Ribosomes and Riboswitches. <i>FASEB Journal</i> , 2008, 22, 109.1.	0.5	0
102	Structural Insights into the Roles of Water and the 2'-OH Hydroxyl of the P Site tRNA in the Peptidyl Transferase Reaction. <i>Journal of Hand Surgery Asian-Pacific volume, The</i> , 2020, , 557-568.	0.4	0