

Scott A Strobel

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

5,380
citations

41
h-index

72
g-index

108
ext. papers

5,886
ext. citations

9.9
avg, IF

5.77
L-index

#	Paper	IF	Citations
98	Crystal structure of a self-splicing group I intron with both exons. <i>Nature</i> , 2004 , 430, 45-50	50.4	389
97	An induced-fit mechanism to promote peptide bond formation and exclude hydrolysis of peptidyl-tRNA. <i>Nature</i> , 2005 , 438, 520-4	50.4	285
96	Substrate-assisted catalysis of peptide bond formation by the ribosome. <i>Nature Structural and Molecular Biology</i> , 2004 , 11, 1101-6	17.6	239
95	Structural investigation of the GlmS ribozyme bound to its catalytic cofactor. <i>Chemistry and Biology</i> , 2007 , 14, 97-105		235
94	Structural basis of ligand binding by a c-di-GMP riboswitch. <i>Nature Structural and Molecular Biology</i> , 2009 , 16, 1218-23	17.6	232
93	Structural insights into the roles of water and the 2'-OH of the P site tRNA in the peptidyl transferase reaction. <i>Molecular Cell</i> , 2005 , 20, 437-48	17.6	226
92	A single adenosine with a neutral pKa in the ribosomal peptidyl transferase center. <i>Science</i> , 2000 , 289, 947-50	33.3	220
91	Structural evidence for a two-metal-ion mechanism of group I intron splicing. <i>Science</i> , 2005 , 309, 1587-90	33.3	192
90	A specific monovalent metal ion integral to the AA platform of the RNA tetraloop receptor. <i>Nature Structural Biology</i> , 1998 , 5, 986-92		182
89	Important contribution to catalysis of peptide bond formation by a single ionizing group within the ribosome. <i>Molecular Cell</i> , 2002 , 10, 339-46	17.6	138
88	Catalytic strategies of self-cleaving ribozymes. <i>Accounts of Chemical Research</i> , 2008 , 41, 1027-35	24.3	136
87	Crystal structure of a group I intron splicing intermediate. <i>Rna</i> , 2004 , 10, 1867-87	5.8	104
86	Complementary sets of noncanonical base pairs mediate RNA helix packing in the group I intron active site. <i>Nature Structural Biology</i> , 1998 , 5, 60-6		101
85	The chemical basis of adenosine conservation throughout the Tetrahymena ribozyme. <i>Rna</i> , 1998 , 4, 498-519	5.8	88
84	The 2,6-diaminopurine riboside.5-methylisocytidine wobble base pair: an isoenergetic substitution for the study of G.U pairs in RNA. <i>Biochemistry</i> , 1994 , 33, 13824-35	3.2	88
83	RNA catalysis: ribozymes, ribosomes, and riboswitches. <i>Current Opinion in Chemical Biology</i> , 2007 , 11, 636-43	9.7	87
82	A pre-translocational intermediate in protein synthesis observed in crystals of enzymatically active 50S subunits. <i>Nature Structural Biology</i> , 2002 , 9, 225-30		87

81	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, 19018-23	11.5	81
80	Structural basis of cooperative ligand binding by the glycine riboswitch. <i>Chemistry and Biology</i> , 2011 , 18, 293-8		81
79	Bioactive endophytes warrant intensified exploration and conservation. <i>PLoS ONE</i> , 2008 , 3, e3052	3.7	80
78	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, 319-26	8.1	79
77	A minor groove RNA triple helix within the catalytic core of a group I intron. <i>Nature Structural Biology</i> , 1998 , 5, 1037-42		71
76	Structural and chemical basis for glucosamine 6-phosphate binding and activation of the glmS ribozyme. <i>Biochemistry</i> , 2009 , 48, 3239-46	3.2	70
75	Nucleotide analog interference mapping. <i>Methods</i> , 1999 , 18, 38-50	4.6	65
74	Genomic analysis of the hydrocarbon-producing, cellulolytic, endophytic fungus <i>Ascocoryne sarcoides</i> . <i>PLoS Genetics</i> , 2012 , 8, e1002558	6	64
73	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	2.9	63
72	Chemical basis of glycine riboswitch cooperativity. <i>Rna</i> , 2008 , 14, 25-34	5.8	61
71	A two-step chemical mechanism for ribosome-catalysed peptide bond formation. <i>Nature</i> , 2011 , 476, 236-9	50.4	60
70	Thiophilic metal ion rescue of phosphorothioate interference within the <i>Tetrahymena</i> ribozyme P4-P6 domain. <i>Rna</i> , 1999 , 5, 1399-407	5.8	55
69	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, 8511-26	5.4	54
68	Chemical probing of RNA by nucleotide analog interference mapping. <i>Methods in Enzymology</i> , 2000 , 317, 92-109	1.7	51
67	A chemogenetic approach to RNA function/structure analysis. <i>Current Opinion in Structural Biology</i> , 1999 , 9, 346-52	8.1	51
66	Principles of fluoride toxicity and the cellular response: a review. <i>Archives of Toxicology</i> , 2020 , 94, 1051-1089	5.8	50
65	IBI series winner. Student-directed discovery of the plant microbiome and its products. <i>Science</i> , 2012 , 338, 485-6	33.3	49
64	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	6.5	47

63	A chemical phylogeny of group I introns based upon interference mapping of a bacterial ribozyme. <i>Journal of Molecular Biology</i> , 2000 , 302, 339-58	6.5	46
62	Multiple, novel biologically active endophytic actinomycetes isolated from upper Amazonian rainforests. <i>Microbial Ecology</i> , 2009 , 58, 374-83	4.4	45
61	Identification of an active site ligand for a group I ribozyme catalytic metal ion. <i>Biochemistry</i> , 2002 , 41, 2516-25	3.2	45
60	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, 1147-56	4.8	44
59	Structural Basis for Ligand Binding to the Guanidine-I Riboswitch. <i>Structure</i> , 2017 , 25, 195-202	5.2	43
58	N 2-methylguanosine is iso-energetic with guanosine in RNA duplexes and GNRA tetraloops. <i>Nucleic Acids Research</i> , 1998 , 26, 3640-4	20.1	43
57	An uncharged amine in the transition state of the ribosomal peptidyl transfer reaction. <i>Chemistry and Biology</i> , 2008 , 15, 493-500		41
56	Riboswitch effectors as protein enzyme cofactors. <i>Rna</i> , 2008 , 14, 993-1002	5.8	39
55	glmS Riboswitch binding to the glucosamine-6-phosphate monomer shifts the pKa toward neutrality. <i>Biochemistry</i> , 2011 , 50, 7236-42	3.2	38
54	Kinetic isotope effect analysis of the ribosomal peptidyl transferase reaction. <i>Biochemistry</i> , 2005 , 44, 4018-27	3.2	38
53	RNA kink turns to the left and to the right. <i>Rna</i> , 2004 , 10, 1852-4	5.8	36
52	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, 3715-28	5.7	34
51	Bacterial toxin RelE: a highly efficient ribonuclease with exquisite substrate specificity using atypical catalytic residues. <i>Biochemistry</i> , 2013 , 52, 8633-42	3.2	32
50	Identification of a tertiary interaction important for cooperative ligand binding by the glycine riboswitch. <i>Rna</i> , 2011 , 17, 74-84	5.8	32
49	Structural basis for ligand binding to the guanidine-II riboswitch. <i>Rna</i> , 2017 , 23, 1338-1343	5.8	31
48	Uncovering the enzymatic pKa of the ribosomal peptidyl transferase reaction utilizing a fluorinated puromycin derivative. <i>Biochemistry</i> , 2005 , 44, 6675-84	3.2	30
47	Plant endophytes as a platform for discovery-based undergraduate science education. <i>Nature Chemical Biology</i> , 2007 , 3, 356-9	11.7	29
46	Toward ribosomal RNA catalytic activity in the absence of protein. <i>Journal of Molecular Evolution</i> , 2007 , 64, 472-83	3.1	27

45	Biosynthesis of hydrocarbons and volatile organic compounds by fungi: bioengineering potential. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 4943-51	5.7	24
44	Ligand binding by the tandem glycine riboswitch depends on aptamer dimerization but not double ligand occupancy. <i>Rna</i> , 2014 , 20, 1775-88	5.8	24
43	The chemical versatility of RNA. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011 , 366, 2929-35	5.8	24
42	Regiospecificity of the peptidyl tRNA ester within the ribosomal P site. <i>Journal of the American Chemical Society</i> , 2006 , 128, 3108-9	16.4	24
41	Biochemical Detection of Cytidine Protonation within RNA. <i>Journal of the American Chemical Society</i> , 2000 , 122, 10259-10267	16.4	24
40	Identification of A-minor tertiary interactions within a bacterial group I intron active site by 3-deazaadenosine interference mapping. <i>Biochemistry</i> , 2002 , 41, 10426-38	3.2	23
39	Yeast Fex1p Is a Constitutively Expressed Fluoride Channel with Functional Asymmetry of Its Two Homologous Domains. <i>Journal of Biological Chemistry</i> , 2015 , 290, 19874-87	5.4	22
38	Fusaric acid induces a notochord malformation in zebrafish via copper chelation. <i>BioMetals</i> , 2015 , 28, 783-9	3.4	21
37	Thin layer chromatography. <i>Methods in Enzymology</i> , 2013 , 533, 303-24	1.7	21
36	Endophyte Strain NRRL 50072 producing volatile organics is a species of Ascocoryne. <i>Mycology</i> , 2010 , 1, 187-194	3.7	21
35	Biatriospora (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	1.3	18
34	Minimal transition state charge stabilization of the oxyanion during peptide bond formation by the ribosome. <i>Biochemistry</i> , 2011 , 50, 10491-8	3.2	18
33	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	3.7	17
32	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	20.1	17
31	Singlet glycine riboswitches bind ligand as well as tandem riboswitches. <i>Rna</i> , 2016 , 22, 1728-1738	5.8	16
30	Nucleotide analog interference mapping. <i>Methods in Enzymology</i> , 2009 , 468, 3-30	1.7	15
29	Structures of two aptamers with differing ligand specificity reveal ruggedness in the functional landscape of RNA. <i>ELife</i> , 2018 , 7,	8.9	14
28	Mycofumigation through production of the volatile DNA-methylating agent -methyl-nitrosoisobutyramide by fungi in the genus. <i>Journal of Biological Chemistry</i> , 2017 , 292, 7358-7371	5.4	13

27	Nuclease-Resistant c-di-AMP Derivatives That Differentially Recognize RNA and Protein Receptors. <i>Biochemistry</i> , 2016 , 55, 837-49	3.2	13
26	Ribozyme chemogenetics. <i>Biopolymers</i> , 1998 , 48, 65-81	2.2	13
25	Transition state chirality and role of the vicinal hydroxyl in the ribosomal peptidyl transferase reaction. <i>Biochemistry</i> , 2008 , 47, 8822-7	3.2	13
24	Gene regulation by a glycine riboswitch singlet uses a finely tuned energetic landscape for helical switching. <i>Rna</i> , 2018 , 24, 1813-1827	5.8	13
23	Transition State Charge Stabilization and Acid-Base Catalysis of mRNA Cleavage by the Endoribonuclease RelE. <i>Biochemistry</i> , 2015 , 54, 7048-57	3.2	12
22	Stelliosphaerols A and B, Sesquiterpene-Polyol Conjugates from an Ecuadorian Fungal Endophyte. <i>Journal of Natural Products</i> , 2015 , 78, 3005-10	4.9	12
21	Transition states of uncatalyzed hydrolysis and aminolysis reactions of a ribosomal P-site substrate determined by kinetic isotope effects. <i>Biochemistry</i> , 2010 , 49, 3868-78	3.2	12
20	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	2.8	11
19	Probing RNA structure and function by nucleotide analog interference mapping. <i>Current Protocols in Nucleic Acid Chemistry</i> , 2004 , Chapter 6, Unit 6.9	0.5	8
18	Site specific incorporation of 6-azauridine into the genomic HDV ribozyme active site. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2001 , 20, 1851-8	1.4	8
17	The asymmetry and cooperativity of tandem glycine riboswitch aptamers. <i>Rna</i> , 2020 , 26, 564-580	5.8	7
16	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	5.6	7
15	Analysis of enzymatic transacylase Brüsted studies with application to the ribosome. <i>Accounts of Chemical Research</i> , 2012 , 45, 495-503	24.3	7
14	The Synthesis of RNA Containing the Modified Nucleotides N 2-Methylguanosine and N 6, N 6-Dimethyladenosine. <i>Nucleosides & Nucleotides</i> , 1998 , 17, 2281-2288		7
13	Nitrate and Phosphate Transporters Rescue Fluoride Toxicity in Yeast. <i>Chemical Research in Toxicology</i> , 2019 , 32, 2305-2319	4	5
12	Pyrrolocin 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	0.9	3
11	Biochemical detection of adenosine and cytidine ionization within RNA by interference analysis. <i>Nucleic Acids Symposium Series</i> , 2003 , 229-30		3
10	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	4.9	2

9	The Positively Charged Active Site of the Bacterial Toxin RelE Causes a Large Shift in the General Base p. <i>Biochemistry</i> , 2020 , 59, 1665-1671	3.2	2
8	A Modular RNA Domain That Confers Differential Ligand Specificity. <i>Biochemistry</i> , 2020 , 59, 1361-1366	3.2	2
7	Pyrrlocin A, a 3-Decalinoyltetramic Acid with Selective Biological Activity, Isolated from Amazonian Cultures of the Novel Endophyte Diaporthales sp. E6927E. <i>Natural Product Communications</i> , 2015 , 10, 1649-54	0.9	2
6	The fluoride transporter FLUORIDE EXPORTER (FEX) is the major mechanism of tolerance to fluoride toxicity in plants ¹ . <i>Plant Physiology</i> , 2021 , 186, 1143-1158	6.6	2
5	Genome-Wide Identification of Genes Involved in General Acid Stress and Fluoride Toxicity in. <i>Frontiers in Microbiology</i> , 2020 , 11, 1410	5.7	1
4	Competencies: a cure for pre-med curriculum. <i>Science</i> , 2011 , 334, 760-1	33.3	1
3	Mechanisms of RNA Catalysis. <i>FASEB Journal</i> , 2007 , 21, A41	0.9	
2	RNA Catalysis: Ribozymes, Ribosomes and Riboswitches. <i>FASEB Journal</i> , 2008 , 22, 109.1	0.9	
1	Structural Insights into the Roles of Water and the 2' Hydroxyl of the P Site tRNA in the Peptidyl Transferase Reaction. <i>journal of hand surgery Asian-Pacific volume, The</i> , 2020 , 557-568	0.5	