Scott A Strobel

List of Publications by Year
in descending order

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	A new RNA performs old chemistry. Nature Chemical Biology, 2022, 18, 438-439.	8.0	3
2	The fluoride transporter FLUORIDE EXPORTER (FEX) is the major mechanism of tolerance to fluoride toxicity in plants1. Plant Physiology, 2021, 186, 1143-1158.	4.8	11
3	The asymmetry and cooperativity of tandem glycine riboswitch aptamers. Rna, 2020, 26, 564-580.	3.5	12
4	Genome-Wide Identification of Genes Involved in General Acid Stress and Fluoride Toxicity in Saccharomyces cerevisiae. Frontiers in Microbiology, 2020, 11, 1410.	3.5	9
5	A DNA Repair Inhibitor Isolated from an Ecuadorian Fungal Endophyte Exhibits Synthetic Lethality in PTEN-Deficient Glioblastoma. Journal of Natural Products, 2020, 83, 1899-1908.	3.0	2
6	The Positively Charged Active Site of the Bacterial Toxin RelE Causes a Large Shift in the General Base p<i>K</i>_a. Biochemistry, 2020, 59, 1665-1671.	2.5	4
7	Principles of fluoride toxicity and the cellular response: a review. Archives of Toxicology, 2020, 94, 1051-1069.	4.2	148
8	A Modular RNA Domain That Confers Differential Ligand Specificity. Biochemistry, 2020, 59, 1361-1366.	2.5	5
9	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.	0.4	0
10	Nitrate and Phosphate Transporters Rescue Fluoride Toxicity in Yeast. Chemical Research in Toxicology, 2019, 32, 2305-2319.	3.3	11
11	Enzymatic synthesis of cyclic dinucleotide analogs by a promiscuous cyclic-AMP-GMP synthetase and analysis of cyclic dinucleotide responsive riboswitches. Nucleic Acids Research, 2018, 46, 2765-2776.	14.5	23
12	Gene regulation by a glycine riboswitch singlet uses a finely tuned energetic landscape for helical switching. Rna, 2018, 24, 1813-1827.	3.5	18
13	Structures of two aptamers with differing ligand specificity reveal ruggedness in the functional landscape of RNA. ELife, 2018, 7, .	6.0	27
14	Structural basis for ligand binding to the guanidine-II riboswitch. Rna, 2017, 23, 1338-1343.	3.5	45
15	Mycofumigation through production of the volatile DNA-methylating agent N-methyl-N-nitrosoisobutyramide by fungi in the genus Muscodor. Journal of Biological Chemistry, 2017, 292, 7358-7371.	3.4	19
16	Structural Basis for Ligand Binding to the Guanidine-I Riboswitch. Structure, 2017, 25, 195-202.	3.3	62
17	Biatriospora (Ascomycota: Pleosporales) is an ecologically diverse genus including facultative marine fungi and endophytes with biotechnological potential. Plant Systematics and Evolution, 2017, 303, 35-50.	0.9	33
18	Fluoride export (FEX) proteins from fungi, plants and animals are 'single barreled' channels containing one functional and one vestigial ion pore. PLoS ONE, 2017, 12, e0177096.	2.5	29

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19	Genome of Diaporthe sp. provides insights into the potential inter-phylum transfer of a fungal sesquiterpenoid biosynthetic pathway. Fungal Biology, 2016, 120, 1050-1063.	2.5	13
20	Singlet glycine riboswitches bind ligand as well as tandem riboswitches. Rna, 2016, 22, 1728-1738.	3.5	19
21	Nuclease-Resistant c-di-AMP Derivatives That Differentially Recognize RNA and Protein Receptors. Biochemistry, 2016, 55, 837-849.	2.5	16
22	Pyrrolocin A, a 3-Decalinoyltetramic Acid with Selective Biological Activity, Isolated from Amazonian Cultures of the Novel Endophyte Diaporthales sp. E6927E. Natural Product Communications, 2015, 10, 1934578X1501001.	0.5	3
23	The Biological Diversity and Production of Volatile Organic Compounds by Stem-Inhabiting Endophytic Fungi of Ecuador. Journal of Fungi (Basel, Switzerland), 2015, 1, 384-396.	3.5	8
24	Stelliosphaerols A and B, Sesquiterpeneâ€“Polyol Conjugates from an Ecuadorian Fungal Endophyte. Journal of Natural Products, 2015, 78, 3005-3010.	3.0	16
25	Identification of a Fungal 1,8-Cineole Synthase from Hypoxylon sp. with Specificity Determinants in Common with the Plant Synthases. Journal of Biological Chemistry, 2015, 290, 8511-8526.	3.4	66
26	Mycofumigation by the Volatile Organic Compound-Producing Fungus Muscodor albus Induces Bacterial Cell Death through DNA Damage. Applied and Environmental Microbiology, 2015, 81, 1147-1156.	3.1	53
27	Biosynthesis and genomic analysis of medium-chain hydrocarbon production by the endophytic fungal isolate Nigrograna mackinnonii E5202H. Applied Microbiology and Biotechnology, 2015, 99, 3715-3728.	3.6	44
28	Biosynthesis of hydrocarbons and volatile organic compounds by fungi: bioengineering potential. Applied Microbiology and Biotechnology, 2015, 99, 4943-4951.	3.6	25
29	Fusaric acid induces a notochord malformation in zebrafish via copper chelation. BioMetals, 2015, 28, 783-789.	4.1	25
30	Yeast Fex1p Is a Constitutively Expressed Fluoride Channel with Functional Asymmetry of Its Two Homologous Domains. Journal of Biological Chemistry, 2015, 290, 19874-19887.	3.4	31
31	Transition State Charge Stabilization and Acidâ€“Base Catalysis of mRNA Cleavage by the Endoribonuclease RelE. Biochemistry, 2015, 54, 7048-7057.	2.5	14
32	Pyrrolocin A, a 3-Decalinoyltetramic Acid with Selective Biological Activity, Isolated from Amazonian Cultures of the Novel Endophyte Diaporthales sp. E6927E. Natural Product Communications, 2015, 10, 1649-54.	0.5	2
33	Ligand binding by the tandem glycine riboswitch depends on aptamer dimerization but not double ligand occupancy. Rna, 2014, 20, 1775-1788.	3.5	27
34	Thin Layer Chromatography. Methods in Enzymology, 2013, 533, 303-324.	1.0	37
35	Bacterial Toxin RelE: A Highly Efficient Ribonuclease with Exquisite Substrate Specificity Using Atypical Catalytic Residues. Biochemistry, 2013, 52, 8633-8642.	2.5	47
36	Metal ghosts in the splicing machine. Nature, 2013, 503, 201-202.	27.8	6

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37	Eukaryotic resistance to fluoride toxicity mediated by a widespread family of fluoride export proteins. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19018-19023.	7.1	108
38	Student-Directed Discovery of the Plant Microbiome and Its Products. Science, 2012, 338, 485-486.	12.6	58
39	Genomic Analysis of the Hydrocarbon-Producing, Cellulolytic, Endophytic Fungus Ascocoryne sarcoides. PLoS Genetics, 2012, 8, e1002558.	3.5	76
40	Analysis of Enzymatic Transacylase BrÃ¸nsted Studies with Application to the Ribosome. Accounts of Chemical Research, 2012, 45, 495-503.	15.6	11
41	Minimal Transition State Charge Stabilization of the Oxyanion during Peptide Bond Formation by the Ribosome. Biochemistry, 2011, 50, 10491-10498.	2.5	19
42	glmS Riboswitch Binding to the Glucosamine-6-phosphate Î±-Anomer Shifts the p<i>K</i>_a toward Neutrality. Biochemistry, 2011, 50, 7236-7242.	2.5	42
43	A two-step chemical mechanism for ribosome-catalysed peptide bond formation. Nature, 2011, 476, 236-239.	27.8	69
44	Structural Basis of Cooperative Ligand Binding by the Glycine Riboswitch. Chemistry and Biology, 2011, 18, 293-298.	6.0	90
45	The chemical versatility of RNA. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 2929-2935.	4.0	26
46	Competencies: A Cure for Pre-Med Curriculum. Science, 2011, 334, 760-761.	12.6	2
47	Identification of a tertiary interaction important for cooperative ligand binding by the glycine riboswitch. Rna, 2011, 17, 74-84.	3.5	33
48	Endophyte Strain NRRL 50072 producing volatile organics is a species of Ascocoryne. Mycology, 2010, 1, 187-194.	4.4	21
49	Volatile organic compound production by organisms in the genus Ascocoryne and a re-evaluation of myco-diesel production by NRRL 50072. Microbiology (United Kingdom), 2010, 156, 3814-3829.	1.8	72
50	Transition States of Uncatalyzed Hydrolysis and Aminolysis Reactions of a Ribosomal P-Site Substrate Determined by Kinetic Isotope Effects. Biochemistry, 2010, 49, 3868-3878.	2.5	12
51	Multiple, Novel Biologically Active Endophytic Actinomycetes Isolated from Upper Amazonian Rainforests. Microbial Ecology, 2009, 58, 374-383.	2.8	52
52	Structural basis of ligand binding by a c-di-GMP riboswitch. Nature Structural and Molecular Biology, 2009, 16, 1218-1223.	8.2	257
53	Structural and Chemical Basis for Glucosamine 6-Phosphate Binding and Activation of the <i>glmS</i> Ribozyme. Biochemistry, 2009, 48, 3239-3246.	2.5	78
54	Nucleotide Analog Interference Mapping. Methods in Enzymology, 2009, 468, 3-30.	1.0	17

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55	Chemical basis of glycine riboswitch cooperativity. Rna, 2008, 14, 25-34.	3.5	72
56	An Uncharged Amine in the Transition State of the Ribosomal Peptidyl Transfer Reaction. Chemistry and Biology, 2008, 15, 493-500.	6.0	44
57	Catalytic Strategies of Self-Cleaving Ribozymes. Accounts of Chemical Research, 2008, 41, 1027-1035.	15.6	151
58	Transition State Chirality and Role of the Vicinal Hydroxyl in the Ribosomal Peptidyl Transferase Reaction. Biochemistry, 2008, 47, 8822-8827.	2.5	15
59	Riboswitch effectors as protein enzyme cofactors. Rna, 2008, 14, 993-1002.	3.5	44
60	Bioactive Endophytes Warrant Intensified Exploration and Conservation. PLoS ONE, 2008, 3, e3052.	2.5	98
61	RNA Catalysis: Ribozymes, Ribosomes and Riboswitches. FASEB Journal, 2008, 22, 109.1.	0.5	0
62	Structural Metals in the Group I Intron: A Ribozyme with a Multiple Metal Ion Core. Journal of Molecular Biology, 2007, 372, 89-102.	4.2	49
63	RNA catalysis: ribozymes, ribosomes, and riboswitches. Current Opinion in Chemical Biology, 2007, 11, 636-643.	6.1	101
64	Structural Investigation of the GlmS Ribozyme Bound to Its Catalytic Cofactor. Chemistry and Biology, 2007, 14, 97-105.	6.0	253
65	Plant endophytes as a platform for discovery-based undergraduate science education. Nature Chemical Biology, 2007, 3, 356-359.	8.0	31
66	Toward Ribosomal RNA Catalytic Activity in the Absence of Protein. Journal of Molecular Evolution, 2007, 64, 472-483.	1.8	38
67	Mechanisms of RNA Catalysis. FASEB Journal, 2007, 21, A41.	0.5	0
68	Regiospecificity of the Peptidyl tRNA Ester within the Ribosomal P Site. Journal of the American Chemical Society, 2006, 128, 3108-3109.	13.7	25
69	RNA splicing: group I intron crystal structures reveal the basis of splice site selection and metal ion catalysis. Current Opinion in Structural Biology, 2006, 16, 319-326.	5.7	90
70	An induced-fit mechanism to promote peptide bond formation and exclude hydrolysis of peptidyl-tRNA. Nature, 2005, 438, 520-524.	27.8	326
71	Structural Evidence for a Two-Metal-Ion Mechanism of Group I Intron Splicing. Science, 2005, 309, 1587-1590.	12.6	205
72	Kinetic Isotope Effect Analysis of the Ribosomal Peptidyl Transferase Reactionâ€. Biochemistry, 2005, 44, 4018-4027.	2.5	39

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73	Uncovering the Enzymatic pKaof the Ribosomal Peptidyl Transferase Reaction Utilizing a Fluorinated Puromycin Derivativeâ€. Biochemistry, 2005, 44, 6675-6684.	2.5	32
74	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.	9.7	253
75	RNA kink turns to the left and to the right. Rna, 2004, 10, 1852-1854.	3.5	39
76	Crystal structure of a group I intron splicing intermediate. Rna, 2004, 10, 1867-1887.	3.5	112
77	Substrate-assisted catalysis of peptide bond formation by the ribosome. Nature Structural and Molecular Biology, 2004, 11, 1101-1106.	8.2	264
78	Crystal structure of a self-splicing group I intron with both exons. Nature, 2004, 430, 45-50.	27.8	431
79	Probing RNA Structure and Function by Nucleotide Analog Interference Mapping. Current Protocols in Nucleic Acid Chemistry, 2004, 17, Unit 6.9.	0.5	9
80	Biochemical detection of adenosine and cytidine ionization within RNA by interference analysis. Nucleic Acids Symposium Series, 2003, 3, 229-230.	0.3	3
81	Identification of an Active Site Ligand for a Group I Ribozyme Catalytic Metal Ionâ€. Biochemistry, 2002, 41, 2516-2525.	2.5	46
82	Identification of A-Minor Tertiary Interactions within a Bacterial Group I Intron Active Site by 3-Deazaadenosine Interference Mapping. Biochemistry, 2002, 41, 10426-10438.	2.5	24
83	Important Contribution to Catalysis of Peptide Bond Formation by a Single Ionizing Group within the Ribosome. Molecular Cell, 2002, 10, 339-346.	9.7	152
84	A pre-translocational intermediate in protein synthesis observed in crystals of enzymatically active 50S subunits. Nature Structural Biology, 2002, 9, 225-30.	9.7	108
85	The hairpin's turn. Nature, 2001, 410, 761-762.	27.8	7
86	Repopulating the RNA world. Nature, 2001, 411, 1003-1005.	27.8	45
87	SITE SPECIFIC INCORPORATION OF 6-AZAURIDINE INTO THE GENOMIC HDV RIBOZYME ACTIVE SITE. Nucleosides, Nucleotides and Nucleic Acids, 2001, 20, 1851-1858.	1.1	10
88	[6] Chemical probing of RNA by nucleotide analog interference mapping. Methods in Enzymology, 2000, 317, 92-109.	1.0	57
89	A chemical phylogeny of group I introns based upon interference mapping of a bacterial ribozyme 1 1Edited by D. Draper. Journal of Molecular Biology, 2000, 302, 339-358.	4.2	48
90	A Single Adenosine with a Neutral pKa in the Ribosomal Peptidyl Transferase Center. Science, 2000, 289, 947-950.	12.6	243

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91	Biochemical Detection of Cytidine Protonation within RNA. Journal of the American Chemical Society, 2000, 122, 10259-10267.	13.7	24
92	Thiophilic metal ion rescue of phosphorothioate interference within the Tetrahymena ribozyme P4â€“P6 domain. Rna, 1999, 5, 1399-1407.	3.5	60
93	A chemogenetic approach to RNA function/structure analysis. Current Opinion in Structural Biology, 1999, 9, 346-352.	5.7	55
94	Nucleotide Analog Interference Mapping. Methods, 1999, 18, 38-50.	3.8	75
95	A specific monovalent metal ion integral to the AA platform of the RNA tetraloop receptor. Nature Structural Biology, 1998, 5, 986-992.	9.7	199
96	Complementary sets of noncanonical base pairs mediate RNA helix packing in the group I intron active site. Nature Structural Biology, 1998, 5, 60-66.	9.7	110
97	A minor groove RNA triple helix within the catalytic core of a group I intron. Nature Structural Biology, 1998, 5, 1037-1042.	9.7	82
98	Ribozyme chemogenetics. , 1998, 48, 65-81.		14
99	N2-Methylguanosine is iso-energetic with guanosine in RNA duplexes and GNRA tetraloops. Nucleic Acids Research, 1998, 26, 3640-3644.	14.5	46
100	The Synthesis of RNA Containing the Modified Nucleotides<i>N</i>²-Methylguanosine and<i>N</i>⁶,<i>N</i>⁶-Dimethyladenosine. Nucleosides & Nucleotides, 1998, 17, 2281-2288.	0.5	8
101	The chemical basis of adenosine conservation throughout the Tetrahymena ribozyme. Rna, 1998, 4, 498-519.	3.5	95
102	The 2,6-Diaminopurine Riboside.cntdot.5-Methylisocytidine Wobble Base Pair: An Isoenergetic Substitution for the Study of G.cntdot.U Pairs in RNA. Biochemistry, 1994, 33, 13824-13835.	2.5	93