Scott A Strobel

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1630074/publications.pdf

Version: 2024-02-01

102 papers	6,281 citations	57631 44 h-index	69108 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. Nature, 2004, 430, 45-50.	13.7	431
2	An induced-fit mechanism to promote peptide bond formation and exclude hydrolysis of peptidyl-tRNA. Nature, 2005, 438, 520-524.	13.7	326
3	Substrate-assisted catalysis of peptide bond formation by the ribosome. Nature Structural and Molecular Biology, 2004, 11, 1101-1106.	3.6	264
4	Structural basis of ligand binding by a c-di-GMP riboswitch. Nature Structural and Molecular Biology, 2009, 16, 1218-1223.	3.6	257
5	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
6	Structural Investigation of the GlmS Ribozyme Bound to Its Catalytic Cofactor. Chemistry and Biology, 2007, 14, 97-105.	6.2	253
7	A Single Adenosine with a Neutral pKa in the Ribosomal Peptidyl Transferase Center. Science, 2000, 289, 947-950.	6.0	243
8	Structural Evidence for a Two-Metal-Ion Mechanism of Group I Intron Splicing. Science, 2005, 309, 1587-1590.	6.0	205
9	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
10	Important Contribution to Catalysis of Peptide Bond Formation by a Single Ionizing Group within the Ribosome. Molecular Cell, 2002, 10, 339-346.	4.5	152
11	Catalytic Strategies of Self-Cleaving Ribozymes. Accounts of Chemical Research, 2008, 41, 1027-1035.	7.6	151
12	Principles of fluoride toxicity and the cellular response: a review. Archives of Toxicology, 2020, 94, 1051-1069.	1.9	148
13	Crystal structure of a group I intron splicing intermediate. Rna, 2004, 10, 1867-1887.	1.6	112
14	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
15	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
16	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.	3.3	108
17	RNA catalysis: ribozymes, ribosomes, and riboswitches. Current Opinion in Chemical Biology, 2007, 11, 636-643.	2.8	101
18	Bioactive Endophytes Warrant Intensified Exploration and Conservation. PLoS ONE, 2008, 3, e3052.	1.1	98

#	Article	IF	Citations
19	The chemical basis of adenosine conservation throughout the Tetrahymena ribozyme. Rna, 1998, 4, 498-519.	1.6	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. Biochemistry, 1994, 33, 13824-13835.	1.2	93
21	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.	2.6	90
22	Structural Basis of Cooperative Ligand Binding by the Glycine Riboswitch. Chemistry and Biology, 2011, 18, 293-298.	6.2	90
23	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
24	Structural and Chemical Basis for Glucosamine 6-Phosphate Binding and Activation of the glmS Ribozyme. Biochemistry, 2009, 48, 3239-3246.	1.2	78
25	Genomic Analysis of the Hydrocarbon-Producing, Cellulolytic, Endophytic Fungus Ascocoryne sarcoides. PLoS Genetics, 2012, 8, e1002558.	1.5	76
26	Nucleotide Analog Interference Mapping. Methods, 1999, 18, 38-50.	1.9	75
27	Chemical basis of glycine riboswitch cooperativity. Rna, 2008, 14, 25-34.	1.6	72
28	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.	0.7	72
29	A two-step chemical mechanism for ribosome-catalysed peptide bond formation. Nature, 2011, 476, 236-239.	13.7	69
30	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.	1.6	66
31	Structural Basis for Ligand Binding to the Guanidine-I Riboswitch. Structure, 2017, 25, 195-202.	1.6	62
32	Thiophilic metal ion rescue of phosphorothioate interference within the Tetrahymena ribozyme P4â€“P6 domain. Rna, 1999, 5, 1399-1407.	1.6	60
33	Student-Directed Discovery of the Plant Microbiome and Its Products. Science, 2012, 338, 485-486.	6.0	58
34	[6] Chemical probing of RNA by nucleotide analog interference mapping. Methods in Enzymology, 2000, 317, 92-109.	0.4	57
35	A chemogenetic approach to RNA function/structure analysis. Current Opinion in Structural Biology, 1999, 9, 346-352.	2.6	55
36	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.	1.4	53

#	Article	IF	Citations
37	Multiple, Novel Biologically Active Endophytic Actinomycetes Isolated from Upper Amazonian Rainforests. Microbial Ecology, 2009, 58, 374-383.	1.4	52
38	Structural Metals in the Group I Intron: A Ribozyme with a Multiple Metal Ion Core. Journal of Molecular Biology, 2007, 372, 89-102.	2.0	49
39	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.	2.0	48
40	Bacterial Toxin RelE: A Highly Efficient Ribonuclease with Exquisite Substrate Specificity Using Atypical Catalytic Residues. Biochemistry, 2013, 52, 8633-8642.	1.2	47
41	N2-Methylguanosine is iso-energetic with guanosine in RNA duplexes and GNRA tetraloops. Nucleic Acids Research, 1998, 26, 3640-3644.	6.5	46
42	Identification of an Active Site Ligand for a Group I Ribozyme Catalytic Metal Ionâ€. Biochemistry, 2002, 41, 2516-2525.	1.2	46
43	Repopulating the RNA world. Nature, 2001, 411, 1003-1005.	13.7	45
44	Structural basis for ligand binding to the guanidine-II riboswitch. Rna, 2017, 23, 1338-1343.	1.6	45
45	An Uncharged Amine in the Transition State of the Ribosomal Peptidyl Transfer Reaction. Chemistry and Biology, 2008, 15, 493-500.	6.2	44
46	Riboswitch effectors as protein enzyme cofactors. Rna, 2008, 14, 993-1002.	1.6	44
47	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.	1.7	44
48	glmS Riboswitch Binding to the Glucosamine-6-phosphate Î±-Anomer Shifts the pK_a toward Neutrality. Biochemistry, 2011, 50, 7236-7242.	1.2	42
49	RNA kink turns to the left and to the right. Rna, 2004, 10, 1852-1854.	1.6	39
50	Kinetic Isotope Effect Analysis of the Ribosomal Peptidyl Transferase Reactionâ€. Biochemistry, 2005, 44, 4018-4027.	1.2	39
51	Toward Ribosomal RNA Catalytic Activity in the Absence of Protein. Journal of Molecular Evolution, 2007, 64, 472-483.	0.8	38
52	Thin Layer Chromatography. Methods in Enzymology, 2013, 533, 303-324.	0.4	37
53	Identification of a tertiary interaction important for cooperative ligand binding by the glycine riboswitch. Rna, 2011, 17, 74-84.	1.6	33
54	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.	0.3	33

#	Article	IF	Citations
55	Uncovering the Enzymatic pKaof the Ribosomal Peptidyl Transferase Reaction Utilizing a Fluorinated Puromycin Derivativeâ€. Biochemistry, 2005, 44, 6675-6684.	1.2	32
56	Plant endophytes as a platform for discovery-based undergraduate science education. Nature Chemical Biology, 2007, 3, 356-359.	3.9	31
57	Yeast Fex1p Is a Constitutively Expressed Fluoride Channel with Functional Asymmetry of Its Two Homologous Domains. Journal of Biological Chemistry, 2015, 290, 19874-19887.	1.6	31
58	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.	1.1	29
59	Ligand binding by the tandem glycine riboswitch depends on aptamer dimerization but not double ligand occupancy. Rna, 2014, 20, 1775-1788.	1.6	27
60	Structures of two aptamers with differing ligand specificity reveal ruggedness in the functional landscape of RNA. ELife, 2018, 7, .	2.8	27
61	The chemical versatility of RNA. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 2929-2935.	1.8	26
62	Regiospecificity of the Peptidyl tRNA Ester within the Ribosomal P Site. Journal of the American Chemical Society, 2006, 128, 3108-3109.	6.6	25
63	Biosynthesis of hydrocarbons and volatile organic compounds by fungi: bioengineering potential. Applied Microbiology and Biotechnology, 2015, 99, 4943-4951.	1.7	25
64	Fusaric acid induces a notochord malformation in zebrafish via copper chelation. BioMetals, 2015, 28, 783-789.	1.8	25
65	Biochemical Detection of Cytidine Protonation within RNA. Journal of the American Chemical Society, 2000, 122, 10259-10267.	6.6	24
66	Identification of A-Minor Tertiary Interactions within a Bacterial Group I Intron Active Site by 3-Deazaadenosine Interference Mapping. Biochemistry, 2002, 41, 10426-10438.	1.2	24
67	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.	6.5	23
68	Endophyte Strain NRRL 50072 producing volatile organics is a species of Ascocoryne. Mycology, 2010, 1, 187-194.	2.0	21
69	Minimal Transition State Charge Stabilization of the Oxyanion during Peptide Bond Formation by the Ribosome. Biochemistry, 2011, 50, 10491-10498.	1.2	19
70	Singlet glycine riboswitches bind ligand as well as tandem riboswitches. Rna, 2016, 22, 1728-1738.	1.6	19
71	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.	1.6	19
72	Gene regulation by a glycine riboswitch singlet uses a finely tuned energetic landscape for helical switching. Rna, 2018, 24, 1813-1827.	1.6	18

#	Article	IF	Citations
73	Nucleotide Analog Interference Mapping. Methods in Enzymology, 2009, 468, 3-30.	0.4	17
74	Stelliosphaerols A and B, Sesquiterpeneâ€“Polyol Conjugates from an Ecuadorian Fungal Endophyte. Journal of Natural Products, 2015, 78, 3005-3010.	1.5	16
75	Nuclease-Resistant c-di-AMP Derivatives That Differentially Recognize RNA and Protein Receptors. Biochemistry, 2016, 55, 837-849.	1.2	16
76	Transition State Chirality and Role of the Vicinal Hydroxyl in the Ribosomal Peptidyl Transferase Reaction. Biochemistry, 2008, 47, 8822-8827.	1.2	15
77	Ribozyme chemogenetics. , 1998, 48, 65-81.		14
78	Transition State Charge Stabilization and Acidâ€“Base Catalysis of mRNA Cleavage by the Endoribonuclease RelE. Biochemistry, 2015, 54, 7048-7057.	1.2	14
79	Genome of Diaporthe sp. provides insights into the potential inter-phylum transfer of a fungal sesquiterpenoid biosynthetic pathway. Fungal Biology, 2016, 120, 1050-1063.	1.1	13
80	Transition States of Uncatalyzed Hydrolysis and Aminolysis Reactions of a Ribosomal P-Site Substrate Determined by Kinetic Isotope Effects. Biochemistry, 2010, 49, 3868-3878.	1.2	12
81	The asymmetry and cooperativity of tandem glycine riboswitch aptamers. Rna, 2020, 26, 564-580.	1.6	12
82	Analysis of Enzymatic Transacylase BrÃ¸nsted Studies with Application to the Ribosome. Accounts of Chemical Research, 2012, 45, 495-503.	7.6	11
83	Nitrate and Phosphate Transporters Rescue Fluoride Toxicity in Yeast. Chemical Research in Toxicology, 2019, 32, 2305-2319.	1.7	11
84	The fluoride transporter FLUORIDE EXPORTER (FEX) is the major mechanism of tolerance to fluoride toxicity in plants1. Plant Physiology, 2021, 186, 1143-1158.	2.3	11
85	SITE SPECIFIC INCORPORATION OF 6-AZAURIDINE INTO THE GENOMIC HDV RIBOZYME ACTIVE SITE. Nucleosides, Nucleotides and Nucleic Acids, 2001, 20, 1851-1858.	0.4	10
86	Probing RNA Structure and Function by Nucleotide Analog Interference Mapping. Current Protocols in Nucleic Acid Chemistry, 2004, 17, Unit 6.9.	0.5	9
87	Genome-Wide Identification of Genes Involved in General Acid Stress and Fluoride Toxicity in Saccharomyces cerevisiae. Frontiers in Microbiology, 2020, 11, 1410.	1.5	9
88	The Synthesis of RNA Containing the Modified NucleotidesN²-Methylguanosine andN⁶,N⁶-Dimethyladenosine. Nucleosides & Nucleotides, 1998, 17, 2281-2288.	0.5	8
89	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.	1.5	8
90	The hairpin's turn. Nature, 2001, 410, 761-762.	13.7	7

#	Article	IF	Citations
91	Metal ghosts in the splicing machine. Nature, 2013, 503, 201-202.	13.7	6
92	A Modular RNA Domain That Confers Differential Ligand Specificity. Biochemistry, 2020, 59, 1361-1366.	1.2	5
93	The Positively Charged Active Site of the Bacterial Toxin RelE Causes a Large Shift in the General Base pK_a. Biochemistry, 2020, 59, 1665-1671.	1.2	4
94	Biochemical detection of adenosine and cytidine ionization within RNA by interference analysis. Nucleic Acids Symposium Series, 2003, 3, 229-230.	0.3	3
95	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.	0.2	3
96	A new RNA performs old chemistry. Nature Chemical Biology, 2022, 18, 438-439.	3.9	3
97	Competencies: A Cure for Pre-Med Curriculum. Science, 2011, 334, 760-761.	6.0	2
98	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.	1.5	2
99	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.	0.2	2
100	Mechanisms of RNA Catalysis. FASEB Journal, 2007, 21, A41.	0.2	0
101	RNA Catalysis: Ribozymes, Ribosomes and Riboswitches. FASEB Journal, 2008, 22, 109.1.	0.2	0
102	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