Joseph P Noel

List of Publications by Year in Descending Order

158 papers	18,449 citations	71 h-index	135 g-index
170 ext. papers	20,550 ext. citations	12.7 avg, IF	6.48 L-index

#	Paper	IF	Citations
158	Structure and Mechanistic Analyses of the Gating Mechanism of Elongating Ketosynthases. *ACS Catalysis*, **2021**, 11, 6787-6799	13.1	3
157	Plant-based CO drawdown and storage as SiC.. *RSC Advances*, **2021**, 11, 15512-15518	3.7	1
156	Innovating carbon-capture biotechnologies through ecosystem-inspired solutions. *One Earth*, **2021**, 4, 49-59	8.1	5
155	Algal neurotoxin biosynthesis repurposes the terpene cyclase structural fold into an -prenyltransferase. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 12799-12805	11.5	9
154	Gating mechanism of elongating ketoacyl-ACP synthases. *Nature Communications*, **2020**, 11, 1727	17.4	18
153	Modulation of auxin formation by the cytosolic phenylalanine biosynthetic pathway. *Nature Chemical Biology*, **2020**, 16, 850-856	11.7	10
152	Dissecting modular synthases through inhibition: A complementary chemical and genetic approach. *Bioorganic and Medicinal Chemistry Letters*, **2020**, 30, 126820	2.9	2
151	Activity Mapping the Acyl Carrier Protein: Elongating Ketosynthase Interaction in Fatty Acid Biosynthesis. *Biochemistry*, **2020**, 59, 3626-3638	3.2	6
150	Interfacial plasticity facilitates high reaction rate of FAS malonyl-CoA:ACP transacylase, FabD. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 24224-24233	11.5	16
149	Bifunctional Substrate Activation via an Arginine Residue Drives Catalysis in Chalcone Isomerases. *ACS Catalysis*, **2019**, 9, 8388-8396	13.1	7
148	Substrate Specificity and Engineering of Mevalonate 5-Phosphate Decarboxylase. *ACS Chemical Biology*, **2019**, 14, 1767-1779	4.9	8
147	Strigolactone perception and deactivation by a hydrolase receptor DWARF14. *Nature Communications*, **2019**, 10, 191	17.4	109
146	A coupled in vitro/in vivo approach for engineering a heterologous type III PKS to enhance polyketide biosynthesis in Saccharomyces cerevisiae. *Biotechnology and Bioengineering*, **2018**, 115, 1394-1402	4.9	9
145	Evolution of chalcone isomerase from a noncatalytic ancestor. *Nature Chemical Biology*, **2018**, 14, 548-555	11.7	78
144	Contribution of isopentenyl phosphate to plant terpenoid metabolism. *Nature Plants*, **2018**, 4, 721-729	11.5	62
143	Dynamics and Bifunctional Substrate Activation by an Arginine Drive Catalysis in Plant Chalcone Isomerases. *FASEB Journal*, **2018**, 32, lb73	0.9	
142	Structural basis for specific ligation of the peroxisome proliferator-activated receptor *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E2563-E2570	11.5	38

141	A Red Algal Bourbonane Sesquiterpene Synthase Defined by Microgram-Scale NMR-Coupled Crystalline Sponge X-ray Diffraction Analysis. *Journal of the American Chemical Society*, **2017**, 139, 16838-16844	16.4	36
140	Molecular architectures of benzoic acid-specific type III polyketide synthases. *Acta Crystallographica Section D: Structural Biology*, **2017**, 73, 1007-1019	5.5	9
139	Dynamic Conformational States Dictate Selectivity toward the Native Substrate in a Substrate-Permissive Acyltransferase. *Biochemistry*, **2016**, 55, 6314-6326	3.2	34
138	Biosynthetic potential of sesquiterpene synthases: product profiles of Egyptian Henbane premnaspirodiene synthase and related mutants. *Journal of Antibiotics*, **2016**, 69, 524-33	3.7	10
137	Biosynthesis of coral settlement cue tetrabromopyrrole in marine bacteria by a uniquely adapted brominase-thioesterase enzyme pair. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 3797-802	11.5	60
136	Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. *Current Opinion in Chemical Biology*, **2016**, 31, 66-73	9.7	13
135	Cryptochrome 1 interacts with PIF4 to regulate high temperature-mediated hypocotyl elongation in response to blue light. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 224-9	11.5	216
134	Unveiling the functional diversity of the alpha/beta hydrolase superfamily in the plant kingdom. *Current Opinion in Structural Biology*, **2016**, 41, 233-246	8.1	70
133	Local auxin metabolism regulates environment-induced hypocotyl elongation. *Nature Plants*, **2016**, 2, 16025	11.5	74
132	Co-evolution of Hormone Metabolism and Signaling Networks Expands Plant Adaptive Plasticity. *Cell*, **2016**, 166, 881-893	56.2	102
131	Orthologs of the archaeal isopentenyl phosphate kinase regulate terpenoid production in plants. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 10050-5	11.5	49
130	Formation of a Novel Macrocyclic Alkaloid from the Unnatural Farnesyl Diphosphate Analogue Anilinogeranyl Diphosphate by 5-Epi-Aristolochene Synthase. *ACS Chemical Biology*, **2015**, 10, 1729-36	4.9	26
129	Mechanism-Based Post-Translational Modification and Inactivation in Terpene Synthases. *ACS Chemical Biology*, **2015**, 10, 2501-11	4.9	16
128	Spectral and structural comparison between bright and dim green fluorescent proteins in Amphioxus. *Scientific Reports*, **2014**, 4, 5469	4.9	24
127	Structural studies of cinnamoyl-CoA reductase and cinnamyl-alcohol dehydrogenase, key enzymes of monolignol biosynthesis. *Plant Cell*, **2014**, 26, 3709-27	11.6	48
126	The phosphopantetheinyl transferases: catalysis of a post-translational modification crucial for life. *Natural Product Reports*, **2014**, 31, 61-108	15.1	210
125	Structure, biochemistry, and inhibition of essential 4Sphosphopantetheinyl transferases from two species of Mycobacteria. *ACS Chemical Biology*, **2014**, 9, 1939-44	4.9	39
124	Genetic basis for the biosynthesis of the pharmaceutically important class of epoxyketone proteasome inhibitors. *ACS Chemical Biology*, **2014**, 9, 301-9	4.9	46

123	Genetically Encoding Photoswitchable Click Amino Acids in Escherichia coli and Mammalian Cells. *Angewandte Chemie*, **2014**, 126, 4013-4017	3.6	20
122	Confluence of structural and chemical biology: plant polyketide synthases as biocatalysts for a bio-based future. *Current Opinion in Plant Biology*, **2013**, 16, 365-72	9.9	26
121	Flavin-mediated dual oxidation controls an enzymatic Favorskii-type rearrangement. *Nature*, **2013**, 503, 552-556	50.4	106
120	Coordination of auxin and ethylene biosynthesis by the aminotransferase VAS1. *Nature Chemical Biology*, **2013**, 9, 244-6	11.7	78
119	An open letter to the metabolomics community: looking forward to a future of integrative plant biology. *Metabolomics*, **2013**, 9, 268-270	4.7	
118	Chemodiversity in Selaginella: a reference system for parallel and convergent metabolic evolution in terrestrial plants. *Frontiers in Plant Science*, **2013**, 4, 119	6.2	47
117	Expanding the library and substrate diversity of the pyrrolysyl-tRNA synthetase to incorporate unnatural amino acids containing conjugated rings. *ChemBioChem*, **2013**, 14, 2100-5	3.8	41
116	Smoke-derived karrikin perception by the α/β-hydrolase KAI2 from Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 8284-9	11.5	120
115	Discovery of a metabolic alternative to the classical mevalonate pathway. *ELife*, **2013**, 2, e00672	8.9	62
114	Protein Epistasis Revealed from Thermostability Profiles of Nicotiana tabacum 5-epi-Aristolochene Synthase. *FASEB Journal*, **2013**, 27, 561.5	0.9	
113	Structural and kinetic analysis of prolyl-isomerization/phosphorylation cross-talk in the CTD code. *ACS Chemical Biology*, **2012**, 7, 1462-70	4.9	54
112	Architectures, mechanisms and molecular evolution of natural product methyltransferases. *Natural Product Reports*, **2012**, 29, 1238-50	15.1	173
111	Evolution of the chalcone-isomerase fold from fatty-acid binding to stereospecific catalysis. *Nature*, **2012**, 485, 530-3	50.4	141
110	The rise of chemodiversity in plants. *Science*, **2012**, 336, 1667-70	33.3	232
109	Structure-function analyses of plant type III polyketide synthases. *Methods in Enzymology*, **2012**, 515, 317-35	1.7	15
108	Emergent decarboxylase activity and attenuation of α/β-hydrolase activity during the evolution of methylketone biosynthesis in tomato. *Plant Cell*, **2012**, 24, 1596-607	11.6	18
107	Structural basis of steroid hormone perception by the receptor kinase BRI1. *Nature*, **2011**, 474, 467-71	50.4	279
106	Genetically encoding unnatural amino acids in neural stem cells and optically reporting voltage-sensitive domain changes in differentiated neurons. *Stem Cells*, **2011**, 29, 1231-40	5.8	55

105	Physical constraints on sesquiterpene diversity arising from cyclization of the eudesm-5-yl carbocation. *Journal of the American Chemical Society*, **2011**, 133, 12632-41	16.4	21
104	Stereochemical basis for engineered pyrrolysyl-tRNA synthetase and the efficient in vivo incorporation of structurally divergent non-native amino acids. *ACS Chemical Biology*, **2011**, 6, 733-43	4.9	79
103	Functional analyses of caffeic acid O-Methyltransferase and Cinnamoyl-CoA-reductase genes from perennial ryegrass (Lolium perenne). *Plant Cell*, **2010**, 22, 3357-73	11.6	125
102	Structural elucidation of cisoid and transoid cyclization pathways of a sesquiterpene synthase using 2-fluorofarnesyl diphosphates. *ACS Chemical Biology*, **2010**, 5, 377-92	4.9	54
101	Mutation of archaeal isopentenyl phosphate kinase highlights mechanism and guides phosphorylation of additional isoprenoid monophosphates. *ACS Chemical Biology*, **2010**, 5, 589-601	4.9	22
100	Enzymatic functions of wild tomato methylketone synthases 1 and 2. *Plant Physiology*, **2010**, 154, 67-77	6.6	64
99	Bisabolyl-derived sesquiterpenes from tobacco 5-epi-aristolochene synthase-catalyzed cyclization of (2Z,6E)-farnesyl diphosphate. *Journal of the American Chemical Society*, **2010**, 132, 4281-9	16.4	34
98	Structure-function analyses of a caffeic acid O-methyltransferase from perennial ryegrass reveal the molecular basis for substrate preference. *Plant Cell*, **2010**, 22, 4114-27	11.6	64
97	Structural and functional analysis of the phosphoryl transfer reaction mediated by the human small C-terminal domain phosphatase, Scp1. *Protein Science*, **2010**, 19, 974-86	6.3	33
96	Biosynthesis of t-anethole in anise: characterization of t-anol/isoeugenol synthase and an O-methyltransferase specific for a C7-C8 propenyl side chain. *Plant Physiology*, **2009**, 149, 384-94	6.6	48
95	Multiple biochemical and morphological factors underlie the production of methylketones in tomato trichomes. *Plant Physiology*, **2009**, 151, 1952-64	6.6	46
94	The lack of floral synthesis and emission of isoeugenol in Petunia axillaris subsp. parodii is due to a mutation in the isoeugenol synthase gene. *Plant Journal*, **2009**, 58, 961-9	6.9	29
93	Laetirobin from the parasitic growth of Laetiporus sulphureus on Robinia pseudoacacia. *Journal of Natural Products*, **2009**, 72, 1980-7	4.9	14
92	Discovery and characterization of a marine bacterial SAM-dependent chlorinase. *Nature Chemical Biology*, **2008**, 4, 69-74	11.7	172
91	Evolving biosynthetic tangos negotiate mechanistic landscapes. *Nature Chemical Biology*, **2008**, 4, 217-22	11.7	50
90	The multiple phenylpropene synthases in both Clarkia breweri and Petunia hybrida represent two distinct protein lineages. *Plant Journal*, **2008**, 54, 362-74	6.9	68
89	Metabolite induction of Caenorhabditis elegans dauer larvae arises via transport in the pharynx. *ACS Chemical Biology*, **2008**, 3, 294-304	4.9	22
88	Rapid synthesis of auxin via a new tryptophan-dependent pathway is required for shade avoidance in plants. *Cell*, **2008**, 133, 164-76	56.2	757

87	Quantitative exploration of the catalytic landscape separating divergent plant sesquiterpene synthases. *Nature Chemical Biology*, **2008**, 4, 617-23	11.7	158
86	Structural, biochemical, and phylogenetic analyses suggest that indole-3-acetic acid methyltransferase is an evolutionarily ancient member of the SABATH family. *Plant Physiology*, **2008**, 146, 455-67	6.6	65
85	New auxin analogs with growth-promoting effects in intact plants reveal a chemical strategy to improve hormone delivery. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 15190-5	11.5	79
84	S-Adenosyl-L-methionine hydrolase (adenosine-forming), a conserved bacterial and archaeal protein related to SAM-dependent halogenases. *ChemBioChem*, **2008**, 9, 2215-9	3.8	22
83	Chemoenzymatic syntheses of prenylated aromatic small molecules using Streptomyces prenyltransferases with relaxed substrate specificities. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 8117-26	3.4	85
82	Structural basis for high-affinity peptide inhibition of human Pin1. *ACS Chemical Biology*, **2007**, 2, 320-8	4.9	109
81	Interception of the enzymatic conversion of farnesyl diphosphate to 5-epi-aristolochene by using a fluoro substrate analogue: 1-fluorogermacrene A from (2E,6Z)-6-fluorofarnesyl diphosphate. *ChemBioChem*, **2007**, 8, 1826-33	3.8	40
80	Metabolic engineering of sesquiterpene metabolism in yeast. *Biotechnology and Bioengineering*, **2007**, 97, 170-81	4.9	117
79	Genetically encoding unnatural amino acids for cellular and neuronal studies. *Nature Neuroscience*, **2007**, 10, 1063-72	25.5	138
78	Functional characterization of premnaspirodiene oxygenase, a cytochrome P450 catalyzing regio- and stereo-specific hydroxylations of diverse sesquiterpene substrates. *Journal of Biological Chemistry*, **2007**, 282, 31744-54	5.4	83
77	Methylation of gibberellins by Arabidopsis GAMT1 and GAMT2. *Plant Cell*, **2007**, 19, 32-45	11.6	182
76	Mechanisms of Type III Polyketide Synthase Functional Diversity: From SSteric ModulationSto the SReaction PartitioningSModel. *ACS Symposium Series*, **2007**, 185-197	0.4	1
75	Structure and reaction mechanism of basil eugenol synthase. *PLoS ONE*, **2007**, 2, e993	3.7	35
74	A soluble, magnesium-independent prenyltransferase catalyzes reverse and regular C-prenylations and O-prenylations of aromatic substrates. *FEBS Letters*, **2007**, 581, 2889-93	3.8	51
73	Determinants for dephosphorylation of the RNA polymerase II C-terminal domain by Scp1. *FASEB Journal*, **2007**, 21, A1032	0.9	
72	Structural basis for the modulation of CDK-dependent/independent activity of cyclin D1. *Cell Cycle*, **2006**, 5, 2760-8	4.7	11
71	Structural basis for the design of potent and species-specific inhibitors of 3-hydroxy-3-methylglutaryl CoA synthases. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 11491-6	11.5	33
70	Structure-function-folding relationship in a WW domain. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 10648-53	11.5	176

69	Eugenol and isoeugenol, characteristic aromatic constituents of spices, are biosynthesized via reduction of a coniferyl alcohol ester. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 10128-33	11.5	267
68	Identifying and manipulating structural determinates linking catalytic specificities in terpene synthases. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 9826-31	11.5	174
67	Type III polyketide synthase beta-ketoacyl-ACP starter unit and ethylmalonyl-CoA extender unit selectivity discovered by Streptomyces coelicolor genome mining. *Journal of the American Chemical Society*, **2006**, 128, 14754-5	16.4	133
66	Biosynthesis of plant volatiles: nature's diversity and ingenuity. *Science*, **2006**, 311, 808-11	33.3	609
65	Structural basis for dual functionality of isoflavonoid O-methyltransferases in the evolution of plant defense responses. *Plant Cell*, **2006**, 18, 3656-69	11.6	62
64	An Arabidopsis thaliana methyltransferase capable of methylating farnesoic acid. *Archives of Biochemistry and Biophysics*, **2006**, 448, 123-32	4.1	59
63	Stereochemistry and deuterium isotope effects associated with the cyclization-rearrangements catalyzed by tobacco epiaristolochene and hyoscyamus premnaspirodiene synthases, and the chimeric CH4 hybrid cyclase. *Archives of Biochemistry and Biophysics*, **2006**, 448, 31-44	4.1	31
62	Biosynthetic potential of sesquiterpene synthases: alternative products of tobacco 5-epi-aristolochene synthase. *Archives of Biochemistry and Biophysics*, **2006**, 448, 73-82	4.1	32
61	Determinants for dephosphorylation of the RNA polymerase II C-terminal domain by Scp1. *Molecular Cell*, **2006**, 24, 759-770	17.6	92
60	Methylation of sulfhydryl groups: a new function for a family of small molecule plant O-methyltransferases. *Plant Journal*, **2006**, 46, 193-205	6.9	21
59	Biosynthesis of Dictyostelium discoideum differentiation-inducing factor by a hybrid type I fatty acid-type III polyketide synthase. *Nature Chemical Biology*, **2006**, 2, 494-502	11.7	99
58	Structural determinants and modulation of substrate specificity in phenylalanine-tyrosine ammonia-lyases. *Chemistry and Biology*, **2006**, 13, 1327-38		98
57	Functional analysis of members of the isoflavone and isoflavanone O-methyltransferase enzyme families from the model legume Medicago truncatula. *Plant Molecular Biology*, **2006**, 62, 715-33	4.6	37
56	Kinetic and molecular analysis of 5-epiaristolochene 1,3-dihydroxylase, a cytochrome P450 enzyme catalyzing successive hydroxylations of sesquiterpenes. *Journal of Biological Chemistry*, **2005**, 280, 3686-96	5.4	37
55	Floral benzenoid carboxyl methyltransferases: from in vitro to in planta function. *Phytochemistry*, **2005**, 66, 1211-30	4	99
54	Structural basis for the promiscuous biosynthetic prenylation of aromatic natural products. *Nature*, **2005**, 435, 983-7	50.4	242
53	Structure-function relationships in plant phenylpropanoid biosynthesis. *Current Opinion in Plant Biology*, **2005**, 8, 249-53	9.9	73
52	Structure of the Mg-chelatase cofactor GUN4 reveals a novel hand-shaped fold for porphyrin binding. *PLoS Biology*, **2005**, 3, e151	9.7	69

51	Structural elucidation of chalcone reductase and implications for deoxychalcone biosynthesis. *Journal of Biological Chemistry*, **2005**, 280, 30496-503	5.4	71
50	Crystal structures of alfalfa caffeoyl coenzyme A 3-O-methyltransferase. *Plant Physiology*, **2005**, 137, 1009-17	6.6	92
49	Structural and kinetic basis for substrate selectivity in Populus tremuloides sinapyl alcohol dehydrogenase. *Plant Cell*, **2005**, 17, 1598-611	11.6	66
48	Gene library synthesis by structure-based combinatorial protein engineering. *Methods in Enzymology*, **2004**, 388, 75-91	1.7	15
47	Biochemical and structural characterization of benzenoid carboxyl methyltransferases involved in floral scent production in Stephanotis floribunda and Nicotiana suaveolens. *Plant Physiology*, **2004**, 135, 1946-55	6.6	58
46	Crystal structure of a bacterial type III polyketide synthase and enzymatic control of reactive polyketide intermediates. *Journal of Biological Chemistry*, **2004**, 279, 45162-74	5.4	138
45	An aldol switch discovered in stilbene synthases mediates cyclization specificity of type III polyketide synthases. *Chemistry and Biology*, **2004**, 11, 1179-94		202
44	An enzyme-coupled colorimetric assay for S-adenosylmethionine-dependent methyltransferases. *Analytical Biochemistry*, **2004**, 326, 100-5	3.1	107
43	A single-vial analytical and quantitative gas chromatography-mass spectrometry assay for terpene synthases. *Analytical Biochemistry*, **2004**, 335, 210-7	3.1	53
42	Expression and characterization of the type III polyketide synthase 1,3,6,8-tetrahydroxynaphthalene synthase from Streptomyces coelicolor A3(2). *Journal of Industrial Microbiology and Biotechnology*, **2003**, 30, 510-5	4.2	51
41	An Arabidopsis thaliana gene for methylsalicylate biosynthesis, identified by a biochemical genomics approach, has a role in defense. *Plant Journal*, **2003**, 36, 577-88	6.9	229
40	The chalcone synthase superfamily of type III polyketide synthases. *Natural Product Reports*, **2003**, 20, 79-110	15.1	702
39	Conformational flexibility underlies ubiquitin ligation mediated by the WWP1 HECT domain E3 ligase. *Molecular Cell*, **2003**, 11, 249-59	17.6	213
38	A chemical, genetic, and structural analysis of the nuclear bile acid receptor FXR. *Molecular Cell*, **2003**, 11, 1079-92	17.6	320
37	Structural basis for substrate recognition in the salicylic acid carboxyl methyltransferase family. *Plant Cell*, **2003**, 15, 1704-16	11.6	170
36	Chapter two Structural, functional, and evolutionary basis for methylation of plant small molecules. *Recent Advances in Phytochemistry*, **2003**, 37, 37-58		56
35	Divergent perspectives on GM food. *Nature Biotechnology*, **2002**, 20, 1195-6; author reply 1197	44.5	9
34	Structural basis for the modulation of lignin monomer methylation by caffeic acid/5-hydroxyferulic acid 3/5-O-methyltransferase. *Plant Cell*, **2002**, 14, 1265-77	11.6	183

33	Reaction mechanism of chalcone isomerase. pH dependence, diffusion control, and product binding differences. *Journal of Biological Chemistry*, **2002**, 277, 1361-9	5.4	112
32	Expanding the biosynthetic repertoire of plant type III polyketide synthases by altering starter molecule specificity. *Proceedings of the National Academy of Sciences of the United States of America* , **2002**, 99, 5319-24	11.5	124
31	Structure and mechanism of 2-C-methyl-D-erythritol 2,4-cyclodiphosphate synthase. An enzyme in the mevalonate-independent isoprenoid biosynthetic pathway. *Journal of Biological Chemistry*, **2002**, 277, 8667-72	5.4	62
30	Critical role of WW domain phosphorylation in regulating phosphoserine binding activity and Pin1 function. *Journal of Biological Chemistry*, **2002**, 277, 2381-4	5.4	183
29	Characterization of phenylpropene O-methyltransferases from sweet basil: facile change of substrate specificity and convergent evolution within a plant O-methyltransferase family. *Plant Cell* , **2002**, 14, 505-19	11.6	194
28	Plant-like biosynthetic pathways in bacteria: from benzoic acid to chalcone. *Journal of Natural Products*, **2002**, 65, 1956-62	4.9	90
27	Role of hydrogen bonds in the reaction mechanism of chalcone isomerase. *Biochemistry*, **2002**, 41, 5168-76	3.2	48
26	Structures of two natural product methyltransferases reveal the basis for substrate specificity in plant O-methyltransferases. *Nature Structural Biology*, **2001**, 8, 271-9		253
25	Structure of 4-diphosphocytidyl-2-C- methylerythritol synthetase involved in mevalonate-independent isoprenoid biosynthesis. *Nature Structural Biology*, **2001**, 8, 641-8		88
24	Structure-guided programming of polyketide chain-length determination in chalcone synthase. *Biochemistry*, **2001**, 40, 14829-38	3.2	82
23	Use of CrK radiation to enhance the signal from anomalous scatterers including sulfur. *Journal of Applied Crystallography*, **2000**, 33, 876-881	3.8	7
22	Structural control of polyketide formation in plant-specific polyketide synthases. *Chemistry and Biology*, **2000**, 7, 919-30		207
21	Structure of the human anti-apoptotic protein survivin reveals a dimeric arrangement. *Nature Structural Biology*, **2000**, 7, 602-8		201
20	Structural basis for phosphoserine-proline recognition by group IV WW domains. *Nature Structural Biology*, **2000**, 7, 639-43		582
19	Structure and mechanism of the evolutionarily unique plant enzyme chalcone isomerase. *Nature Structural Biology*, **2000**, 7, 786-91		229
18	Demonstration of Germacrene A as an Intermediate in 5-Epi-aristolochene Synthase Catalysis. *Journal of the American Chemical Society*, **2000**, 122, 1861-1866	16.4	99
17	Mechanism of chalcone synthase. pKa of the catalytic cysteine and the role of the conserved histidine in a plant polyketide synthase. *Journal of Biological Chemistry*, **2000**, 275, 39640-6	5.4	108
16	Dissection of malonyl-coenzyme A decarboxylation from polyketide formation in the reaction mechanism of a plant polyketide synthase. *Biochemistry*, **2000**, 39, 890-902	3.2	277

15	Structure of chalcone synthase and the molecular basis of plant polyketide biosynthesis. *Nature Structural Biology*, **1999**, 6, 775-84		470
14	Dimerization inhibits the activity of receptor-like protein-tyrosine phosphatase-alpha. *Nature*, **1999**, 401, 606-10	50.4	162
13	Dimerization-induced inhibition of receptor protein tyrosine phosphatase function through an inhibitory wedge. *Science*, **1998**, 279, 88-91	33.3	221
12	Structural basis for cyclic terpene biosynthesis by tobacco 5-epi-aristolochene synthase. *Science*, **1997**, 277, 1815-20	33.3	581
11	Structural and functional analysis of the mitotic rotamase Pin1 suggests substrate recognition is phosphorylation dependent. *Cell*, **1997**, 89, 875-86	56.2	596
10	Structural basis for inhibition of receptor protein-tyrosine phosphatase-alpha by dimerization. *Nature*, **1996**, 382, 555-9	50.4	297
9	Structural determinants for activation of the alpha-subunit of a heterotrimeric G protein. *Nature*, **1994**, 369, 621-8	50.4	647
8	GTPase mechanism of Gproteins from the 1.7-A crystal structure of transducin alpha-GDP-AIF-4. *Nature*, **1994**, 372, 276-9	50.4	560
7	The 2.2 A crystal structure of transducin-alpha complexed with GTP gamma S. *Nature*, **1993**, 366, 654-63	50.4	830
6	Phospholipase A2 engineering. 3. Replacement of lysine-56 by neutral residues improves catalytic efficiency significantly, alters substrate specificity, and clarifies the mechanism of interfacial recognition. *Journal of the American Chemical Society*, **1990**, 112, 3704-3706	16.4	21
5	Phospholipase A2 engineering. 4. Can the active-site aspartate-99 function alone?. *Journal of the American Chemical Society*, **1990**, 112, 7074-7076	16.4	23
4	A novel expression vector for high-level synthesis and secretion of foreign proteins in Escherichia coli: overproduction of bovine pancreatic phospholipase A2. *Gene*, **1990**, 93, 229-34	3.8	56
3	Phospholipase A2 engineering: design, synthesis, and expression of a gene for bovine (pro)phospholipase A2. *Journal of Cellular Biochemistry*, **1989**, 40, 309-20	4.7	17
2	Phospholipids Chiral at Phosphorus. 13. Stereochemical Comparison of Phospholipase A2, Lecithin-Cholesterol Acyl Transferase, and Platelet-Activating Factor. *Phosphorous and Sulfur and the Related Elements*, **1987**, 30, 601-604		5
1	Structure and Dynamic Basis of Molecular Recognition Between Acyltransferase and Carrier Protein in E. coli Fatty Acid Synthesis		2