Joseph P Noel

List of Publications by Year
in descending order

160 papers	22,185 citations	8159 76 h-index	8835 145 g-index
170 all docs	170 docs citations	170 times ranked	19300 citing authors

#	Article	IF	Citations
1	Rapid Synthesis of Auxin via a New Tryptophan-Dependent Pathway Is Required for Shade Avoidance in Plants. Cell, 2008, 133, 164-176.	13.5	928
2	The 2.2 Ã… crystal structure of transducin-Î± complexed with GTPÎ³S. Nature, 1993, 366, 654-663.	13.7	901
3	The chalcone synthase superfamily of type III polyketide synthases. Natural Product Reports, 2003, 20, 79-110.	5.2	882
4	Biosynthesis of Plant Volatiles: Nature's Diversity and Ingenuity. Science, 2006, 311, 808-811.	6.0	766
5	Structural determinants for activation of the Î±-subunit of a heterotrimeric G protein. Nature, 1994, 369, 621-628.	13.7	703
6	Structural Basis for Cyclic Terpene Biosynthesis by Tobacco 5-Epi-Aristolochene Synthase. Science, 1997, 277, 1815-1820.	6.0	690
7	Structural and Functional Analysis of the Mitotic Rotamase Pin1 Suggests Substrate Recognition Is Phosphorylation Dependent. Cell, 1997, 89, 875-886.	13.5	663
8	Structural basis for phosphoserine-proline recognition by group IV WW domains. Nature Structural Biology, 2000, 7, 639-643.	9.7	644
9	GTPase mechanism of Gproteins from the 1.7-Ã… crystal structure of transducin Î± - GDP AlFâ^'4. Nature, 1994, 372, 276-279.	13.7	594
10	Structure of chalcone synthase and the molecular basis of plant polyketide biosynthesis. Nature Structural Biology, 1999, 6, 775-784.	9.7	584
11	A Chemical, Genetic, and Structural Analysis of the Nuclear Bile Acid Receptor FXR. Molecular Cell, 2003, 11, 1079-1092.	4.5	359
12	Structural basis of steroid hormone perception by the receptor kinase BRI1. Nature, 2011, 474, 467-471.	13.7	340
13	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, 224-229.	3.3	332
14	The Rise of Chemodiversity in Plants. Science, 2012, 336, 1667-1670.	6.0	326
15	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, 10128-10133.	3.3	323
16	Structural basis for inhibition of receptor protein-tyrosine phosphatase-Î± by dimerization. Nature, 1996, 382, 555-559.	13.7	317
17	Structure and mechanism of the evolutionarily unique plant enzyme chalcone isomerase. Nature Structural Biology, 2000, 7, 786-791.	9.7	311
18	Structures of two natural product methyltransferases reveal the basis for substrate specificity in plant O-methyltransferases. Nature Structural Biology, 2001, 8, 271-279.	9.7	298

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19	Dissection of Malonyl-Coenzyme A Decarboxylation from Polyketide Formation in the Reaction Mechanism of a Plant Polyketide Synthaseâ€. Biochemistry, 2000, 39, 890-902.	1.2	294
20	The phosphopantetheinyl transferases: catalysis of a post-translational modification crucial for life. Natural Product Reports, 2014, 31, 61-108.	5.2	283
21	An Arabidopsis thaliana gene for methylsalicylate biosynthesis, identified by a biochemical genomics approach, has a role in defense. Plant Journal, 2003, 36, 577-588.	2.8	278
22	Structural basis for the promiscuous biosynthetic prenylation of aromatic natural products. Nature, 2005, 435, 983-987.	13.7	270
23	Conformational Flexibility Underlies Ubiquitin Ligation Mediated by the WWP1 HECT Domain E3 Ligase. Molecular Cell, 2003, 11, 249-259.	4.5	249
24	Dimerization-Induced Inhibition of Receptor Protein Tyrosine Phosphatase Function Through an Inhibitory Wedge. Science, 1998, 279, 88-91.	6.0	240
25	Architectures, mechanisms and molecular evolution of natural product methyltransferases. Natural Product Reports, 2012, 29, 1238.	5.2	239
26	An Aldol Switch Discovered in Stilbene Synthases Mediates Cyclization Specificity of Type III Polyketide Synthases. Chemistry and Biology, 2004, 11, 1179-1194.	6.2	237
27	Structural control of polyketide formation in plant-specific polyketide synthases. Chemistry and Biology, 2000, 7, 919-930.	6.2	236
28	Structure of the human anti-apoptotic protein survivin reveals a dimeric arrangement. Nature Structural Biology, 2000, 7, 602-608.	9.7	226
29	Characterization of Phenylpropene O-Methyltransferases from Sweet Basil. Plant Cell, 2002, 14, 505-519.	3.1	224
30	Structural Basis for the Modulation of Lignin Monomer Methylation by Caffeic Acid/5-Hydroxyferulic Acid 3/5-O-Methyltransferase. Plant Cell, 2002, 14, 1265-1277.	3.1	222
31	Methylation of Gibberellins by Arabidopsis GAMT1 and GAMT2. Plant Cell, 2007, 19, 32-45.	3.1	218
32	Structural Basis for Substrate Recognition in the Salicylic Acid Carboxyl Methyltransferase Family. Plant Cell, 2003, 15, 1704-1716.	3.1	214
33	Critical Role of WW Domain Phosphorylation in Regulating Phosphoserine Binding Activity and Pin1 Function. Journal of Biological Chemistry, 2002, 277, 2381-2384.	1.6	210
34	Discovery and characterization of a marine bacterial SAM-dependent chlorinase. Nature Chemical Biology, 2008, 4, 69-74.	3.9	206
35	Structure-function-folding relationship in a WW domain. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10648-10653.	3.3	199
36	Strigolactone perception and deactivation by a hydrolase receptor DWARF14. Nature Communications, 2019, 10, 191.	5.8	198

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37	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, 9826-9831.	3.3	195
38	Evolution of the chalcone-isomerase fold from fatty-acid binding to stereospecific catalysis. Nature, 2012, 485, 530-533.	13.7	191
39	Quantitative exploration of the catalytic landscape separating divergent plant sesquiterpene synthases. Nature Chemical Biology, 2008, 4, 617-623.	3.9	184
40	Dimerization inhibits the activity of receptor-like protein-tyrosine phosphatase-Î±. Nature, 1999, 401, 606-610.	13.7	177
41	Genetically encoding unnatural amino acids for cellular and neuronal studies. Nature Neuroscience, 2007, 10, 1063-1072.	7.1	164
42	Functional Analyses of <i>Caffeic Acid O-Methyltransferase</i> and <i>Cinnamoyl-CoA-Reductase</i> Genes from Perennial Ryegrass (<i>Lolium perenne</i>). Plant Cell, 2010, 22, 3357-3373.	3.1	161
43	Smoke-derived karrikin perception by the Î±/Î²-hydrolase KAI2 from <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8284-8289.	3.3	152
44	Crystal Structure of a Bacterial Type III Polyketide Synthase and Enzymatic Control of Reactive Polyketide Intermediates. Journal of Biological Chemistry, 2004, 279, 45162-45174.	1.6	149
45	Flavin-mediated dual oxidation controls an enzymatic Favorskii-type rearrangement. Nature, 2013, 503, 552-556.	13.7	147
46	Type III Polyketide Synthase Î²-Ketoacyl-ACP Starter Unit and Ethylmalonyl-CoA Extender Unit Selectivity Discovered byStreptomyces coelicolorGenome Mining. Journal of the American Chemical Society, 2006, 128, 14754-14755.	6.6	140
47	Reaction Mechanism of Chalcone Isomerase. Journal of Biological Chemistry, 2002, 277, 1361-1369.	1.6	138
48	Unveiling the functional diversity of the alpha/beta hydrolase superfamily in the plant kingdom. Current Opinion in Structural Biology, 2016, 41, 233-246.	2.6	135
49	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, 5319-5324.	3.3	130
50	Co-evolution of Hormone Metabolism and Signaling Networks Expands Plant Adaptive Plasticity. Cell, 2016, 166, 881-893.	13.5	125
51	Mechanism of Chalcone Synthase. Journal of Biological Chemistry, 2000, 275, 39640-39646.	1.6	123
52	Structural Basis for High-Affinity Peptide Inhibition of Human Pin1. ACS Chemical Biology, 2007, 2, 320-328.	1.6	123
53	Metabolic engineering of sesquiterpene metabolism in yeast. Biotechnology and Bioengineering, 2007, 97, 170-181.	1.7	123
54	Local auxin metabolism regulates environment-induced hypocotyl elongation. Nature Plants, 2016, 2, 16025.	4.7	122

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55	An enzyme-coupled colorimetric assay for S-adenosylmethionine-dependent methyltransferases. Analytical Biochemistry, 2004, 326, 100-105.	1.1	116
56	Structural Determinants and Modulation of Substrate Specificity in Phenylalanine-Tyrosine Ammonia-Lyases. Chemistry and Biology, 2006, 13, 1327-1338.	6.2	114
57	Floral benzenoid carboxyl methyltransferases: From in vitro to in planta function. Phytochemistry, 2005, 66, 1211-1230.	1.4	113
58	Evolution of chalcone isomerase from a noncatalytic ancestor. Nature Chemical Biology, 2018, 14, 548-555.	3.9	113
59	Plant-like Biosynthetic Pathways in Bacteria:Â From Benzoic Acid to Chalcone1. Journal of Natural Products, 2002, 65, 1956-1962.	1.5	111
60	Crystal Structures of Alfalfa Caffeoyl Coenzyme A 3-O-Methyltransferase. Plant Physiology, 2005, 137, 1009-1017.	2.3	111
61	Biosynthesis of Dictyostelium discoideum differentiation-inducing factor by a hybrid type I fatty acidâ€"type III polyketide synthase. Nature Chemical Biology, 2006, 2, 494-502.	3.9	110
62	Demonstration of Germacrene A as an Intermediate in 5-Epi-aristolochene Synthase Catalysis. Journal of the American Chemical Society, 2000, 122, 1861-1866.	6.6	109
63	Determinants for Dephosphorylation of the RNA Polymerase II C-Terminal Domain by Scp1. Molecular Cell, 2006, 24, 759-770.	4.5	103
64	Functional Characterization of Premnaspirodiene Oxygenase, a Cytochrome P450 Catalyzing Regio- and Stereo-specific Hydroxylations of Diverse Sesquiterpene Substrates. Journal of Biological Chemistry, 2007, 282, 31744-31754.	1.6	103
65	Chemoenzymatic syntheses of prenylated aromatic small molecules using Streptomyces prenyltransferases with relaxed substrate specificities. Bioorganic and Medicinal Chemistry, 2008, 16, 8117-8126.	1.4	101
66	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, 15190-15195.	3.3	100
67	Contribution of isopentenyl phosphate to plant terpenoid metabolism. Nature Plants, 2018, 4, 721-729.	4.7	100
68	Coordination of auxin and ethylene biosynthesis by the aminotransferase VAS1. Nature Chemical Biology, 2013, 9, 244-246.	3.9	99
69	Stereochemical Basis for Engineered Pyrrolysyl-tRNA Synthetase and the Efficient <i>in Vivo</i> Incorporation of Structurally Divergent Non-native Amino Acids. ACS Chemical Biology, 2011, 6, 733-743.	1.6	97
70	Structureâ€"function relationships in plant phenylpropanoid biosynthesis. Current Opinion in Plant Biology, 2005, 8, 249-253.	3.5	95
71	Structure of 4-diphosphocytidyl-2-C- methylerythritol synthetase involved in mevalonate- independent isoprenoid biosynthesis. Nature Structural Biology, 2001, 8, 641-648.	9.7	93
72	Structural Elucidation of Chalcone Reductase and Implications for Deoxychalcone Biosynthesis. Journal of Biological Chemistry, 2005, 280, 30496-30503.	1.6	93

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73	Structure-Guided Programming of Polyketide Chain-Length Determination in Chalcone Synthaseâ€. Biochemistry, 2001, 40, 14829-14838.	1.2	91
74	Structural Studies of Cinnamoyl-CoA Reductase and Cinnamyl-Alcohol Dehydrogenase, Key Enzymes of Monolignol Biosynthesis Â. Plant Cell, 2014, 26, 3709-3727.	3.1	85
75	Structure-Function Analyses of a Caffeic Acid <i>O</i>-Methyltransferase from Perennial Ryegrass Reveal the Molecular Basis for Substrate Preference Â. Plant Cell, 2011, 22, 4114-4127.	3.1	84
76	Discovery of a metabolic alternative to the classical mevalonate pathway. ELife, 2013, 2, e00672.	2.8	83
77	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, 323-324.	2.3	82
78	Biosynthesis of coral settlement cue tetrabromopyrrole in marine bacteria by a uniquely adapted brominaseâ€"thioesterase enzyme pair. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3797-3802.	3.3	81
79	Structure of the Mg-Chelatase Cofactor GUN4 Reveals a Novel Hand-Shaped Fold for Porphyrin Binding. PLoS Biology, 2005, 3, e151.	2.6	80
80	Structural Basis for Dual Functionality of Isoflavonoid O-Methyltransferases in the Evolution of Plant Defense Responses. Plant Cell, 2006, 18, 3656-3669.	3.1	77
81	The multiple phenylpropene synthases in both <i>Clarkia breweri</i> and <i>Petunia hybrida</i> represent two distinct protein lineages. Plant Journal, 2008, 54, 362-374.	2.8	76
82	Enzymatic Functions of Wild Tomato Methylketone Synthases 1 and 2. Plant Physiology, 2010, 154, 67-77.	2.3	74
83	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, 10050-10055.	3.3	74
84	Structural and Kinetic Basis for Substrate Selectivity in Populus tremuloides Sinapyl Alcohol Dehydrogenase. Plant Cell, 2005, 17, 1598-1611.	3.1	73
85	An Arabidopsis thaliana methyltransferase capable of methylating farnesoic acid. Archives of Biochemistry and Biophysics, 2006, 448, 123-132.	1.4	73
86	Structure and Mechanism of 2-C-Methyl-d-erythritol 2,4-Cyclodiphosphate Synthase. Journal of Biological Chemistry, 2002, 277, 8667-8672.	1.6	72
87	Chapter two Structural, functional, and evolutionary basis for methylation of plant small molecules. Recent Advances in Phytochemistry, 2003, 37, 37-58.	0.5	68
88	Biochemical and Structural Characterization of Benzenoid Carboxyl Methyltransferases Involved in Floral Scent Production in Stephanotis floribunda and Nicotiana suaveolens. Plant Physiology, 2004, 135, 1946-1955.	2.3	65
89	Genetically Encoding Unnatural Amino Acids in Neural Stem Cells and Optically Reporting Voltage-Sensitive Domain Changes in Differentiated Neurons. Stem Cells, 2011, 29, 1231-1240.	1.4	65
90	Biosynthesis of <i>t</i>-Anethole in Anise: Characterization of <i>t</i>-Anol/Isoeugenol Synthase and an <i>O</i>-Methyltransferase Specific for a C7-C8 Propenyl Side Chain Â Â. Plant Physiology, 2009, 149, 384-394.	2.3	62

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91	Multiple Biochemical and Morphological Factors Underlie the Production of Methylketones in Tomato Trichomes Â Â. Plant Physiology, 2009, 151, 1952-1964.	2.3	62
92	Functional analysis of members of the isoflavone and isoflavanone O-methyltransferase enzyme families from the model legume Medicago truncatula. Plant Molecular Biology, 2006, 62, 715-733.	2.0	61
93	Role of Hydrogen Bonds in the Reaction Mechanism of Chalcone Isomeraseâ€. Biochemistry, 2002, 41, 5168-5176.	1.2	60
94	A single-vial analytical and quantitative gas chromatographyâ€"mass spectrometry assay for terpene synthases. Analytical Biochemistry, 2004, 335, 210-217.	1.1	60
95	Evolving biosynthetic tangos negotiate mechanistic landscapes. Nature Chemical Biology, 2008, 4, 217-222.	3.9	60
96	Structural Elucidation of Cisoid and Transoid Cyclization Pathways of a Sesquiterpene Synthase Using 2-Fluorofarnesyl Diphosphates. ACS Chemical Biology, 2010, 5, 377-392.	1.6	60
97	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, 229-234.	1.0	59
98	Structural and Kinetic Analysis of Prolyl-isomerization/Phosphorylation Cross-Talk in the CTD Code. ACS Chemical Biology, 2012, 7, 1462-1470.	1.6	59
99	Chemodiversity in Selaginella: a reference system for parallel and convergent metabolic evolution in terrestrial plants. Frontiers in Plant Science, 2013, 4, 119.	1.7	59
100	Dynamic Conformational States Dictate Selectivity toward the Native Substrate in a Substrate-Permissive Acyltransferase. Biochemistry, 2016, 55, 6314-6326.	1.2	57
101	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, 510-515.	1.4	56
102	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.	6.6	55
103	A soluble, magnesium-independent prenyltransferase catalyzes reverse and regularC-prenylations andO-prenylations of aromatic substrates. FEBS Letters, 2007, 581, 2889-2893.	1.3	52
104	Structural basis for specific ligation of the peroxisome proliferator-activated receptor Î´. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2563-E2570.	3.3	52
105	Genetic Basis for the Biosynthesis of the Pharmaceutically Important Class of Epoxyketone Proteasome Inhibitors. ACS Chemical Biology, 2014, 9, 301-309.	1.6	51
106	Structure, Biochemistry, and Inhibition of Essential 4â€²-Phosphopantetheinyl Transferases from Two Species of <i>Mycobacteria</i>. ACS Chemical Biology, 2014, 9, 1939-1944.	1.6	48
107	Expanding the Library and Substrate Diversity of the Pyrrolysylâ€tRNA Synthetase to Incorporate Unnatural Amino Acids Containing Conjugated Rings. ChemBioChem, 2013, 14, 2100-2105.	1.3	46
108	Gating mechanism of elongating Î²-ketoacyl-ACP synthases. Nature Communications, 2020, 11, 1727.	5.8	44

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109	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, 3686-3696.	1.6	43
110	Interception of the Enzymatic Conversion of Farnesyl Diphosphate to 5â€Epiâ€Aristolochene by Using a Fluoro Substrate Analogue: 1â€Fluorogermacrene A from (2<i>E</i>,6<i>Z</i>)â€6â€Fluorofarnesyl Diphosphate. ChemBioChem, 2007, 8, 1826-1833.	1.3	43
111	Biosynthetic potential of sesquiterpene synthases: Alternative products of tobacco 5-epi-aristolochene synthase. Archives of Biochemistry and Biophysics, 2006, 448, 73-82.	1.4	40
112	Structure and Reaction Mechanism of Basil Eugenol Synthase. PLoS ONE, 2007, 2, e993.	1.1	39
113	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, 11491-11496.	3.3	37
114	Bisabolyl-Derived Sesquiterpenes from Tobacco 5-Epi-aristolochene Synthase-Catalyzed Cyclization of (2Z,6E)-Farnesyl Diphosphate. Journal of the American Chemical Society, 2010, 132, 4281-4289.	6.6	35
115	Physical Constraints on Sesquiterpene Diversity Arising from Cyclization of the Eudesm-5-yl Carbocation. Journal of the American Chemical Society, 2011, 133, 12632-12641.	6.6	35
116	The lack of floral synthesis and emission of isoeugenol in <i>Petunia axillaris</i> subsp. <i>parodii</i> is due to a mutation in the <i>isoeugenol synthase</i> gene. Plant Journal, 2009, 58, 961-969.	2.8	34
117	Structural and functional analysis of the phosphoryl transfer reaction mediated by the human small Câ€terminal domain phosphatase, Scp1. Protein Science, 2010, 19, 974-986.	3.1	34
118	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.	1.4	33
119	Formation of a Novel Macrocyclic Alkaloid from the Unnatural Farnesyl Diphosphate Analogue Anilinogeranyl Diphosphate by 5-Epi-Aristolochene Synthase. ACS Chemical Biology, 2015, 10, 1729-1736.	1.6	31
120	Interfacial plasticity facilitates high reaction rate of <i>E. coli</i> FAS malonyl-CoA:ACP transacylase, FabD. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24224-24233.	3.3	31
121	Mutation of Archaeal Isopentenyl Phosphate Kinase Highlights Mechanism and Guides Phosphorylation of Additional Isoprenoid Monophosphates. ACS Chemical Biology, 2010, 5, 589-601.	1.6	30
122	Spectral and structural comparison between bright and dim green fluorescent proteins in Amphioxus. Scientific Reports, 2014, 4, 5469.	1.6	30
123	Methylation of sulfhydryl groups: a new function for a family of small molecule plantO-methyltransferases. Plant Journal, 2006, 46, 193-205.	2.8	28
124	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.	6.6	27
125	<i>S</i>â€Adenosylâ€<scp>L</scp>â€Methionine Hydrolase (Adenosineâ€Forming), a Conserved Bacterial and Archeal Protein Related to SAMâ€Dependent Halogenases. ChemBioChem, 2008, 9, 2215-2219.	1.3	27
126	Confluence of structural and chemical biology: plant polyketide synthases as biocatalysts for a bio-based future. Current Opinion in Plant Biology, 2013, 16, 365-372.	3.5	27

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127	Modulation of auxin formation by the cytosolic phenylalanine biosynthetic pathway. Nature Chemical Biology, 2020, 16, 850-856.	3.9	27
128	Phospholipase A2 engineering. 4. Can the active-site aspartate-99 function alone?. Journal of the American Chemical Society, 1990, 112, 7074-7076.	6.6	25
129	Metabolite Induction of <i>Caenorhabditis elegans</i> Dauer Larvae Arises via Transport in the Pharynx. ACS Chemical Biology, 2008, 3, 294-304.	1.6	23
130	Emergent Decarboxylase Activity and Attenuation of Î±/Î²-Hydrolase Activity during the Evolution of Methylketone Biosynthesis in Tomato. Plant Cell, 2012, 24, 1596-1607.	3.1	23
131	Structureâ€"Function Analyses of Plant Type III Polyketide Synthases. Methods in Enzymology, 2012, 515, 317-335.	0.4	22
132	Phospholipase A2 engineering: Design, synthesis, and expression of a gene for bovine (pro)phospholipase A2. Journal of Cellular Biochemistry, 1989, 40, 309-320.	1.2	21
133	Mechanism-Based Post-Translational Modification and Inactivation in Terpene Synthases. ACS Chemical Biology, 2015, 10, 2501-2511.	1.6	21
134	Innovating carbon-capture biotechnologies through ecosystem-inspired solutions. One Earth, 2021, 4, 49-59.	3.6	21
135	Biosynthetic potential of sesquiterpene synthases: product profiles of Egyptian Henbane premnaspirodiene synthase and related mutants. Journal of Antibiotics, 2016, 69, 524-533.	1.0	19
136	Gene Library Synthesis by Structure-Based Combinatorial Protein Engineering. Methods in Enzymology, 2004, 388, 75-91.	0.4	18
137	Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. Current Opinion in Chemical Biology, 2016, 31, 66-73.	2.8	18
138	Turning off the Ras switch with the flick of a finger. Nature Structural Biology, 1997, 4, 677-680.	9.7	16
139	Laetirobin from the Parasitic Growth of<i>Laetiporus sulphureus</i>on<i>Robinia pseudoacacia</i>. Journal of Natural Products, 2009, 72, 1980-1987.	1.5	16
140	Use of CrKÎ± radiation to enhance the signal from anomalous scatterers including sulfur. Journal of Applied Crystallography, 2000, 33, 876-881.	1.9	15
141	Structural Basis for the Modulation of CDK-Dependent/Independent Activity of Cyclin D1. Cell Cycle, 2006, 5, 2760-2768.	1.3	13
142	Activity Mapping the Acyl Carrier Protein: Elongating Ketosynthase Interaction in Fatty Acid Biosynthesis. Biochemistry, 2020, 59, 3626-3638.	1.2	13
143	Algal neurotoxin biosynthesis repurposes the terpene cyclase structural fold into an <i>N</i> -prenyltransferase. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12799-12805.	3.3	13
144	A coupled in vitro/in vivo approach for engineering a heterologous type III PKS to enhance polyketide biosynthesis in <i>Saccharomyces cerevisiae</i>. Biotechnology and Bioengineering, 2018, 115, 1394-1402.	1.7	12

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145	Structure and Mechanistic Analyses of the Gating Mechanism of Elongating Ketosynthases. ACS Catalysis, 2021, 11, 6787-6799.	5.5	12
146	Divergent perspectives on GM food. Nature Biotechnology, 2002, 20, 1195-1196.	9.4	11
147	Molecular architectures of benzoic acid-specific type III polyketide synthases. Acta Crystallographica Section D: Structural Biology, 2017, 73, 1007-1019.	1.1	11
148	Bifunctional Substrate Activation via an Arginine Residue Drives Catalysis in Chalcone Isomerases. ACS Catalysis, 2019, 9, 8388-8396.	5.5	11
149	Substrate Specificity and Engineering of Mevalonate 5-Phosphate Decarboxylase. ACS Chemical Biology, 2019, 14, 1767-1779.	1.6	10
150	Synthetic metabolism goes green. Nature, 2010, 468, 380-381.	13.7	7
151	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.	0.2	6
152	A kaleidoscope of carotenoids. Nature Biotechnology, 2000, 18, 825-826.	9.4	6
153	Dissecting modular synthases through inhibition: A complementary chemical and genetic approach. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 126820.	1.0	5
154	Plant-based CO₂ drawdown and storage as SiC. RSC Advances, 2021, 11, 15512-15518.	1.7	4
155	Mechanisms of Type III Polyketide Synthase Functional Diversity: From 'Steric Modulation' to the 'Reaction Partitioning' Model. ACS Symposium Series, 2007, , 185-197.	0.5	1
156	Digging for answers, smelling a hint of success and tasting triumph. Nature Chemical Biology, 2007, 3, 690-691.	3.9	1
157	An open letter to the metabolomics community: looking forward to a future of integrative plant biology. Metabolomics, 2013, 9, 268-270.	1.4	0
158	Determinants for dephosphorylation of the RNA polymerase II Câ€terminal domain by Scp1. FASEB Journal, 2007, 21, A1032.	0.2	0
159	Protein Epistasis Revealed from Thermostability Profiles of Nicotiana tabacum 5â€epiâ€Aristolochene Synthase. FASEB Journal, 2013, 27, 561.5.	0.2	0
160	Dynamics and Bifunctional Substrate Activation by an Arginine Drive Catalysis in Plant Chalcone Isomerases. FASEB Journal, 2018, 32, lb73.	0.2	0