Elizabeth S Sattely

List of Publications by Year
in descending order

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43 papers	4,570 citations	117625 34 h-index	243625 44 g-index
51 all docs	51 docs citations	51 times ranked	5436 citing authors

#	Article	IF	Citations
1	Six enzymes from mayapple that complete the biosynthetic pathway to the etoposide aglycone. Science, 2015, 349, 1224-1228.	12.6	359
2	Plant-derived coumarins shape the composition of an Arabidopsis synthetic root microbiome. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12558-12565.	7.1	313
3	A Renewable Ligninâ€"Lactide Copolymer and Application in Biobased Composites. ACS Sustainable Chemistry and Engineering, 2013, 1, 1231-1238.	6.7	282
4	Highly efficient molybdenum-based catalysts for enantioselective alkene metathesis. Nature, 2008, 456, 933-937.	27.8	271
5	Biosynthesis of redox-active metabolites in response to iron deficiency in plants. Nature Chemical Biology, 2018, 14, 442-450.	8.0	220
6	Root-Secreted Coumarins and the Microbiota Interact to Improve Iron Nutrition in Arabidopsis. Cell Host and Microbe, 2020, 28, 825-837.e6.	11.0	199
7	A new cyanogenic metabolite in Arabidopsis required for inducible pathogen defence. Nature, 2015, 525, 376-379.	27.8	195
8	Total biosynthesis: in vitro reconstitution of polyketide and nonribosomal peptide pathways. Natural Product Reports, 2008, 25, 757.	10.3	187
9	N -hydroxy-pipecolic acid is a mobile metabolite that induces systemic disease resistance in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4920-E4929.	7.1	187
10	A lignin-epoxy resin derived from biomass as an alternative to formaldehyde-based wood adhesives. Green Chemistry, 2018, 20, 1459-1466.	9.0	182
11	HEx: A heterologous expression platform for the discovery of fungal natural products. Science Advances, 2018, 4, eaar5459.	10.3	167
12	Design and Stereoselective Preparation of a New Class of Chiral Olefin Metathesis Catalysts and Application to Enantioselective Synthesis of Quebrachamine: Catalyst Development Inspired by Natural Product Synthesis. Journal of the American Chemical Society, 2009, 131, 943-953.	13.7	166
13	Discovery and engineering of colchicine alkaloid biosynthesis. Nature, 2020, 584, 148-153.	27.8	152
14	Efficient Catalytic Enantioselective Synthesis of Unsaturated Amines:Â Preparation of Small- and Medium-Ring Cyclic Amines through Mo-Catalyzed Asymmetric Ring-Closing Metathesis in the Absence of Solvent. Journal of the American Chemical Society, 2002, 124, 6991-6997.	13.7	123
15	Catalytic Asymmetric Ring-Opening Metathesis/Cross Metathesis (AROM/CM) Reactions. Mechanism and Application to Enantioselective Synthesis of Functionalized Cyclopentanes. Journal of the American Chemical Society, 2001, 123, 7767-7778.	13.7	114
16	Tandem Catalytic Asymmetric Ring-Opening Metathesis/Cross Metathesis. Journal of the American Chemical Society, 1999, 121, 11603-11604.	13.7	106
17	Enantioselective Synthesis of Cyclic Amides and Amines through Mo-Catalyzed Asymmetric Ring-Closing Metathesis. Journal of the American Chemical Society, 2005, 127, 8526-8533.	13.7	96
18	A Pathogen-Responsive Gene Cluster for Highly Modified Fatty Acids in Tomato. Cell, 2020, 180, 176-187.e19.	28.9	94

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19	Rapid Phytotransformation of Benzotriazole Generates Synthetic Tryptophan and Auxin Analogs in Arabidopsis. Environmental Science & Technology, 2015, 49, 10959-10968.	10.0	86
20	A Metabolic Pathway for Activation of Dietary Glucosinolates by a Human Gut Symbiont. Cell, 2020, 180, 717-728.e19.	28.9	84
21	Rerouting plant terpene biosynthesis enables momilactone pathway elucidation. Nature Chemical Biology, 2021, 17, 205-212.	8.0	77
22	Biosynthesis of cabbage phytoalexins from indole glucosinolate. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1910-1915.	7.1	72
23	Identification of key enzymes responsible for protolimonoid biosynthesis in plants: Opening the door to azadirachtin production. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17096-17104.	7.1	71
24	Enzymatic Tailoring of Ornithine in the Biosynthesis of the Rhizobium Cyclic Trihydroxamate Siderophore Vicibactin. Journal of the American Chemical Society, 2009, 131, 15317-15329.	13.7	68
25	Minimum Set of Cytochromesâ€…P450 for Reconstituting the Biosynthesis of Camalexin, a Major Arabidopsis Antibiotic. Angewandte Chemie - International Edition, 2013, 52, 13625-13628.	13.8	68
26	Three Siderophores from One Bacterial Enzymatic Assembly Line. Journal of the American Chemical Society, 2009, 131, 5056-5057.	13.7	65
27	Total Biosynthesis for Milligram-Scale Production of Etoposide Intermediates in a Plant Chassis. Journal of the American Chemical Society, 2019, 141, 19231-19235.	13.7	62
28	The chemical logic of plant natural product biosynthesis. Current Opinion in Plant Biology, 2014, 19, 51-58.	7.1	59
29	Competing mechanisms for perfluoroalkyl acid accumulation in plants revealed using an Arabidopsis model system. Environmental Toxicology and Chemistry, 2016, 35, 1138-1147.	4.3	59
30	Arabidopsis UGT76B1 glycosylatesN-hydroxy-pipecolic acid and inactivates systemic acquired resistance in tomato. Plant Cell, 2021, 33, 750-765.	6.6	48
31	An engineered pathway for N -hydroxy-pipecolic acid synthesis enhances systemic acquired resistance in tomato. Science Signaling, 2019, 12, .	3.6	46
32	Plant Assimilation Kinetics and Metabolism of 2-Mercaptobenzothiazole Tire Rubber Vulcanizers by Arabidopsis. Environmental Science & Technology, 2016, 50, 6762-6771.	10.0	40
33	Key Applications of Plant Metabolic Engineering. PLoS Biology, 2014, 12, e1001879.	5.6	39
34	Two cytochromes P450 catalyze S-heterocyclizations in cabbage phytoalexin biosynthesis. Nature Chemical Biology, 2015, 11, 837-839.	8.0	38
35	A metabolic regulon reveals early and late acting enzymes in neuroactive Lycopodium alkaloid biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	38
36	Total Biosynthesis of the Tubulin-Binding Alkaloid Colchicine. Journal of the American Chemical Society, 2021, 143, 19454-19465.	13.7	28

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37	Engineering Plant Synthetic Pathways for the Biosynthesis of Novel Antifungals. ACS Central Science, 2020, 6, 1394-1400.	11.3	22
38	Dirigent Proteins Guide Asymmetric Heterocoupling for the Synthesis of Complex Natural Product Analogues. Journal of the American Chemical Society, 2021, 143, 5011-5021.	13.7	21
39	D₂O Labeling to measure active biosynthesis of natural products in medicinal plants. AICHE Journal, 2018, 64, 4319-4330.	3.6	14
40	Engineering Posttranslational Regulation of Glutamine Synthetase for Controllable Ammonia Production in the Plant Symbiont Azospirillum brasilense. Applied and Environmental Microbiology, 2021, 87, e0058221.	3.1	14
41	Improved Stability of Engineered Ammonia Production in the Plant-Symbiont Azospirillum brasilense. ACS Synthetic Biology, 2021, 10, 2982-2996.	3.8	7
42	A plant host, Nicotiana benthamiana, enables the production and study of fungal lignin-degrading enzymes. Communications Biology, 2021, 4, 1027.	4.4	5
43	Discovery and Engineering of Plant Chemistry for Plant and Human Health. FASEB Journal, 2018, 32, 380.3.	0.5	0