Frank Schulz

List of Publications by Year
in descending order

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34 papers	1,452 citations	471509 17 h-index	361022 35 g-index
40 all docs	40 docs citations	40 times ranked	1186 citing authors

#	Article	IF	Citations
1	Directed Evolution as a Method To Create Enantioselective Cyclohexanone Monooxygenases for Catalysis in Baeyerâ€“Villiger Reactions. Angewandte Chemie - International Edition, 2004, 43, 4075-4078.	13.8	161
2	Converting Phenylacetone Monooxygenase into Phenylcyclohexanone Monooxygenase by Rational Design: Towards Practical Baeyer-Villiger Monooxygenases. Advanced Synthesis and Catalysis, 2005, 347, 979-986.	4.3	132
3	A Light-Driven Stereoselective Biocatalytic Oxidation. Angewandte Chemie - International Edition, 2007, 46, 2903-2906.	13.8	121
4	Prediction and Manipulation of the Stereochemistry of Enoylreduction in Modular Polyketide Synthases. Chemistry and Biology, 2008, 15, 1231-1240.	6.0	118
5	Lightâ€Driven Biocatalytic Oxidation and Reduction Reactions: Scope and Limitations. ChemBioChem, 2008, 9, 565-572.	2.6	102
6	Microbial Baeyerâ€'Villiger Oxidation:â€‰ Stereopreference and Substrate Acceptance of Cyclohexanone Monooxygenase Mutants Prepared by Directed Evolution. Organic Letters, 2006, 8, 1221-1224.	4.6	96
7	Enzyme-Directed Mutasynthesis: A Combined Experimental and Theoretical Approach to Substrate Recognition of a Polyketide Synthase. ACS Chemical Biology, 2013, 8, 443-450.	3.4	93
8	The Stereochemistry of Complex Polyketide Biosynthesis by Modular Polyketide Synthases. Molecules, 2011, 16, 6092-6115.	3.8	66
9	Deazaflavins as mediators in light-driven cytochrome P450 catalyzed hydroxylations. Chemical Communications, 2009, , 7152.	4.1	61
10	Towards practical biocatalytic Baeyer-Villiger reactions: applying a thermostable enzyme in the gram-scale synthesis of optically-active lactones in a two-liquid-phase system. Beilstein Journal of Organic Chemistry, 2005, 1, 10.	2.2	56
11	Minimally Invasive Mutagenesis Gives Rise to a Biosynthetic Polyketide Library. Angewandte Chemie - International Edition, 2012, 51, 10664-10669.	13.8	50
12	Predicted Incorporation of Nonâ€native Substrates by a Polyketide Synthase Yields Bioactive Natural Product Derivatives. ChemBioChem, 2014, 15, 1991-1997.	2.6	44
13	Substrate Flexibility of a Mutated Acyltransferase Domain and Implications for Polyketide Biosynthesis. Chemistry and Biology, 2015, 22, 1425-1430.	6.0	41
14	Insights into the stereospecificity of ketoreduction in a modular polyketide synthase. Organic and Biomolecular Chemistry, 2011, 9, 2053.	2.8	30
15	Elucidation of the Catalytic Mechanism of a Miniature Zinc Finger Hydrolase. Journal of Physical Chemistry B, 2017, 121, 6390-6398.	2.6	20
16	Exploration of biosynthetic access to the shared precursor of the fusicoccane diterpenoid family. Chemical Communications, 2013, 49, 4337.	4.1	17
17	Sensitivity of VCD spectroscopy for small structural and stereochemical changes of macrolide antibiotics. Chemical Communications, 2020, 56, 10926-10929.	4.1	17
18	An in Vitro Biosynthesis of Sesquiterpenes Starting from Acetic Acid. ChemBioChem, 2018, 19, 2146-2151.	2.6	16

#	Article	IF	Citations
19	Quantification of N-acetylcysteamine activated methylmalonate incorporation into polyketide biosynthesis. Beilstein Journal of Organic Chemistry, 2013, 9, 664-674.	2.2	12
20	Stereochemical assignment of fusiccocadiene from NMR shielding constants and vibrational circular dichroism spectroscopy. Chirality, 2017, 29, 409-414.	2.6	9
21	Exploring the Promiscuous Enzymatic Activation of Unnatural Polyketide Extender Units in Vitro and in Vivo for Monensin Biosynthesis. ChemBioChem, 2019, 20, 1183-1189.	2.6	9
22	Heterologous fermentation of a diterpene fromAlternaria brassisicola. Mycology, 2014, 5, 207-219.	4.4	7
23	Rational prioritization strategy allows the design of macrolide derivatives that overcome antibiotic resistance. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2113632118.	7.1	7
24	Biosynthesis-driven structureâ€“activity relationship study of premonensin-derivatives. Organic and Biomolecular Chemistry, 2016, 14, 7671-7675.	2.8	6
25	Flexible enzymatic activation of artificial polyketide extender units by Streptomyces cinnamonensis into the monensin biosynthetic pathway. Letters in Applied Microbiology, 2018, 67, 226-234.	2.2	6
26	Identification of crucial bottlenecks in engineered polyketide biosynthesis. Organic and Biomolecular Chemistry, 2019, 17, 6374-6385.	2.8	6
27	Naturstoffâ€Lego. Nachrichten Aus Der Chemie, 2011, 59, 29-35.	0.0	4
28	Biosynthesis with Fluorine. ChemBioChem, 2014, 15, 495-497.	2.6	4
29	The Development of DNA Sequencing: From the Genome of a Bacteriophage to That of a Neanderthal. Angewandte Chemie - International Edition, 2010, 49, 8795-8797.	13.8	3
30	Data in support of substrate flexibility of a mutated acyltransferase domain and implications for polyketide biosynthesis. Data in Brief, 2015, 5, 528-536.	1.0	3
31	A Multiperspective Approach to Solvent Regulation of Enzymatic Activity: HMGâ€CoA Reductase. ChemBioChem, 2018, 19, 153-158.	2.6	3
32	Biosynthetic interceptors. Nature Chemistry, 2015, 7, 102-104.	13.6	1
33	Biochemie 2010. Nachrichten Aus Der Chemie, 2011, 59, 297-318.	0.0	0
34	Polyether cyclization cascade alterations in response to monensin polyketide synthase mutations. ChemBioChem, 2021, , .	2.6	0