Florian Rudroff

List of Publications by Year
in descending order

75	3,273	172457 29	155660 55
papers	citations	h-index	g-index

90	90	90	2979
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biogenic colourants in the textile industry â€“ a promising and sustainable alternative to synthetic dyes. Green Chemistry, 2022, 24, 13-35.	9.0	29
2	Chemoenzymatic one-pot reaction from carboxylic acid to nitrile <i>via</i> oxime. Catalysis Science and Technology, 2022, 12, 62-66.	4.1	14
3	Cellâ€free in vitro reduction of carboxylates to aldehydes: With crude enzyme preparations to a key pharmaceutical building block. Biotechnology Journal, 2021, 16, 2000315.	3.5	10
4	A Kinetic Photometric Assay for the Quantification of the Openâ€Chain Content of Aldoses. European Journal of Organic Chemistry, 2021, 2021, 2589-2593.	2.4	2
5	Chemo-Enzymatic Cascade for the Generation of Fragrance Aldehydes. Catalysts, 2021, 11, 932.	3.5	5
6	Biocatalysis in Green and Blue: Cyanobacteria. Trends in Biotechnology, 2021, 39, 875-889.	9.3	32
7	Multi-Enzymatic Cascades In Vivo. , 2021, , 49-63.		0
8	Investigation of a New Typeâ€…I Baeyerâ€“Villiger Monooxygenase from <i>Amycolatopsis thermoflava</i> Revealed High Thermodynamic but Limited Kinetic Stability. ChemBioChem, 2020, 21, 971-977.	2.6	6
9	An Ultrasensitive Fluorescence Assay for the Detection of Halides and Enzymatic Dehalogenation. ChemCatChem, 2020, 12, 2032-2039.	3.7	9
10	Pyrazines: Synthesis and Industrial Application of these Valuable Flavor and Fragrance Compounds. Biotechnology Journal, 2020, 15, 2000064.	3.5	85
11	Immobilized Cell Physiology Imaging and Stabilization of Enzyme Cascade Reaction Using Recombinant Cells Escherichia coli Entrapped in Polyelectrolyte Complex Beads by Jet Break-Up Encapsulator. Catalysts, 2020, 10, 1288.	3.5	2
12	Amino Benzamidoxime (ABAO)â€Based Assay to Identify Efficient Aldehydeâ€Producing <i>Pichia pastoris</i> Clones. Advanced Synthesis and Catalysis, 2020, 362, 4673-4679.	4.3	8
13	Boosting photobioredox catalysis by morpholine electron donors under aerobic conditions. Catalysis Science and Technology, 2019, 9, 2682-2688.	4.1	14
14	Random Mutagenesisâ€Driven Improvement of Carboxylate Reductase Activity using an Amino Benzamidoximeâ€Mediated Highâ€Throughput Assay. Advanced Synthesis and Catalysis, 2019, 361, 2544-2549.	4.3	31
15	Substrateâ€Independent Highâ€Throughput Assay for the Quantification of Aldehydes. Advanced Synthesis and Catalysis, 2019, 361, 2538.	4.3	29
16	Morpholine-based buffers activate aerobic photobiocatalysis<i>via</i>spin correlated ion pair formation. Catalysis Science and Technology, 2019, 9, 1365-1371.	4.1	17
17	Whole-cell based synthetic enzyme cascadesâ€”light and shadow of a promising technology. Current Opinion in Chemical Biology, 2019, 49, 84-90.	6.1	44
18	Easy Access to Enantiopure (<i>S</i>)â€• and (<i>R</i>)â€Aryl Alkyl Alcohols by a Combination of Gold(III)â€Catalyzed Alkyne Hydration and Enzymatic Reduction. ChemCatChem, 2018, 10, 920-924.	3.7	23

#	ARTICLE	IF	CITATIONS
19	Opportunities and challenges for combining chemo- and biocatalysis. Nature Catalysis, 2018, 1, 12-22.	34.4	479
20	Cell Factory Design and Optimization for the Stereoselective Synthesis of Polyhydroxylated Compounds. ChemBioChem, 2018, 19, 361-368.	2.6	3
21	Biocompatible metal-assisted Câ€“C cross-coupling combined with biocatalytic chiral reductions in a concurrent tandem cascade. Chemical Communications, 2018, 54, 12978-12981.	4.1	26
22	Novel concurrent redox cascades of (R)- and (S)-carvones enables access to carvo-lactones with distinct regio- and enantioselectivity. Tetrahedron, 2018, 74, 7389-7394.	1.9	9
23	Fusion proteins of an enoate reductase and a Baeyer-Villiger monooxygenase facilitate the synthesis of chiral lactones. Biological Chemistry, 2017, 398, 31-37.	2.5	29
24	From waste to value â€“ direct utilization of limonene from orange peel in a biocatalytic cascade reaction towards chiral carvolactone. Green Chemistry, 2017, 19, 367-371.	9.0	63
25	Four distinct types of E.C. 1.2.1.30 enzymes can catalyze the reduction of carboxylic acids to aldehydes. Journal of Biotechnology, 2017, 257, 222-232.	3.8	50
26	Inâ€…Vivo Synthesis of Polyhydroxylated Compounds from a â€œHidden Reservoirâ€•of Toxic Aldehyde Species. ChemCatChem, 2017, 9, 2919-2923.	3.7	27
27	Mutagenesisâ€Independent Stabilization of Class B Flavin Monooxygenases in Operation. Advanced Synthesis and Catalysis, 2017, 359, 2121-2131.	4.3	28
28	Nonâ€hazardous biocatalytic oxidation in Nylonâ€9 monomer synthesis on a 40â€‰g scale with efficient downstream processing. Biotechnology and Bioengineering, 2017, 114, 1670-1678.	3.3	11
29	Kinetic Modeling of an Enzymatic Redox Cascade Inâ€…Vivo Reveals Bottlenecks Caused by Cofactors. ChemCatChem, 2017, 9, 3420-3427.	3.7	23
30	Nicotinamide Adenine Dinucleotideâ€Dependent Redoxâ€Neutral Convergent Cascade for Lactonizations with Type II Flavinâ€Containing Monooxygenase. Advanced Synthesis and Catalysis, 2017, 359, 2142-2148.	4.3	27
31	First chemo-enzymatic synthesis of the (R)-Taniguchi lactone and substrate profiles of CAMO and OTEMO, two new Baeyerâ€“Villiger monooxygenases. Monatshefte FÃ¼r Chemie, 2017, 148, 157-165.	1.8	16
32	Manipulating the stereoselectivity of the thermostable Baeyerâ€“Villiger monooxygenase TmCHMO by directed evolution. Organic and Biomolecular Chemistry, 2017, 15, 9824-9829.	2.8	30
33	Escherichia coli Fails to Efficiently Maintain the Activity of an Important Flavin Monooxygenase in Recombinant Overexpression. Frontiers in Microbiology, 2017, 8, 2201.	3.5	11
34	Miscellaneous Key Non-Câ€"C Bond Forming Enzyme Reactions. , 2016, , 243-283.		1
35	Selective Enzymatic Transformation to Aldehydes <i>in vivo</i> by Fungal Carboxylate Reductase from <i>Neurospora crassa</i>. Advanced Synthesis and Catalysis, 2016, 358, 3414-3421.	4.3	67
36	Baeyer-Villiger oxidations: biotechnological approach. Applied Microbiology and Biotechnology, 2016, 100, 6585-6599.	3.6	93

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37	Synthesis of tetrahydrofuran-based natural products and their carba analogs via stereoselective enzyme mediated Baeyerâ€"Villiger oxidation. Tetrahedron, 2016, 72, 7212-7221.	1.9	18
38	Designer Microorganisms for Optimized Redox Cascade Reactions â€" Challenges and Future Perspectives. Advanced Synthesis and Catalysis, 2015, 357, 1587-1618.	4.3	51
39	Cascade catalysis â€" strategies and challenges en route to preparative synthetic biology. Chemical Communications, 2015, 51, 5798-5811.	4.1	287
40	First Total Synthesis of Piperenol B and Configuration Revision of the Enantiomers Piperenol B and Uvarirufol A. European Journal of Organic Chemistry, 2015, 2015, 1464-1471.	2.4	6
41	Exploration of the Substrate Promiscuity of Biosynthetic Tailoring Enzymes as a New Source of Structural Diversity for Polyene Macrolide Antifungals. ChemCatChem, 2015, 7, 490-500.	3.7	11
42	Inferring causal metabolic signals that regulate the dynamic <scp>TORC</scp>1â€dependent transcriptome. Molecular Systems Biology, 2015, 11, 802.	7.2	49
43	Nitrogen Source Activates TOR (Target of Rapamycin) Complex 1 via Glutamine and Independently of Gtr/Rag Proteins. Journal of Biological Chemistry, 2014, 289, 25010-25020.	3.4	172
44	Topological augmentation to infer hidden processes in biological systems. Bioinformatics, 2014, 30, 221-227.	4.1	12
45	In vitro characterization of an enzymatic redox cascade composed of an alcohol dehydrogenase, an enoate reductases and a Baeyerâ€"Villiger monooxygenase. Journal of Biotechnology, 2014, 192, 393-399.	3.8	35
46	Identification, Characterization, and Application of Three Enoate Reductases from <i>Pseudomonasâ€...putida</i> in Inâ€...Vitro Enzyme Cascade Reactions. ChemCatChem, 2014, 6, 1021-1027.	3.7	30
47	The steroid monooxygenase from Rhodococcus rhodochrous; a versatile biocatalyst. Tetrahedron: Asymmetry, 2013, 24, 1620-1624.	1.8	14
48	An Enzymatic Toolbox for Cascade Reactions: A Showcase for an Inâ€...Vivo Redox Sequence in Asymmetric Synthesis. ChemCatChem, 2013, 5, 3524-3528.	3.7	88
49	Single Operation Stereoselective Synthesis of <i>Aerangis</i> Lactones: Combining Continuous Flow Hydrogenation and Biocatalysts in a Chemoenzymatic Sequence. ChemCatChem, 2013, 5, 724-727.	3.7	51
50	Double site saturation mutagenesis of the human cytochrome P450 2D6 results in regioselective steroid hydroxylation. FEBS Journal, 2013, 280, 3094-3108.	4.7	20
51	Enantiocomplementary access to carba-analogs of C-nucleoside derivatives by recombinant Baeyerâ€"Villiger monooxygenases. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 2718-2720.	2.2	15
52	Asymmetric bioreduction of activated carbonâ€"carbon double bonds using Shewanella yellow enzyme (SYE-4) as novel enoate reductase. Tetrahedron, 2012, 68, 7619-7623.	1.9	23
53	Quantitative Comparison of Chiral Catalysts Selectivity and Performance: A Generic Concept Illustrated with Cyclododecanone Monooxygenase as Baeyerâ€"Villiger Biocatalyst. Advanced Synthesis and Catalysis, 2012, 354, 3491-3500.	4.3	30
54	Extensive substrate profiling of cyclopentadecanone monooxygenase as Baeyerâ€"Villiger biocatalyst reveals novel regiodivergent oxidations. Journal of Molecular Catalysis B: Enzymatic, 2011, 73, 9-16.	1.8	35

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55	Baeyerâ€"Villiger monooxygenases in aroma compound synthesis. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 6135-6138.	2.2	29
56	Tradeoff between enzyme and metabolite efficiency maintains metabolic homeostasis upon perturbations in enzyme capacity. Molecular Systems Biology, 2010, 6, 356.	7.2	159
57	Encapsulation of recombinant E. coli expressing cyclopentanone monooxygenase in polyelectrolyte complex capsules for Baeyerâ€"Villiger biooxidation of 8-oxabicyclo[3.2.1]oct-6-en-3-one. Biotechnology Letters, 2010, 32, 675-680.	2.2	25
58	Efficient Biooxidations Catalyzed by a New Generation of Selfâ€Sufficient Baeyerâ€"Villiger Monooxygenases. ChemBioChem, 2009, 10, 2595-2598.	2.6	96
59	Recombinant Wholeâ€Cell Mediated <i>Baeyerâ€"Villiger</i> Oxidation of Perhydropyranâ€Type Ketones. Chemistry and Biodiversity, 2008, 5, 490-498.	2.1	16
60	Ring Opening and Rearrangement Reactions of Tricyclo[4.2.1.02,5]nonan-9-one. Synthesis, 2007, 2007, 3896-3906.	2.3	4
61	Comparing the Stereoselective Biooxidation of Cyclobutanones by Recombinant Strains Expressing Bacterial Baeyerâ€"Villiger Monooxygenases. Advanced Synthesis and Catalysis, 2007, 349, 1436-1444.	4.3	44
62	Optimizing Fermentation Conditions of RecombinantEscherichia coliExpressing Cyclopentanone Monooxygenase. Organic Process Research and Development, 2006, 10, 599-604.	2.7	43
63	Accessing tetrahydrofuran-based natural products by microbial Baeyerâ€"Villiger biooxidation. Chemical Communications, 2006, , 3214-3216.	4.1	46
64	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
65	Synthesis of Enantiomerically Pure Bicyclo[4.2.0]octanes by Cu-Catalyzed [2+2] Photocycloaddition and Enantiotopos-Differentiating Ring Opening. Angewandte Chemie - International Edition, 2006, 45, 5541-5543.	13.8	34
66	Biooxidation of ketones with a cyclobutanone structural motif by recombinant whole-cells expressing 4-hydroxyacetophenone monooxygenase. Journal of Molecular Catalysis B: Enzymatic, 2005, 32, 135-140.	1.8	34
67	Microbial Baeyer-Villiger Oxidation of Prochiral Polysubstituted Cyclohexanones by Recombinant Whole-Cells Expressing Two Bacterial Monooxygenases. European Journal of Organic Chemistry, 2005, 2005, 809-816.	2.4	30
68	Baeyer-Villiger Oxidation of Bridgedendo-Tricyclic Ketones with EngineeredEscherichia coliExpressing Monooxygenases of Bacterial Origin. Synlett, 2005, 2005, 2751-2754.	1.8	25
69	Family Clustering of Baeyer-Villiger Monooxygenases Based on Protein Sequence and Stereopreference. Angewandte Chemie - International Edition, 2005, 44, 3609-3613.	13.8	83
70	Synthesis and Enantioselective Baeyerâ€"Villiger Oxidation of Prochiral Perhydro-pyranones with Recombinant E. coli Producing Cyclohexanone Monooxygenase.. ChemInform, 2004, 35, no.	0.0	1
71	Enantioselective Baeyerâ€"Villiger Oxidations. ChemInform, 2004, 35, no.	0.0	0
72	Enantioselective Baeyer-Villiger Oxidations. Current Organic Chemistry, 2004, 8, 1057-1069.	1.6	88

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73	First Enantiodivergent Baeyerâ€"Villiger Oxidation by Recombinant Whole-Cells Expressing Two Monooxygenases from Brevibacterium.. ChemInform, 2003, 34, no.	0.0	0
74	First enantiodivergent Baeyerâ€"Villiger oxidation by recombinant whole-Cells expressing two monooxygenases from Brevibacterium. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 1479-1482.	2.2	58
75	Synthesis and Enantioselective Baeyer-Villiger Oxidation of Prochiral Perhydro-pyranones with Recombinant E. coli Producing Cyclohexanone Monooxygenase. Synlett, 2003, 2003, 1973-1976.	1.8	17