Fabio Parmeggiani

List of Publications by Year
in descending order

88	2,308	172457 29	254184 43
papers	citations	h-index	g-index

98	98	98	1981
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Synthetic and Therapeutic Applications of Ammonia-lyases and Aminomutases. Chemical Reviews, 2018, 118, 73-118.	47.7	134
2	Biosynthesis and Characterization of Copper Nanoparticles Using <i>Shewanella oneidensis</i>: Application for Click Chemistry. Small, 2018, 14, 1703145.	10.0	112
3	Synthesis of <scp>D</scp>â€•and <scp>L</scp>â€Phenylalanine Derivatives by Phenylalanine Ammonia Lyases: A Multienzymatic Cascade Process. Angewandte Chemie - International Edition, 2015, 54, 4608-4611.	13.8	100
4	Adenylation Activity of Carboxylic Acid Reductases Enables the Synthesis of Amides. Angewandte Chemie - International Edition, 2017, 56, 14498-14501.	13.8	74
5	Biotechnological Development of a Practical Synthesis of Ethyl (S)-2-Ethoxy-3-(p-methoxyphenyl)propanoate (EEHP): Over 100-Fold Productivity Increase from Yeast Whole Cells to Recombinant Isolated Enzymes. Organic Process Research and Development, 2012, 16, 269-276.	2.7	71
6	Biocatalytic transamination with near-stoichiometric inexpensive amine donors mediated by bifunctional mono- and di-amine transaminases. Green Chemistry, 2017, 19, 361-366.	9.0	69
7	Chemoenzymatic Synthesis of Optically Purel- andd-Biarylalanines through Biocatalytic Asymmetric Amination and Palladium-Catalyzed Arylation. ACS Catalysis, 2015, 5, 5410-5413.	11.2	67
8	The Bacterial Ammonia Lyase EncP: A Tunable Biocatalyst for the Synthesis of Unnatural Amino Acids. Journal of the American Chemical Society, 2015, 137, 12977-12983.	13.7	63
9	Enoate Reductase-Mediated Preparation of Methyl (S)-2-Bromobutanoate, a Useful Key Intermediate for the Synthesis of Chiral Active Pharmaceutical Ingredients. Organic Process Research and Development, 2012, 16, 262-268.	2.7	53
10	Cascade Coupling of Ene Reductases with Alcohol Dehydrogenases: Enantioselective Reduction of Prochiral Unsaturated Aldehydes. ChemCatChem, 2012, 4, 653-659.	3.7	52
11	Opposite Enantioselectivity in the Bioreduction of (<i>Z</i>)â€Î²â€Arylâ€Î²â€cyanoacrylates Mediated by the Tryptophan 116 Mutants of Old Yellow Enzyme 1: Synthetic Approach to (<i>R</i>)â€•and (<i>S</i>)â€Î²â€Arylâ€Î³â€lactams. Advanced Synthesis and Catalysis, 2015, 357, 1849-1860.	4.3	51
12	Singleâ€Biocatalyst Synthesis of Enantiopure <scp>d</scp>â€Arylalanines Exploiting an Engineered <scp>d</scp>â€Amino Acid Dehydrogenase. Advanced Synthesis and Catalysis, 2016, 358, 3298-3306.	4.3	51
13	Oneâ€Pot Synthesis of Chiral <i>N</i>â€Arylamines by Combining Biocatalytic Aminations with Buchwaldâ€"Hartwig <i>N</i>â€Arylation. Angewandte Chemie - International Edition, 2020, 59, 18156-18160.	13.8	51
14	Real-Time Screening of Biocatalysts in Live Bacterial Colonies. Journal of the American Chemical Society, 2017, 139, 1408-1411.	13.7	48
15	Multifunctional biocatalyst for conjugate reduction and reductive amination. Nature, 2022, 604, 86-91.	27.8	48
16	Synthesis of Robalzotan, Ebalzotan, and Rotigotine Precursors via the Stereoselective Multienzymatic Cascade Reduction of Î±,Î²-Unsaturated Aldehydes. Journal of Organic Chemistry, 2013, 78, 4811-4822.	3.2	47
17	One-Pot Biocatalytic Synthesis of Substituted <scp>d</scp>-Tryptophans from Indoles Enabled by an Engineered Aminotransferase. ACS Catalysis, 2019, 9, 3482-3486.	11.2	43
18	One-Pot Biocatalytic Cascade Reduction of Cyclic Enimines for the Preparation of Diastereomerically Enriched <i>N</i>-Heterocycles. Journal of the American Chemical Society, 2019, 141, 19208-19213.	13.7	43

#	Article	IF	Citations
19	Old Yellow Enzyme-mediated reduction of Î²-cyano-Î±,Î²-unsaturated esters for the synthesis of chiral building blocks: stereochemical analysis of the reaction. Catalysis Science and Technology, 2013, 3, 1136.	4.1	39
20	Consolidated production of coniferol and other high-value aromatic alcohols directly from lignocellulosic biomass. Green Chemistry, 2020, 22, 144-152.	9.0	38
21	Productivity enhancement of Cî€C bioreductions by coupling the in situ substrate feeding product removal technology with isolated enzymes. Chemical Communications, 2012, 48, 79-81.	4.1	37
22	Biocatalyzed Enantioselective Reduction of Activated C=C Bonds: Synthesis of Enantiomerically Enriched Î±â€Haloâ€Î²â€arylpropionic Acids. European Journal of Organic Chemistry, 2011, 2011, 4015-4022.	2.4	35
23	Preparation and Luminescence Thermochromism of Tetranuclear Copper(I)â€“Pyridineâ€“Iodide Clusters. Journal of Chemical Education, 2012, 89, 946-949.	2.3	34
24	Stereochemical Outcome of the Biocatalysed Reduction of Activated Tetrasubstituted Olefins by Old Yellow Enzymes 1â€“3. Advanced Synthesis and Catalysis, 2012, 354, 105-112.	4.3	34
25	Cascade Coupling of Eneâ€Reductases and Ï‰â€Transaminases for the Stereoselective Synthesis of Diastereomerically Enriched Amines. ChemCatChem, 2015, 7, 3106-3109.	3.7	34
26	Substrate scope and synthetic applications of the enantioselective reduction of Î±-alkyl-Î²-arylenones mediated by Old Yellow Enzymes. Organic and Biomolecular Chemistry, 2013, 11, 2988.	2.8	33
27	Engineered Ammonia Lyases for the Production of Challenging Electron-Rich <scp>l</scp>-Phenylalanines. ACS Catalysis, 2018, 8, 3129-3132.	11.2	32
28	Oneâ€Pot Biocatalytic Double Oxidation of Î±â€Isophorone for the Synthesis of Ketoisophorone. ChemCatChem, 2017, 9, 3338-3348.	3.7	30
29	Zymophore identification enables the discovery of novel phenylalanine ammonia lyase enzymes. Scientific Reports, 2017, 7, 13691.	3.3	30
30	Substrate-engineering approach to the stereoselective chemo-multienzymatic cascade synthesis of Nicotiana tabacum lactone. Journal of Molecular Catalysis B: Enzymatic, 2015, 114, 77-85.	1.8	28
31	Intensified biocatalytic production of enantiomerically pure halophenylalanines from acrylic acids using ammonium carbamate as the ammonia source. Catalysis Science and Technology, 2016, 6, 4086-4089.	4.1	27
32	Steric Effects on the Stereochemistry of Old Yellow Enzymeâ€Mediated Reductions of Unsaturated Diesters: Flipping of the Substrate within the Enzyme Active Site Induced by Structural Modifications. Advanced Synthesis and Catalysis, 2012, 354, 2859-2864.	4.3	26
33	Adenylation Activity of Carboxylic Acid Reductases Enables the Synthesis of Amides. Angewandte Chemie, 2017, 129, 14690-14693.	2.0	25
34	Synthesis of <scp>D</scp>â€•and <scp>L</scp>â€Phenylalanine Derivatives by Phenylalanine Ammonia Lyases: A Multienzymatic Cascade Process. Angewandte Chemie, 2015, 127, 4691-4694.	2.0	23
35	Engineered Aminotransferase for the Production of <scp>d</scp>â€Phenylalanine Derivatives Using Biocatalytic Cascades. ChemCatChem, 2018, 10, 470-474.	3.7	23
36	New stereospecific synthesis of Tesaglitazar and Navaglitazar precursors. Tetrahedron: Asymmetry, 2009, 20, 2694-2698.	1.8	22

#	Article	IF	Citations
37	Biocatalytic synthesis of chiral cyclic Î³-oxoesters by sequential Câ€“H hydroxylation, alcohol oxidation and alkene reduction. Green Chemistry, 2017, 19, 5122-5130.	9.0	22
38	Multi-enzyme cascade synthesis of the most odorous stereoisomers of the commercial odorant MuguesiaÂ®. Journal of Molecular Catalysis B: Enzymatic, 2015, 114, 37-41.	1.8	21
39	â€œA Study in Yellowâ€: Investigations in the Stereoselectivity of Eneâ€Reductases. ChemBioChem, 2022, 23, .	2.6	21
40	Enantioselective Synthesis of (<i>R</i>)â€2â€Arylpropanenitriles Catalysed by Eneâ€Reductases in Aqueous Media and in Biphasic Ionic Liquidâ€“Water Systems. ChemCatChem, 2014, 6, 2425-2431.	3.7	20
41	Biocatalytic retrosynthesis approaches to<scp>d</scp>-(2,4,5-trifluorophenyl)alanine, key precursor of the antidiabetic sitagliptin. Green Chemistry, 2019, 21, 4368-4379.	9.0	20
42	Synthesis of Enantiomerically Pure Ring-Substituted <scp>l</scp>-Pyridylalanines by Biocatalytic Hydroamination. Organic Letters, 2016, 18, 5468-5471.	4.6	18
43	Telescopic one-pot condensation-hydroamination strategy for the synthesis of optically pure L-phenylalanines from benzaldehydes. Tetrahedron, 2016, 72, 7256-7262.	1.9	18
44	Characterisation of a Bacterial Galactokinase with High Activity and Broad Substrate Tolerance for Chemoenzymatic Synthesis of 6â€Aminogalactoseâ€1â€Phosphate and Analogues. ChemBioChem, 2018, 19, 388-394.	2.6	18
45	Synthesis of copper catalysts for click chemistry from distillery wastewater using magnetically recoverable bionanoparticles. Green Chemistry, 2019, 21, 4020-4024.	9.0	17
46	Enzymatic Methods for the Manipulation and Valorization of Soapstock from Vegetable Oil Refining Processes. Sustainable Chemistry, 2021, 2, 74-91.	4.7	17
47	On the stereochemistry of the Baker's Yeast-mediated reduction of regioisomeric unsaturated aldehydes: Examples of enantioselectivity switch promoted by substrate-engineering. Journal of Molecular Catalysis B: Enzymatic, 2012, 84, 94-101.	1.8	16
48	Substrate Scope Evaluation of the Enantioselective Reduction of Î²â€Alkylâ€Î²â€arylnitroalkenes by Old Yellow Enzymes 1â€“3 for Organic Synthesis Applications. ChemCatChem, 2016, 8, 577-583.	3.7	16
49	Selective Oxidation of <i>N</i>-Glycolylneuraminic Acid Using an Engineered Galactose Oxidase Variant. ACS Catalysis, 2019, 9, 8208-8212.	11.2	16
50	Stereoselectivity Switch in the Reduction of Î±-Alkyl-Î²-Arylenones by Structure-Guided Designed Variants of the Ene Reductase OYE1. Frontiers in Bioengineering and Biotechnology, 2019, 7, 89.	4.1	16
51	Rationalisation of the stereochemical outcome of ene-reductase-mediated bioreduction of Î±,Î²-difunctionalised alkenes. Journal of Molecular Catalysis B: Enzymatic, 2014, 101, 67-72.	1.8	15
52	Kinetic Resolution of Aromatic Î²â€Amino Acids Using a Combination of Phenylalanine Ammonia Lyase and Aminomutase Biocatalysts. Advanced Synthesis and Catalysis, 2017, 359, 1570-1576.	4.3	15
53	Biomimetic synthesis of 2-substituted N-heterocycle alkaloids by one-pot hydrolysis, transamination and decarboxylative Mannich reaction. Chemical Communications, 2018, 54, 11316-11319.	4.1	15
54	Profiling Substrate Promiscuity of Wild-Type Sugar Kinases for Multi-fluorinated Monosaccharides. Cell Chemical Biology, 2020, 27, 1199-1206.e5.	5.2	15

#	Article	IF	Citations
55	Asymmetric Bioreduction of Î²â€Acylaminonitroalkenes: Easy Access to Chiral Building Blocks with Two Vicinal Nitrogenâ€Containing Functional Groups. ChemCatChem, 2017, 9, 2480-2487.	3.7	14
56	Enzymatic synthesis of <i>N</i>-acetyllactosamine from lactose enabled by recombinant Î²1,4-galactosyltransferases. Organic and Biomolecular Chemistry, 2019, 17, 5920-5924.	2.8	14
57	Enzyme-mediated synthesis of EEHP and EMHP, useful pharmaceutical intermediates of PPAR agonists. Tetrahedron: Asymmetry, 2009, 20, 2594-2599.	1.8	13
58	Rapid Screening of Diverse Biotransformations for Enzyme Evolution. Jacs Au, 2021, 1, 508-516.	7.9	13
59	Identification of fungal ene-reductase activity by means of a functional screening. Fungal Biology, 2015, 119, 487-493.	2.5	12
60	Rapid and sensitive monitoring of biocatalytic reactions using ion mobility mass spectrometry. Analyst, The, 2016, 141, 2351-2355.	3.5	12
61	One-Pot Multi-Enzymatic Synthesis of the Four Stereoisomers of 4-Methylheptan-3-ol. Molecules, 2017, 22, 1591.	3.8	12
62	Oneâ€Pot Biocatalytic In Vivo Methylationâ€Hydroamination of Bioderived Lignin Monomers to Generate a Key Precursor to Lâ€DOPA. Angewandte Chemie - International Edition, 2022, 61, .	13.8	12
63	Characterization of a Putrescine Transaminase From Pseudomonas putida and its Application to the Synthesis of Benzylamine Derivatives. Frontiers in Bioengineering and Biotechnology, 2018, 6, 205.	4.1	11
64	Biocatalysed reduction of carboxylic acids to primary alcohols in aqueous medium: A novel synthetic capability of the zygomycete fungus Syncephalastrum racemosum. Journal of Molecular Catalysis B: Enzymatic, 2015, 116, 83-88.	1.8	10
65	Chemoselective Biohydrogenation of Alkenes in the Presence of Alkynes for the Homologation of 2â€Alkynals/3â€Alkynâ€2â€ones into 4â€Alkynals/Alkynols. Advanced Synthesis and Catalysis, 2019, 361, 2638-2648.	4.3	10
66	Discovery and Investigation of Mutase-like Activity in a Phenylalanine Ammonia Lyase from Anabaena variabilis. Topics in Catalysis, 2018, 61, 288-295.	2.8	9
67	Synthesis of Enantiomerically Enriched 2â€Hydroxymethylalkanoic Acids by Oxidative Desymmetrisation of Achiral 1,3â€Diols Mediated by <i>Acetobacter aceti</i>. ChemCatChem, 2016, 8, 3796-3803.	3.7	8
68	The characterisation of a galactokinase from Streptomyces coelicolor. Carbohydrate Research, 2019, 472, 132-137.	2.3	8
69	An Enzymatic Nâ€Acylation Step Enables the Biocatalytic Synthesis of Unnatural Sialosides. Angewandte Chemie - International Edition, 2020, 59, 5308-5311.	13.8	8
70	A Rapid and Highâ€Throughput Assay for the Estimation of Conversions of Eneâ€Reductaseâ€Catalysed Reactions. ChemBioChem, 2015, 16, 1571-1573.	2.6	7
71	Biochemical characterisation of an Î±1,4 galactosyltransferase from <i>Neisseria weaveri</i> for the synthesis of Î±1,4-linked galactosides. Organic and Biomolecular Chemistry, 2020, 18, 3142-3148.	2.8	7
72	Biotechnological synthesis of Pd/Ag and Pd/Au nanoparticles for enhanced Suzukiâ€"Miyaura crossâ€coupling activity. Microbial Biotechnology, 2021, 14, 2435-2447.	4.2	7

#	Article	IF	Citations
73	Multi-Enzymatic Cascade Procedures for the Synthesis of Chiral Odorous Molecules. ACS Symposium Series, 2015, , 59-75.	0.5	6
74	Investigation of the stereochemical course of ene reductase-catalysed reactions by deuterium labelling. Isotopes in Environmental and Health Studies, 2015, 51, 24-32.	1.0	6
75	Enzymatic Buildingâ€Block Synthesis for Solidâ€Phase Automated Glycan Assembly. Angewandte Chemie - International Edition, 2020, 59, 22456-22459.	13.8	6
76	Oneâ€Pot Synthesis of Chiral N â€Arylamines by Combining Biocatalytic Aminations with Buchwaldâ€"Hartwig N â€Arylation. Angewandte Chemie, 2020, 132, 18313-18317.	2.0	6
77	A promiscuous glycosyltransferase generates poly-Î²-1,4-glucan derivatives that facilitate mass spectrometry-based detection of cellulolytic enzymes. Organic and Biomolecular Chemistry, 2021, 19, 5529-5533.	2.8	6
78	Multi-step chemo-enzymatic synthesis of azelaic and pelargonic acids from the soapstock of high-oleic sunflower oil refinement. Green Chemistry, 2022, 24, 2082-2093.	9.0	6
79	An Enzymatic Nâ€Acylation Step Enables the Biocatalytic Synthesis of Unnatural Sialosides. Angewandte Chemie, 2020, 132, 5346-5349.	2.0	5
80	Biâ€enzymatic Conversion of Cinnamic Acids to 2â€Arylethylamines. ChemCatChem, 2020, 12, 995-998.	3.7	4
81	Oxidation of threo â€9,10â€Dihydroxystearic Acid Mediated by Micrococcus luteus as a Key Step in the Conversion of Oleic Acid into Pelargonic and Azelaic Acids. ChemCatChem, 2021, 13, 3275-3282.	3.7	3
82	From Nantwich to Oxygen: Public Engagement in Chemistry at a Local History Museum. Journal of Chemical Education, 2021, 98, 1249-1255.	2.3	3
83	Enantioselective CC bond reduction of unsaturated Î±-chloro esters by old yellow enzymes. Journal of Molecular Catalysis B: Enzymatic, 2011, , .	1.8	2
84	Enzymatic Buildingâ€Block Synthesis for Solidâ€Phase Automated Glycan Assembly. Angewandte Chemie, 2020, 132, 22642-22645.	2.0	2
85	Chemo-enzymatic oxidative cleavage of isosafrole for the synthesis of piperonal. Reaction Chemistry and Engineering, 2021, 6, 1591-1600.	3.7	2
86	Oneâ€Pot Biocatalytic In Vivo Methylationâ€Hydroamination of Bioderived Lignin Monomers to Generate a Key Precursor to Lâ€DOPA. Angewandte Chemie, 2022, 134, .	2.0	2
87	Fear of the Dark: Diazo Printing by Photochemical Decomposition of Aryldiazonium Tetrafluoroborates. Journal of Chemical Education, 2014, 91, 692-695.	2.3	0
88	Innentitelbild: An Enzymatic Nâ€Acylation Step Enables the Biocatalytic Synthesis of Unnatural Sialosides (Angew. Chem. 13/2020). Angewandte Chemie, 2020, 132, 5006-5006.	2.0	0