

Uwe T Bornscheuer

List of Publications by Citations

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578
papers

22,508
citations

73
h-index

127
g-index

656
ext. papers

25,373
ext. citations

6.4
avg, IF

7.52
L-index

#	Paper	IF	Citations
578	Engineering the third wave of biocatalysis. <i>Nature</i> , 2012 , 485, 185-94	50.4	1720
577	Oils and fats as renewable raw materials in chemistry. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 3854-71	16.4	755
576	Microbial carboxyl esterases: classification, properties and application in biocatalysis. <i>FEMS Microbiology Reviews</i> , 2002 , 26, 73-81	15.1	632
575	Catalytic promiscuity in biocatalysis: using old enzymes to form new bonds and follow new pathways. <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 6032-40	16.4	470
574	Immobilizing enzymes: how to create more suitable biocatalysts. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 3336-7	16.4	448
573	Improved biocatalysts by directed evolution and rational protein design. <i>Current Opinion in Chemical Biology</i> , 2001 , 5, 137-43	9.7	361
572	Opportunities and challenges for combining chemo- and biocatalysis. <i>Nature Catalysis</i> , 2018 , 1, 12-22	36.5	333
571	Biocatalytic Routes to Optically Active Amines. <i>ChemCatChem</i> , 2009 , 1, 42-51	5.2	313
570	Lipids as renewable resources: current state of chemical and biotechnological conversion and diversification. <i>Applied Microbiology and Biotechnology</i> , 2006 , 71, 13-22	5.7	303
569	Improvement in lipase-catalyzed synthesis of fatty acid methyl esters from sunflower oil. <i>Enzyme and Microbial Technology</i> , 2003 , 33, 97-103	3.8	300
568	Rational assignment of key motifs for function guides in silico enzyme identification. <i>Nature Chemical Biology</i> , 2010 , 6, 807-13	11.7	293
567	Cascade catalysis--strategies and challenges en route to preparative synthetic biology. <i>Chemical Communications</i> , 2015 , 51, 5798-811	5.8	240
566	Biocatalysis: Enzymatic Synthesis for Industrial Applications. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 88-119	16.4	226
565	Optimizing lipases and related enzymes for efficient application. <i>Trends in Biotechnology</i> , 2002 , 20, 433-7	15.1	200
564	Lipase-catalyzed syntheses of monoacylglycerols. <i>Enzyme and Microbial Technology</i> , 1995 , 17, 578-586	3.8	199
563	Efficient asymmetric synthesis of chiral amines by combining transaminase and pyruvate decarboxylase. <i>ChemBioChem</i> , 2008 , 9, 363-5	3.8	178
562	Finding better protein engineering strategies. <i>Nature Chemical Biology</i> , 2009 , 5, 526-9	11.7	177

561	Multistep enzymatic synthesis of long-chain α -dicarboxylic and β -hydroxycarboxylic acids from renewable fatty acids and plant oils. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 2534-7	16.4	163
560	Strategies for the discovery and engineering of enzymes for biocatalysis. <i>Current Opinion in Chemical Biology</i> , 2013 , 17, 215-20	9.7	160
559	Increased stability of an esterase from <i>Bacillus stearothermophilus</i> in ionic liquids as compared to organic solvents. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2003 , 22, 21-27		157
558	Identification of (S)-selective transaminases for the asymmetric synthesis of bulky chiral amines. <i>Nature Chemistry</i> , 2016 , 8, 1076-1082	17.6	152
557	Bioinformatic analysis of a PLP-dependent enzyme superfamily suitable for biocatalytic applications. <i>Biotechnology Advances</i> , 2015 , 33, 566-604	17.8	152
556	2005 ,		147
555	Structure of the plastic-degrading <i>Ideonella sakaiensis</i> MHETase bound to a substrate. <i>Nature Communications</i> , 2019 , 10, 1717	17.4	146
554	An enzyme cascade synthesis of ϵ -caprolactone and its oligomers. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 2784-7	16.4	145
553	Complete inversion of enantioselectivity towards acetylated tertiary alcohols by a double mutant of a <i>Bacillus subtilis</i> esterase. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 1508-11	16.4	133
552	Activity of lipases and esterases towards tertiary alcohols: insights into structure-function relationships. <i>Angewandte Chemie - International Edition</i> , 2002 , 41, 3211-3	16.4	132
551	Graphene-based nanobiocatalytic systems: recent advances and future prospects. <i>Trends in Biotechnology</i> , 2014 , 32, 312-20	15.1	129
550	Lipase-catalyzed glucose fatty acid ester synthesis in ionic liquids. <i>Organic Letters</i> , 2005 , 7, 3097-8	6.2	129
549	Rapid and sensitive kinetic assay for characterization of omega-transaminases. <i>Analytical Chemistry</i> , 2009 , 81, 8244-8	7.8	128
548	A Retrosynthesis Approach for Biocatalysis in Organic Synthesis. <i>Chemistry - A European Journal</i> , 2017 , 23, 12040-12063	4.8	126
547	Development of effective nanobiocatalytic systems through the immobilization of hydrolases on functionalized carbon-based nanomaterials. <i>Bioresource Technology</i> , 2012 , 115, 164-71	11	125
546	Methods to increase enantioselectivity of lipases and esterases. <i>Current Opinion in Biotechnology</i> , 2002 , 13, 543-7	11.4	124
545	Discovery, application and protein engineering of Baeyer-Villiger monooxygenases for organic synthesis. <i>Organic and Biomolecular Chemistry</i> , 2012 , 10, 6249-65	3.9	118
544	The alpha/beta-hydrolase fold 3DM database (ABHDB) as a tool for protein engineering. <i>ChemBioChem</i> , 2010 , 11, 1635-43	3.8	114

543	Fette und α als nachwachsende Rohstoffe in der Chemie. <i>Angewandte Chemie</i> , 2011 , 123, 3938-3956	3.6	113
542	Directed Evolution Empowered Redesign of Natural Proteins for the Sustainable Production of Chemicals and Pharmaceuticals. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 36-40	16.4	112
541	Natural diversity to guide focused directed evolution. <i>ChemBioChem</i> , 2010 , 11, 1861-6	3.8	107
540	Untreue Enzyme in der Biokatalyse: mit alten Enzymen zu neuen Bindungen und Synthesewegen. <i>Angewandte Chemie</i> , 2004 , 116, 6156-6165	3.6	107
539	Enzymatic synthesis of optically active tertiary alcohols: expanding the biocatalysis toolbox. <i>ChemBioChem</i> , 2008 , 9, 491-8	3.8	106
538	Directed evolution of an esterase for the stereoselective resolution of a key intermediate in the synthesis of epothilones. <i>Biotechnology and Bioengineering</i> , 1998 , 58, 554-9	4.9	105
537	Thermostabilization of an esterase by alignment-guided focussed directed evolution. <i>Protein Engineering, Design and Selection</i> , 2010 , 23, 903-9	1.9	101
536	Optimization of lipase-catalyzed glucose fatty acid ester synthesis in a two-phase system containing ionic liquids and t-BuOH. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2005 , 36, 40-42		100
535	Lipase-Catalyzed Solid Phase Synthesis of Sugar Fatty Acid Esters. <i>Biocatalysis and Biotransformation</i> , 1996 , 14, 269-283	2.5	100
534	Enzymatic Asymmetric Synthesis of Enantiomerically Pure Aliphatic, Aromatic and Arylaliphatic Amines with (R)-Selective Amine Transaminases. <i>Advanced Synthesis and Catalysis</i> , 2011 , 353, 2439-2445	5.6	99
533	Microbial Synthesis of Medium-Chain β -Dicarboxylic Acids and β -Aminocarboxylic Acids from Renewable Long-Chain Fatty Acids. <i>Advanced Synthesis and Catalysis</i> , 2014 , 356, 1782-1788	5.6	97
532	Engineering enzyme stability and resistance to an organic cosolvent by modification of residues in the access tunnel. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 1959-63	16.4	96
531	A molecular mechanism of enantiorecognition of tertiary alcohols by carboxylesterases. <i>ChemBioChem</i> , 2003 , 4, 485-93	3.8	96
530	High-throughput assays for lipases and esterases. <i>New Biotechnology</i> , 2005 , 22, 51-6		96
529	Substrate specificity of lipase B from <i>Candida antarctica</i> in the synthesis of arylaliphatic glycolipids. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2000 , 8, 201-211		94
528	Protein engineering of microbial enzymes. <i>Current Opinion in Microbiology</i> , 2010 , 13, 274-82	7.9	93
527	The application of biotechnological methods for the synthesis of biodiesel. <i>European Journal of Lipid Science and Technology</i> , 2009 , 111, 800-813	3	93
526	Lipase-catalyzed solid-phase synthesis of sugar esters. Influence of immobilization on productivity and stability of the enzyme. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 1999 , 6, 279-285		93

525	Growth of <i>Escherichia coli</i> , <i>Pichia pastoris</i> and <i>Bacillus cereus</i> in the presence of the ionic liquids [BMIM][BF ₄] and [BMIM][PF ₆] and Organic Solvents. <i>Biotechnology Letters</i> , 2006 , 28, 465-9	3	91
524	3DM: systematic analysis of heterogeneous superfamily data to discover protein functionalities. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010 , 78, 2101-13	4.2	88
523	Lipase-catalyzed alcoholysis of vegetable oils. <i>European Journal of Lipid Science and Technology</i> , 2003 , 105, 656-660	3	87
522	A High-Throughput-Screening Method for the Identification of Active and Enantioselective Hydrolases. <i>Angewandte Chemie - International Edition</i> , 2001 , 40, 4201-4204	16.4	86
521	Mutations in distant residues moderately increase the enantioselectivity of <i>Pseudomonas fluorescens</i> esterase towards methyl 3-bromo-2-methylpropanoate and ethyl 3-phenylbutyrate. <i>Chemistry - A European Journal</i> , 2003 , 9, 1933-9	4.8	85
520	Directed evolution of an esterase from <i>Pseudomonas fluorescens</i> . Random mutagenesis by error-prone PCR or a mutator strain and identification of mutants showing enhanced enantioselectivity by a resorufin-based fluorescence assay. <i>Biological Chemistry</i> , 1999 , 380, 1029-33	4.5	85
519	Enzymatic degradation of (ligno)cellulose. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 10876-9	16.4	83
518	Review Article Enzymes in Non-Conventional Phases. <i>Biocatalysis and Biotransformation</i> , 1995 , 13, 1-42	2.5	83
517	The fourth wave of biocatalysis is approaching. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	82
516	Engineering the Active Site of the Amine Transaminase from <i>Vibrio fluvialis</i> for the Asymmetric Synthesis of Arylalkyl Amines and Amino Alcohols. <i>ChemCatChem</i> , 2015 , 7, 757-760	5.2	80
515	An Enzymatic Toolbox for Cascade Reactions: A Showcase for an In Vivo Redox Sequence in Asymmetric Synthesis. <i>ChemCatChem</i> , 2013 , 5, 3524-3528	5.2	78
514	Protein engineering of β -hydrolase fold enzymes. <i>ChemBioChem</i> , 2011 , 12, 1508-17	3.8	78
513	Enantioselective transesterification of a tertiary alcohol by lipase A from <i>Candida antarctica</i> . <i>Tetrahedron: Asymmetry</i> , 2002 , 13, 2693-2696		78
512	Mapping the substrate selectivity of new hydrolases using colorimetric screening: lipases from <i>Bacillus thermocatenulatus</i> and <i>Ophiostoma piliferum</i> , esterases from <i>Pseudomonas fluorescens</i> and <i>Streptomyces diastatochromogenes</i> . <i>Tetrahedron: Asymmetry</i> , 2001 , 12, 545-556		77
511	Screening of commercial hydrolases for the degradation of ochratoxin A. <i>Journal of Agricultural and Food Chemistry</i> , 2000 , 48, 5736-9	5.7	76
510	Lipase-catalyzed synthesis of vitamin C fatty acid esters. <i>Biotechnology Letters</i> , 1999 , 21, 1051-1054	3	75
509	Discovery and Protein Engineering of Biocatalysts for Organic Synthesis. <i>Advanced Synthesis and Catalysis</i> , 2011 , 353, 2191-2215	5.6	74
508	Directed evolution of an esterase: screening of enzyme libraries based on pH-indicators and a growth assay. <i>Bioorganic and Medicinal Chemistry</i> , 1999 , 7, 2169-73	3.4	74

507	Biocatalytic synthesis of optically active tertiary alcohols. <i>Applied Microbiology and Biotechnology</i> , 2011 , 91, 505-17	5.7	73
506	Characterization and enantioselectivity of a recombinant esterase from <i>Pseudomonas fluorescens</i> . <i>Enzyme and Microbial Technology</i> , 1998 , 22, 641-646	3.8	73
505	Expression of <i>Candida antarctica</i> lipase B in <i>Pichia pastoris</i> and various <i>Escherichia coli</i> systems. <i>Protein Expression and Purification</i> , 2008 , 62, 90-7	2	73
504	MICROBIOLOGY. Feeding on plastic. <i>Science</i> , 2016 , 351, 1154-5	33.3	72
503	Factors affecting the lipase catalyzed transesterification reactions of 3-hydroxy esters in organic solvents.. <i>Tetrahedron: Asymmetry</i> , 1993 , 4, 1007-1016		71
502	Lipase-catalyzed solid-phase synthesis of sugar fatty acid esters. <i>Enzyme and Microbial Technology</i> , 1999 , 25, 725-728	3.8	70
501	Exploiting the regioselectivity of Baeyer-Villiger monooxygenases for the formation of beta-amino acids and beta-amino alcohols. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 4506-8	16.4	69
500	A high-throughput-screening method for determining the synthetic activity of hydrolases. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 1418-20	16.4	69
499	Optimization of the reaction conditions in the lipase-catalyzed synthesis of structured triglycerides. <i>JAOCS, Journal of the American Oil Chemists Society</i> , 1998 , 75, 1527-1531	1.8	68
498	Chemoenzymatic dynamic kinetic resolution of acyloins. <i>Journal of Organic Chemistry</i> , 2005 , 70, 9551-5	4.2	68
497	Revealing the Structural Basis of Promiscuous Amine Transaminase Activity. <i>ChemCatChem</i> , 2013 , 5, 154-157	5.2	67
496	Thermostable lipases from the extreme thermophilic anaerobic bacteria <i>Thermoanaerobacter thermohydrosulfuricus</i> SOL1 and <i>Caldanaerobacter subterraneus</i> subsp. <i>tengcongensis</i> . <i>Extremophiles</i> , 2009 , 13, 769-83	3	67
495	Two-step enzymatic reaction for the synthesis of pure structured triacylglycerides. <i>JAOCS, Journal of the American Oil Chemists Society</i> , 1998 , 75, 703-710	1.8	67
494	Direct biocatalytic one-pot-transformation of cyclohexanol with molecular oxygen into e-caprolactone. <i>Enzyme and Microbial Technology</i> , 2013 , 53, 288-92	3.8	65
493	Rapid screening of hydrolases for the enantioselective conversion of difficult-to-resolve substrates. <i>Tetrahedron: Asymmetry</i> , 2000 , 11, 4781-4790		64
492	Lipase of <i>Pseudomonas cepacia</i> for biotechnological purposes: purification, crystallization and characterization. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1994 , 1201, 55-60	4	64
491	A self-sufficient Baeyer-Villiger biocatalysis system for the synthesis of e-caprolactone from cyclohexanol. <i>Enzyme and Microbial Technology</i> , 2013 , 53, 283-7	3.8	63
490	Converting an esterase into an epoxide hydrolase. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 3532-5	16.4	63

489	Creation of a lipase highly selective for trans fatty acids by protein engineering. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 412-4	16.4	62
488	Directed evolution of an esterase from <i>Pseudomonas fluorescens</i> yields a mutant with excellent enantioselectivity and activity for the kinetic resolution of a chiral building block. <i>ChemBioChem</i> , 2006 , 7, 805-9	3.8	62
487	Cloning, expression and characterization of a Baeyer-Villiger monooxygenase from <i>Pseudomonas putida</i> KT2440. <i>Biotechnology Letters</i> , 2007 , 29, 1393-8	3	61
486	CO ₂ fixation through hydrogenation by chemical or enzymatic methods. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 4527-8	16.4	60
485	Extracellular production of active <i>Rhizopus oryzae</i> lipase by <i>Saccharomyces cerevisiae</i> . <i>Journal of Bioscience and Bioengineering</i> , 1998 , 86, 164-168		60
484	The metagenome-derived enzymes LipS and LipT increase the diversity of known lipases. <i>PLoS ONE</i> , 2012 , 7, e47665	3.7	60
483	Connecting Unexplored Protein Crystal Structures to Enzymatic Function. <i>ChemCatChem</i> , 2013 , 5, 150-153	5.3	59
482	Regulation of catalytic behaviour of hydrolases through interactions with functionalized carbon-based nanomaterials. <i>Journal of Nanoparticle Research</i> , 2012 , 14, 1	2.3	59
481	Cloning, expression, and characterization of a Baeyer-Villiger monooxygenase from <i>Pseudomonas fluorescens</i> DSM 50106 in <i>E. coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2007 , 73, 1065-72	5.7	59
480	Getting Momentum: From Biocatalysis to Advanced Synthetic Biology. <i>Trends in Biochemical Sciences</i> , 2018 , 43, 180-198	10.3	58
479	Alkene hydrogenation activity of enoate reductases for an environmentally benign biosynthesis of adipic acid. <i>Chemical Science</i> , 2017 , 8, 1406-1413	9.4	58
478	Highly Enantioselective Synthesis of Arylaliphatic Tertiary Alcohols using Mutants of an Esterase from <i>Bacillus subtilis</i> . <i>Advanced Synthesis and Catalysis</i> , 2007 , 349, 1393-1398	5.6	57
477	Highly enantioselective kinetic resolution of two tertiary alcohols using mutants of an esterase from <i>Bacillus subtilis</i> . <i>Protein Engineering, Design and Selection</i> , 2007 , 20, 125-31	1.9	57
476	The Use of Vinyl Esters Significantly Enhanced Enantioselectivities and Reaction Rates in Lipase-Catalyzed Resolutions of Arylaliphatic Carboxylic Acids. <i>Journal of Organic Chemistry</i> , 1999 , 64, 1709-1712	4.2	57
475	Fully automatized high-throughput enzyme library screening using a robotic platform. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 1421-32	4.9	55
474	A colorimetric assay suitable for screening epoxide hydrolase activity. <i>Analytica Chimica Acta</i> , 1999 , 391, 345-351	6.6	54
473	Biotransformation of Linoleic Acid into Hydroxy Fatty Acids and Carboxylic Acids Using a Linoleate Double Bond Hydratase as Key Enzyme. <i>Advanced Synthesis and Catalysis</i> , 2015 , 357, 408-416	5.6	53
472	A marine bacterial enzymatic cascade degrades the algal polysaccharide ulvan. <i>Nature Chemical Biology</i> , 2019 , 15, 803-812	11.7	52

471	Non-Racemic Halohydrins via Biocatalytic Hydrogen-Transfer Reduction of Halo-Ketones and One-Pot Cascade Reaction to Enantiopure Epoxides. <i>Advanced Synthesis and Catalysis</i> , 2005 , 347, 1827-1834	5.6	52
470	From waste to value Direct utilization of limonene from orange peel in a biocatalytic cascade reaction towards chiral carvolactone. <i>Green Chemistry</i> , 2017 , 19, 367-371	10	51
469	Cloning, expression, characterization and role of the leader sequence of a lipase from <i>Rhizopus oryzae</i> . <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 1998 , 1399, 173-80		51
468	Directed evolution of a Baeyer-Villiger monooxygenase to enhance enantioselectivity. <i>Applied Microbiology and Biotechnology</i> , 2008 , 81, 465-72	5.7	51
467	Understanding promiscuous amidase activity of an esterase from <i>Bacillus subtilis</i> . <i>ChemBioChem</i> , 2008 , 9, 67-9	3.8	51
466	Highlights in Biocatalysis Historical Landmarks and Current Trends. <i>Engineering in Life Sciences</i> , 2005 , 5, 309-323	3.4	51
465	Hot spots for the protein engineering of Baeyer-Villiger monooxygenases. <i>Biotechnology Advances</i> , 2018 , 36, 247-263	17.8	51
464	The crystal structure of an esterase from the hyperthermophilic microorganism <i>Pyrobaculum calidifontis</i> VA1 explains its enantioselectivity. <i>Applied Microbiology and Biotechnology</i> , 2011 , 91, 1061-72	5.7	50
463	A single residue influences the reaction mechanism of ammonia lyases and mutases. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 3362-5	16.4	50
462	Protein engineering and discovery of lipases. <i>European Journal of Lipid Science and Technology</i> , 2010 , 112, 64-74	3	50
461	The effect of disulfide bond introduction and related Cys/Ser mutations on the stability of a cyclohexanone monooxygenase. <i>Journal of Biotechnology</i> , 2015 , 214, 199-211	3.7	48
460	Engineering and application of enzymes for lipid modification, an update. <i>Progress in Lipid Research</i> , 2016 , 63, 153-64	14.3	48
459	Isoenzymes of pig-liver esterase reveal striking differences in enantioselectivities. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 8492-4	16.4	48
458	A Protection Strategy Substantially Enhances Rate and Enantioselectivity in Transaminase-Catalyzed Kinetic Resolutions. <i>Advanced Synthesis and Catalysis</i> , 2008 , 350, 807-812	5.6	48
457	Enantioselective Hydrolysis of d,l-Menthyl Benzoate to L-(+)-Menthol by Recombinant <i>Candida rugosa</i> Lipase LIP1. <i>Advanced Synthesis and Catalysis</i> , 2002 , 344, 1152-1155	5.6	48
456	Conformational fitting of a flexible oligomeric substrate does not explain the enzymatic PET degradation. <i>Nature Communications</i> , 2019 , 10, 5581	17.4	48
455	Enzymes in Lipid Modification. <i>Annual Review of Food Science and Technology</i> , 2018 , 9, 85-103	14.7	47
454	Efficient Reduction of Ethyl 2-Oxo-4-phenylbutyrate at 620 g/L by a Bacterial Reductase with Broad Substrate Spectrum. <i>Advanced Synthesis and Catalysis</i> , 2011 , 353, 1213-1217	5.6	46

453	Enantioselectivity of a recombinant esterase from <i>Pseudomonas fluorescens</i> towards alcohols and carboxylic acids. <i>Journal of Biotechnology</i> , 1998 , 60, 105-11	3.7	46
452	Thermophilic whole-cell degradation of polyethylene terephthalate using engineered <i>Clostridium thermocellum</i> . <i>Microbial Biotechnology</i> , 2021 , 14, 374-385	6.3	46
451	Kinetic resolution of 4-hydroxy-2-ketones catalyzed by a Baeyer-Villiger monooxygenase. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 7004-6	16.4	45
450	Enzymatic removal of carboxyl protecting groups. 1. Cleavage of the tert-butyl moiety. <i>Journal of Organic Chemistry</i> , 2005 , 70, 3737-40	4.2	45
449	Cloning, functional expression, and characterization of recombinant pig liver esterase. <i>ChemBioChem</i> , 2001 , 2, 576-82	3.8	45
448	Mutational analysis of phenylalanine ammonia lyase to improve reactions rates for various substrates. <i>Protein Engineering, Design and Selection</i> , 2010 , 23, 929-33	1.9	44
447	Functional expression, purification, and characterization of the recombinant Baeyer-Villiger monooxygenase MekA from <i>Pseudomonas veronii</i> MEK700. <i>Applied Microbiology and Biotechnology</i> , 2008 , 77, 1251-60	5.7	44
446	Enzymatic conversion of flavonoids using bacterial chalcone isomerase and enoate reductase. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 1439-42	16.4	43
445	Use of 'small but smart' libraries to enhance the enantioselectivity of an esterase from <i>Bacillus stearothermophilus</i> towards tetrahydrofuran-3-yl acetate. <i>FEBS Journal</i> , 2013 , 280, 3084-93	5.7	43
444	Enzyme fusion for whole-cell biotransformation of long-chain sec-alcohols into esters. <i>Applied Microbiology and Biotechnology</i> , 2015 , 99, 6267-75	5.7	42
443	Activity and stability of lipase in the solid-phase glycerolysis of triolein. <i>Enzyme and Microbial Technology</i> , 1994 , 16, 864-869	3.8	42
442	A Fed-Batch Synthetic Strategy for a Three-Step Enzymatic Synthesis of Poly- ϵ -caprolactone. <i>ChemCatChem</i> , 2016 , 8, 3446-3452	5.2	42
441	Switching the Regioselectivity of a Cyclohexanone Monooxygenase toward (+)-trans-Dihydrocarvone by Rational Protein Design. <i>ACS Chemical Biology</i> , 2016 , 11, 38-43	4.9	41
440	Immobilization of (R)- and (S)-amine transaminases on chitosan support and their application for amine synthesis using isopropylamine as donor. <i>Journal of Biotechnology</i> , 2014 , 191, 32-7	3.7	41
439	Synthesis of 2-monoglycerides by alcoholysis of palm oil and tuna oil using immobilized lipases. <i>European Journal of Lipid Science and Technology</i> , 2003 , 105, 68-73	3	41
438	Enhancing the Acyltransferase Activity of <i>Candida antarctica</i> Lipase A by Rational Design. <i>ChemBioChem</i> , 2015 , 16, 1791-6	3.8	40
437	Biocatalytic Access to Chiral Polyesters by an Artificial Enzyme Cascade Synthesis. <i>ChemCatChem</i> , 2015 , 7, 3951-3955	5.2	40
436	Multistep Enzymatic Synthesis of Long-Chain β -Dicarboxylic and β -Hydroxycarboxylic Acids from Renewable Fatty Acids and Plant Oils. <i>Angewandte Chemie</i> , 2013 , 125, 2594-2597	3.6	40

435	A New Route to Protected Acyloins and Their Enzymatic Resolution with Lipases. <i>European Journal of Organic Chemistry</i> , 2004 , 2004, 1063-1074	3.2	40
434	Fluorophoric assay for the high-throughput determination of amidase activity. <i>Analytical Chemistry</i> , 2003 , 75, 255-60	7.8	40
433	By Overexpression in the Yeast <i>Pichia pastoris</i> to Enhanced Enantioselectivity: New Aspects in the Application of Pig Liver Esterase. <i>Angewandte Chemie - International Edition</i> , 2001 , 40, 2851-2853	16.4	40
432	Enzymatic removal of 3-monochloro-1,2-propanediol (3-MCPD) and its esters from oils. <i>European Journal of Lipid Science and Technology</i> , 2010 , 112, NA-NA	3	39
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