

# Uwe T Bornscheuer

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Algorithm-aided engineering of aliphatic halogenase WelO5* for the asymmetric late-stage functionalization of soraphens.. <i>Nature Communications</i> , <b>2022</b> , 13, 371	17.4	8
577	Engineering and evaluation of thermostable PETase variants for PET degradation.. <i>Engineering in Life Sciences</i> , <b>2022</b> , 22, 192-203	3.4	9
576	Mechanism-Based Design of Efficient PET Hydrolases.. <i>ACS Catalysis</i> , <b>2022</b> , 12, 3382-3396	13.1	11
575	Biosensor and chemo-enzymatic one-pot cascade applications to detect and transform PET-derived terephthalic acid in living cells. <i>iScience</i> , <b>2022</b> , 104326	6.1	1
574	Enzymatic Photometric Assays for the Selective Detection of Halides. <i>Methods in Molecular Biology</i> , <b>2022</b> , 361-375	1.4	
573	A chemoenzymatic cascade with the potential to feed the world and allow humans to live in space. <i>Engineering Microbiology</i> , <b>2021</b> , 2, 100006		0
572	Pinene-Based Oxidative Synthetic Toolbox for Scalable Polyester Synthesis. <i>Jacs Au</i> , <b>2021</b> , 1, 1949-1960		4
571	Biotechnological Production and Sensory Evaluation of $\alpha$ -Unsaturated Aldehydes. <i>Journal of Agricultural and Food Chemistry</i> , <b>2021</b> , 69, 345-353	5.7	3
570	Droplet microfluidics: From simple activity screening to sophisticated kinetics. <i>Chem</i> , <b>2021</b> , 7, 835-838	16.2	1
569	From Natural Methylation to Versatile Alkylations Using Halide Methyltransferases. <i>ChemBioChem</i> , <b>2021</b> , 22, 2584-2590	3.8	6
568	Fettsäuren und Fettsäurederivate als nachwachsende Plattformmoleküle für die chemische Industrie. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 20304-20326	3.6	1
567	Promiscuous Dehalogenase Activity of the Epoxide Hydrolase CorEH from <i>Corynebacterium</i> sp. C12. <i>ACS Catalysis</i> , <b>2021</b> , 11, 6113-6120	13.1	1
566	An ADH toolbox for raspberry ketone production from natural resources via a biocatalytic cascade. <i>Applied Microbiology and Biotechnology</i> , <b>2021</b> , 105, 4189-4197	5.7	1
565	Marine Polysaccharides: Occurrence, Enzymatic Degradation and Utilization. <i>ChemBioChem</i> , <b>2021</b> , 22, 2247-2256	3.8	13
564	Fatty Acids and their Derivatives as Renewable Platform Molecules for the Chemical Industry. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 20144-20165	16.4	33
563	Engineering the protein dynamics of an ancestral luciferase. <i>Nature Communications</i> , <b>2021</b> , 12, 3616	17.4	9
562	Entdeckung neuer bakterieller Chalconisomerasen durch eine Sequenz-Struktur-Funktions-Evolutions-Strategie für die enzymatische Synthese von (S)-Flavanonen. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 17011-17016	3.6	0

561	Discovery of Novel Bacterial Chalcone Isomerases by a Sequence-Structure-Function-Evolution Strategy for Enzymatic Synthesis of (S)-Flavanones. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 16874-16879	16.4	1
560	Enzymatic degradation of polyethylene terephthalate nanoplastics analyzed in real time by isothermal titration calorimetry. <i>Science of the Total Environment</i> , <b>2021</b> , 773, 145111	10.2	14
559	Thermophilic whole-cell degradation of polyethylene terephthalate using engineered <i>Clostridium thermocellum</i> . <i>Microbial Biotechnology</i> , <b>2021</b> , 14, 374-385	6.3	46
558	Biocatalysis: Enzymatic Synthesis for Industrial Applications. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 88-119	16.4	226
557	Biokatalyse: Enzymatische Synthese für industrielle Anwendungen. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 89-123	3.6	29
556	Entdeckung und Design promiskuitiver Acyltransferase-Aktivität in Carboxylesterasen der Familie VIII. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 2041-2045	3.6	
555	Discovery and Design of Family VIII Carboxylesterases as Highly Efficient Acyltransferases. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 2013-2017	16.4	11
554	Modifikation der Regioselektivität einer P450-Monooxygenase ermöglicht die Synthese von Ursodeoxycholsäure durch die 7 $\beta$ -Hydroxylierung von Lithocholsäure. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 764-768	3.6	0
553	Engineering Regioselectivity of a P450 Monooxygenase Enables the Synthesis of Ursodeoxycholic Acid via 7 $\beta$ -Hydroxylation of Lithocholic Acid. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 753-757	16.4	10
552	Repositioning microbial biotechnology against COVID-19: the case of microbial production of flavonoids. <i>Microbial Biotechnology</i> , <b>2021</b> , 14, 94-110	6.3	11
551	Kinetics Modeling of a Convergent Cascade Catalyzed by Monooxygenase/Alcohol Dehydrogenase Coupled Enzymes. <i>Organic Process Research and Development</i> , <b>2021</b> , 25, 411-420	3.9	0
550	Die gerichtete Evolution einer Halogenid-Methyltransferase erlaubt die biokatalytische Synthese diverser SAM-Analoga. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 1547-1551	3.6	9
549	Directed Evolution of a Halide Methyltransferase Enables Biocatalytic Synthesis of Diverse SAM Analogs. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 1524-1527	16.4	23
548	Recent advances in (chemo)enzymatic cascades for upgrading bio-based resources. <i>Chemical Communications</i> , <b>2021</b> , 57, 10661-10674	5.8	3
547	Fluorimetric high-throughput screening method for polyester hydrolase activity using polyethylene terephthalate nanoparticles. <i>Methods in Enzymology</i> , <b>2021</b> , 648, 253-270	1.7	6
546	Recent trends in biocatalysis. <i>Chemical Society Reviews</i> , <b>2021</b> , 50, 8003-8049	58.5	38
545	Efficient Acylation of Sugars and Oligosaccharides in Aqueous Environment Using Engineered Acyltransferases. <i>ACS Catalysis</i> , <b>2021</b> , 11, 2831-2836	13.1	7
544	Biocatalysis in the Recycling Landscape for Synthetic Polymers and Plastics towards Circular Textiles. <i>ChemSusChem</i> , <b>2021</b> , 14, 4028-4040	8.3	11

543	Directed evolution of an amine transaminase for the synthesis of an Apremilast intermediate via kinetic resolution. <i>Bioorganic and Medicinal Chemistry</i> , <b>2021</b> , 43, 116271	3.4	1
542	LuxAB-Based Microbial Cell Factories for the Sensing, Manufacturing and Transformation of Industrial Aldehydes. <i>Catalysts</i> , <b>2021</b> , 11, 953	4	2
541	Rational Design for Enhanced Acyltransferase Activity in Water Catalyzed by the VA1 Esterase. <i>Microorganisms</i> , <b>2021</b> , 9,	4.9	1
540	MIXed plastics biodegradation and UPcycling using microbial communities: EU Horizon 2020 project MIX-UP started January 2020. <i>Environmental Sciences Europe</i> , <b>2021</b> , 33, 99	5	10
539	Chemo-Biological Upcycling of Poly(ethylene terephthalate) to Multifunctional Coating Materials. <i>ChemSusChem</i> , <b>2021</b> , 14, 4251-4259	8.3	7
538	Asymmetric Cation-Olefin Monocyclization by Engineered Squalene-Hopene Cyclases. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 26080-26086	16.4	4
537	Asymmetric Cation-Olefin Monocyclization by Engineered Squalene-Hopene Cyclases. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 26284	3.6	1
536	A new carbohydrate-active oligosaccharide dehydratase is involved in the degradation of ulvan. <i>Journal of Biological Chemistry</i> , <b>2021</b> , 297, 101210	5.4	0
535	The metabolic potential of plastics as biotechnological carbon sources - Review and targets for the future.. <i>Metabolic Engineering</i> , <b>2021</b> ,	9.7	6
534	Two novel cyanobacterial $\beta$ -dioxygenases for the biosynthesis of fatty aldehydes. <i>Applied Microbiology and Biotechnology</i> , <b>2021</b> , 106, 197	5.7	0
533	Bakterielle Mechanismen der marinen Polysaccharidverwertung. <i>BioSpektrum</i> , <b>2020</b> , 26, 800-802	0.1	
532	A Biocatalytic Cascade Reaction to Access a Valuable Long-Chain $\beta$ -Hydroxy Fatty Acid. <i>ChemCatChem</i> , <b>2020</b> , 12, 4084-4089	5.2	2
531	Protein Engineering for Enhanced Acyltransferase Activity, Substrate Scope, and Selectivity of the Mycobacterium smegmatis Acyltransferase MsAct. <i>ACS Catalysis</i> , <b>2020</b> , 10, 7552-7562	13.1	22
530	Glycoside hydrolase (PelA) immobilization prevents Pseudomonas aeruginosa biofilm formation on cellulose-based wound dressing. <i>Carbohydrate Polymers</i> , <b>2020</b> , 246, 116625	10.3	12
529	Highly selective bile acid hydroxylation by the multifunctional bacterial P450 monooxygenase CYP107D1 (OleP). <i>Biotechnology Letters</i> , <b>2020</b> , 42, 819-824	3	6
528	Whole-Cell Photoenzymatic Cascades to Synthesize Long-Chain Aliphatic Amines and Esters from Renewable Fatty Acids. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 7024-7028	16.4	34
527	Whole-Cell Photoenzymatic Cascades to Synthesize Long-Chain Aliphatic Amines and Esters from Renewable Fatty Acids. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 7090-7094	3.6	15
526	Creation of ( $\beta$ )-Amine Transaminase Activity within an $\alpha$ -Amino Acid Transaminase Scaffold. <i>ACS Chemical Biology</i> , <b>2020</b> , 15, 416-424	4.9	12

525	Folding Assessment of Incorporation of Noncanonical Amino Acids Facilitates Expansion of Functional-Group Diversity for Enzyme Engineering. <i>Chemistry - A European Journal</i> , <b>2020</b> , 26, 12338-12342	4.8	5
524	Sequence-Based Prediction of Promiscuous Acyltransferase Activity in Hydrolases. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 11704-11709	3.6	9
523	Sequence-Based Prediction of Promiscuous Acyltransferase Activity in Hydrolases. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 11607-11612	16.4	25
522	Influence of Substrate Binding Residues on the Substrate Scope and Regioselectivity of a Plant O-Methyltransferase against Flavonoids. <i>ChemCatChem</i> , <b>2020</b> , 12, 3721-3727	5.2	2
521	Jeffamine <sup>®</sup> ED-600: a polyether amine donor for enzymatic transamination in organic solvent/solvent-free medium with membrane-assisted product extraction. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2020</b> , 95, 604-613	3.5	3
520	A whole-cell process for the production of $\epsilon$ -caprolactone in aqueous media. <i>Process Biochemistry</i> , <b>2020</b> , 88, 22-30	4.8	8
519	Design and engineering of whole-cell biocatalytic cascades for the valorization of fatty acids. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 46-64	5.5	26
518	An Ultrasensitive Fluorescence Assay for the Detection of Halides and Enzymatic Dehalogenation. <i>ChemCatChem</i> , <b>2020</b> , 12, 2032-2039	5.2	5
517	Three-liquid-phase Spinning Reactor for the Transaminase-catalyzed Synthesis and Recovery of a Chiral Amine. <i>ChemCatChem</i> , <b>2020</b> , 12, 1288-1291	5.2	1
516	Baeyer-Villiger monooxygenases: From protein engineering to biocatalytic applications. <i>The Enzymes</i> , <b>2020</b> , 47, 231-281	2.3	7
515	Enhancement of Lipase CAL-A Selectivity by Protein Engineering for the Hydrolysis of Erucic Acid from Crambe Oil. <i>European Journal of Lipid Science and Technology</i> , <b>2020</b> , 122, 1900115	3	5
514	Targeted Enzyme Engineering Unveiled Unexpected Patterns of Halogenase Stabilization. <i>ChemCatChem</i> , <b>2020</b> , 12, 818-831	5.2	16
513	A multi-enzyme cascade reaction for the production of 6-hydroxyhexanoic acid. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , <b>2019</b> , 74, 71-76	1.7	16
512	A Novel High-Throughput Assay Enables the Direct Identification of Acyltransferases. <i>Catalysts</i> , <b>2019</b> , 9, 64	4	12
511	Gerichtete Evolution ermöglicht das Design von maßgeschneiderten Proteinen zur nachhaltigen Produktion von Chemikalien und Pharmazeutika. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 36-41	3.6	18
510	Specific Residues Expand the Substrate Scope and Enhance the Regioselectivity of a Plant O-Methyltransferase. <i>ChemCatChem</i> , <b>2019</b> , 11, 3227-3233	5.2	3
509	Random Mutagenesis-Driven Improvement of Carboxylate Reductase Activity using an Amino Benzamidoxime-Mediated High-Throughput Assay. <i>Advanced Synthesis and Catalysis</i> , <b>2019</b> , 361, 2544	5.6	18
508	Substrate-Independent High-Throughput Assay for the Quantification of Aldehydes. <i>Advanced Synthesis and Catalysis</i> , <b>2019</b> , 361, 2538	5.6	18

507	Structure of the plastic-degrading <i>Ideonella sakaiensis</i> MHETase bound to a substrate. <i>Nature Communications</i> , <b>2019</b> , 10, 1717	17.4	146
506	Application of novel High Molecular Weight amine donors in chiral amine synthesis facilitates integrated downstream processing and provides in situ product recovery opportunities. <i>Process Biochemistry</i> , <b>2019</b> , 80, 17-25	4.8	4
505	A Retro-biosynthesis-Based Route to Generate Pinene-Derived Polyesters. <i>ChemBioChem</i> , <b>2019</b> , 20, 1664-1671	11.2	12
504	Maghemite nanoparticles stabilize the protein corona formed with transferrin presenting different iron-saturation levels. <i>Nanoscale</i> , <b>2019</b> , 11, 16063-16070	7.7	13
503	A marine bacterial enzymatic cascade degrades the algal polysaccharide ulvan. <i>Nature Chemical Biology</i> , <b>2019</b> , 15, 803-812	11.7	52
502	Maßgeschneiderte Proteine. <i>Chemie in Unserer Zeit</i> , <b>2019</b> , 53, 382-385	0.2	
501	Strategies for enriching erucic acid from <i>Crambe abyssinica</i> oil by improved <i>Candida antarctica</i> lipase A variants. <i>Process Biochemistry</i> , <b>2019</b> , 79, 65-73	4.8	14
500	How To Break the Janus Effect of H <sub>2</sub> O <sub>2</sub> in Biocatalysis? Understanding Inactivation Mechanisms To Generate more Robust Enzymes. <i>ACS Catalysis</i> , <b>2019</b> , 9, 2916-2921	13.1	15
499	Enrichment of Erucic and Gondoic Fatty Acids from <i>Crambe</i> and <i>Camelina</i> Oils Catalyzed by <i>Geotrichum candidum</i> Lipases I and II. <i>JAOCs, Journal of the American Oil Chemists Society</i> , <b>2019</b> , 96, 1327-1335	1.8	4
498	Conformational fitting of a flexible oligomeric substrate does not explain the enzymatic PET degradation. <i>Nature Communications</i> , <b>2019</b> , 10, 5581	17.4	48
497	One-Pot Bioconversion of l-Arabinose to l-Ribulose in an Enzymatic Cascade. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 2428-2432	16.4	21
496	Biocatalytic Production of Amino Carbohydrates through Oxidoreductase and Transaminase Cascades. <i>ChemSusChem</i> , <b>2019</b> , 12, 848-857	8.3	21
495	Enzyme Cascade Reactions for the Biosynthesis of Long Chain Aliphatic Amines from Renewable Fatty Acids. <i>Advanced Synthesis and Catalysis</i> , <b>2019</b> , 361, 1359-1367	5.6	21
494	One-Pot Bioconversion of l-Arabinose to l-Ribulose in an Enzymatic Cascade. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 2450-2454	3.6	5
493	Directed Evolution Empowered Redesign of Natural Proteins for the Sustainable Production of Chemicals and Pharmaceuticals. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 36-40	16.4	112
492	Biocatalytic Cascade Reaction for the Asymmetric Synthesis of L- and D-Homoalanine. <i>ChemCatChem</i> , <b>2019</b> , 11, 407-411	5.2	12
491	Oxidative demethylation of algal carbohydrates by cytochrome P450 monooxygenases. <i>Nature Chemical Biology</i> , <b>2018</b> , 14, 342-344	11.7	34
490	Getting Momentum: From Biocatalysis to Advanced Synthetic Biology. <i>Trends in Biochemical Sciences</i> , <b>2018</b> , 43, 180-198	10.3	58

489	Enzymes in Lipid Modification. <i>Annual Review of Food Science and Technology</i> , <b>2018</b> , 9, 85-103	14.7	47
488	Enzymatically Modified Shea Butter and Palm Kernel Oil as Potential Lipid Drug Delivery Matrices. <i>European Journal of Lipid Science and Technology</i> , <b>2018</b> , 120, 1700332	3	3
487	Opportunities and challenges for combining chemo- and biocatalysis. <i>Nature Catalysis</i> , <b>2018</b> , 1, 12-22	36.5	333
486	Asymmetric Synthesis of Chiral Halogenated Amines using Amine Transaminases. <i>ChemCatChem</i> , <b>2018</b> , 10, 951-955	5.2	14
485	Library Growth and Protein Expression: Optimal and Reproducible Microtiter Plate Expression of Recombinant Enzymes in E. coli Using MTP Shakers. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1685, 145-156	1.4	
484	Solid-Phase Agar Plate Assay for Screening Amine Transaminases. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1685, 283-296	1.4	1
483	Normalized Screening of Protein Engineering Libraries by Split-GFP Crude Cell Extract Quantification. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1685, 157-170	1.4	2
482	Baeyer-Villiger monooxygenases from <i>Yarrowia lipolytica</i> catalyze preferentially sulfoxidations. <i>Enzyme and Microbial Technology</i> , <b>2018</b> , 109, 31-42	3.8	18
481	Co-expression of an alcohol dehydrogenase and a cyclohexanone monooxygenase for cascade reactions facilitates the regeneration of the NADPH cofactor. <i>Enzyme and Microbial Technology</i> , <b>2018</b> , 108, 53-58	3.8	34
480	Enzymes in Lipid Modification: An Overview <b>2018</b> , 1-9		5
479	Protein Engineering of the Progesterone Hydroxylating P450-Monooxygenase CYP17A1 Alters Its Regioselectivity. <i>ChemBioChem</i> , <b>2018</b> , 19, 1954-1958	3.8	6
478	β-Phenylalanine Ester Synthesis from Stable β-Keto Ester Substrate Using Engineered β-Transaminases. <i>Molecules</i> , <b>2018</b> , 23,	4.8	9
477	Alteration of Chain Length Selectivity of Lipase A by Semi-Rational Design for the Enrichment of Erucic and Gondoic Fatty Acids. <i>Advanced Synthesis and Catalysis</i> , <b>2018</b> , 360, 4115-4131	5.6	20
476	Biochemical characterization of an ulvan lyase from the marine flavobacterium <i>Formosa agariphila</i> KMM 3901. <i>Applied Microbiology and Biotechnology</i> , <b>2018</b> , 102, 6987-6996	5.7	24
475	Program-Guided Design of High-Throughput Enzyme Screening Experiments and Automated Data Analysis/Evaluation. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1685, 269-282	1.4	
474	Hot spots for the protein engineering of Baeyer-Villiger monooxygenases. <i>Biotechnology Advances</i> , <b>2018</b> , 36, 247-263	17.8	51
473	Simultaneous detection of NADPH consumption and HO <sub>2</sub> production using the AmplifluorRed assay for screening of P450 activities and uncoupling. <i>Applied Microbiology and Biotechnology</i> , <b>2018</b> , 102, 985-994	5.7	29
472	The fourth wave of biocatalysis is approaching. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2018</b> , 376,	3	82



471	Biocompatible metal-assisted C-C cross-coupling combined with biocatalytic chiral reductions in a concurrent tandem cascade. <i>Chemical Communications</i> , <b>2018</b> , 54, 12978-12981	5.8	18
470	Specificity and mechanism of carbohydrate demethylation by cytochrome P450 monooxygenases. <i>Biochemical Journal</i> , <b>2018</b> , 475, 3875-3886	3.8	7
469	In Silico Based Engineering Approach to Improve Transaminases for the Conversion of Bulky Substrates. <i>ACS Catalysis</i> , <b>2018</b> , 8, 11524-11533	13.1	18
468	Combination of the Suzuki-Miyaura Cross-Coupling Reaction with Engineered Transaminases. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 16009-16013	4.8	30
467	Isopropylamine as Amine Donor in Transaminase-Catalyzed Reactions: Better Acceptance through Reaction and Enzyme Engineering. <i>ChemCatChem</i> , <b>2018</b> , 10, 3943-3949	5.2	22
466	Fusion proteins of an enoate reductase and a Baeyer-Villiger monooxygenase facilitate the synthesis of chiral lactones. <i>Biological Chemistry</i> , <b>2017</b> , 398, 31-37	4.5	24
465	From waste to value Direct utilization of limonene from orange peel in a biocatalytic cascade reaction towards chiral carvolactone. <i>Green Chemistry</i> , <b>2017</b> , 19, 367-371	10	51
464	Kinetic insights into $\gamma$ -caprolactone synthesis: Improvement of an enzymatic cascade reaction. <i>Biotechnology and Bioengineering</i> , <b>2017</b> , 114, 1215-1221	4.9	37
463	An alternative approach towards poly- $\epsilon$ -caprolactone through a chemoenzymatic synthesis: combined hydrogenation, bio-oxidations and polymerization without the isolation of intermediates. <i>Green Chemistry</i> , <b>2017</b> , 19, 1286-1290	10	28
462	Enzyme Technology: History and Current Trends <b>2017</b> , 11-46		3
461	Controlling the Regioselectivity of Baeyer-Villiger Monooxygenases by Mutation of Active-Site Residues. <i>ChemBioChem</i> , <b>2017</b> , 18, 1627-1638	3.8	29
460	NewProt - a protein engineering portal. <i>Protein Engineering, Design and Selection</i> , <b>2017</b> , 30, 441-447	1.9	11
459	Diastereoselective Hydrolysis of Branched Malonate Diesters by Porcine Liver Esterase: Synthesis of 5-Benzyl-Substituted $\alpha$ -Methyl- $\beta$ -proline and Catalytic Evaluation. <i>European Journal of Organic Chemistry</i> , <b>2017</b> , 2017, 3009-3016	3.2	2
458	Kinetic Modeling of an Enzymatic Redox Cascade In Vivo Reveals Bottlenecks Caused by Cofactors. <i>ChemCatChem</i> , <b>2017</b> , 9, 3420-3427	5.2	22
457	A Microtiter Plate-Based Assay to Screen for Active and Stereoselective Hydrolytic Enzymes in Enzyme Libraries. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1539, 197-204	1.4	1
456	A Retrosynthesis Approach for Biocatalysis in Organic Synthesis. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 12040-12063	4.8	126
455	Multiple States of Nitrile Hydratase from <i>Rhodococcus equi</i> TG328-2: Structural and Mechanistic Insights from Electron Paramagnetic Resonance and Density Functional Theory Studies. <i>Biochemistry</i> , <b>2017</b> , 56, 3068-3077	3.2	8
454	Amine Transaminase Engineering for Spatially Bulky Substrate Acceptance. <i>ChemBioChem</i> , <b>2017</b> , 18, 1022-1026	3.8	30



453	First chemo-enzymatic synthesis of the (-)-Taniguchi lactone and substrate profiles of CAMO and OTEMO, two new Baeyer-Villiger monooxygenases. <i>Monatshefte Für Chemie</i> , <b>2017</b> , 148, 157-165	1.4	15
452	Biotransformation and reduction of estrogenicity of bisphenol A by the biphenyl-degrading <i>Cupriavidus basilensis</i> . <i>Applied Microbiology and Biotechnology</i> , <b>2017</b> , 101, 3743-3758	5.7	9
451	A Systematic Analysis of the Substrate Scope of (S)- and (R)-Selective Amine Transaminases. <i>Advanced Synthesis and Catalysis</i> , <b>2017</b> , 359, 4235-4243	5.6	13
450	CorNet: Assigning function to networks of co-evolving residues by automated literature mining. <i>PLoS ONE</i> , <b>2017</b> , 12, e0176427	3.7	11
449	Evolving Enzymes for Biocatalysis <b>2017</b> , 271-287		
448	Asymmetric synthesis of serinol-monoesters catalyzed by amine transaminases. <i>Tetrahedron: Asymmetry</i> , <b>2017</b> , 28, 1183-1187		4
447	New Ligands <b>2017</b> , 809-950		0
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312	Computational Protein Design <b>2011</b> , 325-342		
311	Engineering Enantioselectivity in Enzyme-Catalyzed Reactions <b>2011</b> , 15-46		1
310	Mechanism and Catalytic Promiscuity: Emerging Mechanistic Principles for Identification and Manipulation of Catalytically Promiscuous Enzymes <b>2011</b> , 47-79		4

309	Value Analysis of Protein Folding Transition States <b>2011</b> , 81-120	3
308	Protein Folding and Solubility: Pathways and High-Throughput Assays <b>2011</b> , 121-145	
307	Protein Dynamics and the Evolution of Novel Protein Function <b>2011</b> , 147-185	2
306	Gaining Insight into Enzyme Function through Correlation with Protein Motions <b>2011</b> , 187-211	
305	Microbes and Enzymes: Recent Trends and New Directions to Expand Protein Space <b>2011</b> , 233-269	2
304	From Prospecting to Product Industrial Metagenomics Is Coming of Age <b>2011</b> , 295-323	0
303	Assessing and Exploiting the Persistence of Substrate Ambiguity in Modern Protein Catalysts <b>2011</b> , 343-362	
302	Circular Permutation of Proteins <b>2011</b> , 453-471	2
301	A Method for Rapid Directed Evolution <b>2011</b> , 409-439	1
300	Evolution of Enantioselective <i>Bacillus subtilis</i> Lipase <b>2011</b> , 441-451	1
299	Incorporating Synthetic Oligonucleotides via Gene Reassembly (ISOR): A Versatile Tool for Generating Targeted Libraries <b>2011</b> , 473-480	
298	Protein Engineering by Structure-Guided SCHEMA Recombination <b>2011</b> , 481-492	1
297	Protein Generation Using a Reconstituted System <b>2011</b> , 515-535	
296	Chimeragenesis in Protein Engineering <b>2011</b> , 493-514	
295	Equipping in vivo Selection Systems with Tunable Stringency <b>2011</b> , 537-561	1
294	Screening Methodologies for Glycosidic Bond Formation <b>2011</b> , 605-620	
293	Protein Engineering by Phage Display <b>2011</b> , 563-603	
292	Yeast Surface Display in Protein Engineering and Analysis <b>2011</b> , 621-648	1

291	In Vitro Compartmentalization (IVC) and Other High-Throughput Screens of Enzyme Libraries <b>2011</b> , 649-667		
290	Confocal and Conventional Fluorescence-Based High Throughput Screening in Protein Engineering <b>2011</b> , 713-751		
289	Altering Enzyme Substrate and Cofactor Specificity via Protein Engineering <b>2011</b> , 777-796		1
288	Protein Engineering of Modular Polyketide Synthases <b>2011</b> , 797-827		
287	Cyanophycin Synthetases <b>2011</b> , 829-848		2
286	Natural Polyester-Related Proteins: Structure, Function, Evolution and Engineering <b>2011</b> , 877-914		1
285	Silk Proteins [Biomaterials and Bioengineering <b>2011</b> , 939-959		
284	Guidelines for the Functional Analysis of Engineered and Mutant Enzymes <b>2011</b> , 1-13		
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20	Lipase-catalyzed syntheses of monoacylglycerols. <i>Enzyme and Microbial Technology</i> , <b>1995</b> , 17, 578-586	3.8	199
19	Fatty acid vinyl esters as acylating agents: A new method for the enzymatic synthesis of monoacylglycerols. <i>JAOCS, Journal of the American Oil Chemists Society</i> , <b>1995</b> , 72, 193-197	1.8	31
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16	A comparison of different strategies for lipase-catalyzed synthesis of partial glycerides. <i>Biotechnology Letters</i> , <b>1994</b> , 16, 697-702	3	24
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14	Lipase of <i>Pseudomonas cepacia</i> for biotechnological purposes: purification, crystallization and characterization. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>1994</b> , 1201, 55-60	4	64
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12	Application of enantioselective capillary gas chromatography in lipase-catalysed transesterification reactions in organic media. <i>Journal of Chromatography A</i> , <b>1992</b> , 606, 288-290	4.5	4
11	Influences of reaction conditions on the enantioselective transesterification using <i>Pseudomonas cepacia</i> lipase. <i>Tetrahedron: Asymmetry</i> , <b>1991</b> , 2, 1011-1014		24
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