Shau-Wei Tsai

List of Publications by Year
in descending order

87 papers	1,484 citations	279798 23 h-index	414414 32 g-index
89 all docs	89 docs citations	89 times ranked	883 citing authors

#	Article	IF	Citations
1	CALB-catalyzed kinetic resolution of (RS)-3-benzoylthio-2-methylpropyl azolides: kinetic and thermodynamic analysis. Biocatalysis and Biotransformation, 2020, 38, 376-384.	2.0	1
2	Lipase-catalyzed hydrolytic resolution of trans-2-(3,4-difluorophenyl)cyclopropyl azolides, a key building block for Ticagrelor synthesis. Journal of the Taiwan Institute of Chemical Engineers, 2019, 97, 112-118.	5.3	1
3	CALB-Catalyzed Two-Step Alcoholytic Desymmetrization of 3-Methylglutaric Diazolides in MTBE. Applied Biochemistry and Biotechnology, 2018, 185, 578-592.	2.9	1
4	Quantitative Improvements and Insights into CALBâ€Catalyzed Resolution of trans â€•and cis â€2â€Phenylcyclopropyl Azolides. ChemistrySelect, 2018, 3, 5353-5360.	1.5	2
5	Quantitative insights into one-pot sequential asymmetric enzymatic catalytic processes. Journal of the Taiwan Institute of Chemical Engineers, 2017, 74, 79-88.	5.3	1
6	Lipase-catalysed two-step desymmetrization of 2-methylmalonic dipyrazolide for preparation of optically pure enantiomer in organic solvents. Biocatalysis and Biotransformation, 2017, 35, 460-467.	2.0	2
7	Enantiopreference of Candida antarctica lipase B toward carboxylic acids: Substrate models and enantioselectivity thereof. Journal of Molecular Catalysis B: Enzymatic, 2016, 127, 98-116.	1.8	31
8	Quantitative insights and improvements of enzyme activity and stereoselectivity for CALB-catalyzed alcoholysis in two-step desymmetrization. Journal of Molecular Catalysis B: Enzymatic, 2016, 127, 82-88.	1.8	5
9	Kinetic analysis for lipase-catalyzed regioselective methanolysis of (R)- and (S)-2-methylglutaric 2016, 59, 120-125.	5.3	1
10	Two-step desymmetrization of dipyrazolidyl 3-phenylglutarate via lipase-catalyzed hydrolysis in organic solvents. Chemical Engineering Science, 2016, 139, 41-48.	3.8	8
11	Polymer microneedles fabricated from PCL and PCL/PEG blends for transdermal delivery of hydrophilic compounds. Journal of the Taiwan Institute of Chemical Engineers, 2015, 51, 1-8.	5.3	39
12	Kinetic and thermodynamic analysis of Candida antarctica lipase B-catalyzed alcoholytic resolution of (R,S)-Î²-butyrolactone in organic solvents. Applied Microbiology and Biotechnology, 2014, 98, 621-628.	3.6	7
13	Kinetic analysis for lipase-catalyzed hydrolysis of (R,S)-1,2,4-triazolides derived from N-Cbz-proline and (R,S)-N-Cbz-pipecolic acid. Journal of the Taiwan Institute of Chemical Engineers, 2013, 44, 146-151.	5.3	1
14	An efficient lipase-catalyzed enantioselective hydrolysis of (R,S)-azolides derived from N-protected proline, pipecolic acid, and nipecotic acid. Applied Microbiology and Biotechnology, 2013, 97, 1581-1587.	3.6	3
15	Kinetic and Thermodynamic Investigation of Lipase-Catalyzed Hydrolysis of (R,S)-3-Phenylbutyl Azolides. Industrial & Engineering Chemistry Research, 2012, 51, 3580-3586.	3.7	12
16	Kinetic and thermodynamic analysis for lipase-catalyzed hydrolytic resolution of (R,S)-alcohols though their azolyl carbamates. Bioprocess and Biosystems Engineering, 2012, 35, 953-962.	3.4	4
17	(R,S)â€2â€chlorophenoxyl pyrazolides as novel substrates for improving lipaseâ€catalyzed hydrolytic resolution. Chirality, 2012, 24, 60-66.	2.6	8
18	Lipase-catalyzed enantioselective resolution of (R,S)-N-2-methylalkanoyl-3-(2-pyridyl)pyrazoles in organic solvents. Journal of Molecular Catalysis B: Enzymatic, 2011, 68, 245-249.	1.8	13

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19	Lipase-catalyzed hydrolytic resolution of (R,S)-3-hydroxy-3-phenylpropionates in biphasic media. Journal of the Taiwan Institute of Chemical Engineers, 2011, 42, 408-412.	5.3	15
20	Lipase-catalyzed alcoholytic resolution of (R,S)-flurbiprofenyl azolides for preparation of (R)-NO-flurbiprofen ester prodrugs. Process Biochemistry, 2011, 46, 960-965.	3.7	18
21	Improvements of enzyme activity and enantioselectivity in lipase-catalyzed alcoholysis of (R,S)-azolides. Journal of Molecular Catalysis B: Enzymatic, 2010, 62, 235-241.	1.8	25
22	Kinetic resolution of (R,S)-pyrazolides containing substituents in the leaving pyrazole for increased lipase enantioselectivity. Journal of Molecular Catalysis B: Enzymatic, 2010, 66, 113-119.	1.8	21
23	Hydrolytic resolution of (R,S)-3-hydroxy-3-phenylpropionates by esterase from Klebsiella oxytoca: Effects of leaving alcohol, covalent immobilization and aqueous pH. Journal of Molecular Catalysis B: Enzymatic, 2009, 59, 70-75.	1.8	7
24	(R,S)â€Azolides as Novel Substrates for Lipaseâ€Catalyzed Hydrolytic Resolution in Organic Solvents. Advanced Synthesis and Catalysis, 2009, 351, 2333-2341.	4.3	33
25	Modification of enzyme surface negative charges via covalent immobilization for tailoring the activity and enantioselectivity. Journal of the Taiwan Institute of Chemical Engineers, 2009, 40, 364-370.	5.3	9
26	Carica papaya lipase-catalyzed transesterification resolution of secondary alcohols in organic solvents. Journal of the Taiwan Institute of Chemical Engineers, 2009, 40, 549-554.	5.3	10
27	Enzymatic hydrolytic resolution of (R,S)-tropic acid esters and (R,S)-ethyl Î±-methoxyphenyl acetate in biphasic media. Journal of Molecular Catalysis B: Enzymatic, 2009, 57, 158-163.	1.8	15
28	Improvement of enantioselectivity and stability of Klebsiella oxytoca hydrolase immobilized on Eupergit C 250L. Journal of Chemical Technology and Biotechnology, 2008, 83, 1518-1525.	3.2	14
29	Improvements of enzyme activity and enantioselectivity via combined substrate engineering and covalent immobilization. Biotechnology and Bioengineering, 2008, 101, 460-469.	3.3	36
30	Semiempirical Molecular Orbital Studies of the Acylation Step in the Lipaseâ€Catalyzed Ester Hydrolysis. Journal of the Chinese Chemical Society, 2007, 54, 835-842.	1.4	0
31	Hydrolytic resolution of (R,S)-2-hydroxycarboxylic acid esters in biphasic media: Implication for rate-limiting formation or breakdown of tetrahedral intermediates in acylation step. Biotechnology and Bioengineering, 2007, 98, 30-38.	3.3	17
32	Carica papaya lipase: An effective biocatalyst for esterification resolution of (RS)-2-(chlorophenoxy)propionic acid. Biochemical Engineering Journal, 2007, 35, 318-324.	3.6	11
33	Enzymatic hydrolytic resolution of (R,S)-Î±-chlorophenyl acetates in biphasic media. Journal of Molecular Catalysis B: Enzymatic, 2007, 48, 16-22.	1.8	9
34	Comparison of the Lipase Activity in Hydrolysis and Acyl Transfer Reactions of Two Latex Plant Extracts from Babaco (VasconcelleaÃ—HeilborniiCv.) andPlumeria rubra:Â Effect of the Aqueous Microenvironment. Journal of Agricultural and Food Chemistry, 2006, 54, 2726-2731.	5.2	20
35	Kinetic resolution of (R,S)-ethyl 2-chloromandelate in biphasic media using hydrolase of Klebsiella oxytoca. Enzyme and Microbial Technology, 2006, 39, 930-935.	3.2	26
36	Implication of substrate-assisted catalysis on improving lipase activity or enantioselectivity in organic solvents. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 1424-1428.	2.3	31

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37	Investigation of lipases from various Carica papaya varieties for hydrolysis of olive oil and kinetic resolution of (R,S)-profen 2,2,2-trifluoroethyl thioesters. Process Biochemistry, 2006, 41, 540-546.	3.7	12
38	Carica papaya lipase (CPL): An emerging and versatile biocatalyst. Biotechnology Advances, 2006, 24, 493-499.	11.7	62
39	Lipase-catalyzed enantioselective hydrolysis of methyl 2-fluoro-2-arylpropionates in water-saturated isooctane. Journal of Molecular Catalysis B: Enzymatic, 2006, 42, 90-94.	1.8	4
40	Altering lipase activity and enantioselectivity in organic media using organo-soluble bases: Implication for rate-limiting proton transfer in acylation step. Biotechnology and Bioengineering, 2006, 94, 201-208.	3.3	7
41	Lipase-catalyzed dynamic hydrolytic resolution of (R,S)-2,2,2-trifluoroethyl Î±-chlorophenyl acetate in water-saturated isooctane. Journal of Chemical Technology and Biotechnology, 2006, 81, 1715-1721.	3.2	13
42	Carica papaya lipase: a novel biocatalyst for the enantioselective hydrolysis of (R,S)-naproxen 2,2,2-trifluoroethyl ester. Enzyme and Microbial Technology, 2005, 36, 127-132.	3.2	28
43	Resolution of non-protein amino acids via Carica papaya lipase-catalyzed enantioselective transesterification. Tetrahedron: Asymmetry, 2005, 16, 2569-2573.	1.8	18
44	Hydrolytic resolution of (R,S)-ethyl mandelate in biphasic media via Klebsiella oxytoca hydrolase. Enzyme and Microbial Technology, 2005, 37, 266-271.	3.2	24
45	Enantioselective hydrolysis of (R,S)-naproxen 2,2,2-trifluoroethyl ester in water-saturated solvents via lipases from Carica pentagona Heilborn and Carica papaya. Journal of Molecular Catalysis B: Enzymatic, 2005, 34, 51-57.	1.8	22
46	Hydrolytic resolution of (R,S)-naproxen 2,2,2-trifluoroethyl thioester byCarica papaya lipase in water-saturated organic solvents. Biotechnology and Bioengineering, 2005, 89, 88-95.	3.3	18
47	Partially purifiedCarica papayalipase: a versatile biocatalyst for the hydrolytic resolution of (R,S)-2-arylpropionic thioesters in water-saturated organic solvents. Biotechnology and Bioengineering, 2005, 91, 106-113.	3.3	24
48	Racemization and hydrolysis of (S)-naproxen 2,2,2-trifluoroethyl ester in non-polar solvents by strong neutral bases: implication for ion-pair kinetic basicity and hydrolysis. Journal of Physical Organic Chemistry, 2004, 17, 387-392.	1.9	5
49	Enantioselective esterification of (RS)-2-(4-chlorophenoxy)propionic acid via Carica papaya lipase in organic solvents. Tetrahedron: Asymmetry, 2004, 15, 2917-2920.	1.8	28
50	Recovery of lipase by adsorption at then-hexadecane-water interface. Journal of Chemical Technology and Biotechnology, 2003, 78, 1128-1134.	3.2	4
51	Racemization of (S)-Profen Thioesters by Strong Neutral Bases in Nonpolar Organic Solvents:Â Implication for Ion-Pair Kinetic Basicity. Journal of Organic Chemistry, 2002, 67, 3323-3326.	3.2	10
52	Lipase-catalyzed dynamic kinetic resolution of (R,S)-fenoprofen thioester in isooctane. Journal of Chemical Technology and Biotechnology, 2002, 77, 699-705.	3.2	17
53	Extraordinary enantiospecificity of lipase catalysis in organic media induced by purification and catalyst engineering. , 2000, 52, 296-300.		29
54	Dynamic kinetic resolution of suprofen thioester via coupled trioctylamine and lipase catalysis. , 2000, 69, 31-38.		31

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55	Enantioselective Synthesis of (S)-Ibuprofen Ester Prodrug in Cyclohexane by Candida rugosa Lipase Immobilized on Accurel MP1000. Biotechnology Progress, 2000, 16, 986-992.	2.6	52
56	Lipase-Catalyzed Synthesis of (S)-Naproxen Ester Prodrug by Transesterification in Organic Solvents. Applied Biochemistry and Biotechnology, 1999, 80, 205-220.	2.9	6
57	Lipase-catalyzed enantioselective esterification ofS(+)-naproxen ester prodrugs in cyclohexane. Journal of Chemical Technology and Biotechnology, 1999, 74, 751-758.	3.2	10
58	Lipase-catalyzed dynamic resolution of naproxen 2,2,2-trifluoroethyl thioester by hydrolysis in isooctane. , 1999, 64, 120-126.		35
59	Enzymatic resolution of (RS)-2-arylpropionic acid thioesters by Candida rugosa lipase-catalyzed thiotransesterification or hydrolysis in organic solvents. Tetrahedron: Asymmetry, 1998, 9, 2799-2807.	1.8	28
60	Enzymatic Synthesis of (S)-Ibuprofen Ester Prodrug from Racemic Ibuprofen by Lipase in Organic Solvents. Biotechnology Progress, 1997, 13, 82-88.	2.6	47
61	Surfactant effect on enhancing (S)-naproxen prodrug production from racemic naproxen by lipase. Applied Biochemistry and Biotechnology, 1997, 68, 135-142.	2.9	9
62	Enhancement of (S)-naproxen ester productivity from racemic naproxen by lipase in organic solvents. Journal of Chemical Technology and Biotechnology, 1996, 65, 156-162.	3.2	28
63	Surfactant enhancement of (S)-naproxen ester productivity from racemic naproxen by lipase in isooctane. , 1996, 51, 148-156.		18
64	Extraordinary enantiospecificity of lipase catalysis in organic media induced by purification and catalyst engineering. Biotechnology and Bioengineering, 1996, 52, 296-300.	3.3	24
65	Enzyme Separation Using Supported Liquid Membrane Filled with Reversed Micelles. Separation Science and Technology, 1995, 30, 2551-2563.	2.5	2
66	Surfactant Effects on Lipase-Catalyzed Hydrolysis of Olive Oil in AOT/ISOOCTANE Reverse Micelles. Biocatalysis and Biotransformation, 1995, 13, 89-98.	2.0	4
67	Kinetics of Enantioselective Esterification of Naproxen by Lipase in Organic Solvents. Biocatalysis, 1994, 11, 33-45.	0.9	28
68	Effect of solvent on enantioselective esterification of naproxen by lipase with trimethylsilyl methanol. Biotechnology and Bioengineering, 1994, 43, 64-68.	3.3	28
69	Action of lipolytical enzymes in biphasic organic-aqueous systems: Dynamics of the irreversible Michaelis-Menten reaction. Biotechnology and Bioengineering, 1993, 41, 603-611.	3.3	3
70	Self-Normalized Analysis of Lipase-Catalyzed Conversion of Naproxen Enantiomers. Journal of Liquid Chromatography and Related Technologies, 1993, 16, 2993-3001.	1.0	12
71	Kinetics of lipaseâ€catalyzed hydrolysis of lipids in biphasic organicâ€"aqueous systems. Journal of Chemical Technology and Biotechnology, 1993, 57, 147-154.	3.2	40
72	Application of a recycle dialysis system in a reversed micellar reactor. Journal of Chemical Technology and Biotechnology, 1992, 54, 27-32.	3.2	17

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73	Mathematical modelling and simulation of a recycle dialysis membrane reactor in a reversed micellar system. Journal of Chemical Technology and Biotechnology, 1992, 54, 249-255.	3.2	4
74	Kinetics, mechanism, and time course analysis of lipase-catalyzed hydrolysis of high concentration olive oil in AOT-isooctane reversed micelles. Biotechnology and Bioengineering, 1991, 38, 206-211.	3.3	62
75	Kinetics of enzymatic hydrolysis of olive oil in biphasic organic-aqueous systems. Biotechnology and Bioengineering, 1991, 38, 761-766.	3.3	51
76	TURBULENT HEAT TRANSFER IN A RECTANGULAR INTERNAL LOOP REACTOR WITH RECYCLING OF FLUID AT BOTH ENDS. Chemical Engineering Communications, 1990, 95, 153-168.	2.6	0
77	On the examination of recycle on heat (and mass) transfer in concentric tubes. Canadian Journal of Chemical Engineering, 1988, 66, 258-262.	1.7	2
78	HEAT AND MASS TRANSFER IN MIXED CONVECTION OVER A HORIZONTAL PLANE. Numerical Heat Transfer, 1987, 12, 229-242.	0.5	7
79	The Simplified Equation of Separation for the Enrichment of Heavy Water in a Batch-Type Thermal Diffusion Column. Separation Science and Technology, 1987, 22, 1463-1470.	2.5	14
80	A Study of the Separation Efficiency in the Concentric-Tube Countercurrent Separation Process under Generalized Linear Applied Fields and with Recycles at Both Ends. Separation Science and Technology, 1986, 21, 1141-1154.	2.5	0
81	A study of separation efficiency of the continuous thermal diffusion column with an impermeable barrier between plates.. Journal of Chemical Engineering of Japan, 1986, 19, 548-553.	0.6	9
82	A study of separation efficiency in thermal diffusion columns with a permeable vertical barrier. AICHE Journal, 1986, 32, 971-980.	3.6	76
83	Improvement of separation efficiency in the continuousâ€type horizontal thermal diffusion column with permeable barriers between the plates. Canadian Journal of Chemical Engineering, 1986, 64, 687-694.	1.7	2
84	A Study of the Graetz Problems in Concentric-Tube Continuous-Contact Countercurrent Separation Processes with Recycles at Both Ends. Separation Science and Technology, 1986, 21, 403-419.	2.5	25
85	The Improvement of Separation Theory in a Continuous Thermal Diffusion Column. Separation Science and Technology, 1984, 19, 497-514.	2.5	1
86	Separation Efficiency of Rotary Thermal Diffusion Columns with the Inner Tube Cooled and the Outer Tube Heated. Separation Science and Technology, 1982, 17, 1075-1083.	2.5	12
87	Improvement in Separation of Concentric-Tube Thermal Diffusion Columns with Viscous Heat Generation under Consideration of the Curvature Effect. Separation Science and Technology, 1981, 16, 63-73.	2.5	15