

Shau-Wei Tsai

List of Publications by Year in descending order

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87
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1,484
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279798

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414414

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89
docs citations

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times ranked

883
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | A study of separation efficiency in thermal diffusion columns with a permeable vertical barrier. <i>AICHE Journal</i> , 1986, 32, 971-980. | 3.6 | 76 |
| 2 | Kinetics, mechanism, and time course analysis of lipase-catalyzed hydrolysis of high concentration olive oil in AOT-isooctane reversed micelles. <i>Biotechnology and Bioengineering</i> , 1991, 38, 206-211. | 3.3 | 62 |
| 3 | Carica papaya lipase (CPL): An emerging and versatile biocatalyst. <i>Biotechnology Advances</i> , 2006, 24, 493-499. | 11.7 | 62 |
| 4 | Enantioselective Synthesis of (S)-Ibuprofen Ester Prodrug in Cyclohexane by <i>Candida rugosa</i> Lipase Immobilized on Accurel MP1000. <i>Biotechnology Progress</i> , 2000, 16, 986-992. | 2.6 | 52 |
| 5 | Kinetics of enzymatic hydrolysis of olive oil in biphasic organic-aqueous systems. <i>Biotechnology and Bioengineering</i> , 1991, 38, 761-766. | 3.3 | 51 |
| 6 | Enzymatic Synthesis of (S)-Ibuprofen Ester Prodrug from Racemic Ibuprofen by Lipase in Organic Solvents. <i>Biotechnology Progress</i> , 1997, 13, 82-88. | 2.6 | 47 |
| 7 | Kinetics of lipase-catalyzed hydrolysis of lipids in biphasic organic-aqueous systems. <i>Journal of Chemical Technology and Biotechnology</i> , 1993, 57, 147-154. | 3.2 | 40 |
| 8 | Polymer microneedles fabricated from PCL and PCL/PEG blends for transdermal delivery of hydrophilic compounds. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2015, 51, 1-8. | 5.3 | 39 |
| 9 | Improvements of enzyme activity and enantioselectivity via combined substrate engineering and covalent immobilization. <i>Biotechnology and Bioengineering</i> , 2008, 101, 460-469. | 3.3 | 36 |
| 10 | Lipase-catalyzed dynamic resolution of naproxen 2,2,2-trifluoroethyl thioester by hydrolysis in isooctane. , 1999, 64, 120-126. | | 35 |
| 11 | (<i>R,S</i>)-Azolides as Novel Substrates for Lipase-Catalyzed Hydrolytic Resolution in Organic Solvents. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2333-2341. | 4.3 | 33 |
| 12 | Dynamic kinetic resolution of suprofen thioester via coupled trioctylamine and lipase catalysis. , 2000, 69, 31-38. | | 31 |
| 13 | Implication of substrate-assisted catalysis on improving lipase activity or enantioselectivity in organic solvents. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2006, 1764, 1424-1428. | 2.3 | 31 |
| 14 | Enantiopreference of <i>Candida antarctica</i> lipase B toward carboxylic acids: Substrate models and enantioselectivity thereof. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2016, 127, 98-116. | 1.8 | 31 |
| 15 | Extraordinary enantiospecificity of lipase catalysis in organic media induced by purification and catalyst engineering. , 2000, 52, 296-300. | | 29 |
| 16 | Kinetics of Enantioselective Esterification of Naproxen by Lipase in Organic Solvents. <i>Biocatalysis</i> , 1994, 11, 33-45. | 0.9 | 28 |
| 17 | Effect of solvent on enantioselective esterification of naproxen by lipase with trimethylsilyl methanol. <i>Biotechnology and Bioengineering</i> , 1994, 43, 64-68. | 3.3 | 28 |
| 18 | Enhancement of (S)-naproxen ester productivity from racemic naproxen by lipase in organic solvents. <i>Journal of Chemical Technology and Biotechnology</i> , 1996, 65, 156-162. | 3.2 | 28 |

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|----|--|-----|-----------|
| 19 | Enzymatic resolution of (R,S)-2-arylpropionic acid thioesters by <i>Candida rugosa</i> lipase-catalyzed thioesterification or hydrolysis in organic solvents. <i>Tetrahedron: Asymmetry</i> , 1998, 9, 2799-2807. | 1.8 | 28 |
| 20 | Enantioselective esterification of (R,S)-2-(4-chlorophenoxy)propionic acid via <i>Carica papaya</i> lipase in organic solvents. <i>Tetrahedron: Asymmetry</i> , 2004, 15, 2917-2920. | 1.8 | 28 |
| 21 | <i>Carica papaya</i> lipase: a novel biocatalyst for the enantioselective hydrolysis of (R,S)-naproxen 2,2,2-trifluoroethyl ester. <i>Enzyme and Microbial Technology</i> , 2005, 36, 127-132. | 3.2 | 28 |
| 22 | Kinetic resolution of (R,S)-ethyl 2-chloromandelate in biphasic media using hydrolase of <i>Klebsiella oxytoca</i> . <i>Enzyme and Microbial Technology</i> , 2006, 39, 930-935. | 3.2 | 26 |
| 23 | A Study of the Graetz Problems in Concentric-Tube Continuous-Contact Countercurrent Separation Processes with Recycles at Both Ends. <i>Separation Science and Technology</i> , 1986, 21, 403-419. | 2.5 | 25 |
| 24 | Improvements of enzyme activity and enantioselectivity in lipase-catalyzed alcoholysis of (R,S)-azolides. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2010, 62, 235-241. | 1.8 | 25 |
| 25 | Hydrolytic resolution of (R,S)-ethyl mandelate in biphasic media via <i>Klebsiella oxytoca</i> hydrolase. <i>Enzyme and Microbial Technology</i> , 2005, 37, 266-271. | 3.2 | 24 |
| 26 | Partially purified <i>Carica papaya</i> lipase: a versatile biocatalyst for the hydrolytic resolution of (R,S)-2-arylpropionic thioesters in water-saturated organic solvents. <i>Biotechnology and Bioengineering</i> , 2005, 91, 106-113. | 3.3 | 24 |
| 27 | Extraordinary enantiospecificity of lipase catalysis in organic media induced by purification and catalyst engineering. <i>Biotechnology and Bioengineering</i> , 1996, 52, 296-300. | 3.3 | 24 |
| 28 | Enantioselective hydrolysis of (R,S)-naproxen 2,2,2-trifluoroethyl ester in water-saturated solvents via lipases from <i>Carica pentagona</i> Heilborn and <i>Carica papaya</i> . <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2005, 34, 51-57. | 1.8 | 22 |
| 29 | Kinetic resolution of (R,S)-pyrazolides containing substituents in the leaving pyrazole for increased lipase enantioselectivity. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2010, 66, 113-119. | 1.8 | 21 |
| 30 | Comparison of the Lipase Activity in Hydrolysis and Acyl Transfer Reactions of Two Latex Plant Extracts from <i>Babaco</i> (<i>Vasconcellea</i> — <i>Heilbornii</i> Cv.) and <i>Plumeria rubra</i> : Effect of the Aqueous Microenvironment. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 2726-2731. | 5.2 | 20 |
| 31 | Surfactant enhancement of (S)-naproxen ester productivity from racemic naproxen by lipase in isooctane. , 1996, 51, 148-156. | | 18 |
| 32 | Resolution of non-protein amino acids via <i>Carica papaya</i> lipase-catalyzed enantioselective transesterification. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 2569-2573. | 1.8 | 18 |
| 33 | Hydrolytic resolution of (R,S)-naproxen 2,2,2-trifluoroethyl thioester by <i>Carica papaya</i> lipase in water-saturated organic solvents. <i>Biotechnology and Bioengineering</i> , 2005, 89, 88-95. | 3.3 | 18 |
| 34 | Lipase-catalyzed alcoholytic resolution of (R,S)-flurbiprofenyl azolides for preparation of (R)-NO-flurbiprofen ester prodrugs. <i>Process Biochemistry</i> , 2011, 46, 960-965. | 3.7 | 18 |
| 35 | Lipase-catalyzed dynamic kinetic resolution of (R,S)-fenoprofen thioester in isooctane. <i>Journal of Chemical Technology and Biotechnology</i> , 2002, 77, 699-705. | 3.2 | 17 |
| 36 | Application of a recycle dialysis system in a reversed micellar reactor. <i>Journal of Chemical Technology and Biotechnology</i> , 1992, 54, 27-32. | 3.2 | 17 |

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|----|---|-----|-----------|
| 37 | 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. <i>Biotechnology and Bioengineering</i> , 2007, 98, 30-38. | 3.3 | 17 |
| 38 | Improvement in Separation of Concentric-Tube Thermal Diffusion Columns with Viscous Heat Generation under Consideration of the Curvature Effect. <i>Separation Science and Technology</i> , 1981, 16, 63-73. | 2.5 | 15 |
| 39 | Enzymatic hydrolytic resolution of (R,S)-tropic acid esters and (R,S)-ethyl $\hat{\pm}$ -methoxyphenyl acetate in biphasic media. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 57, 158-163. | 1.8 | 15 |
| 40 | Lipase-catalyzed hydrolytic resolution of (R,S)-3-hydroxy-3-phenylpropionates in biphasic media. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2011, 42, 408-412. | 5.3 | 15 |
| 41 | The Simplified Equation of Separation for the Enrichment of Heavy Water in a Batch-Type Thermal Diffusion Column. <i>Separation Science and Technology</i> , 1987, 22, 1463-1470. | 2.5 | 14 |
| 42 | Improvement of enantioselectivity and stability of <i>Klebsiella oxytoca</i> hydrolase immobilized on Eupergit C 250L. <i>Journal of Chemical Technology and Biotechnology</i> , 2008, 83, 1518-1525. | 3.2 | 14 |
| 43 | Lipase-catalyzed dynamic hydrolytic resolution of (R,S)-2,2,2-trifluoroethyl $\hat{\pm}$ -chlorophenyl acetate in water-saturated isooctane. <i>Journal of Chemical Technology and Biotechnology</i> , 2006, 81, 1715-1721. | 3.2 | 13 |
| 44 | Lipase-catalyzed enantioselective resolution of (R,S)-N-2-methylalkanoyl-3-(2-pyridyl)pyrazoles in organic solvents. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2011, 68, 245-249. | 1.8 | 13 |
| 45 | Separation Efficiency of Rotary Thermal Diffusion Columns with the Inner Tube Cooled and the Outer Tube Heated. <i>Separation Science and Technology</i> , 1982, 17, 1075-1083. | 2.5 | 12 |
| 46 | Self-Normalized Analysis of Lipase-Catalyzed Conversion of Naproxen Enantiomers. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1993, 16, 2993-3001. | 1.0 | 12 |
| 47 | Investigation of lipases from various <i>Carica papaya</i> varieties for hydrolysis of olive oil and kinetic resolution of (R,S)-profen 2,2,2-trifluoroethyl thioesters. <i>Process Biochemistry</i> , 2006, 41, 540-546. | 3.7 | 12 |
| 48 | Kinetic and Thermodynamic Investigation of Lipase-Catalyzed Hydrolysis of (R,S)-3-Phenylbutyl Azolides. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 3580-3586. | 3.7 | 12 |
| 49 | <i>Carica papaya</i> lipase: An effective biocatalyst for esterification resolution of (RS)-2-(chlorophenoxy)propionic acid. <i>Biochemical Engineering Journal</i> , 2007, 35, 318-324. | 3.6 | 11 |
| 50 | Lipase-catalyzed enantioselective esterification of S(+)-naproxen ester prodrugs in cyclohexane. <i>Journal of Chemical Technology and Biotechnology</i> , 1999, 74, 751-758. | 3.2 | 10 |
| 51 | Racemization of (S)-Profen Thioesters by Strong Neutral Bases in Nonpolar Organic Solvents: Implication for Ion-Pair Kinetic Basicity. <i>Journal of Organic Chemistry</i> , 2002, 67, 3323-3326. | 3.2 | 10 |
| 52 | <i>Carica papaya</i> lipase-catalyzed transesterification resolution of secondary alcohols in organic solvents. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2009, 40, 549-554. | 5.3 | 10 |
| 53 | A study of separation efficiency of the continuous thermal diffusion column with an impermeable barrier between plates. <i>Journal of Chemical Engineering of Japan</i> , 1986, 19, 548-553. | 0.6 | 9 |
| 54 | Surfactant effect on enhancing (S)-naproxen prodrug production from racemic naproxen by lipase. <i>Applied Biochemistry and Biotechnology</i> , 1997, 68, 135-142. | 2.9 | 9 |

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|----|---|-----|-----------|
| 55 | Enzymatic hydrolytic resolution of (R,S)-1±-chlorophenyl acetates in biphasic media. Journal of Molecular Catalysis B: Enzymatic, 2007, 48, 16-22. | 1.8 | 9 |
| 56 | 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 |
| 57 | (R,S)-2-chlorophenoxy pyrazolidones as novel substrates for improving lipase-catalyzed hydrolytic resolution. Chirality, 2012, 24, 60-66. | 2.6 | 8 |
| 58 | Two-step desymmetrization of dipyrazolidyl 3-phenylglutarate via lipase-catalyzed hydrolysis in organic solvents. Chemical Engineering Science, 2016, 139, 41-48. | 3.8 | 8 |
| 59 | HEAT AND MASS TRANSFER IN MIXED CONVECTION OVER A HORIZONTAL PLANE. Numerical Heat Transfer, 1987, 12, 229-242. | 0.5 | 7 |
| 60 | 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 |
| 61 | Hydrolytic resolution of (R,S)-3-hydroxy-3-phenylpropionates by esterase from <i>Klebsiella oxytoca</i> : Effects of leaving alcohol, covalent immobilization and aqueous pH. Journal of Molecular Catalysis B: Enzymatic, 2009, 59, 70-75. | 1.8 | 7 |
| 62 | Kinetic and thermodynamic analysis of <i>Candida antarctica</i> lipase B-catalyzed alcoholic resolution of (R,S)-1 ² -butyrolactone in organic solvents. Applied Microbiology and Biotechnology, 2014, 98, 621-628. | 3.6 | 7 |
| 63 | Lipase-Catalyzed Synthesis of (S)-Naproxen Ester Prodrug by Transesterification in Organic Solvents. Applied Biochemistry and Biotechnology, 1999, 80, 205-220. | 2.9 | 6 |
| 64 | 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 |
| 65 | 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 |
| 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 | Recovery of lipase by adsorption at the hexadecane-water interface. Journal of Chemical Technology and Biotechnology, 2003, 78, 1128-1134. | 3.2 | 4 |
| 68 | 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 |
| 69 | 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 |
| 70 | Kinetic and thermodynamic analysis for lipase-catalyzed hydrolytic resolution of (R,S)-alcohols through their azolyl carbamates. Bioprocess and Biosystems Engineering, 2012, 35, 953-962. | 3.4 | 4 |
| 71 | Action of lipolytic enzymes in biphasic organic-aqueous systems: Dynamics of the irreversible Michaelis-Menten reaction. Biotechnology and Bioengineering, 1993, 41, 603-611. | 3.3 | 3 |
| 72 | An efficient lipase-catalyzed enantioselective hydrolysis of (R,S)-azolides derived from N-protected proline, pipercolic acid, and nipecotic acid. Applied Microbiology and Biotechnology, 2013, 97, 1581-1587. | 3.6 | 3 |

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|----|---|-----|-----------|
| 73 | Improvement of separation efficiency in the continuous-type horizontal thermal diffusion column with permeable barriers between the plates. <i>Canadian Journal of Chemical Engineering</i> , 1986, 64, 687-694. | 1.7 | 2 |
| 74 | On the examination of recycle on heat (and mass) transfer in concentric tubes. <i>Canadian Journal of Chemical Engineering</i> , 1988, 66, 258-262. | 1.7 | 2 |
| 75 | Enzyme Separation Using Supported Liquid Membrane Filled with Reversed Micelles. <i>Separation Science and Technology</i> , 1995, 30, 2551-2563. | 2.5 | 2 |
| 76 | Lipase-catalysed two-step desymmetrization of 2-methylmalonic dipyrazolide for preparation of optically pure enantiomer in organic solvents. <i>Biocatalysis and Biotransformation</i> , 2017, 35, 460-467. | 2.0 | 2 |
| 77 | Quantitative Improvements and Insights into CALB-Catalyzed Resolution of trans and cis Phenylcyclopropyl Azolides. <i>ChemistrySelect</i> , 2018, 3, 5353-5360. | 1.5 | 2 |
| 78 | The Improvement of Separation Theory in a Continuous Thermal Diffusion Column. <i>Separation Science and Technology</i> , 1984, 19, 497-514. | 2.5 | 1 |
| 79 | 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. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2013, 44, 146-151. | 5.3 | 1 |
| 80 | Kinetic analysis for lipase-catalyzed regioselective methanolysis of (R)- and (S)-2-methylglutaric 2016, 59, 120-125. | 5.3 | 1 |
| 81 | Quantitative insights into one-pot sequential asymmetric enzymatic catalytic processes. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 74, 79-88. | 5.3 | 1 |
| 82 | CALB-Catalyzed Two-Step Alcoholic Desymmetrization of 3-Methylglutaric Diazolides in MTBE. <i>Applied Biochemistry and Biotechnology</i> , 2018, 185, 578-592. | 2.9 | 1 |
| 83 | Lipase-catalyzed hydrolytic resolution of trans-2-(3,4-difluorophenyl)cyclopropyl azolides, a key building block for Ticagrelor synthesis. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 97, 112-118. | 5.3 | 1 |
| 84 | CALB-catalyzed kinetic resolution of (RS)-3-benzoylthio-2-methylpropyl azolides: kinetic and thermodynamic analysis. <i>Biocatalysis and Biotransformation</i> , 2020, 38, 376-384. | 2.0 | 1 |
| 85 | A Study of the Separation Efficiency in the Concentric-Tube Countercurrent Separation Process under Generalized Linear Applied Fields and with Recycles at Both Ends. <i>Separation Science and Technology</i> , 1986, 21, 1141-1154. | 2.5 | 0 |
| 86 | TURBULENT HEAT TRANSFER IN A RECTANGULAR INTERNAL LOOP REACTOR WITH RECYCLING OF FLUID AT BOTH ENDS. <i>Chemical Engineering Communications</i> , 1990, 95, 153-168. | 2.6 | 0 |
| 87 | Semiempirical Molecular Orbital Studies of the Acylation Step in the Lipase-Catalyzed Ester Hydrolysis. <i>Journal of the Chinese Chemical Society</i> , 2007, 54, 835-842. | 1.4 | 0 |