

Tomoko Matsuda

List of Publications by Year in descending order

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56
papers

2,540
citations

236925

25
h-index

197818

49
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67
all docs

67
docs citations

67
times ranked

1515
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent developments in asymmetric reduction of ketones with biocatalysts. <i>Tetrahedron: Asymmetry</i> , 2003, 14, 2659-2681.	1.8	487
2	Recent progress in biocatalysis for asymmetric oxidation and reduction. <i>Tetrahedron: Asymmetry</i> , 2009, 20, 513-557.	1.8	356
3	Systematic Investigation of <i>Saccharomyces cerevisiae</i> Enzymes Catalyzing Carbonyl Reductions. <i>Journal of the American Chemical Society</i> , 2004, 126, 12827-12832.	13.7	184
4	Asymmetric synthesis using hydrolytic enzymes in supercritical carbon dioxide. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 909-915.	1.8	91
5	An effective method to use ionic liquids as reaction media for asymmetric reduction by <i>Geotrichum candidum</i> . <i>Tetrahedron Letters</i> , 2006, 47, 4619-4622.	1.4	87
6	Recent progress in biocatalysis using supercritical carbon dioxide. <i>Journal of Bioscience and Bioengineering</i> , 2013, 115, 233-241.	2.2	86
7	Two Classes of Enzymes of Opposite Stereochemistry in an Organism: One for Fluorinated and Another for Nonfluorinated Substrates. <i>Journal of Organic Chemistry</i> , 2000, 65, 157-163.	3.2	79
8	Alcohol dehydrogenase is active in supercritical carbon dioxide. <i>Chemical Communications</i> , 2000, , 1367-1368.	4.1	71
9	Stereoselective oxidation and reduction by immobilized <i>Geotrichum candidum</i> in an organic solvent. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1999, , 2397-2402.	0.9	64
10	Microbial deracemization of 1-arylethanol. <i>Tetrahedron Letters</i> , 1995, 36, 6263-6266.	1.4	61
11	Conversion of pyrrole to pyrrole-2-carboxylate by cells of <i>Bacillus megaterium</i> in supercritical CO ₂ . <i>Chemical Communications</i> , 2001, , 2194-2195.	4.1	58
12	High-efficiency and minimum-waste continuous kinetic resolution of racemic alcohols by using lipase in supercritical carbon dioxide. <i>Chemical Communications</i> , 2004, , 2286.	4.1	52
13	Biocatalytic reduction of ketones by a semi-continuous flow process using supercritical carbon dioxide. <i>Chemical Communications</i> , 2003, , 1198-1199.	4.1	50
14	Organic synthesis using enzymes in supercritical carbon dioxide. <i>Green Chemistry</i> , 2004, 6, 440.	9.0	49
15	Control of enantioselectivity of lipase-catalyzed esterification in supercritical carbon dioxide by tuning the pressure and temperature. <i>Tetrahedron: Asymmetry</i> , 2003, 14, 2087-2091.	1.8	46
16	Control on enantioselectivity with pressure for lipase-catalyzed esterification in supercritical carbon dioxide. <i>Tetrahedron Letters</i> , 2001, 42, 8319-8321.	1.4	41
17	Chiral synthesis of secondary alcohols using <i>Geotrichum candidum</i> . <i>Chirality</i> , 2002, 14, 703-708.	2.6	40
18	Asymmetric reduction of ketones by <i>Geotrichum candidum</i> : immobilization and application to reactions using supercritical carbon dioxide. <i>Tetrahedron: Asymmetry</i> , 2008, 19, 2272-2275.	1.8	40

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19	Impact and relevance of alcohol dehydrogenase enantioselectivities on biotechnological applications. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 2897-2909.	3.6	39
20	Asymmetric reduction of trifluoromethyl ketones containing a sulfur functionality by the alcohol dehydrogenase from <i>Geotrichum</i> . <i>Tetrahedron</i> , 1998, 54, 8393-8402.	1.9	37
21	Asymmetric reduction of simple aliphatic ketones with dried cells of <i>Geotrichum candidum</i> . <i>Tetrahedron: Asymmetry</i> , 2002, 13, 971-974.	1.8	34
22	Rate Enhancement of Lipase-catalyzed Reaction in Supercritical Carbon Dioxide. <i>Chemistry Letters</i> , 2005, 34, 1102-1103.	1.3	32
23	Title is missing!. <i>Biotechnology Letters</i> , 2001, 23, 1603-1606.	2.2	31
24	Supercritical carbon dioxide as a reaction medium for enzymatic kinetic resolution of P-chiral hydroxymethanephosphinates. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 2015-2018.	1.8	31
25	CO ₂ -expanded bio-based liquids as novel solvents for enantioselective biocatalysis. <i>Tetrahedron</i> , 2017, 73, 2984-2989.	1.9	30
26	Recent Advances in Enzyme Immobilization Utilizing Nanotechnology for Biocatalysis. <i>Organic Process Research and Development</i> , 2022, 26, 1857-1877.	2.7	30
27	A novel method for enzymatic asymmetric reduction of ketones in a supercritical carbon dioxide/water biphasic system. <i>Tetrahedron Letters</i> , 2009, 50, 4934-4936.	1.4	26
28	Liquid carbon dioxide as an effective solvent for immobilized <i>Candida antarctica</i> lipase B catalyzed transesterification. <i>Tetrahedron Letters</i> , 2015, 56, 639-641.	1.4	23
29	Modulating Biocatalytic Activity toward Sterically Bulky Substrates in CO ₂ -Expanded Biobased Liquids by Tuning the Physicochemical Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 11051-11059.	6.7	23
30	Novel continuous carboxylation using pressurized carbon dioxide by immobilized decarboxylase. <i>Tetrahedron Letters</i> , 2008, 49, 6019-6020.	1.4	20
31	Acetophenone reductase with extreme stability against a high concentration of organic compounds or an elevated temperature. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 10413-10421.	3.6	20
32	Utility of ionic liquid for <i>Geotrichum candidum</i> -catalyzed synthesis of optically active alcohols. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 57, 317-320.	1.8	19
33	Purification and characterization of acetophenone reductase with excellent enantioselectivity from <i>Geotrichum candidum</i> NBRC 4597. <i>Applied Microbiology and Biotechnology</i> , 2010, 86, 625-631.	3.6	17
34	Expanding substrate scope of lipase-catalyzed transesterification by the utilization of liquid carbon dioxide. <i>Tetrahedron</i> , 2016, 72, 7229-7234.	1.9	14
35	Structural basis for a highly (S)-enantioselective reductase towards aliphatic ketones with only one carbon difference between side chain. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 9543-9553.	3.6	13
36	Oxidation of aromatic and aliphatic aldehydes to carboxylic acids by <i>Geotrichum candidum</i> aldehyde dehydrogenase. <i>Tetrahedron</i> , 2020, 76, 131387.	1.9	13

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37	Biocatalysis in Organic Solvents, Supercritical Fluids and Ionic Liquids. , 2016, , 67-97.		11
38	Reversible control of enantioselectivity by the length of ketone substituent in biocatalytic reduction. Applied Microbiology and Biotechnology, 2019, 103, 9529-9541.	3.6	11
39	Control of enantioselectivity in the enzymatic reduction of halogenated acetophenone analogs by substituent positions and sizes. Tetrahedron Letters, 2020, 61, 151820.	1.4	11
40	Access to both enantiomers of substituted 2-tetralol analogs by a highly enantioselective reductase. Tetrahedron Letters, 2020, 61, 151682.	1.4	11
41	Geotrichum candidum acetophenone reductase immobilization on reduced graphene oxide: A promising biocatalyst for green asymmetric reduction of ketones. Biochemical Engineering Journal, 2022, 177, 108263.	3.6	10
42	Organic-inorganic nanocrystal reductase to promote green asymmetric synthesis. RSC Advances, 2020, 10, 30953-30960.	3.6	9
43	Geotrichum candidum aldehyde dehydrogenase-inorganic nanocrystal with enhanced activity. Enzyme and Microbial Technology, 2021, 150, 109866.	3.2	8
44	Stabilization of pyruvate decarboxylase under a pressurized carbon dioxide/water biphasic system. Biocatalysis and Biotransformation, 2010, 28, 167-171.	2.0	7
45	CO ₂ -expanded liquids as solvents to enhance activity of Pseudozyma antarctica lipase B towards ortho-substituted 1-phenylethanols. Tetrahedron Letters, 2020, 61, 152424.	1.4	7
46	Facile mussel-inspired polydopamine-coated 3D-printed bioreactors for continuous flow biocatalysis. Reaction Chemistry and Engineering, 2022, 7, 1053-1060.	3.7	7
47	Purification and characterization of fluorinated ketone reductase from Geotrichum candidum NBRC 5767. Biochemical Engineering Journal, 2013, 76, 13-16.	3.6	6
48	Crystallization Condition of Glassy Syndiotactic Polystyrene in Supercritical CO ₂ . Polymer Journal, 2003, 35, 430-435.	2.7	5
49	Crystallization and preliminary crystallographic analysis of acetophenone reductase from <i>Geotrichum candidum</i> NBRC 4597. Acta Crystallographica Section F, Structural Biology Communications, 2015, 71, 320-323.	0.8	5
50	Immobilization of Baeyer-Villiger monoxygenase from acetone grown Fusarium sp.. Biotechnology Letters, 2022, 44, 461-471.	2.2	5
51	Reduction of acetophenones with methyl fluorines and a bulky group on the aromatic ring using microorganisms and related enzymes. Journal of Molecular Catalysis B: Enzymatic, 2012, 82, 86-91.	1.8	4
52	Enzymatic direct carboxylation under supercritical CO ₂ . Biochemical Engineering Journal, 2021, 171, 108004.	3.6	4
53	Biotransformation Using Liquid and Supercritical CO ₂ . , 2017, , 3-25.		3
54	Chiral Pyrrolidine-Substituted Ionic Liquid-Mediated Activation of Enzyme. ACS Symposium Series, 2010, , 155-167.	0.5	2

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55	Rate enhancement of lipase-catalyzed reaction using CO ₂ -expanded liquids as solvents for chiral tetralol synthesis. <i>Tetrahedron Letters</i> , 2022, , 153837.	1.4	1
56	Asymmetric Synthesis Using Hydrolytic Enzymes in Supercritical Carbon Dioxide.. <i>ChemInform</i> , 2005, 36, no.	0.0	0