

# 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  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1515  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Immobilization of Baeyer-Villiger monoxygenase from acetone grown Fusarium sp.. Biotechnology Letters, 2022, 44, 461-471.	2.2	5
3	Facile mussel-inspired polydopamine-coated 3D-printed bioreactors for continuous flow biocatalysis. Reaction Chemistry and Engineering, 2022, 7, 1053-1060.	3.7	7
4	Recent Advances in Enzyme Immobilization Utilizing Nanotechnology for Biocatalysis. Organic Process Research and Development, 2022, 26, 1857-1877.	2.7	30
5	Rate enhancement of lipase-catalyzed reaction using CO <sub>2</sub> -expanded liquids as solvents for chiral tetralol synthesis. Tetrahedron Letters, 2022, , 153837.	1.4	1
6	Enzymatic direct carboxylation under supercritical CO <sub>2</sub> . Biochemical Engineering Journal, 2021, 171, 108004.	3.6	4
7	Geotrichum candidum aldehyde dehydrogenase-inorganic nanocrystal with enhanced activity. Enzyme and Microbial Technology, 2021, 150, 109866.	3.2	8
8	CO <sub>2</sub> -expanded liquids as solvents to enhance activity of Pseudozyma antarctica lipase B towards ortho-substituted 1-phenylethanol. Tetrahedron Letters, 2020, 61, 152424.	1.4	7
9	Oxidation of aromatic and aliphatic aldehydes to carboxylic acids by Geotrichum candidum aldehyde dehydrogenase. Tetrahedron, 2020, 76, 131387.	1.9	13
10	Organic-inorganic nanocrystal reductase to promote green asymmetric synthesis. RSC Advances, 2020, 10, 30953-30960.	3.6	9
11	Control of enantioselectivity in the enzymatic reduction of halogenated acetophenone analogs by substituent positions and sizes. Tetrahedron Letters, 2020, 61, 151820.	1.4	11
12	Impact and relevance of alcohol dehydrogenase enantioselectivities on biotechnological applications. Applied Microbiology and Biotechnology, 2020, 104, 2897-2909.	3.6	39
13	Access to both enantiomers of substituted 2-tetralol analogs by a highly enantioselective reductase. Tetrahedron Letters, 2020, 61, 151682.	1.4	11
14	Reversible control of enantioselectivity by the length of ketone substituent in biocatalytic reduction. Applied Microbiology and Biotechnology, 2019, 103, 9529-9541.	3.6	11
15	Structural basis for a highly (S)-enantioselective reductase towards aliphatic ketones with only one carbon difference between side chain. Applied Microbiology and Biotechnology, 2019, 103, 9543-9553.	3.6	13
16	CO <sub>2</sub> -expanded bio-based liquids as novel solvents for enantioselective biocatalysis. Tetrahedron, 2017, 73, 2984-2989.	1.9	30
17	Modulating Biocatalytic Activity toward Sterically Bulky Substrates in CO <sub>2</sub> -Expanded Biobased Liquids by Tuning the Physicochemical Properties. ACS Sustainable Chemistry and Engineering, 2017, 5, 11051-11059.	6.7	23
18	Biotransformation Using Liquid and Supercritical CO <sub>2</sub> . , 2017, , 3-25.		3

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19	Expanding substrate scope of lipase-catalyzed transesterification by the utilization of liquid carbon dioxide. <i>Tetrahedron</i> , 2016, 72, 7229-7234.	1.9	14
20	Biocatalysis in Organic Solvents, Supercritical Fluids and Ionic Liquids. , 2016, , 67-97.		11
21	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
22	Crystallization and preliminary crystallographic analysis of acetophenone reductase from <i>Geotrichum candidum</i> NBRC 4597. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2015, 71, 320-323.	0.8	5
23	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
24	Purification and characterization of fluorinated ketone reductase from <i>Geotrichum candidum</i> NBRC 5767. <i>Biochemical Engineering Journal</i> , 2013, 76, 13-16.	3.6	6
25	Recent progress in biocatalysis using supercritical carbon dioxide. <i>Journal of Bioscience and Bioengineering</i> , 2013, 115, 233-241.	2.2	86
26	Reduction of acetophenones with methyl fluorines and a bulky group on the aromatic ring using microorganisms and related enzymes. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2012, 82, 86-91.	1.8	4
27	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
28	Stabilization of pyruvate decarboxylase under a pressurized carbon dioxide/water biphasic system. <i>Biocatalysis and Biotransformation</i> , 2010, 28, 167-171.	2.0	7
29	Chiral Pyrrolidine-Substituted Ionic Liquid-Mediated Activation of Enzyme. <i>ACS Symposium Series</i> , 2010, , 155-167.	0.5	2
30	Recent progress in biocatalysis for asymmetric oxidation and reduction. <i>Tetrahedron: Asymmetry</i> , 2009, 20, 513-557.	1.8	356
31	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
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	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
34	Novel continuous carboxylation using pressurized carbon dioxide by immobilized decarboxylase. <i>Tetrahedron Letters</i> , 2008, 49, 6019-6020.	1.4	20
35	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
36	Rate Enhancement of Lipase-catalyzed Reaction in Supercritical Carbon Dioxide. <i>Chemistry Letters</i> , 2005, 34, 1102-1103.	1.3	32

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37	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
38	Asymmetric Synthesis Using Hydrolytic Enzymes in Supercritical Carbon Dioxide.. <i>ChemInform</i> , 2005, 36, no.	0.0	0
39	Asymmetric synthesis using hydrolytic enzymes in supercritical carbon dioxide. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 909-915.	1.8	91
40	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
41	Organic synthesis using enzymes in supercritical carbon dioxide. <i>Green Chemistry</i> , 2004, 6, 440.	9.0	49
42	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
43	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
44	Recent developments in asymmetric reduction of ketones with biocatalysts. <i>Tetrahedron: Asymmetry</i> , 2003, 14, 2659-2681.	1.8	487
45	Biocatalytic reduction of ketones by a semi-continuous flow process using supercritical carbon dioxide. <i>Chemical Communications</i> , 2003, , 1198-1199.	4.1	50
46	Crystallization Condition of Glassy Syndiotactic Polystyrene in Supercritical CO <sub>2</sub> . <i>Polymer Journal</i> , 2003, 35, 430-435.	2.7	5
47	Chiral synthesis of secondary alcohols using <i>Geotrichum candidum</i> . <i>Chirality</i> , 2002, 14, 703-708.	2.6	40
48	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
49	Conversion of pyrrole to pyrrole-2-carboxylate by cells of <i>Bacillus megaterium</i> in supercritical CO <sub>2</sub> . <i>Chemical Communications</i> , 2001, , 2194-2195.	4.1	58
50	Control on enantioselectivity with pressure for lipase-catalyzed esterification in supercritical carbon dioxide. <i>Tetrahedron Letters</i> , 2001, 42, 8319-8321.	1.4	41
51	Title is missing!. <i>Biotechnology Letters</i> , 2001, 23, 1603-1606.	2.2	31
52	Alcohol dehydrogenase is active in supercritical carbon dioxide. <i>Chemical Communications</i> , 2000, , 1367-1368.	4.1	71
53	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
54	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

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55	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
56	Microbial deracemization of 1-arylethanol. <i>Tetrahedron Letters</i> , 1995, 36, 6263-6266.	1.4	61