

Tadashi EMA

List of Publications by Year in descending order

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103
papers

5,885
citations

70961

41
h-index

79541

73
g-index

104
all docs

104
docs citations

104
times ranked

4991
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress in catalytic conversions of carbon dioxide. <i>Catalysis Science and Technology</i> , 2014, 4, 1482.	2.1	463
2	Bifunctional Porphyrin Catalysts for the Synthesis of Cyclic Carbonates from Epoxides and CO ₂ : Structural Optimization and Mechanistic Study. <i>Journal of the American Chemical Society</i> , 2014, 136, 15270-15279.	6.6	404
3	Bifunctional Catalysts Based on <i>m</i> -Phenylene-Bridged Porphyrin Dimer and Trimer Platforms: Synthesis of Cyclic Carbonates from Carbon Dioxide and Epoxides. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 134-138.	7.2	273
4	A bifunctional catalyst for carbon dioxide fixation: cooperative double activation of epoxides for the synthesis of cyclic carbonates. <i>Chemical Communications</i> , 2012, 48, 4489.	2.2	268
5	Highly Active and Robust Metalloporphyrin Catalysts for the Synthesis of Cyclic Carbonates from a Broad Range of Epoxides and Carbon Dioxide. <i>Chemistry - A European Journal</i> , 2016, 22, 6556-6563.	1.7	176
6	Versatile and Practical Macrocyclic Reagent with Multiple Hydrogen-Bonding Sites for Chiral Discrimination in NMR. <i>Journal of the American Chemical Society</i> , 2007, 129, 10591-10596.	6.6	170
7	Highly active and robust organic-inorganic hybrid catalyst for the synthesis of cyclic carbonates from carbon dioxide and epoxides. <i>Green Chemistry</i> , 2008, 10, 337.	4.6	169
8	Solvent-Induced Sign Inversion of Circularly Polarized Luminescence: Control of Excimer Chirality by Hydrogen Bonding. <i>Journal of the American Chemical Society</i> , 2020, 142, 1774-1779.	6.6	157
9	Binaphthyl-Bipyridyl Cyclic Dyads as a Chiroptical Switch. <i>Journal of the American Chemical Society</i> , 2018, 140, 5334-5338.	6.6	155
10	Bifunctional Organocatalyst for Activation of Carbon Dioxide and Epoxide To Produce Cyclic Carbonate: Betaine as a New Catalytic Motif. <i>Organic Letters</i> , 2010, 12, 5728-5731.	2.4	153
11	Evolving Fluorophores into Circularly Polarized Luminophores with a Chiral Naphthalene Tetramer: Proposal of Excimer Chirality Rule for Circularly Polarized Luminescence. <i>Journal of the American Chemical Society</i> , 2019, 141, 6185-6190.	6.6	142
12	Suzuki-Miyaura Coupling Reaction Using Pentafluorophenylboronic Acid. <i>Organic Letters</i> , 2005, 7, 4915-4917.	2.4	116
13	Quaternary ammonium hydroxide as a metal-free and halogen-free catalyst for the synthesis of cyclic carbonates from epoxides and carbon dioxide. <i>Catalysis Science and Technology</i> , 2015, 5, 2314-2321.	2.1	107
14	Azahelicene-Fused BODIPY Analogues Showing Circularly Polarized Luminescence. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7813-7817.	7.2	102
15	Highly Efficient Chemoenzymatic Synthesis of Methyl (R)- α -Chloromandelate, a Key Intermediate for Clopidogrel, via Asymmetric Reduction with Recombinant <i>Escherichia coli</i> . <i>Advanced Synthesis and Catalysis</i> , 2008, 350, 2039-2044.	2.1	99
16	Robust porphyrin catalysts immobilized on biogenous iron oxide for the repetitive conversions of epoxides and CO ₂ into cyclic carbonates. <i>Green Chemistry</i> , 2013, 15, 2485.	4.6	95
17	Stereoselective Synthesis of Bicyclic Tertiary Alcohols with Quaternary Stereocenters via Intramolecular Crossed Benzoin Reactions Catalyzed by N-Heterocyclic Carbenes. <i>Organic Letters</i> , 2009, 11, 4866-4869.	2.4	81
18	Asymmetric reduction of ketones using recombinant <i>E. coli</i> cells that produce a versatile carbonyl reductase with high enantioselectivity and broad substrate specificity. <i>Tetrahedron</i> , 2006, 62, 6143-6149.	1.0	79

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19	Intense excimer CPL of pyrenes linked to a quaternaphthyl. <i>Chemical Communications</i> , 2018, 54, 1449-1452.	2.2	77
20	Versatile and Practical Chiral Shift Reagent with Hydrogen-Bond Donor/Acceptor Sites in a Macrocyclic Cavity. <i>Organic Letters</i> , 2006, 8, 3773-3775.	2.4	74
21	Axially Chiral <i>peri</i> -Xanthenoxanthenes as a Circularly Polarized Luminophore. <i>Journal of the American Chemical Society</i> , 2019, 141, 11852-11857.	6.6	72
22	Rational strategies for highly enantioselective lipase-catalyzed kinetic resolutions of very bulky chiral compounds: substrate design and high-temperature biocatalysis. <i>Tetrahedron: Asymmetry</i> , 2004, 15, 2765-2770.	1.8	68
23	Hemisquaramide Tweezers as Organocatalysts: Synthesis of Cyclic Carbonates from Epoxides and CO ₂ . <i>Organic Letters</i> , 2019, 21, 1397-1401.	2.4	66
24	Determination of enantiomeric excess of carboxylates by fluorescent macrocyclic sensors. <i>Chemical Science</i> , 2016, 7, 2016-2022.	3.7	65
25	Highly Sensitive Chiral Shift Reagent Bearing Two Zinc Porphyrins. <i>Organic Letters</i> , 2005, 7, 3985-3988.	2.4	57
26	Highly enantioselective and efficient synthesis of methyl (R)-o-chloromandelate with recombinant <i>E. coli</i> : toward practical and green access to clopidogrel. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 1175.	1.5	55
27	Redesign of enzyme for improving catalytic activity and enantioselectivity toward poor substrates: manipulation of the transition state. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 6299.	1.5	55
28	Unexpected Macrocyclic Multinuclear Zinc and Nickel Complexes that Function as Multitasking Catalysts for CO ₂ Fixations. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9984-9988.	7.2	55
29	Chiral porphyrin dimer with a macrocyclic cavity for intercalation of aromatic guests. <i>Chemical Communications</i> , 2011, 47, 6090.	2.2	54
30	Electronic Tuning of Zinc Porphyrin Catalysts for the Conversion of Epoxides and Carbon Dioxide into Cyclic Carbonates. <i>ChemCatChem</i> , 2017, 9, 946-949.	1.8	54
31	Aluminum porphyrins with quaternary ammonium halides as catalysts for copolymerization of cyclohexene oxide and CO ₂ : metal-ligand cooperative catalysis. <i>Chemical Science</i> , 2020, 11, 5669-5675.	3.7	54
32	Biogenous iron oxide-immobilized palladium catalyst for the solvent-free Suzuki-Miyaura coupling reaction. <i>Tetrahedron Letters</i> , 2012, 53, 329-332.	0.7	53
33	Carbazole-Based Boron Dipyromethenes (BODIPYs): Facile Synthesis, Structures, and Fine-Tunable Optical Properties. <i>Organic Letters</i> , 2015, 17, 3090-3093.	2.4	53
34	Chiral Macrocyclic Organocatalysts for Kinetic Resolution of Disubstituted Epoxides with Carbon Dioxide. <i>Organic Letters</i> , 2017, 19, 4070-4073.	2.4	53
35	High Enantioselectivity and Broad Substrate Specificity of a Carbonyl Reductase: Toward a Versatile Biocatalyst. <i>Journal of Organic Chemistry</i> , 2001, 66, 8682-8684.	1.7	50
36	Tuning the Chiral Cavity of Macrocyclic Receptor for Chiral Recognition and Discrimination. <i>Journal of Organic Chemistry</i> , 2008, 73, 9129-9132.	1.7	48

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37	Selective Anion Sensing by Chiral Macrocyclic Receptors with Multiple Hydrogen-Bonding Sites. <i>Organic Letters</i> , 2014, 16, 1302-1305.	2.4	48
38	Construction of Contiguous Tetrasubstituted Carbon Stereocenters by Intramolecular Crossed Benzoin Reactions Catalyzed by N-Heterocyclic Carbene (NHC) Organocatalyst. <i>Advanced Synthesis and Catalysis</i> , 2012, 354, 3283-3290.	2.1	46
39	Chiroptical and catalytic properties of doubly binaphthyl-strapped chiral porphyrins. <i>Chemical Communications</i> , 2019, 55, 1064-1067.	2.2	45
40	Color-Tunable Solid-State Fluorescence Emission from Carbazole-Based BODIPYs. <i>Chemistry - A European Journal</i> , 2016, 22, 7508-7513.	1.7	44
41	Highly active lipase immobilized on biogenous iron oxide via an organic bridging group: the dramatic effect of the immobilization support on enzymatic function. <i>Green Chemistry</i> , 2011, 13, 3187.	4.6	43
42	Circularly Polarized Luminescence Liquids Based on Siloxybinaphthyls: Best Binaphthyl Dihedral Angle in the Excited State. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9968-9972.	7.2	43
43	Synthesis of chiral carbazole-based BODIPYs showing circularly polarized luminescence. <i>Chemical Communications</i> , 2019, 55, 3136-3139.	2.2	42
44	Chemical modification of biogenous iron oxide to create an excellent enzyme scaffold. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 336-338.	1.5	41
45	Intermolecular oxygen atom- π interaction in the crystal packing of chiral amino alcohol bearing a pentafluorophenyl group. <i>Journal of Fluorine Chemistry</i> , 2003, 122, 201-205.	0.9	40
46	Calix[4]pyrroles as macrocyclic organocatalysts for the synthesis of cyclic carbonates from epoxides and carbon dioxide. <i>Catalysis Science and Technology</i> , 2018, 8, 4193-4198.	2.1	40
47	Tetrameric and Hexameric Porphyrin Nanorings: Template Synthesis and Photophysical Properties. <i>Journal of the American Chemical Society</i> , 2020, 142, 15661-15666.	6.6	37
48	Synthesis of silyl formates, formamides, and aldehydes via solvent-free organocatalytic hydrosilylation of CO ₂ . <i>Chemical Communications</i> , 2020, 56, 5783-5786.	2.2	37
49	Asymmetric reduction of a variety of ketones with a recombinant carbonyl reductase: identification of the gene encoding a versatile biocatalyst. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 1075-1078.	1.8	36
50	Biomimetic trifunctional organocatalyst showing a great acceleration for the transesterification between vinyl ester and alcohol. <i>Chemical Communications</i> , 2008, , 957.	2.2	36
51	Solvent-Free Benzoin and Stetter Reactions with a Small Amount of NHC Catalyst in the Liquid or Semisolid State. <i>Organic Letters</i> , 2016, 18, 5764-5767.	2.4	36
52	Azahelicene-Fused BODIPY Analogues Showing Circularly Polarized Luminescence. <i>Angewandte Chemie</i> , 2020, 132, 7887-7891.	1.6	36
53	Rational control of enantioselectivity of lipase by site-directed mutagenesis based on the mechanism. <i>Chemical Communications</i> , 2005, , 4650.	2.2	35
54	Synergistic effect of quaternary ammonium hydroxide and crown ether on the rapid and clear dissolution of cellulose at room temperature. <i>RSC Advances</i> , 2014, 4, 2523-2525.	1.7	34

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55	Macrocyclic multinuclear metal complexes acting as catalysts for organic synthesis. <i>Catalysis Science and Technology</i> , 2020, 10, 12-34.	2.1	34
56	Lipase-Catalyzed Resolution of (2R*,3S*)- and (2R*,3R*)-3-Methyl-3-phenyl-2-aziridinemethanol at Low Temperatures and Determination of the Absolute Configurations of the Four Stereoisomers. <i>Journal of Organic Chemistry</i> , 2005, 70, 1369-1375.	1.7	33
57	Lipase-catalyzed dynamic kinetic resolution giving optically active cyanohydrins: use of silica-supported ammonium hydroxide and porous ceramic-immobilized lipase. <i>Tetrahedron</i> , 2008, 64, 2178-2183.	1.0	33
58	Synthetic macrocyclic receptors in chiral analysis and separation. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2012, 74, 41-55.	1.6	33
59	Transition-state models are useful for versatile biocatalysts: kinetics and thermodynamics of enantioselective acylations of secondary alcohols catalyzed by lipase and subtilisin. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2003, 22, 181-192.	1.8	32
60	Synthesis and Evaluation of Chiral Selectors with Multiple Hydrogen-Bonding Sites in the Macrocyclic Cavities. <i>Journal of Organic Chemistry</i> , 2010, 75, 4492-4500.	1.7	31
61	Binaphthyl-Bridged Pyrenophanes: Intense Circularly Polarized Luminescence Based on a C_2 Symmetry Strategy. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	30
62	Enhancement of the Efficiency of the Low Temperature Method for Kinetic Resolution of Primary Alcohols by Optimizing the Organic Bridges in Porous Ceramic-Immobilized Lipase. <i>Bulletin of the Chemical Society of Japan</i> , 2003, 76, 1441-1446.	2.0	29
63	Theoretical Study on Highly Active Bifunctional Metalloporphyrin Catalysts for the Coupling Reaction of Epoxides with Carbon Dioxide. <i>Chemical Record</i> , 2016, 16, 2260-2267.	2.9	29
64	Rational creation of mutant enzyme showing remarkable enhancement of catalytic activity and enantioselectivity toward poor substrates. <i>Chemical Communications</i> , 2010, 46, 5440.	2.2	27
65	Chiral Bifunctional Metalloporphyrin Catalysts for Kinetic Resolution of Epoxides with Carbon Dioxide. <i>Organic Letters</i> , 2019, 21, 1853-1856.	2.4	26
66	Synthesis of a Molecular Tweezer Containing Pentafluorophenyl Groups and Investigation of the π - π Stacking Interaction for a Pentafluorophenyl Group in a Polar Organic Solvent. <i>Bulletin of the Chemical Society of Japan</i> , 2005, 78, 2175-2179.	2.0	25
67	Highly enantioselective lipase-catalyzed reactions at high temperatures up to 120°C in organic solvent. <i>Tetrahedron: Asymmetry</i> , 2003, 14, 3943-3947.	1.8	24
68	Synthesis of carbazole-based BODIPY dimers showing red fluorescence in the solid state. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 9283-9287.	1.5	24
69	Synthesis and Chiroptical Properties of Chiral Carbazole-Based BODIPYs. <i>Chemistry - A European Journal</i> , 2020, 26, 4261-4268.	1.7	23
70	Aggregation-Induced Circularly Polarized Luminescence from Boron Complexes with a Carbazolyl Schiff Base. <i>Chemistry - A European Journal</i> , 2020, 26, 13016-13021.	1.7	23
71	5-[4-(1-Hydroxyethyl)phenyl]-10,15,20-triphenylporphyrin as a Probe of the Transition-State Conformation in Hydrolase-Catalyzed Enantioselective Transesterifications. <i>Journal of Organic Chemistry</i> , 2002, 67, 2144-2151.	1.7	22
72	Carbazole-based BODIPYs with ethynyl substituents at the boron center: solid-state excimer fluorescence in the VIS/NIR region. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 7783-7788.	1.5	22

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73	Cross-Coupling Approach to an Array of Macrocyclic Receptors Functioning as Chiral Solvating Agents. <i>Journal of Organic Chemistry</i> , 2018, 83, 10762-10769.	1.7	22
74	The effect of temperature on the lipase-catalyzed asymmetric protonation of 1-acetoxy-2-methylcyclohexene giving (R)-2-methylcyclohexanone. <i>Tetrahedron: Asymmetry</i> , 2004, 15, 1929-1932.	1.8	21
75	Practical Resolution of 3-Phenyl-2H-azirine-2-methanol at Very Low Temperature by Using Lipase Immobilized on Porous Ceramic and Optimized Acylating Agent. <i>Bulletin of the Chemical Society of Japan</i> , 2003, 76, 1819-1821.	2.0	20
76	Reestimation of the Taft's Substituent Constant of the Pentafluorophenyl Group. <i>Journal of Organic Chemistry</i> , 2004, 69, 7340-7343.	1.7	20
77	Molecular Recognition of Chiral Diporphyrin Receptor with a Macrocyclic Cavity for Intercalation of Aromatic Compounds. <i>Bulletin of the Chemical Society of Japan</i> , 2012, 85, 101-109.	2.0	19
78	Chiral exciplex dyes showing circularly polarized luminescence: extension of the excimer chirality rule. <i>Chemical Science</i> , 2021, 12, 14570-14576.	3.7	19
79	Synthesis of Enantiomerically Pure (R,R)- and (S,S)-1,2-Bis(pentafluorophenyl)ethane-1,2-diamine and Evaluation of the pKa Value by Ab Initio Calculations. <i>Bulletin of the Chemical Society of Japan</i> , 2004, 77, 1001-1008.	2.0	18
80	Synthesis of molecular tweezers bearing pentafluorophenyl and several pendant aryl groups. <i>Journal of Fluorine Chemistry</i> , 2006, 127, 604-609.	0.9	18
81	Circularly Polarized Luminescence Liquids Based on Siloxybinaphthyls: Best Binaphthyl Dihedral Angle in the Excited State. <i>Angewandte Chemie</i> , 2021, 133, 10056-10060.	1.6	18
82	<i>ortho</i> -Methylation of anilines and indoles with CO ₂ and hydrosilane using a pentanuclear zinc complex catalyst. <i>Chemical Communications</i> , 2021, 57, 8083-8086.	2.2	17
83	Chemical Modification of Lipase for Rational Enhancement of Enantioselectivity. <i>Chemistry Letters</i> , 2015, 44, 1374-1376.	0.7	16
84	Intramolecular Electronic Coupling in the Thiophene-Bridged Carbazole-Based Diporphyrin. <i>Organic Letters</i> , 2016, 18, 6070-6073.	2.4	16
85	Empirical method for predicting enantioselectivity in catalytic reactions: demonstration with lipase and oxazaborolidine. <i>Tetrahedron</i> , 2009, 65, 9583-9591.	1.0	15
86	Facile Synthesis of Azahelicenes and Diaza[8]circulenes through the Intramolecular Scholl Reaction. <i>Chemistry - A European Journal</i> , 2021, 27, 15699-15705.	1.7	15
87	Minimization of Amounts of Catalyst and Solvent in NHC-Catalyzed Benzoin Reactions of Solid Aldehydes: Mechanistic Consideration of Solid-to-Solid Conversion and Total Synthesis of Isodarparvinol B. <i>ACS Omega</i> , 2020, 5, 10207-10216.	1.6	14
88	Enhancement of protein thermostability by three consecutive mutations using loop-walking method and machine learning. <i>Scientific Reports</i> , 2021, 11, 11883.	1.6	13
89	Kinetic resolution of 5-(hydroxymethyl)-3-phenyl-2-isoxazoline by using the "low-temperature method" with porous ceramic-immobilized lipase. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 1535-1539.	1.8	12
90	Chemoenzymatic synthesis of optically active alcohol and β -amino-acid derivative containing the difluoromethylene group. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2010, 66, 198-202.	1.8	12

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91	Synthesis and electronic properties of π -expanded carbazole-based porphyrins. <i>Chemical Communications</i> , 2019, 55, 10162-10165.	2.2	12
92	Deoxygenative CO ₂ conversions with triphenylborane and phenylsilane in the presence of secondary amines or nitrogen-containing aromatics. <i>Green Chemistry</i> , 2022, 24, 2385-2390.	4.6	12
93	Hydrolase-catalyzed Kinetic Resolution of 5-[4-(1-Hydroxyethyl)phenyl]-10,15,20-tris(pentafluorophenyl)porphyrin in Ionic Liquids. <i>Chemistry Letters</i> , 2008, 37, 90-91.	0.7	11
94	Ruthenium Complexes Bearing Axially Chiral Bipyridyls: The Mismatched Diastereomer Showed Red Circularly Polarized Phosphorescence. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	10
95	Palladium Complexes of Carbazole-Based Chalcogenaisophlorins: Synthesis, Structure, and Solid-State NIR Absorption Spectra. <i>ChemPlusChem</i> , 2017, 82, 1368-1371.	1.3	9
96	Unexpected Macrocyclic Multinuclear Zinc and Nickel Complexes that Function as Multitasking Catalysts for CO ₂ Fixations. <i>Angewandte Chemie</i> , 2019, 131, 10089-10093.	1.6	8
97	Unexpected Behavior of Diastereomeric Ions in the GasPhase: A Stimulus for Pondering on <i>ee</i> Measurements by ESI-MS. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 573-578.	1.2	7
98	Multifunctional Macrocyclic Receptors as Templates for Aromatic Amino Acids: A Rare Example of a Highly Selective Multi-Input Multi-Output Chemo-Logic Gate. <i>ChemPlusChem</i> , 2013, 78, 979-987.	1.3	6
99	Binaphthyl-Bridged Pyrenophanes: Intense Circularly Polarized Luminescence Based on a <i>D</i> -Symmetry Strategy. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	6
100	Synthesis and electronic properties of carbazole-based core-modified diporphyrins showing near infrared absorption. <i>Chemical Communications</i> , 2020, 56, 15048-15051.	2.2	5
101	Synthetically useful variants of industrial lipases from <i>Burkholderia cepacia</i> and <i>Pseudomonas fluorescens</i> . <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 8713-8719.	1.5	3
102	Palladium Complexes of Carbazole-Based Chalcogenaisophlorins: Synthesis, Structure, and Solid-State NIR Absorption Spectra. <i>ChemPlusChem</i> , 2017, 82, 1367-1367.	1.3	0
103	Frontispiece: Synthesis and Chiroptical Properties of Chiral Carbazole-Based BODIPYs. <i>Chemistry - A European Journal</i> , 2020, 26, .	1.7	0