

Hiroyuki Miyamura

List of Publications by Year in descending order

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69
papers

4,132
citations

87843

38
h-index

110317

64
g-index

108
all docs

108
docs citations

108
times ranked

3995
citing authors

#	ARTICLE	IF	CITATIONS
1	Aerobic Oxidation of Alcohols at Room Temperature and Atmospheric Conditions Catalyzed by Reusable Gold Nanoclusters Stabilized by the Benzene Rings of Polystyrene Derivatives. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4151-4154.	7.2	343
2	Powerful Amide Synthesis from Alcohols and Amines under Aerobic Conditions Catalyzed by Gold or Gold/Iron, -Nickel or -Cobalt Nanoparticles. <i>Journal of the American Chemical Society</i> , 2011, 133, 18550-18553.	6.6	266
3	Spin Trapping of Au ^{III} H Intermediate in the Alcohol Oxidation by Supported and Unsupported Gold Catalysts. <i>Journal of the American Chemical Society</i> , 2009, 131, 7189-7196.	6.6	234
4	Discovery of a Metalloenzyme-like Cooperative Catalytic System of Metal Nanoclusters and Catechol Derivatives for the Aerobic Oxidation of Amines. <i>Journal of the American Chemical Society</i> , 2012, 134, 13970-13973.	6.6	188
5	Chiral metal nanoparticle-catalyzed asymmetric C-C bond formation reactions. <i>Chemical Society Reviews</i> , 2014, 43, 1450-1461.	18.7	157
6	Remarkable Effect of Bimetallic Nanocluster Catalysts for Aerobic Oxidation of Alcohols: Combining Metals Changes the Activities and the Reaction Pathways to Aldehydes/Carboxylic Acids or Esters. <i>Journal of the American Chemical Society</i> , 2010, 132, 15096-15098.	6.6	156
7	Aerobic oxidative esterification of alcohols catalyzed by polymer-incarcerated gold nanoclusters under ambient conditions. <i>Green Chemistry</i> , 2010, 12, 776.	4.6	133
8	Polymer-Incarcerated Chiral Rh/Ag Nanoparticles for Asymmetric 1,4-Addition Reactions of Arylboronic Acids to Enones: Remarkable Effects of Bimetallic Structure on Activity and Metal Leaching. <i>Journal of the American Chemical Society</i> , 2012, 134, 16963-16966.	6.6	111
9	A Gold-Immobilized Microchannel Flow Reactor for Oxidation of Alcohols with Molecular Oxygen. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 4744-4746.	7.2	102
10	Selective imine formation from alcohols and amines catalyzed by polymer incarcerated gold/palladium alloy nanoparticles with molecular oxygen as an oxidant. <i>Chemical Communications</i> , 2013, 49, 355-357.	2.2	100
11	Chiral Metal Nanoparticle Systems as Heterogeneous Catalysts beyond Homogeneous Metal Complex Catalysts for Asymmetric Addition of Arylboronic Acids to α,β -Unsaturated Carbonyl Compounds. <i>Journal of the American Chemical Society</i> , 2015, 137, 6616-6623.	6.6	98
12	Polysilane-Immobilized Rh-Pt Bimetallic Nanoparticles as Powerful Arene Hydrogenation Catalysts: Synthesis, Reactions under Batch and Flow Conditions and Reaction Mechanism. <i>Journal of the American Chemical Society</i> , 2018, 140, 11325-11334.	6.6	95
13	Highly Active, Immobilized Ruthenium Catalysts for Oxidation of Alcohols to Aldehydes and Ketones. Preparation and Use in Both Batch and Flow Systems. <i>Journal of the American Chemical Society</i> , 2005, 127, 9251-9254.	6.6	90
14	Tandem Oxidative Processes Catalyzed by Polymer-Incarcerated Multimetallic Nanoclusters with Molecular Oxygen. <i>Accounts of Chemical Research</i> , 2014, 47, 1054-1066.	7.6	90
15	Aerobic Oxidation of Hydroquinone Derivatives Catalyzed by Polymer-Incarcerated Platinum Catalyst. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8093-8095.	7.2	89
16	Gold-platinum bimetallic clusters for aerobic oxidation of alcohols under ambient conditions. <i>Chemical Communications</i> , 2008, , 2031.	2.2	89
17	A Cooperative Catalytic System of Platinum/Iridium Alloyed Nanoclusters and a Dimeric Catechol Derivative: An Efficient Synthesis of Quinazolines Through a Sequential Aerobic Oxidative Process. <i>Advanced Synthesis and Catalysis</i> , 2012, 354, 2899-2904.	2.1	86
18	Aerobic Oxidation of Alcohols under Mild Conditions Catalyzed by Novel Polymer-Incarcerated, Carbon-Stabilized Gold Nanoclusters. <i>Advanced Synthesis and Catalysis</i> , 2008, 350, 1996-2000.	2.1	75

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19	Copolymer-Incarcerated Nickel Nanoparticles with <i>N</i> -Heterocyclic Carbene Precursors as Active Cross-Linking Agents for Corriu's Kumada-Tamao Reaction. <i>Journal of the American Chemical Society</i> , 2013, 135, 10602-10605.	6.6	75
20	Polymer-Incarcerated Gold-Palladium Nanoclusters with Boron on Carbon: A Mild and Efficient Catalyst for the Sequential Aerobic Oxidation-Michael Addition of 1,3-Dicarbonyl Compounds to Allylic Alcohols. <i>Journal of the American Chemical Society</i> , 2011, 133, 3095-3103.	6.6	70
21	Polymer-incarcerated metal(0) cluster catalysts. <i>Chemical Record</i> , 2010, 10, 271-290.	2.9	64
22	Size of Gold Nanoparticles Driving Selective Amide Synthesis through Aerobic Condensation of Aldehydes and Amines. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7564-7567.	7.2	62
23	Cellulose-supported chiral rhodium nanoparticles as sustainable heterogeneous catalysts for asymmetric carbon-carbon bond-forming reactions. <i>Chemical Science</i> , 2015, 6, 6224-6229.	3.7	59
24	Chiral Ligand-Modified Metal Nanoparticles as Unique Catalysts for Asymmetric C-C Bond-Forming Reactions: How Are Active Species Generated?. <i>ACS Catalysis</i> , 2016, 6, 7979-7988.	5.5	59
25	Aerobic Oxidation of Amines Catalyzed by Polymer-Incarcerated Au Nanoclusters: Effect of Cluster Size and Cooperative Functional Groups in the Polymer. <i>Bulletin of the Chemical Society of Japan</i> , 2011, 84, 588-599.	2.0	58
26	Enhanced acyl radical formation in the Au nanoparticle-catalysed aldehydeoxidation. <i>Chemical Communications</i> , 2010, 46, 145-147.	2.2	55
27	Facile Preparation of <i>o</i> -Substituted Benzoxazoles and Benzothiazoles via Aerobic Oxidation of Phenolic and Thiophenolic Imines Catalyzed by Polymer-Incarcerated Platinum Nanoclusters. <i>Advanced Synthesis and Catalysis</i> , 2011, 353, 3085-3089.	2.1	53
28	Polymer Incarcerated Gold Catalyzed Aerobic Oxidation of Hydroquinones and Their Derivatives. <i>Chemistry Letters</i> , 2008, 37, 360-361.	0.7	52
29	Chiral Nanoparticles/Lewis Acids as Cooperative Catalysts for Asymmetric 1,4-Addition of Arylboronic Acids to α,β -Unsaturated Amides. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8058-8061.	7.2	50
30	Polymer Incarcerated Ruthenium Catalyst for Oxidation of Alcohols with Molecular Oxygen. <i>Advanced Synthesis and Catalysis</i> , 2007, 349, 531-534.	2.1	48
31	Synergistic cascade catalysis by metal nanoparticles and Lewis acids in hydrogen autotransfer. <i>Chemical Science</i> , 2015, 6, 1719-1727.	3.7	45
32	Powerful Continuous-Flow Hydrogenation by using Poly(dimethyl)silane-Supported Palladium Catalysts. <i>ChemCatChem</i> , 2015, 7, 4025-4029.	1.8	44
33	Polymer-micelle incarcerated ruthenium catalysts for oxidation of alcohols and sulfides. <i>Tetrahedron</i> , 2005, 61, 12177-12185.	1.0	41
34	A heterogeneous layered bifunctional catalyst for the integration of aerobic oxidation and asymmetric C-C bond formation. <i>Chemical Communications</i> , 2013, 49, 9917.	2.2	41
35	Chiral Nanoparticles/Lewis Acids as Cooperative Catalysts for Asymmetric 1,4-Addition of Arylboronic Acids to α,β -Unsaturated Amides. <i>Angewandte Chemie</i> , 2016, 128, 8190-8193.	1.6	41
36	Direct Amidation from Alcohols and Amines through a Tandem Oxidation Process Catalyzed by Heterogeneous Polymer-Incarcerated Gold Nanoparticles under Aerobic Conditions. <i>Chemistry - an Asian Journal</i> , 2013, 8, 2614-2626.	1.7	40

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37	Asymmetric Arylation of Imines Catalyzed by Heterogeneous Chiral Rhodium Nanoparticles. <i>Organic Letters</i> , 2016, 18, 2716-2718.	2.4	38
38	Rhodium-catalyzed asymmetric 1,4-addition reactions of aryl boronic acids with nitroalkenes: reaction mechanism and development of homogeneous and heterogeneous catalysts. <i>Chemical Science</i> , 2017, 8, 8362-8372.	3.7	38
39	In situ coupled oxidation cycle catalyzed by highly active and reusable Pt-catalysts: dehydrogenative oxidation reactions in the presence of a catalytic amount of o-chloranil using molecular oxygen as the terminal oxidant. <i>Chemical Communications</i> , 2010, 46, 8052.	2.2	36
40	Multiphase Flow Systems for Selective Aerobic Oxidation of Alcohols Catalyzed by Bimetallic Nanoclusters. <i>Journal of Flow Chemistry</i> , 2012, 2, 1-4.	1.2	33
41	Direct Synthesis of Hydroquinones from Quinones through Sequential and Continuous-Flow Hydrogenation- <i>Derivatization</i> Using Heterogeneous Au-Pt Nanoparticles as Catalysts. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9220-9224.	7.2	29
42	Integrated Process of Aerobic Oxidation-Olefination-Asymmetric C-C Bond Formation Catalyzed by Robust Heterogeneous Gold/Palladium and Chirally Modified Rhodium Nanoparticles. <i>Advanced Synthesis and Catalysis</i> , 2015, 357, 3815-3819.	2.1	28
43	Rate-Acceleration in Gold-Nanocluster-Catalyzed Aerobic Oxidative Esterification Using 1,2- and 1,3-Diols and Their Derivatives. <i>Chemistry - an Asian Journal</i> , 2011, 6, 621-627.	1.7	27
44	Heterogeneous Supramolecular Catalysis through Immobilization of Anionic M ₄ L ₆ Assemblies on Cationic Polymers. <i>Journal of the American Chemical Society</i> , 2020, 142, 19327-19338.	6.6	27
45	Copper-catalyzed, aerobic oxidative cross-coupling of alkynes with arylboronic acids: remarkable selectivity in 2,6-lutidine media. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 6208.	1.5	25
46	Chiral Rhodium Nanoparticle-Catalyzed Asymmetric Arylation Reactions. <i>Accounts of Chemical Research</i> , 2020, 53, 2950-2963.	7.6	21
47	Integration of aerobic oxidation and intramolecular asymmetric aza-Friedel-Crafts reactions with a chiral bifunctional heterogeneous catalyst. <i>Chemical Science</i> , 2017, 8, 1356-1359.	3.7	20
48	Selective Lactam Formation from Amino Alcohols Using Polymer-Incarcerated Gold and Gold/Cobalt Nanoparticles as Catalysts under Aerobic Oxidative Conditions. <i>Asian Journal of Organic Chemistry</i> , 2012, 1, 319-321.	1.3	19
49	A Polystyrene-Supported Phase-Transfer Catalyst for Asymmetric Michael Addition of Glycine-Derived Imines to α,β -Unsaturated Ketones. <i>Advanced Synthesis and Catalysis</i> , 2017, 359, 2897-2900.	2.1	18
50	α -Hydroxylation of 1,3-Dicarbonyl Compounds Catalyzed by Polymer-incarcerated Gold Nanoclusters with Molecular Oxygen. <i>Chemistry Letters</i> , 2012, 41, 976-978.	0.7	17
51	Heterogeneous Rh and Rh/Ag bimetallic nanoparticle catalysts immobilized on chiral polymers. <i>Chemical Science</i> , 2019, 10, 7619-7626.	3.7	17
52	<i>N</i> -Heterocyclic Carbene Coordinated Heterogeneous Pd Nanoparticles as Catalysts for Suzuki-Miyaura Coupling. <i>Chemistry Letters</i> , 2016, 45, 837-839.	0.7	14
53	Water as a catalytic switch in the oxidation of aryl alcohols by polymer incarcerated rhodium nanoparticles. <i>Catalysis Science and Technology</i> , 2017, 7, 3985-3998.	2.1	14
54	Reaction Rate Acceleration of Cooperative Catalytic Systems: Metal Nanoparticles and Lewis Acids in Arene Hydrogenation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	14

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55	Asymmetric 1,4-Addition of Arylboronic Acids to α,β -Unsaturated α -Ketoesters using Heterogeneous Chiral Metal Nanoparticle Systems. <i>Advanced Synthesis and Catalysis</i> , 2020, 362, 353-359.	2.1	13
56	Oxidative transformation of N-substituted 2-aminophenols to 2-substituted benzoxazoles catalyzed by polymer-incarcerated and carbon-stabilized platinum nanoclusters. <i>Canadian Journal of Chemistry</i> , 2012, 90, 306-313.	0.6	11
57	Self-Assembled Nanocomposite Organic Polymers with Aluminum and Scandium as Heterogeneous Water-Compatible Lewis Acid Catalysts. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10559-10563.	7.2	11
58	Preparation of polymer incarcerated gold nanocluster catalysts (PI-Au) and their application to aerobic oxidation reactions of boronic acids, alcohols, and silyl enol ethers. <i>Tetrahedron</i> , 2014, 70, 6039-6049.	1.0	9
59	Direct Synthesis of Hydroquinones from Quinones through Sequential and Continuous-Flow Hydrogenation-Derivatization Using Heterogeneous Au-Pt Nanoparticles as Catalysts. <i>Angewandte Chemie</i> , 2019, 131, 9318-9322.	1.6	4
60	Highly Selective Reductive Cross-Amination between Aniline or Nitroarene Derivatives and Alkylamines Catalyzed by Polysilane-Immobilized Rh/Pt Bimetallic Nanoparticles. <i>Synlett</i> , 2019, 30, 387-392.	1.0	4
61	Lewis acid-driven reaction pathways in synergistic cooperative catalysis over gold/palladium bimetallic nanoparticles for hydrogen autotransfer reaction between amide and alcohol. <i>Chinese Journal of Catalysis</i> , 2016, 37, 1662-1668.	6.9	3
62	Simple Homopolymer-incarcerated Gold Nanoclusters Prepared by Self-assembled Encapsulation with Aluminum Reagents as Crosslinkers: Catalysts for Aerobic Oxidation Reactions. <i>Chemistry Letters</i> , 2015, 44, 50-52.	0.7	2
63	Inside Cover: Aerobic Oxidation of Alcohols at Room Temperature and Atmospheric Conditions Catalyzed by Reusable Gold Nanoclusters Stabilized by the Benzene Rings of Polystyrene Derivatives (<i>Angew. Chem. Int. Ed.</i> 22/2007). <i>Angewandte Chemie - International Edition</i> , 2007, 46, 3992-3992.	7.2	1
64	Aerobic Oxidation of Alcohols and Direct Oxidative Ester Formation Catalyzed by Polymer-Immobilized Bimetallic Nanocluster Catalysts. <i>Kobunshi Ronbunshu</i> , 2011, 68, 493-508.	0.2	1
65	Highly Active, Immobilized Ruthenium Catalysts for Oxidation of Alcohols to Aldehydes and Ketones. Preparation and Use in Both Batch and Flow Systems.. <i>ChemInform</i> , 2005, 36, no.	0.1	0
66	Front Cover Picture: A Polystyrene-Supported Phase-Transfer Catalyst for Asymmetric Michael Addition of Glycine-Derived Imines to α,β -Unsaturated Ketones (<i>Adv. Synth. Catal.</i> 17/2017). <i>Advanced Synthesis and Catalysis</i> , 2017, 359, 2895-2895.	2.1	0
67	Development of Highly Functionalized Metal Nanocluster Catalysts for Fine Organic Synthesis. Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry, 2017, 75, 1238-1252.	0.0	0
68	Polymer Immobilized Bimetallic Nanoparticle Catalysts for Selective Hydrogenation of Quinones and Integration of Quinone-hydrogenation and Its Derivatization Using Sequential and Continuous-flow Systems. Yuki Gosei Kagaku Kyokaiishi/Journal of Synthetic Organic Chemistry, 2020, 78, 232-239.	0.0	0
69	Reaction Rate Acceleration of Cooperative Catalytic Systems: Metal Nanoparticles and Lewis Acids in Arene Hydrogenation. <i>Angewandte Chemie</i> , 0, , .	1.6	0