

# Hiroyuki Miyamura

## List of Publications by Citations

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74  
papers

3,583  
citations

35  
h-index

59  
g-index

108  
ext. papers

3,880  
ext. citations

9.1  
avg, IF

5.66  
L-index

#	Paper	IF	Citations
74	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> , <b>2007</b> , 46, 4151-4	16.4	322
73	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> , <b>2011</b> , 133, 18550-3	16.4	236
72	Spin trapping of Au-H intermediate in the alcohol oxidation by supported and unsupported gold catalysts. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 7189-96	16.4	212
71	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> , <b>2012</b> , 134, 13970-3	16.4	167
70	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> , <b>2010</b> , 132, 15096-8	16.4	145
69	Chiral metal nanoparticle-catalyzed asymmetric C-C bond formation reactions. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 1450-61	58.5	136
68	Aerobic oxidative esterification of alcohols catalyzed by polymer-incarcerated gold nanoclusters under ambient conditions. <i>Green Chemistry</i> , <b>2010</b> , 12, 776	10	123
67	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> , <b>2012</b> , 134, 16963-6	16.4	101
66	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</i> , <b>2007</b> , 119, 4229-4232	3.6	94
65	A gold-immobilized microchannel flow reactor for oxidation of alcohols with molecular oxygen. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 4744-6	16.4	91
64	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> , <b>2013</b> , 49, 355-7	5.8	89
63	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> , <b>2005</b> , 127, 9251-4	16.4	87
62	Chiral Metal Nanoparticle Systems as Heterogeneous Catalysts beyond Homogeneous Metal Complex Catalysts for Asymmetric Addition of Arylboronic Acids to $\alpha,\beta$ -Unsaturated Carbonyl Compounds. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 6616-23	16.4	86
61	Gold-platinum bimetallic clusters for aerobic oxidation of alcohols under ambient conditions. <i>Chemical Communications</i> , <b>2008</b> , 2031-3	5.8	83
60	Tandem oxidative processes catalyzed by polymer-incarcerated multimetallic nanoclusters with molecular oxygen. <i>Accounts of Chemical Research</i> , <b>2014</b> , 47, 1054-66	24.3	81
59	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> , <b>2012</b> , 354, 2899-2904	5.6	77
58	Aerobic Oxidation of Alcohols under Mild Conditions Catalyzed by Novel Polymer-Incarcerated, Carbon-Stabilized Gold Nanoclusters. <i>Advanced Synthesis and Catalysis</i> , <b>2008</b> , 350, 1996-2000	5.6	74

57	Aerobic oxidation of hydroquinone derivatives catalyzed by polymer-incarcerated platinum catalyst. <i>Angewandte Chemie - International Edition</i> , <b>2008</b> , 47, 8093-5	16.4	73
56	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> , <b>2011</b> , 133, 3095-103	16.4	68
55	Copolymer-incarcerated nickel nanoparticles with N-heterocyclic carbene precursors as active cross-linking agents for Corriu-Kumada-Tamao reaction. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 10602-5	16.4	60
54	Polymer-incarcerated metal(0) cluster catalysts. <i>Chemical Record</i> , <b>2010</b> , 10, 271-90	6.6	58
53	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> , <b>2018</b> , 140, 11325-11334	16.4	56
52	Size of gold nanoparticles driving selective amide synthesis through aerobic condensation of aldehydes and amines. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 7564-7	16.4	54
51	Cellulose-supported chiral rhodium nanoparticles as sustainable heterogeneous catalysts for asymmetric carbon-carbon bond-forming reactions. <i>Chemical Science</i> , <b>2015</b> , 6, 6224-6229	9.4	52
50	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> , <b>2011</b> , 84, 588-599	5.1	51
49	Chiral Ligand-Modified Metal Nanoparticles as Unique Catalysts for Asymmetric C-C Bond-Forming Reactions: How Are Active Species Generated?. <i>ACS Catalysis</i> , <b>2016</b> , 6, 7979-7988	13.1	49
48	Enhanced acyl radical formation in the Au nanoparticle-catalysed aldehyde oxidation. <i>Chemical Communications</i> , <b>2010</b> , 46, 145-7	5.8	49
47	Polymer Incarcerated Gold Catalyzed Aerobic Oxidation of Hydroquinones and Their Derivatives. <i>Chemistry Letters</i> , <b>2008</b> , 37, 360-361	1.7	49
46	Facile Preparation of 2-Substituted Benzoxazoles and Benzothiazoles via Aerobic Oxidation of Phenolic and Thiophenolic Imines Catalyzed by Polymer-Incarcerated Platinum Nanoclusters. <i>Advanced Synthesis and Catalysis</i> , <b>2011</b> , 353, 3085-3089	5.6	44
45	Polymer Incarcerated Ruthenium Catalyst for Oxidation of Alcohols with Molecular Oxygen. <i>Advanced Synthesis and Catalysis</i> , <b>2007</b> , 349, 531-534	5.6	43
44	Chiral Nanoparticles/Lewis Acids as Cooperative Catalysts for Asymmetric 1,4-Addition of Arylboronic Acids to $\alpha,\beta$ -Unsaturated Amides. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 8058-61	16.4	41
43	A heterogeneous layered bifunctional catalyst for the integration of aerobic oxidation and asymmetric C-C bond formation. <i>Chemical Communications</i> , <b>2013</b> , 49, 9917-9	5.8	38
42	Synergistic cascade catalysis by metal nanoparticles and Lewis acids in hydrogen autotransfer. <i>Chemical Science</i> , <b>2015</b> , 6, 1719-1727	9.4	36
41	Powerful Continuous-Flow Hydrogenation by using Poly(dimethyl)silane-Supported Palladium Catalysts. <i>ChemCatChem</i> , <b>2015</b> , 7, 4025-4029	5.2	36
40	Polymer-micelle incarcerated ruthenium catalysts for oxidation of alcohols and sulfides. <i>Tetrahedron</i> , <b>2005</b> , 61, 12177-12185	2.4	36

- 39 Direct amidation from alcohols and amines through a tandem oxidation process catalyzed by heterogeneous-polymer-incarcerated gold nanoparticles under aerobic conditions. *Chemistry - an Asian Journal*, **2013**, 8, 2614-26 4.5 35
- 38 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. *Chemical Communications*, **2010**, 46, 8052-4 5.8 34
- 37 A Gold-Immobilized Microchannel Flow Reactor for Oxidation of Alcohols with Molecular Oxygen. *Angewandte Chemie*, **2009**, 121, 4838-4840 3.6 34
- 36 Multiphase Flow Systems for Selective Aerobic Oxidation of Alcohols Catalyzed by Bimetallic Nanoclusters. *Journal of Flow Chemistry*, **2012**, 2, 1-4 3.3 32
- 35 Asymmetric Arylation of Imines Catalyzed by Heterogeneous Chiral Rhodium Nanoparticles. *Organic Letters*, **2016**, 18, 2716-8 6.2 29
- 34 Rhodium-catalyzed asymmetric 1,4-addition reactions of aryl boronic acids with nitroalkenes: reaction mechanism and development of homogeneous and heterogeneous catalysts. *Chemical Science*, **2017**, 8, 8362-8372 9.4 28
- 33 Rate-acceleration in gold-nanocluster-catalyzed aerobic oxidative esterification using 1,2- and 1,3-diols and their derivatives. *Chemistry - an Asian Journal*, **2011**, 6, 621-7 4.5 27
- 32 Integrated Process of Aerobic Oxidation/Defination/Asymmetric C-C Bond Formation Catalyzed by Robust Heterogeneous Gold/Palladium and Chirally Modified Rhodium Nanoparticles. *Advanced Synthesis and Catalysis*, **2015**, 357, 3815-3819 5.6 23
- 31 Copper-catalyzed, aerobic oxidative cross-coupling of alkynes with arylboronic acids: remarkable selectivity in 2,6-lutidine media. *Organic and Biomolecular Chemistry*, **2011**, 9, 6208-10 3.9 21
- 30 Direct Synthesis of Hydroquinones from Quinones through Sequential and Continuous-Flow Hydrogenation-Derivatization Using Heterogeneous Au-Pt Nanoparticles as Catalysts. *Angewandte Chemie - International Edition*, **2019**, 58, 9220-9224 16.4 18
- 29 Aerobic Oxidation of Hydroquinone Derivatives Catalyzed by Polymer-Incarcerated Platinum Catalyst. *Angewandte Chemie*, **2008**, 120, 8213-8215 3.6 18
- 28 Size of Gold Nanoparticles Driving Selective Amide Synthesis through Aerobic Condensation of Aldehydes and Amines. *Angewandte Chemie*, **2015**, 127, 7674-7677 3.6 17
- 27 Selective Lactam Formation from Amino Alcohols Using Polymer-Incarcerated Gold and Gold/Cobalt Nanoparticles as Catalysts under Aerobic Oxidative Conditions. *Asian Journal of Organic Chemistry*, **2012**, 1, 319-321 3 17
- 26 Integration of aerobic oxidation and intramolecular asymmetric aza-Friedel-Crafts reactions with a chiral bifunctional heterogeneous catalyst. *Chemical Science*, **2017**, 8, 1356-1359 9.4 13
- 25 Hydroxylation of 1,3-Dicarbonyl Compounds Catalyzed by Polymer-incarcerated Gold Nanoclusters with Molecular Oxygen. *Chemistry Letters*, **2012**, 41, 976-978 1.7 13
- 24 Chiral Rhodium Nanoparticle-Catalyzed Asymmetric Arylation Reactions. *Accounts of Chemical Research*, **2020**, 53, 2950-2963 24.3 13
- 23 Water as a catalytic switch in the oxidation of aryl alcohols by polymer incarcerated rhodium nanoparticles. *Catalysis Science and Technology*, **2017**, 7, 3985-3998 5.5 12
- 22 A Polystyrene-Supported Phase-Transfer Catalyst for Asymmetric Michael Addition of Glycine-Derived Imines to  $\alpha,\beta$ -Unsaturated Ketones. *Advanced Synthesis and Catalysis*, **2017**, 359, 2897-2900 5.6 11

21	Heterogeneous Rh and Rh/Ag bimetallic nanoparticle catalysts immobilized on chiral polymers. <i>Chemical Science</i> , <b>2019</b> , 10, 7619-7626	9.4	10
20	N-Heterocyclic Carbene Coordinated Heterogeneous Pd Nanoparticles as Catalysts for Suzuki-Miyaura Coupling. <i>Chemistry Letters</i> , <b>2016</b> , 45, 837-839	1.7	9
19	Chiral Nanoparticles/Lewis Acids as Cooperative Catalysts for Asymmetric 1,4-Addition of Arylboronic Acids to $\alpha$ -Unsaturated Amides. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 8190-8193	3.6	9
18	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> , <b>2014</b> , 70, 6039-6049	2.4	9
17	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> , <b>2012</b> , 90, 306-313	0.9	9
16	Asymmetric 1,4-Addition of Arylboronic Acids to $\alpha$ -Unsaturated $\beta$ -Ketoesters using Heterogeneous Chiral Metal Nanoparticle Systems. <i>Advanced Synthesis and Catalysis</i> , <b>2020</b> , 362, 353-359	5.6	9
15	Heterogeneous Supramolecular Catalysis through Immobilization of Anionic ML Assemblies on Cationic Polymers. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 19327-19338	16.4	9
14	Self-Assembled Nanocomposite Organic Polymers with Aluminum and Scandium as Heterogeneous Water-Compatible Lewis Acid Catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 10559-63	16.4	6
13	Self-Assembled Nanocomposite Organic Polymers with Aluminum and Scandium as Heterogeneous Water-Compatible Lewis Acid Catalysts. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 10705-10709	3.6	4
12	Direct Synthesis of Hydroquinones from Quinones through Sequential and Continuous-Flow Hydrogenation-Derivatization Using Heterogeneous Au/Pt Nanoparticles as Catalysts. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 9318-9322	3.6	3
11	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> , <b>2016</b> , 37, 1662-1668	11.3	3
10	Simple Homopolymer-incarcerated Gold Nanoclusters Prepared by Self-assembled Encapsulation with Aluminum Reagents as Crosslinkers: Catalysts for Aerobic Oxidation Reactions. <i>Chemistry Letters</i> , <b>2015</b> , 44, 50-52	1.7	2
9	Innentitelbild: Aerobic Oxidation of Alcohols at Room Temperature and Atmospheric Conditions Catalyzed by Reusable Gold Nanoclusters Stabilized by the Benzene Rings of Polystyrene Derivatives (Angew. Chem. 22/2007). <i>Angewandte Chemie</i> , <b>2007</b> , 119, 4066-4066	3.6	2
8	Aerobic Oxidation of Alcohols and Direct Oxidative Ester Formation Catalyzed by Polymer-Immobilized Bimetallic Nanocluster Catalysts. <i>Kobunshi Ronbunshu</i> , <b>2011</b> , 68, 493-508	0	1
7	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 (Angew. Chem. Int. Ed. 22/2007). <i>Angewandte Chemie - International Edition</i> , <b>2007</b> , 46, 3992-3992	16.4	1
6	Highly Selective Reductive Cross-Amination between Aniline or Nitroarene Derivatives and Alkylamines Catalyzed by Polysilane-Immobilized Rh/Pt Bimetallic Nanoparticles. <i>Synlett</i> , <b>2019</b> , 30, 387-392	2.2	1
5	Front Cover Picture: A Polystyrene-Supported Phase-Transfer Catalyst for Asymmetric Michael Addition of Glycine-Derived Imines to $\alpha$ -Unsaturated Ketones (Adv. Synth. Catal. 17/2017). <i>Advanced Synthesis and Catalysis</i> , <b>2017</b> , 359, 2895-2895	5.6	
4	Applications in Catalysis <b>2017</b> , 223-258		

- 3 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 Kyokaishi/Journal of Synthetic Organic Chemistry*, **2020**, *78*, 232-239 0.2
- 2 Development of Highly Functionalized Metal Nanocluster Catalysts for Fine Organic Synthesis. *Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry*, **2017**, *75*, 1238-1252 0.2
- 1 Nanoparticle Catalysts in Flow Systems. *Topics in Organometallic Chemistry*, **2020**, 207-241 0.6