

Shun Nishimura

List of Publications by Year in descending order

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93
papers

4,789
citations

109137

35
h-index

95083

68
g-index

102
all docs

102
docs citations

102
times ranked

5137
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrotalcite-supported gold-nanoparticle-catalyzed highly efficient base-free aqueous oxidation of 5-hydroxymethylfurfural into 2,5-furandicarboxylic acid under atmospheric oxygen pressure. <i>Green Chemistry</i> , 2011, 13, 824.	4.6	389
2	A one-pot reaction for biorefinery: combination of solid acid and base catalysts for direct production of 5-hydroxymethylfurfural from saccharides. <i>Chemical Communications</i> , 2009, , 6276.	2.2	299
3	One-Pot Synthesis of 2,5-Diformylfuran from Carbohydrate Derivatives by Sulfonated Resin and Hydrotalcite-Supported Ruthenium Catalysts. <i>ACS Catalysis</i> , 2011, 1, 1562-1565.	5.5	233
4	Characterization, synthesis and catalysis of hydrotalcite-related materials for highly efficient materials transformations. <i>Green Chemistry</i> , 2013, 15, 2026.	4.6	219
5	Selective hydrogenation of biomass-derived 5-hydroxymethylfurfural (HMF) to 2,5-dimethylfuran (DMF) under atmospheric hydrogen pressure over carbon supported PdAu bimetallic catalyst. <i>Catalysis Today</i> , 2014, 232, 89-98.	2.2	214
6	Direct Synthesis of 1,6-Hexanediol from HMF over a Heterogeneous Pd/ZrP Catalyst using Formic Acid as Hydrogen Source. <i>ChemSusChem</i> , 2014, 7, 96-100.	3.6	196
7	Syntheses of 5-hydroxymethylfurfural and levoglucosan by selective dehydration of glucose using solid acid and base catalysts. <i>Applied Catalysis A: General</i> , 2010, 383, 149-155.	2.2	177
8	Synthesis of glycerol carbonate from glycerol and dialkyl carbonates using hydrotalcite as a reusable heterogeneous base catalyst. <i>Green Chemistry</i> , 2010, 12, 578.	4.6	170
9	Upgrading of pyrolysis bio-oil using nickel phosphide catalysts. <i>Journal of Catalysis</i> , 2016, 333, 115-126.	3.1	147
10	Metal-free oxidative synthesis of succinic acid from biomass-derived furan compounds using a solid acid catalyst with hydrogen peroxide. <i>Applied Catalysis A: General</i> , 2013, 458, 55-62.	2.2	124
11	Platinum/Gold Alloy Nanoparticles-Supported Hydrotalcite Catalyst for Selective Aerobic Oxidation of Polyols in Base-Free Aqueous Solution at Room Temperature. <i>ACS Catalysis</i> , 2013, 3, 2199-2207.	5.5	122
12	High-Throughput Experimentation and Catalyst Informatics for Oxidative Coupling of Methane. <i>ACS Catalysis</i> , 2020, 10, 921-932.	5.5	117
13	Production of γ -valerolactone from biomass-derived compounds using formic acid as a hydrogen source over supported metal catalysts in water solvent. <i>RSC Advances</i> , 2014, 4, 10525.	1.7	105
14	Selective Oxidation of Glycerol by Using a Hydrotalcite-Supported Platinum Catalyst under Atmospheric Oxygen Pressure in Water. <i>ChemSusChem</i> , 2011, 4, 542-548.	3.6	100
15	Highly Efficient Aqueous Oxidation of Furfural to Succinic Acid Using Reusable Heterogeneous Acid Catalyst with Hydrogen Peroxide. <i>Chemistry Letters</i> , 2012, 41, 409-411.	0.7	91
16	The role of negatively charged Au states in aerobic oxidation of alcohols over hydrotalcite supported AuPd nanoclusters. <i>Catalysis Science and Technology</i> , 2013, 3, 351-359.	2.1	90
17	Catalytic Transformations of Biomass-Derived Materials into Value-Added Chemicals. <i>Catalysis Surveys From Asia</i> , 2012, 16, 164-182.	1.0	89
18	Role of base in the formation of silver nanoparticles synthesized using sodium acrylate as a dual reducing and encapsulating agent. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 9335.	1.3	87

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19	One-pot Formation of Furfural from Xylose via Isomerization and Successive Dehydration Reactions over Heterogeneous Acid and Base Catalysts. <i>Chemistry Letters</i> , 2010, 39, 838-840.	0.7	78
20	One-Pot Synthesis of Furans from Various Saccharides Using a Combination of Solid Acid and Base Catalysts. <i>Bulletin of the Chemical Society of Japan</i> , 2012, 85, 275-281.	2.0	75
21	Reductive amination of furfural toward furfurylamine with aqueous ammonia under hydrogen over Ru-supported catalyst. <i>Research on Chemical Intermediates</i> , 2016, 42, 19-30.	1.3	75
22	The Rise of Catalyst Informatics: Towards Catalyst Genomics. <i>ChemCatChem</i> , 2019, 11, 1146-1152.	1.8	72
23	Synthesis of levulinic acid from fructose using Amberlyst-15 as a solid acid catalyst. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2012, 106, 185-192.	0.8	70
24	X-ray Absorption Near-Edge Structure and X-ray Photoelectron Spectroscopy Studies of Interfacial Charge Transfer in Gold-Silver-Gold Double-Shell Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4511-4516.	1.5	69
25	Hydrolysis of Sugars Using Magnetic Silica Nanoparticles with Sulfonic Acid Groups. <i>Chemistry Letters</i> , 2011, 40, 1195-1197.	0.7	65
26	Base-free chemoselective transfer hydrogenation of nitroarenes to anilines with formic acid as hydrogen source by a reusable heterogeneous Pd/ZrP catalyst. <i>RSC Advances</i> , 2014, 4, 38241.	1.7	63
27	Unveiling Hidden Catalysts for the Oxidative Coupling of Methane based on Combining Machine Learning with Literature Data. <i>ChemCatChem</i> , 2018, 10, 3223-3228.	1.8	62
28	Synthesis of high-value organic acids from sugars promoted by hydrothermally loaded Cu oxide species on magnesia. <i>Applied Catalysis B: Environmental</i> , 2015, 162, 1-10.	10.8	54
29	Hydrotalcite-Supported Platinum Nanoparticles Prepared by a Green Synthesis Method for Selective Oxidation of Glycerol in Water Using Molecular Oxygen. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 16182-16187.	1.8	47
30	Synthesis of α -Amino Acids from Glucosamine-HCl and its Derivatives by Aerobic Oxidation in Water Catalyzed by Au Nanoparticles on Basic Supports. <i>ChemSusChem</i> , 2013, 6, 2259-2262.	3.6	46
31	Promotion effect of coexistent hydromagnesite in a highly active solid base hydrotalcite catalyst for transesterifications of glycols into cyclic carbonates. <i>Catalysis Today</i> , 2012, 185, 241-246.	2.2	44
32	<i>In Situ</i> Time-Resolved XAFS Study on the Formation Mechanism of Cu Nanoparticles Using Poly(N-vinyl-2-pyrrolidone) as a Capping Agent. <i>Langmuir</i> , 2010, 26, 4473-4479.	1.6	42
33	Data Driven Determination of Reaction Conditions in Oxidative Coupling of Methane via Machine Learning. <i>ChemCatChem</i> , 2019, 11, 4307-4313.	1.8	41
34	Gold Nanoparticles Supported on Alumina as a Catalyst for Surface Plasmon-Enhanced Selective Reductions of Nitrobenzene. <i>ACS Omega</i> , 2017, 2, 7066-7070.	1.6	39
35	Highly Selective Synthesis of 1,4-Butanediol via Hydrogenation of Succinic Acid with Supported Cu-Pd Alloy Nanoparticles. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 18483-18492.	3.2	39
36	One-pot synthesis of furfural derivatives from pentoses using solid acid and base catalysts. <i>Catalysis Science and Technology</i> , 2014, 4, 971-978.	2.1	37

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37	Recent Advances in Heterogeneous Catalysis with Controlled Nanostructured Precious Monometals. <i>ChemCatChem</i> , 2016, 8, 2303-2316.	1.8	35
38	Preparation of zirconium carbonate as water-tolerant solid base catalyst for glucose isomerization and one-pot synthesis of levulinic acid with solid acid catalyst. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2014, 111, 183-197.	0.8	34
39	Aerobic Oxidation of 5-Hydroxymethylfurfural into 2,5-Furandicarboxylic Acid over Gold Stabilized on Zirconia-Based Supports. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7150-7161.	3.2	32
40	Tailored design of palladium species grafted on an amino functionalized organozinc coordination polymer as a highly pertinent heterogeneous catalyst. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18687-18696.	5.2	30
41	Genesis of Catalytically Active Gold Nanoparticles Supported on Hydrotalcite for Base-free Selective Oxidation of Glycerol in Water with Molecular Oxygen. <i>Chemistry Letters</i> , 2011, 40, 150-152.	0.7	29
42	Novel catalytic behavior of Cu/Al ₂ O ₃ catalyst against daily start-up and shut-down (DSS)-like operation in the water gas shift reaction. <i>Applied Catalysis A: General</i> , 2010, 387, 185-194.	2.2	27
43	Fine-crystallized LDHs prepared with SiO ₂ spheres as highly active solid base catalysts. <i>Journal of Materials Chemistry A</i> , 2017, 5, 6947-6957.	5.2	27
44	One-Pot Conversions of Raffinose into Furfural Derivatives and Sugar Alcohols by Using Heterogeneous Catalysts. <i>ChemSusChem</i> , 2014, 7, 260-267.	3.6	26
45	Selective synthesis of 3-methyl-2-cyclopentenone via intramolecular aldol condensation of 2,5-hexanedione with γ -Al ₂ O ₃ /AlOOH nanocomposite catalyst. <i>Fuel Processing Technology</i> , 2019, 196, 106185.	3.7	25
46	Synthesis of Formic Acid from Monosaccharides Using Calcined Mg-Al Hydrotalcite as Reusable Catalyst in the Presence of Aqueous Hydrogen Peroxide. <i>Organic Process Research and Development</i> , 2015, 19, 449-453.	1.3	23
47	Direct Hydroxymethylation of Furaldehydes with Aqueous Formaldehyde over a Reusable Sulfuric Functionalized Resin Catalyst. <i>ACS Omega</i> , 2018, 3, 5988-5993.	1.6	22
48	Direct esterification of succinic acid with phenol using zeolite beta catalyst. <i>Catalysis Communications</i> , 2019, 122, 20-23.	1.6	22
49	Revisiting Machine Learning Predictions for Oxidative Coupling of Methane (OCM) based on Literature Data. <i>ChemCatChem</i> , 2020, 12, 5888-5892.	1.8	22
50	High sustainability of Cu-Al-Ox catalysts against daily start-up and shut-down (DSS)-like operation in the water-gas shift reaction. <i>Catalysis Communications</i> , 2009, 10, 1057-1061.	1.6	21
51	Effect of Stabilizing Polymers on Catalysis of Hydrotalcite-Supported Platinum Nanoparticles for Aerobic Oxidation of 1,2-Propanediol in Aqueous Solution at Room Temperature. <i>Journal of Physical Chemistry C</i> , 2014, 118, 11723-11730.	1.5	21
52	Genesis of a bi-functional acid-base site on a Cr-supported layered double hydroxide catalyst surface for one-pot synthesis of furfurals from xylose with a solid acid catalyst. <i>Catalysis Science and Technology</i> , 2016, 6, 8200-8211.	2.1	21
53	Effect of support on the formation of CuPd alloy nanoparticles for the hydrogenation of succinic acid. <i>Applied Catalysis B: Environmental</i> , 2021, 282, 119619.	10.8	21
54	MgO-ZrO ₂ Mixed Oxides as Effective and Reusable Base Catalysts for Glucose Isomerization into Fructose in Aqueous Media. <i>Chemistry - an Asian Journal</i> , 2020, 15, 294-300.	1.7	20

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55	Monodisperse Iron Oxide Nanoparticles Embedded in Mg-Al Hydrotalcite as a Highly Active, Magnetically Separable, and Recyclable Solid Base Catalyst. <i>Bulletin of the Chemical Society of Japan</i> , 2010, 83, 846-851.	2.0	19
56	Transfer hydrogenation of furfuraldehydes with sodium phosphinate as a hydrogen source using Pd-supported alumina catalyst. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 79, 97-102.	2.7	19
57	Data-Driven Identification of the Reaction Network in Oxidative Coupling of the Methane Reaction via Experimental Data. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 787-795.	2.1	18
58	Selective Oxidation of Methane to Formaldehyde over a Silica-Supported Cobalt Single-Atom Catalyst. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1785-1792.	1.5	18
59	Direct design of active catalysts for low temperature oxidative coupling of methane via machine learning and data mining. <i>Catalysis Science and Technology</i> , 2021, 11, 524-530.	2.1	17
60	Relationships among the Catalytic Performance, Redox Activity, and Structure of Cu-CHA Catalysts for the Direct Oxidation of Methane to Methanol Investigated Using <i>In Situ</i> XAFS and UV-Vis Spectroscopies. <i>ACS Catalysis</i> , 2022, 12, 2454-2462.	5.5	17
61	Selective Oxidation of 1,6-Hexanediol to 6-Hydroxycaproic Acid over Reusable Hydrotalcite-Supported Au-Pd Bimetallic Catalysts. <i>ChemSusChem</i> , 2015, 8, 1862-1866.	3.6	16
62	Hydrothermal Preparation of a Robust Boehmite-Supported Ni-Dimethyldodecylamine Oxide-Capped Cobalt and Palladium Catalyst for the Facile Utilization of Formic Acid as a Hydrogen Source. <i>ChemCatChem</i> , 2015, 7, 2361-2369.	1.8	16
63	Hydroxymethylation of Furfural to HMF with Aqueous Formaldehyde over Zeolite Beta Catalyst. <i>Catalysts</i> , 2019, 9, 314.	1.6	16
64	Catalytic oxidation of methane to methanol over Cu-CHA with molecular oxygen. <i>Catalysis Science and Technology</i> , 2021, 11, 6217-6224.	2.1	16
65	One-pot Synthesis of Furfural from Xylose using Al ₂ O ₃ -Ni-Al Layered Double Hydroxide Acid-Base Bi-functional Catalyst and Sulfonated Resin. <i>Chemistry Letters</i> , 2016, 45, 194-196.	0.7	15
66	Data science assisted investigation of catalytically active copper hydrate in zeolites for direct oxidation of methane to methanol using H ₂ O ₂ . <i>Scientific Reports</i> , 2021, 11, 2067.	1.6	15
67	Catalytic direct oxidation of methane to methanol by redox of copper mordenite. <i>Catalysis Science and Technology</i> , 2021, 11, 3437-3446.	2.1	15
68	In situ observation of the dynamic behavior of Cu-Al-Ox catalysts for water gas shift reaction during daily start-up and shut-down (DSS)-like operation. <i>Catalysis Science and Technology</i> , 2012, 2, 1685.	2.1	13
69	Selective Oxidation of Biomass-derived Alcohols with Supported Metal Catalysts. <i>Journal of the Japan Petroleum Institute</i> , 2017, 60, 72-84.	0.4	10
70	Change in reactivity of differently capped AuPd bimetallic nanoparticle catalysts for selective oxidation of aliphatic diols to hydroxycarboxylic acids in basic aqueous solution. <i>Catalysis Today</i> , 2016, 265, 231-239.	2.2	9
71	Surfactant-Assisted Suzuki-Miyaura Coupling Reaction of Unreactive Chlorobenzene over Hydrotalcite-Supported Palladium Catalyst. <i>Asian Journal of Organic Chemistry</i> , 2017, 6, 274-277.	1.3	9
72	Aqueous Oxidation of Sugars into Sugar Acids Using Hydrotalcite-supported Gold Nanoparticle Catalyst under Atmospheric Molecular Oxygen. <i>Chemistry Letters</i> , 2016, 45, 843-845.	0.7	8

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73	Effect of SiO ₂ amount on heterogeneous base catalysis of SiO ₂ @Mg-Al layered double hydroxide. RSC Advances, 2018, 8, 28024-28031.	1.7	7
74	Influence of metal ratio on alumina-supported CuPd catalysts for the production of tetrahydrofuran from succinic acid. Applied Catalysis A: General, 2021, 616, 118063.	2.2	7
75	Representing the Methane Oxidation Reaction via Linking First-Principles Calculations and Experiment with Graph Theory. Journal of Physical Chemistry Letters, 2021, 12, 558-568.	2.1	7
76	Formic Acid as a Hydrogen Source for the Additive-Free Reduction of Aromatic Carbonyl and Nitrile Compounds at Reusable Supported Pd Catalysts. Catalysts, 2020, 10, 875.	1.6	6
77	Factors to influence low-temperature performance of supported Mn-Na ₂ WO ₄ in oxidative coupling of methane. Molecular Catalysis, 2021, 516, 111976.	1.0	6
78	Reductive Amination of 5-Hydroxymethyl-2-furaldehyde Over Beta Zeolite-Supported Ruthenium Catalyst. Catalysis Letters, 2022, 152, 2860-2868.	1.4	6
79	High-throughput screening and literature data-driven machine learning-assisted investigation of multi-component La ₂ O ₃ -based catalysts for the oxidative coupling of methane. Catalysis Science and Technology, 2022, 12, 2766-2774.	2.1	6
80	Selective aerobic oxidation of 1,3-propanediol to 3-hydroxypropanoic acid using hydrotalcite supported bimetallic gold nanoparticle catalyst in water. AIP Conference Proceedings, 2015, , .	0.3	5
81	Boehmite-derived Aluminum Oxide Catalyst for a Continuous Intramolecular Aldol Condensation of 2,5-Hexanedione to 3-Methyl-2-cyclopentenone in a Liquid-flow Reactor System. Chemistry Letters, 2022, 51, 131-134.	0.7	5
82	Properties of bio-oil generated by a pyrolysis of forest cedar residuals with the movable Auger-type reactor. AIP Conference Proceedings, 2016, , .	0.3	4
83	Catalytic Conversions of Biomass-Derived Furaldehydes Toward Biofuels. , 0, , .		4
84	Machine Learning-Aided Catalyst Modification in Oxidative Coupling of Methane via Manganese Promoter. Industrial & Engineering Chemistry Research, 2022, 61, 8462-8469.	1.8	4
85	Tailoring Graphene Oxide Framework with N- and S- Containing Organic Ligands for the Confinement of Pd Nanoparticles Towards Recyclable Catalyst Systems. Catalysis Letters, 2021, 151, 247-254.	1.4	3
86	Selective hydrogenation of succinic acid to gamma-butyrolactone with PVP-capped CuPd catalysts. Catalysis Science and Technology, 2022, 12, 1060-1069.	2.1	2
87	Preparation and Evaluation of Bimetallic Au Nano-Catalyst with Aerobic Oxidation of 1-Phenylethanol. Materials Research Society Symposia Proceedings, 2015, 1758, 56.	0.1	1
88	Bimetallic PdCu Nanoparticle Catalyst Supported on Hydrotalcite for Selective Aerobic Oxidation of Benzyl Alcohol. Materials Research Society Symposia Proceedings, 2015, 1760, 157.	0.1	1
89	Fe(III)-Exchanged Montmorillonite as Reusable Heterogeneous Protonic Acid Catalyst for Michael Addition of Indole in Water. ChemistrySelect, 2017, 2, 10814-10817.	0.7	1
90	Performance of compact fast pyrolysis reactor with Auger-type modules for the continuous liquid biofuel production. AIP Conference Proceedings, 2018, , .	0.3	1

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91	Synthesis of Glycidamide from Acrylonitrile Using Basic Hydrotalcite Catalyst in the Presence of Aqueous Hydrogen Peroxide and Unsaturated Amide. <i>Chemistry Letters</i> , 2014, 43, 1716-1718.	0.7	0
92	Synthesis of N-hydroxysuccinimide from succinic acid and hydroxylammonium chloride using Amberlyst A21 as reusable solid base catalyst. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0
93	Design and Control of Bioinspired Millibots. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000059.	3.3	0