Hengquan Yang

List of Publications by Year
in descending order

101 papers	5,833 citations	57758 44 h-index	79698 73 g-index
108 all docs	108 docs citations	108 times ranked	5674 citing authors

#	Article	IF	Citations
1	Hydrophobic zeolite modification for in situ peroxide formation in methane oxidation to methanol. Science, 2020, 367, 193-197.	12.6	470
2	Compartmentalization of Incompatible Reagents within Pickering Emulsion Droplets for One-Pot Cascade Reactions. Journal of the American Chemical Society, 2015, 137, 1362-1371.	13.7	212
3	Dumbbellâ€Shaped Biâ€component Mesoporous Janus Solid Nanoparticles for Biphasic Interface Catalysis. Angewandte Chemie - International Edition, 2017, 56, 8459-8463.	13.8	204
4	A Strategy for Separating and Recycling Solid Catalysts Based on the pHâ€Triggered Pickeringâ€Emulsion Inversion. Angewandte Chemie - International Edition, 2013, 52, 7455-7459.	13.8	197
5	Enhanced Cooperative Activation Effect in the Hydrolytic Kinetic Resolution of Epoxides on [Co(salen)] Catalysts Confined in Nanocages. Angewandte Chemie - International Edition, 2007, 46, 6861-6865.	13.8	196
6	Compartmentalized Droplets for Continuous Flow Liquidâ€“Liquid Interface Catalysis. Journal of the American Chemical Society, 2016, 138, 10173-10183.	13.7	178
7	N-Heterocyclic carbene palladium complex supported on ionic liquid-modified SBA-16: an efficient and highly recyclable catalyst for the Suzuki and Heck reactions. Green Chemistry, 2009, 11, 1184.	9.0	155
8	N-doped porous carbons with exceptionally high CO2 selectivity for CO2 capture. Carbon, 2017, 114, 473-481.	10.3	148
9	Palladium/Graphitic Carbon Nitride (gâ€C₃N₄) Stabilized Emulsion Microreactor as a Store for Hydrogen from Ammonia Borane for Use in Alkene Hydrogenation. Angewandte Chemie - International Edition, 2018, 57, 14857-14861.	13.8	135
10	Ionic Liquid Droplet Microreactor for Catalysis Reactions Not at Equilibrium. Journal of the American Chemical Society, 2017, 139, 17387-17396.	13.7	130
11	Pickering Emulsion as an Efficient Platform for Enzymatic Reactions without Stirring. ACS Sustainable Chemistry and Engineering, 2016, 4, 6838-6843.	6.7	107
12	Asymmetric reactions on chiral catalysts entrapped within a mesoporous cage. Chemical Communications, 2007, , 1086.	4.1	106
13	Palladium-guanidine complex immobilized on SBA-16: a highly active and recyclable catalyst for Suzuki coupling and alcohol oxidation. Green Chemistry, 2010, 12, 441.	9.0	105
14	pH-Responsive Gasâ€“Waterâ€“Solid Interface for Multiphase Catalysis. Journal of the American Chemical Society, 2015, 137, 15015-15025.	13.7	105
15	Oxygen vacancies in Co3O4 promote CO2 photoreduction. Applied Catalysis B: Environmental, 2022, 300, 120729.	20.2	105
16	In situ mosaic strategy generated Co-based N-doped mesoporous carbon for highly selective hydrogenation of nitroaromatics. Journal of Catalysis, 2017, 348, 212-222.	6.2	100
17	One-pot preparation of magnetic N-heterocyclic carbene-functionalized silica nanoparticles for the Suzukiâ€“Miyaura coupling of aryl chlorides: improved activity and facile catalyst recovery. Green Chemistry, 2011, 13, 1352.	9.0	99
18	Pickering Emulsion-Derived Liquidâ€“Solid Hybrid Catalyst for Bridging Homogeneous and Heterogeneous Catalysis. Journal of the American Chemical Society, 2019, 141, 5220-5230.	13.7	93

#	Article	IF	Citations
19	Palladium nanoparticles confined in the nanocages of SBA-16: Enhanced recyclability for the aerobic oxidation of alcohols in water. Journal of Molecular Catalysis A, 2010, 331, 78-85.	4.8	85
20	Asymmetric Catalysis with Metal Complexes in Nanoreactors. Chemistry - an Asian Journal, 2008, 3, 1214-1229.	3.3	79
21	Micrometerâ€Scale Mixing with Pickering Emulsions: Biphasic Reactions without Stirring. ChemSusChem, 2014, 7, 391-396.	6.8	79
22	The enantioselective cyanosilylation of aldehydes on a chiral VO(Salen) complex encapsulated in SBA-16. Green Chemistry, 2009, 11, 257-264.	9.0	76
23	Controlled Synthesis of Au Nanoparticles in the Nanocages of SBA-16: Improved Activity and Enhanced Recyclability for the Oxidative Esterification of Alcohols. Journal of Physical Chemistry C, 2012, 116, 6512-6519.	3.1	74
24	Tuning the Interfacial Activity of Mesoporous Silicas for Biphasic Interface Catalysis Reactions. ACS Applied Materials & Interfaces, 2017, 9, 8403-8412.	8.0	73
25	Biphasic biocatalysis using a CO₂-switchable Pickering emulsion. Green Chemistry, 2019, 21, 4062-4068.	9.0	70
26	A pH-switched Pickering emulsion catalytic system: high reaction efficiency and facile catalyst recycling. Chemical Communications, 2015, 51, 7333-7336.	4.1	68
27	Janus N-Doped Carbon@Silica Hollow Spheres as Multifunctional Amphiphilic Nanoreactors for Base-Free Aerobic Oxidation of Alcohols in Water. ACS Applied Materials & Interfaces, 2018, 10, 33474-33483.	8.0	65
28	Surfactant Assembly within Pickering Emulsion Droplets for Fabrication of Interiorâ€Structured Mesoporous Carbon Microspheres. Angewandte Chemie - International Edition, 2018, 57, 10899-10904.	13.8	65
29	Enhancement of catalytic performance in asymmetric transfer hydrogenation by microenvironment engineering of the nanocage. Chemical Communications, 2010, 46, 8145.	4.1	60
30	Facile Preparation of Ag-Coated Superhydrophobic/Superoleophilic Mesh for Efficient Oil/Water Separation with Excellent Corrosion Resistance. Langmuir, 2018, 34, 6922-6929.	3.5	59
31	Tuning the wettability of mesoporous silica for enhancing the catalysis efficiency of aqueous reactions. Chemical Communications, 2014, 50, 10045-10048.	4.1	56
32	Synthesis of pH-Responsive Inorganic Janus Nanoparticles and Experimental Investigation of the Stability of Their Pickering Emulsions. Langmuir, 2017, 33, 10283-10290.	3.5	56
33	Hoveydaâ€“Grubbs catalyst confined in the nanocages of SBA-1: enhanced recyclability for olefin metathesis. Chemical Communications, 2010, 46, 8659.	4.1	55
34	Three-dimensional cubic mesoporous materials with a built-in N-heterocyclic carbene for Suzukiâ€“Miyaura coupling of aryl chlorides and C(sp3)-chlorides. Journal of Catalysis, 2010, 276, 123-133.	6.2	54
35	One-step fabrication of Ni-embedded hierarchically-porous carbon microspheres for levulinic acid hydrogenation. Chemical Engineering Journal, 2019, 369, 386-393.	12.7	53
36	Positional immobilization of Pd nanoparticles and enzymes in hierarchical yolkâ€“shell@shell nanoreactors for tandem catalysis. Chemical Communications, 2017, 53, 7780-7783.	4.1	52

#	Article	IF	Citations
37	Janus mesoporous silica nanosheets with perpendicular mesochannels: affording highly accessible reaction interfaces for enhanced biphasic catalysis. Chemical Communications, 2018, 54, 10455-10458.	4.1	52
38	Liquid marble-derived solid-liquid hybrid superparticles for CO2 capture. Nature Communications, 2019, 10, 1854.	12.8	52
39	Hydrophobic Core/Hydrophilic Shell Structured Mesoporous Silica Nanospheres: Enhanced Adsorption of Organic Compounds from Water. Langmuir, 2013, 29, 1228-1237.	3.5	51
40	Mesoporous Ethaneâˆ’Silicas Functionalized with a Bulky N-Heterocyclic Carbene for Suzukiâˆ’Miyaura Coupling of Aryl Chlorides and Benzyl Chlorides. Journal of Physical Chemistry C, 2010, 114, 22221-22229.	3.1	48
41	Pickering emulsion droplet-based biomimetic microreactors for continuous flow cascade reactions. Nature Communications, 2022, 13, 475.	12.8	47
42	Encapsulation of chiral Fe(salan) in nanocages with different microenvironments for asymmetric sulfide oxidation. Physical Chemistry Chemical Physics, 2011, 13, 2504-2511.	2.8	45
43	Pickering-Droplet-Derived MOF Microreactors for Continuous-Flow Biocatalysis with Size Selectivity. Journal of the American Chemical Society, 2021, 143, 16641-16652.	13.7	45
44	Rationally designed palladium complexes on a bulky N-heterocyclic carbene-functionalized organosilica: an efficient solid catalyst for the Suzukiâ€“Miyaura coupling of challenging aryl chlorides. Green Chemistry, 2011, 13, 2939.	9.0	44
45	Magnetic coreâ€“shell-structured nanoporous organosilica microspheres for the Suzukiâ€“Miyaura coupling of aryl chlorides: improved catalytic activity and facile catalyst recovery. Journal of Materials Chemistry, 2012, 22, 6639.	6.7	44
46	Dual metal nanoparticles within multicompartmentalized mesoporous organosilicas for efficient sequential hydrogenation. Nature Communications, 2021, 12, 4968.	12.8	43
47	Tandem Catalysis of Direct CO₂ Hydrogenation to Higher Alcohols. ACS Catalysis, 2021, 11, 8978-8984.	11.2	42
48	Plasmonic Janus hybrids for the detection of small metabolites. Journal of Materials Chemistry B, 2018, 6, 7280-7287.	5.8	40
49	Recycling Nanoparticle Catalysts without Separation Based on a Pickering Emulsion/Organic Biphasic System. ChemSusChem, 2014, 7, 1888-1900.	6.8	37
50	Growing a hydrophilic nanoporous shell on a hydrophobic catalyst interface for aqueous reactions with high reaction efficiency and in situ catalyst recycling. Journal of Materials Chemistry A, 2017, 5, 16162-16170.	10.3	37
51	Flow Pickering Emulsion Interfaces Enhance Catalysis Efficiency and Selectivity for Cyclization of Citronellal. ChemSusChem, 2017, 10, 1989-1995.	6.8	37
52	Super-microporous organosilicas synthesized from well-defined nanobuilding units. Journal of Materials Chemistry, 2008, 18, 450-457.	6.7	35
53	Hydrophobic coreâ€“hydrophilic shell-structured catalysts: a general strategy for improving the reaction rate in water. Chemical Communications, 2012, 48, 11217.	4.1	34
54	A Mesoporous Silica Nanocomposite Shuttle: pH-Triggered Phase Transfer between Oil and Water. Langmuir, 2013, 29, 6687-6696.	3.5	34

#	Article	IF	Citations
55	Dumbbellâ€Shaped Biâ€component Mesoporous Janus Solid Nanoparticles for Biphasic Interface Catalysis. Angewandte Chemie, 2017, 129, 8579-8583.	2.0	34
56	N-doped ordered mesoporous carbon as a multifunctional support of ultrafine Pt nanoparticles for hydrogenation of nitroarenes. Chinese Journal of Catalysis, 2017, 38, 1252-1260.	14.0	34
57	Enhancing reaction rate in a Pickering emulsion system with natural magnetotactic bacteria as nanoscale magnetic stirring bars. Chemical Science, 2018, 9, 2575-2580.	7.4	34
58	Fabrication of multi-compartmentalized mesoporous silica microspheres through a Pickering droplet strategy for enhanced CO2 capture and catalysis. NPG Asia Materials, 2018, 10, 899-911.	7.9	34
59	Pickering emulsion droplets hosting ionic liquid catalysts for continuous-flow cyanosilylation reaction. Green Chemistry, 2019, 21, 627-633.	9.0	34
60	Highly Selective Catalysis at the Liquidâ€“Liquid Interface Microregion. ACS Catalysis, 2021, 11, 1485-1494.	11.2	34
61	Tuning Biphasic Catalysis Reaction with a Pickering Emulsion Strategy Exemplified by Selective Hydrogenation of Benzene. ChemCatChem, 2018, 10, 5224-5230.	3.7	33
62	Widely Adaptable Oilâ€inâ€Water Gel Emulsions Stabilized by an Amphiphilic Hydrogelator Derived from Dehydroabietic Acid. Angewandte Chemie - International Edition, 2020, 59, 637-641.	13.8	33
63	Selectively constructing nitrogen vacancy in carbon nitrides for efficient syngas production with visible light. Applied Catalysis B: Environmental, 2021, 297, 120496.	20.2	31
64	Mesoporous RhRu Nanosponges with Enhanced Water Dissociation toward Efficient Alkaline Hydrogen Evolution. ACS Applied Materials & Interfaces, 2021, 13, 5052-5060.	8.0	30
65	Encapsulation of a catalytically active core with a nanoporous shell: a new strategy for designing size-selective catalysts. Journal of Materials Chemistry, 2012, 22, 9069.	6.7	29
66	A pH-responsive TiO2-based Pickering emulsion system for in situ catalyst recycling. Chinese Chemical Letters, 2018, 29, 778-782.	9.0	28
67	Influence of surfactants on the parameters of polylactide nanocapsules containing insulin. Journal of Surfactants and Detergents, 2005, 8, 353-358.	2.1	27
68	Pickeringâ€Emulsion Inversion Strategy for Separating and Recycling Nanoparticle Catalysts. ChemPhysChem, 2014, 15, 841-848.	2.1	27
69	Multifunctional mesoporous silica-supported palladium nanoparticles for selective phenol hydrogenation in the aqueous phase. Catalysis Science and Technology, 2015, 5, 572-577.	4.1	27
70	Encapsulation of an Olefin Metathesis Catalyst in the Nanocages of SBAâ€1: Facile Preparation, High Encapsulation Efficiency, and High Activity. ChemCatChem, 2013, 5, 2278-2287.	3.7	26
71	Encapsulation of Hoveydaâ€“Grubbs^{2nd} Catalyst within Yolkâ€“Shell Structured Silica for Olefin Metathesis. ACS Catalysis, 2015, 5, 2225-2231.	11.2	26
72	Iodide-mediated templating synthesis of highly porous rhodium nanospheres for enhanced dehydrogenation of ammonia borane. Journal of Materials Chemistry A, 2018, 6, 24166-24174.	10.3	26

#	Article	IF	Citations
73	Semipermeable Organicâ€“Inorganic Hybrid Microreactors for Highly Efficient and Size-Selective Asymmetric Catalysis. ACS Catalysis, 2017, 7, 6711-6718.	11.2	25
74	A reinforced Pickering emulsion for cascade reactions. Chemical Communications, 2018, 54, 13014-13017.	4.1	25
75	Direct Observation of Carbon Nitride-Stabilized Pickering Emulsions. Langmuir, 2018, 34, 10135-10143.	3.5	25
76	Nitrogen vacancies in polymeric carbon nitrides promote CO2 photoreduction. Journal of Catalysis, 2022, 409, 12-23.	6.2	23
77	Surfactant Assembly within Pickering Emulsion Droplets for Fabrication of Interiorâ€Structured Mesoporous Carbon Microspheres. Angewandte Chemie, 2018, 130, 11065-11070.	2.0	22
78	Deep eutectic solvents as non-traditionally multifunctional media for the desulfurization process of fuel oil. Physical Chemistry Chemical Physics, 2021, 23, 785-805.	2.8	21
79	Rational electronic control of carbon dioxide reduction over cobalt oxide. Journal of Catalysis, 2020, 387, 119-128.	6.2	20
80	Metal-Nanoparticles-Loaded Ultrathin g-C₃N₄ Nanosheets at Liquidâ€“Liquid Interfaces for Enhanced Biphasic Catalysis. ACS Applied Materials & Interfaces, 2021, 13, 47236-47243.	8.0	20
81	Pd nanoparticles embedded in the outershell of a mesoporous coreâ€“shell catalyst for phenol hydrogenation in pure water. RSC Advances, 2015, 5, 102811-102817.	3.6	18
82	Palladium/Graphitic Carbon Nitride (gâ€C₃N₄) Stabilized Emulsion Microreactor as a Store for Hydrogen from Ammonia Borane for Use in Alkene Hydrogenation. Angewandte Chemie, 2018, 130, 15073-15077.	2.0	18
83	Incorporation of flexible ionic polymers into a Lewis acid-functionalized mesoporous silica for cooperative conversion of CO2 to cyclic carbonates. Chinese Journal of Catalysis, 2019, 40, 1874-1883.	14.0	18
84	Rationally Turning the Interface Activity of Mesoporous Silicas for Preparing Pickering Foam and â€œDry Waterâ€. Langmuir, 2017, 33, 9025-9033.	3.5	15
85	Synthesis of a ferrocene-containing ordered mesoporous organosilica and its catalytic activity. Journal of Porous Materials, 2010, 17, 643-649.	2.6	14
86	One-Step Synthesis of Solidâ€“Liquid Composite Microsphere for CO₂ Capture. ACS Applied Materials & Interfaces, 2021, 13, 5814-5822.	8.0	14
87	Lightâ€Induced Synthesis of Oxygenâ€Vacancyâ€Functionalized Ni(OH)₂ Nanosheets for Highly Selective CO₂ Reduction. ChemSusChem, 2022, 15, .	6.8	13
88	Microspherical nitrogen-doped carbon nanotube assembly derived from Pickering droplets. Carbon, 2019, 148, 124-133.	10.3	12
89	A Fluorescence Turn-on Sensor for Cyanide Anion Based on Exciplex Signaling Mechanism. Chemistry Letters, 2012, 41, 518-520.	1.3	11
90	Hydrogen-Bonded Aggregates Featuring <i>n</i> â†’ Ï€* Electronic Transition for Efficient Visible-Light-Responsive Photocatalysis. ACS Catalysis, 2022, 12, 6276-6284.	11.2	11

#	Article	IF	Citations
91	In Situ Surface Engineering of Mesoporous Silica Generates Interfacial Activity and Catalytic Acceleration Effect. ACS Omega, 2016, 1, 930-938.	3.5	10
92	Synthesis and Characterization of Mesoporous Manganese Oxides. Journal of Materials Synthesis and Processing, 2002, 10, 297-302.	0.3	8
93	Pd nanoparticles confined in fluoro-functionalized yolk-shell-structured silica for olefin hydrogenation in water. Chinese Journal of Catalysis, 2013, 34, 1192-1200.	14.0	8
94	Construction of a chiral macromolecular catalyst in hollow silica nanoreactors for efficient and recyclable asymmetric catalysis. Catalysis Science and Technology, 2018, 8, 2304-2311.	4.1	7
95	Widely Adaptable Oilâ€inâ€Water Gel Emulsions Stabilized by an Amphiphilic Hydrogelator Derived from Dehydroabietic Acid. Angewandte Chemie, 2020, 132, 647-651.	2.0	7
96	Pickering Droplet-Derived Silica Microreactors with a Biomimetic Aqueous Environment for Continuous-Flow Enzymatic Reactions. ACS Sustainable Chemistry and Engineering, 2022, 10, 662-670.	6.7	5
97	A semi-crystalline carbonaceous structure as a wide-spectrum-responsive photocatalyst for efficient redox catalysis. Chemical Communications, 2021, 57, 5086-5089.	4.1	4
98	A liquid marble method for synthesizing large-sized carbon microspheres with controlled interior structures. Carbon, 2021, 179, 541-553.	10.3	3
99	Tri-templating Synthesis of Multilevel Mesoporous Silica Microspheres with a Complex Interior Structure for Efficient CO₂ Capture and Catalysis. Langmuir, 2022, 38, 9421-9430.	3.5	3
100	Reversible Switching of the Amphiphilicity of Organicâ€“Inorganic Hybrids by Adsorptionâ€“Desorption Manipulation. Journal of Physical Chemistry C, 2019, 123, 21097-21102.	3.1	1
101	Surface Active Nanoparticles for Interfacial Catalysis. , 2014, , 1-17.		0