Zheng Wang

List of Publications by Citations

112	4,222	31	63
papers	citations	h-index	g-index
116	5,689	8.3	6.39
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
112	Recent developments in heterogeneous photocatalysts for solar-driven overall water splitting. *Chemical Society Reviews*, **2019**, 48, 2109-2125	58.5	1029
111	Overall water splitting by Ta3N5 nanorod single crystals grown on the edges of KTaO3 particles. *Nature Catalysis*, **2018**, 1, 756-763	36.5	259
110	Au/Pt Nanoparticle-Decorated TiO2 Nanofibers with Plasmon-Enhanced Photocatalytic Activities for Solar-to-Fuel Conversion. *Journal of Physical Chemistry C*, **2013**, 117, 25939-25947	3.8	246
109	Oxysulfide photocatalyst for visible-light-driven overall water splitting. *Nature Materials*, **2019**, 18, 827-832	27	222
108	Industrial carbon dioxide capture and utilization: state of the art and future challenges. *Chemical Society Reviews*, **2020**, 49, 8584-8686	58.5	184
107	Photocatalytic conversion of CO2 in water over Ag-modified La2Ti2O7. *Applied Catalysis B: Environmental*, **2015**, 163, 241-247	21.8	102
106	A doping technique that suppresses undesirable H2 evolution derived from overall water splitting in the highly selective photocatalytic conversion of CO2 in and by water. *Chemistry - A European Journal*, **2014**, 20, 9906-9	4.8	94
105	Enhanced toluene combustion performance over Pt loaded hierarchical porous MOR zeolite. *Chemical Engineering Journal*, **2018**, 334, 10-18	14.7	86
104	Highly efficient photocatalytic conversion of CO2 into solid CO using H2O as a reductant over Ag-modified ZnGa2O4. *Journal of Materials Chemistry A*, **2015**, 3, 11313-11319	13	81
103	Nickel nanoparticles embedded in mesopores of AlSBA-15 with a perfect peasecod-like structure: A catalyst with superior sintering resistance and hydrothermal stability for methane dry reforming. *Applied Catalysis B: Environmental*, **2018**, 224, 488-499	21.8	75
102	Design of Ni-ZrO2@SiO2 catalyst with ultra-high sintering and coking resistance for dry reforming of methane to prepare syngas. *Journal of CO2 Utilization*, **2018**, 27, 297-307	7.6	74
101	Tuning the selectivity toward CO evolution in the photocatalytic conversion of CO2 with H2O through the modification of Ag-loaded Ga2O3 with a ZnGa2O4 layer. *Catalysis Science and Technology*, **2016**, 6, 1025-1032	5.5	73
100	State-of-the-art catalysts for direct dehydrogenation of propane to propylene. *Chinese Journal of Catalysis*, **2019**, 40, 1233-1254	11.3	69
99	Catalysts in Coronas: A Surface Spatial Confinement Strategy for High-Performance Catalysts in Methane Dry Reforming. *ACS Catalysis*, **2019**, 9, 9072-9080	13.1	56
98	Elucidating strong metal-support interactions in Pt□n/SiO2 catalyst and its consequences for dehydrogenation of lower alkanes. *Journal of Catalysis*, **2018**, 365, 277-291	7.3	52
97	One-Pot Facile Fabrication of Multiple Nickel Nanoparticles Confined in Microporous Silica Giving a Multiple-Cores@Shell Structure as a Highly Efficient Catalyst for Methane Dry Reforming. *ChemCatChem*, **2017**, 9, 127-136	5.2	49
96	ZnO Nanoclusters Supported on Dealuminated Zeolite □as a Novel Catalyst for Direct Dehydrogenation of Propane to Propylene. *ChemCatChem*, **2019**, 11, 868-877	5.2	49

95	Synthesis and characterization of colloidal zoned MFI crystals. *Microporous and Mesoporous Materials*, **2005**, 78, 1-10	5.3	48
94	Zeolitic imidazolate framework-8 film coated stainless steel meshes for highly efficient oil/water separation. *Chemical Communications*, **2018**, 54, 5530-5533	5.8	47
93	Metal selenide photocatalysts for visible-light-driven Z-scheme pure water splitting. *Journal of Materials Chemistry A*, **2019**, 7, 7415-7422	13	46
92	Sequential cocatalyst decoration on BaTaON towards highly-active Z-scheme water splitting. *Nature Communications*, **2021**, 12, 1005	17.4	46
91	Photocatalytic Conversion of CO2 by H2O over Ag-Loaded SrO-Modified Ta2O5. *Bulletin of the Chemical Society of Japan*, **2015**, 88, 431-437	5.1	45
90	Which is an Intermediate Species for Photocatalytic Conversion of CO2 by H2O as the Electron Donor: CO2 Molecule, Carbonic Acid, Bicarbonate, or Carbonate Ions?. *Journal of Physical Chemistry C*, **2017**, 121, 8711-8721	3.8	43
89	Ultrasmall Co confined in the silanols of dealuminated beta zeolite: A highly active and selective catalyst for direct dehydrogenation of propane to propylene. *Journal of Catalysis*, **2020**, 383, 77-87	7.3	43
88	Self-supported Al-doped cobalt phosphide nanosheets grown on three-dimensional Ni foam for highly efficient water reduction and oxidation. *Inorganic Chemistry Frontiers*, **2019**, 6, 74-81	6.8	42
87	Origin of the overall water splitting activity of TaN revealed by ultrafast transient absorption spectroscopy. *Chemical Science*, **2019**, 10, 5353-5362	9.4	35
86	Silicalite-1 coated ATR elements as sensitive chemical sensor probes. *Microporous and Mesoporous Materials*, **2005**, 81, 357-363	5.3	35
85	LaNiO3 nanocube embedded in mesoporous silica for dry reforming of methane with enhanced coking resistance. *Microporous and Mesoporous Materials*, **2018**, 266, 189-197	5.3	34
84	Active and stable Pt-Ceria nanowires@silica shell catalyst: Design, formation mechanism and total oxidation of CO and toluene. *Applied Catalysis B: Environmental*, **2019**, 256, 117807	21.8	33
83	Core-Shell-Structured LaTaON Transformed from LaKNaTaO Plates for Enhanced Photocatalytic H Evolution. *Angewandte Chemie - International Edition*, **2019**, 58, 10666-10670	16.4	32
82	Enhancement of CO Evolution by Modification of GaO with Rare-Earth Elements for the Photocatalytic Conversion of CO by HO. *Langmuir*, **2017**, 33, 13929-13935	4	32
81	Construction of Spatial Charge Separation Facets on BaTaON Crystals by Flux Growth Approach for Visible-Light-Driven H Production. *ACS Applied Materials & Interfaces*, **2019**, 11, 22264-22271	9.5	31
80	LangmuirBlodgett Deposited Monolayers of Silicalite-1 Seeds for Secondary Growth of Continuous Zeolite Films. *Chemistry of Materials*, **2007**, 19, 5806-5808	9.6	29
79	Surface Modifications of (ZnSe)(CuGaSe) to Promote Photocatalytic Z-Scheme Overall Water Splitting. *Journal of the American Chemical Society*, **2021**, 143, 10633-10641	16.4	29
78	Framework-confined Sn in Si-beta stabilizing ultra-small Pt nanoclusters as direct propane dehydrogenation catalysts with high selectivity and stability. *Catalysis Science and Technology*, **2019**, 9, 6993-7002	5.5	29

77	A difunctional azido-cobalt(ii) coordination polymer exhibiting slow magnetic relaxation behaviour and high-energy characteristics with good thermostability and insensitivity. *Dalton Transactions*, **2018**, 47, 12092-12104	4.3	28
76	Synthesis of thin silicalite-1 films on steel supports using a seeding method. *Microporous and Mesoporous Materials*, **2002**, 52, 191-197	5.3	28
75	Environmental benign synthesis of Nano-SSZ-13 via FAU trans-crystallization: Enhanced NH-SCR performance on Cu-SSZ-13 with nano-size effect. *Journal of Hazardous Materials*, **2020**, 398, 122986	12.8	26
74	Sol-Gel Synthesis of Spherical Mesoporous High-Entropy Oxides. *ACS Applied Materials & Interfaces*, **2020**, 12, 45155-45164	9.5	26
73	Evaluating and optimizing pretreatment technique for catalytic hydrogenolysis conversion of corn stalk into polyol. *Bioresource Technology*, **2014**, 158, 307-12	11	23
72	Synthesis of uniform mesoporous ZSM-5 using hydrophilic carbon as a hard template. *Materials Chemistry and Physics*, **2016**, 177, 112-117	4.4	23
71	Magnetic mesoporous carbon nanospheres from renewable plant phenol for efficient hexavalent chromium removal. *Microporous and Mesoporous Materials*, **2021**, 310, 110623	5.3	21
70	Ag supported on meso-structured SiO 2 with different morphologies for CO oxidation: On the inherent factors influencing the activity of Ag catalysts. *Microporous and Mesoporous Materials*, **2017**, 242, 90-98	5.3	20
69	Efficient photocatalytic oxygen evolution using BaTaO2N obtained from nitridation of perovskite-type oxide. *Journal of Materials Chemistry A*, **2020**, 8, 1127-1130	13	20
68	Hierarchical three-dimensionally ordered macroporous Fe-V binary metal oxide catalyst for low temperature selective catalytic reduction of NOx from marine diesel engine exhaust. *Applied Catalysis B: Environmental*, **2020**, 268, 118455	21.8	20
67	One-dimensional cobalt(II) coordination polymer featuring single-ion-magnet-type field-induced slow magnetic relaxation. *New Journal of Chemistry*, **2018**, 42, 9612-9619	3.6	17
66	Double-shelled hollow LaNiO3 nanocage as nanoreactors with remarkable catalytic performance: Illustrating the special morphology and performance relationship. *Molecular Catalysis*, **2018**, 455, 57-67	3.3	17
65	ZnO supported on high-silica HZSM-5 as efficient catalysts for direct dehydrogenation of propane to propylene. *Molecular Catalysis*, **2019**, 476, 110508	3.3	17
64	Fabrication of a highly b-oriented MFI-type zeolite film by the Langmuir-Blodgett method. *Langmuir* , **2014**, 30, 4531-4	4	17
63	Lipase immobilized on HOOC-MCF: A highly enantioselective catalyst for transesterification resolution of (R,S)-1-phenylethanol. *Chinese Chemical Letters*, **2007**, 18, 929-932	8.1	17
62	Zeolite coated ATR crystal probes. *Sensors and Actuators B: Chemical*, **2006**, 115, 685-690	8.5	17
61	Fabrication of Single-Crystalline BaTaO2N from Chloride Fluxes for Photocatalytic H2 Evolution under Visible Light. *Crystal Growth and Design*, **2020**, 20, 255-261	3.5	17
60	Simultaneously Tuning the Defects and Surface Properties of TaN Nanoparticles by Mg-Zr Codoping for Significantly Accelerated Photocatalytic H Evolution. *Journal of the American Chemical Society*, **2021**, 143, 10059-10064	16.4	17

59	Silicalite-1 films with preferred orientation. *Microporous and Mesoporous Materials*, **2008**, 116, 22-27	5.3	16
58	Design and Synthesis of Cu/ZSM-5 Catalyst via a Facile One-Pot Dual-Template Strategy with Controllable Cu Content for Removal of NOx. *Industrial & Engineering Chemistry Research*, **2018**, 57, 14967-14976	3.9	16
57	Mesoporous carbons as metal-free catalysts for propane dehydrogenation: Effect of the pore structure and surface property. *Chinese Journal of Catalysis*, **2019**, 40, 1385-1394	11.3	15
56	Insight into the activity and SO2 tolerance of hierarchically ordered MnFe1-□Co□Ox ternary oxides for low-temperature selective catalytic reduction of NOx with NH3. *Journal of Catalysis*, **2021**, 395, 195-209	7.3	15
55	Characterization of Cu Nanoparticles on TiO2 Photocatalysts Fabricated by Electroless Plating Method. *Topics in Catalysis*, **2014**, 57, 975-983	2.3	14
54	Unraveling the boosting low-temperature performance of ordered mesoporous Cu-SSZ-13 catalyst for NOx reduction. *Chemical Engineering Journal*, **2021**, 409, 128238	14.7	14
53	Efficient oxidative desulfurization over highly dispersed molybdenum oxides supported on mesoporous titanium phosphonates. *Microporous and Mesoporous Materials*, **2021**, 315, 110921	5.3	14
52	Luminescent metal□organic frameworks with a 2-(4-pyridyl)-terephthalic acid ligand for detection of acetone. *New Journal of Chemistry*, **2019**, 43, 4800-4807	3.6	13
51	Efficient photocatalytic hydrogen evolution on single-crystalline metal selenide particles with suitable cocatalysts. *Chemical Science*, **2020**, 11, 6436-6441	9.4	13
50	Trifunctional strategy for the design and synthesis of a Ni-CeO2@SiO2 catalyst with remarkable low-temperature sintering and coking resistance for methane dry reforming. *Chinese Journal of Catalysis*, **2021**, 42, 1808-1820	11.3	13
49	The importance of direct reduction in the synthesis of highly active Pt□Sn/SBA-15 for n-butane dehydrogenation. *Catalysis Science and Technology*, **2019**, 9, 947-956	5.5	12
48	Composition and kinetic study on template- and solvent-free synthesis of ZSM-5 using leached illite clay. *Microporous and Mesoporous Materials*, **2019**, 285, 170-177	5.3	11
47	Facet engineering of LaNbON2 transformed from LaKNaNbO5 for enhanced photocatalytic O2 evolution. *Journal of Materials Chemistry A*, **2020**, 8, 11743-11751	13	11
46	Polyacrylamide-assisted synthesis of hierarchical porous SAPO-34 zeolites with excellent MTO catalytic performance. *Microporous and Mesoporous Materials*, **2021**, 311, 110676	5.3	11
45	Cr/Al2O3 catalysts with strong metal-support interactions for stable catalytic dehydrogenation of propane to propylene. *Molecular Catalysis*, **2020**, 493, 111052	3.3	10
44	Design of Stable Ultrasmall Pt□Ni(O) Nanoparticles with Enhanced Catalytic Performance: Insights into the Effects of Pt□Ni□NiO Dual Interfaces. *ChemCatChem*, **2018**, 10, 4134-4142	5.2	10
43	Oriented films of epitaxial MFI overgrowths. *Microporous and Mesoporous Materials*, **2006**, 95, 86-91	5.3	10
42	Construction of a Mesoporous Ceria Hollow Sphere/Enzyme Nanoreactor for Enhanced Cascade Catalytic Antibacterial Therapy. *ACS Applied Materials & Interfaces*, **2021**, 13, 40302-40314	9.5	10

41	Solvent-induced single-crystal-to-single-crystal transformation and tunable magnetic properties of 1D azido-Cu(ii) chains with a carboxylate bridge. *Dalton Transactions*, **2019**, 48, 11268-11277	4.3	9
40	Self-template synthesis of spherical mesoporous tin dioxide from tin-polyphenol-formaldehyde polymers for conductometric ethanol gas sensing. *Sensors and Actuators B: Chemical*, **2021**, 341, 129965	8.5	9
39	Fabrication of a highly b-oriented MFI-type zeolite film-modified electrode with molecular sieving properties by LangmuirBlodgett method. *Journal of Materials Science*, **2016**, 51, 3257-3270	4.3	8
38	Enhanced performances of bimetallic Ga-Pt nanoclusters confined within silicalite-1 zeolite in propane dehydrogenation. *Journal of Colloid and Interface Science*, **2021**, 593, 304-314	9.3	8
37	Bean dregs-derived hierarchical porous carbons as metal-free catalysts for efficient dehydrogenation of propane to propylene. *Journal of Chemical Technology and Biotechnology*, **2018**, 93, 3410-3417	3.5	8
36	Hexamethylenetetramine-assisted hydrothermal synthesis of efficient and stable Ni-MoCeZr-MgAl(O) catalysts for dry reforming of CH4: Effect of Ni content. *Fuel*, **2019**, 254, 115562	7.1	7
35	Organic functionalization of Silicalite-1 nanocrystals by ultrasonic treatment in methanol. *Microporous and Mesoporous Materials*, **2008**, 116, 59-62	5.3	7
34	Spatially isolated cobalt oxide sites derived from MOFs for direct propane dehydrogenation. *Journal of Colloid and Interface Science*, **2021**, 594, 113-121	9.3	7
33	Platy BaTaO2N Crystals Fabricated from K2CO3KCl Binary Flux for Photocatalytic H2 Evolution. *ACS Applied Energy Materials*, **2020**, 3, 10669-10675	6.1	6
32	Fabrication of a superhydrophobic surface using a simple in situ growth method of HKUST-1/copper foam with hexadecanethiol modification. *New Journal of Chemistry*, **2020**, 44, 7065-7070	3.6	5
31	**2021**,		5
30	DotSCN: Group Re-Identification via Domain-Transferred Single and Couple Representation Learning. *IEEE Transactions on Circuits and Systems for Video Technology*, **2021**, 31, 2739-2750	6.4	5
29	Synthesis of a Ga-doped La5Ti2Cu0.9Ag0.1O7S5 photocatalyst by thermal sulfidation for hydrogen evolution under visible light. *Journal of Catalysis*, **2021**, 399, 230-236	7.3	5
28	CoreShell-Structured LaTaON2 Transformed from LaKNaTaO5 Plates for Enhanced Photocatalytic H2 Evolution. *Angewandte Chemie*, **2019**, 131, 10776-10780	3.6	4
27	Effect of Ionothermal Synthesis on the Acidity and Catalytic Performance of a SAPO-5 Molecular Sieve. *ChemistrySelect*, **2019**, 4, 10520-10524	1.8	4
26	Nitrogen-Rich, Well-Dispersed Nanoporous Carbon Materials for Super-Efficient Oxygen Reduction Reaction. *ChemElectroChem*, **2019**, 6, 1894-1900	4.3	3
25	Coligand effects on the architectures and magnetic properties of octahedral cobalt(II) complexes with easy-axis magnetic anisotropy. *CrystEngComm*, **2020**, 22, 2297-2303	3.3	3
24	Fast and low-temperature elimination of organic templates from SBA-15 using dielectric barrier discharge plasma. *Plasma Science and Technology*, **2018**, 20, 101001	1.5	3

23	A New Processing Chain for Real-Time Ground-Based SAR (RT-GBSAR) Deformation Monitoring. *Remote Sensing*, **2019**, 11, 2437	5	3
22	Two new 3D lanthanide metal-organic frameworks constructed from nitrilotriacetate and oxalate ligands. *Inorganic Chemistry Communication*, **2011**, 14, 320-323	3.1	3
21	Oriented ZSM-5 Zeolite Membranes on Biomorphic SiSiC Ceramics for Microreactors. *Wuji Cailiao Xuebao/Journal of Inorganic Materials*, **2009**, 24, 330-334	1	3
20	Engineering heterostructured Ni@Ni(OH)2 core-shell nanomaterials for synergistically enhanced water electrolysis. *Green Energy and Environment*, **2020**,	5.7	3
19	Field-induced slow magnetic relaxation in an octahedral high-spin Co(II) complex. *Inorganic Chemistry Communication*, **2019**, 99, 195-198	3.1	3
18	A Na-containing Pt cocatalyst for efficient visible-light-induced hydrogen evolution on BaTaO2N. *Journal of Materials Chemistry A*, **2021**, 9, 13851-13854	13	3
17	Transfer hydrogenation of CO into formaldehyde from aqueous glycerol heterogeneously catalyzed by Ru bound to LDH. *Chemical Communications*, **2021**, 57, 5167-5170	5.8	3
16	Polycrystalline films of epitaxial MFI overgrowths. *Microporous and Mesoporous Materials*, **2006**, 97, 27-33	3.3	2
15	Impacts of Metal-Support Interaction on Hydrogen Evolution Reaction of Cobalt-Nitride-Carbide Catalyst.. *Frontiers in Chemistry*, **2021**, 9, 828964	5	2
14	Switchable superlyophobic zeolitic imidazolate framework-8 film-coated stainless-steel meshes for selective oil–water emulsion separation with high flux. *New Journal of Chemistry*, **2020**, 44, 13534-13541	3.6	2
13	Ionothermal Synthesis of Triclinic SAPO-34 Zeolites. *Catalysts*, **2021**, 11, 616	4	2
12	Ionothermal Synthesis of Hollow Aluminophosphate Molecular Sieves. *Particle and Particle Systems Characterization*, **2018**, 35, 1800125	3.1	2
11	Hierarchical Mg/ZSM-5 catalysts for methanol-to-propylene reaction via one-step acid treatment. *Research on Chemical Intermediates*, **2021**, 47, 249-268	2.8	2
10	Direct synthesis of c-axis-oriented HZSM-5 zeolites in polyacrylamide hydrogel. *Journal of Sol-Gel Science and Technology*, **2020**, 96, 256-263	2.3	1
9	Facile Hydrothermal Synthesis of Sn-Mn Mixed Oxide Nano-rods with Exposed (110) Facets and Remarkable Catalytic Performance. *ChemistrySelect*, **2017**, 2, 6364-6369	1.8	1
8	Preparation and Characterization of Magenetically Core-Shell Structure Carbon Based Solid Sulfonic Acid. *Advanced Materials Research*, **2012**, 599, 86-90	0.5	1
7	Cocatalyst Modification of AgTaO3 Photocatalyst for Conversion of Carbon Dioxide with Water. *Journal of Physical Chemistry C*,	3.8	1
6	Seed-sol-assisted construction of a coffin-shaped multilamellar ZSM-5 single crystal using CTAB. *Chemical Communications*, **2021**, 57, 10624-10627	5.8	1

5	Molecular-Level Understanding of Hydroxyl Groups Boosted the Catalytic Activity of the CuZnAl Catalyst in the Conversion of Syngas to Ethanol. *Industrial & Engineering Chemistry Research*, **2019**, 58, 19421-19433	3.9	0
4	Solubility of a Russia vacuum residue and group composition of the soluble fractions in different solvents. *Petroleum Science and Technology*, **2018**, 36, 1427-1431	1.4	
3	Biomorphic Silicon Nitride Ceramics with Fibrous Morphology Prepared by Sol Infiltration and Reduction□Nitridation. *Journal of the American Ceramic Society*, **2007**, 90, 070926191407002-???	3.8	
2	Poly[(aqua-calcium)-□(4)-pyrazine-2,3-di-carboxyl-ato]. *Acta Crystallographica Section E: Structure Reports Online*, **2011**, 67, m1857		
1	Photocatalytic Z-scheme water splitting **2021**, 131-176		