

Xiaobing Zhu

List of Publications by Year in descending order

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63
papers

2,825
citations

136950

32
h-index

175258

52
g-index

65
all docs

65
docs citations

65
times ranked

3296
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Dispersed Copper over $\text{Fe}^{2+}\text{-Mo}_2\text{C}$ as an Efficient and Stable Catalyst for the Reverse Water Gas Shift (RWGS) Reaction. <i>ACS Catalysis</i> , 2017, 7, 912-918.	11.2	263
2	A bi-functional micro-porous layer with composite carbon black for PEM fuel cells. <i>Journal of Power Sources</i> , 2006, 162, 474-479.	7.8	166
3	Preparation and characterization of carbon-supported PtRu catalyst with excellent CO-tolerant performance for proton-exchange membrane fuel cells. <i>Journal of Catalysis</i> , 2006, 238, 468-476.	6.2	140
4	FeOx-supported gold catalysts for catalytic removal of formaldehyde at room temperature. <i>Applied Catalysis B: Environmental</i> , 2014, 154-155, 73-81.	20.2	137
5	CO Oxidation Activity at Room Temperature over Au/CeO_2 Catalysts: Disclosure of Induction Period and Humidity Effect. <i>ACS Catalysis</i> , 2014, 4, 3481-3489.	11.2	125
6	Photocatalytic Formaldehyde Oxidation over Plasmonic Au/TiO_2 under Visible Light: Moisture Indispensability and Light Enhancement. <i>ACS Catalysis</i> , 2017, 7, 6514-6524.	11.2	121
7	Complete oxidation of formaldehyde at ambient temperature over $\text{Fe}^{3+}\text{-Al}_2\text{O}_3$ supported Au catalyst. <i>Catalysis Communications</i> , 2013, 42, 93-97.	3.3	102
8	Synthesis and Structure-Activity Relationship Exploration of Carbon-Supported PtRuNi Nanocomposite as a CO-Tolerant Electrocatalyst for Proton Exchange Membrane Fuel Cells. <i>Journal of Physical Chemistry B</i> , 2006, 110, 7828-7834.	2.6	88
9	A comparative study of the catalytic oxidation of HCHO and CO over $\text{Mn}_0.75\text{Co}_2.25\text{O}_4$ catalyst: The effect of moisture. <i>Applied Catalysis B: Environmental</i> , 2014, 160-161, 542-551.	20.2	85
10	An Ultrathin Self-Humidifying Membrane for PEM Fuel Cell Application: Fabrication, Characterization, and Experimental Analysis. <i>Journal of Physical Chemistry B</i> , 2006, 110, 14240-14248.	2.6	79
11	Visible-light photocatalytic oxidation of CO over plasmonic Au/TiO_2 : Unusual features of oxygen plasma activation. <i>Applied Catalysis B: Environmental</i> , 2016, 188, 48-55.	20.2	75
12	Fabrication and investigation of SiO_2 supported sulfated zirconia/Nafion [®] self-humidifying membrane for proton exchange membrane fuel cell applications. <i>Journal of Power Sources</i> , 2008, 184, 197-203.	7.8	66
13	An inorganic/organic self-humidifying composite membranes for proton exchange membrane fuel cell application. <i>Electrochimica Acta</i> , 2008, 53, 4096-4103.	5.2	61
14	Inherent rate constants and humidity impact factors of anatase TiO_2 film in photocatalytic removal of formaldehyde from air. <i>Chemical Engineering Journal</i> , 2015, 279, 897-903.	12.7	59
15	Warm plasma catalytic reforming of biogas in a heat-insulated reactor: Dramatic energy efficiency and catalyst auto-reduction. <i>Chemical Engineering Journal</i> , 2016, 288, 671-679.	12.7	57
16	Challenging reinforced composite polymer electrolyte membranes based on disulfonated poly(arylene) ether sulfone. <i>Journal of Power Sources</i> , 2007, 17, 386-397.	6.7	56
17	Nano-sized gold particles dispersed on HZSM-5 and SiO_2 substrates for catalytic oxidation of HCHO. <i>Catalysis Today</i> , 2017, 281, 512-519.	4.4	52
18	Plasma chain catalytic reforming of methanol for on-board hydrogen production. <i>Chemical Engineering Journal</i> , 2019, 369, 245-252.	12.7	52

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19	Atmospheric-pressure O ₂ plasma treatment of Au/TiO ₂ catalysts for CO oxidation. <i>Catalysis Today</i> , 2015, 256, 142-147.	4.4	49
20	Kinetic study on visible-light photocatalytic removal of formaldehyde from air over plasmonic Au/TiO ₂ . <i>Catalysis Today</i> , 2017, 281, 630-635.	4.4	48
21	Synergy between $\text{I}^2\text{-Mo}_2\text{C}$ Nanorods and Non-thermal Plasma for Selective CO ₂ Reduction to CO. <i>CheM</i> , 2020, 6, 3312-3328.	11.7	47
22	Promotion of PEM Self-Humidifying Effect by Nanometer-Sized Sulfated Zirconia-Supported Pt Catalyst Hybrid with Sulfonated Poly(Ether Ether Ketone). <i>Journal of Physical Chemistry B</i> , 2007, 111, 6391-6399.	2.6	46
23	Kinetics study on carbon dioxide reforming of methane in kilohertz spark-discharge plasma. <i>Chemical Engineering Journal</i> , 2015, 264, 445-452.	12.7	45
24	In-situ regeneration of Au nanocatalysts by atmospheric-pressure air plasma: Significant contribution of water vapor. <i>Applied Catalysis B: Environmental</i> , 2015, 179, 69-77.	20.2	44
25	Investigation of self-humidifying membranes based on sulfonated poly(ether ether ketone) hybrid with sulfated zirconia supported Pt catalyst for fuel cell applications. <i>Journal of Power Sources</i> , 2007, 168, 323-329.	7.8	43
26	Understanding on the origins of hydroxyapatite stabilized gold nanoparticles as high-efficiency catalysts for formaldehyde and benzene oxidation. <i>Catalysis Communications</i> , 2015, 59, 195-200.	3.3	43
27	Fabrication and characterization of a PTFE-reinforced integral composite membrane for self-humidifying PEMFC. <i>Journal of Power Sources</i> , 2007, 165, 786-792.	7.8	39
28	Molecular catalysis of the oxygen reduction reaction by iron porphyrin catalysts tethered into Nafion layers: An electrochemical study in solution and a membrane-electrode-assembly study in fuel cells. <i>Journal of Power Sources</i> , 2012, 216, 67-75.	7.8	38
29	A novel process of ozone catalytic oxidation for low concentration formaldehyde removal. <i>Chinese Journal of Catalysis</i> , 2017, 38, 1759-1769.	14.0	38
30	Self-Humidifying Cs _{2.5} H _{0.5} PW ₁₂ O ₄₀ / Nafion / PTFE Composite Membrane for Proton Exchange Membrane Fuel Cells. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, A92-A95.	2.2	36
31	A triazole-based polymer electrolyte membrane for fuel cells operated in a wide temperature range (25–150 °C) with little humidification. <i>Journal of Power Sources</i> , 2013, 241, 219-224.	7.8	35
32	Novel power-to-syngas concept for plasma catalytic reforming coupled with water electrolysis. <i>Chemical Engineering Journal</i> , 2018, 353, 297-304.	12.7	34
33	A Novel PTFE-Reinforced Multilayer Self-Humidifying Composite Membrane for PEM Fuel Cells. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, A49-A52.	2.2	33
34	Enhanced effect of plasma on catalytic reduction of CO ₂ to CO with hydrogen over Au/CeO ₂ at low temperature. <i>Journal of Energy Chemistry</i> , 2017, 26, 488-493.	12.9	33
35	Gold stabilized on various oxide supports catalyzing formaldehyde oxidation at room temperature. <i>Chinese Journal of Catalysis</i> , 2016, 37, 1729-1737.	14.0	31
36	Oxidative pyrolysis reforming of methanol in warm plasma for an on-board hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 13617-13624.	7.1	30

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37	Renewable and high-concentration syngas production from oxidative reforming of simulated biogas with low energy cost in a plasma shade. <i>Chemical Engineering Journal</i> , 2013, 234, 240-246.	12.7	29
38	Preparation and Characterization of Stable Ionomers and Ionomer Membranes for Fuel Cells. <i>Fuel Cells</i> , 2006, 6, 413-424.	2.4	22
39	Facile and Fast Deposition of Amorphous TiO_2 Film under Atmospheric Pressure and at Room Temperature, and its High Photocatalytic Activity under UV-C Light. <i>Chemical Vapor Deposition</i> , 2014, 20, 8-13.	1.3	22
40	Plasma catalytic steam methane reforming for distributed hydrogen production. <i>Catalysis Today</i> , 2019, 337, 69-75.	4.4	21
41	Effect of CO_2/CH_4 ratio on biogas reforming with added O_2 through an unique spark-shade plasma. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 13902-13908.	7.1	20
42	Post-plasma catalytic oxidative CO_2 reforming of methane over Ni-based catalysts. <i>Catalysis Today</i> , 2015, 256, 96-101.	4.4	19
43	Warm-plasma catalytic reduction of CO_2 with CH_4 . <i>Catalysis Today</i> , 2019, 330, 54-60.	4.4	19
44	Exceptional activity for photocatalytic mineralization of formaldehyde over amorphous titania nanofilms. <i>Chemical Engineering Journal</i> , 2016, 306, 1001-1009.	12.7	18
45	Selective reduction of carbon dioxide to carbon monoxide over Au/CeO ₂ catalyst and identification of reaction intermediate. <i>Chinese Journal of Catalysis</i> , 2016, 37, 2053-2058.	14.0	17
46	In Situ Regeneration of Au Nanocatalysts by Atmospheric-Pressure Air Plasma: Regeneration Characteristics of Square-Wave Pulsed Plasma. <i>Topics in Catalysis</i> , 2017, 60, 914-924.	2.8	17
47	Gliding Arc Plasma Synthesis of Crystalline TiO_2 Nanopowders with High Photocatalytic Activity. <i>Plasma Chemistry and Plasma Processing</i> , 2013, 33, 827-838.	2.4	16
48	Gliding Arc Plasma Synthesis of Visible-Light Active TiO_2 -Doped Titania Photocatalysts. <i>Plasma Processes and Polymers</i> , 2015, 12, 422-430.	3.0	16
49	Effect of O_2/CH_4 ratio on the optimal specific-energy-input (SEI) for oxidative reforming of biogas in a plasma-shade reactor. <i>Journal of Energy Chemistry</i> , 2013, 22, 681-684.	12.9	15
50	Lower loading of Pt on hydrophobic TS-1 zeolite: A high-efficiency catalyst for benzene oxidation at low temperature. <i>Catalysis Today</i> , 2020, 355, 512-517.	4.4	15
51	An energy-efficient catalytic process for the tandem removal of formaldehyde and benzene by metal/HZSM-5 catalysts. <i>Catalysis Science and Technology</i> , 2015, 5, 4968-4972.	4.1	13
52	"Storage-oxidation" cycling process for indoor benzene removal at room temperature. <i>Catalysis Today</i> , 2017, 297, 193-200.	4.4	10
53	A Low-Cost PTFE-Reinforced Integral Multilayered Self-Humidifying Membrane for PEM Fuel Cells. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, A332.	2.2	7
54	Semi-transparent nanofilms of plasmonic Au/ TiO_2 for visible-light photocatalysis. <i>Materials Chemistry and Physics</i> , 2022, 280, 125773.	4.0	7

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55	Bridge to Fuel Cell Molecular Catalysis: 3D Non-Platinum Group Metal Catalyst in MEAs. ECS Transactions, 2012, 45, 143-152.	0.5	6
56	Ozone catalytic oxidation for ammonia removal from simulated air at room temperature. Catalysis Science and Technology, 2015, 5, 2227-2237.	4.1	5
57	Plasmochemical Approach to Template-Free Synthesis of Highly Crystalline Mesoporous TiO ₂ within Milliseconds. ChemNanoMat, 2019, 5, 403-406.	2.8	5
58	Investigation into Electrochemical Oxygen Reduction on Platinum in Tetraethylammonium Hydroxide and Effect of Addition of Imidazole and 1,2,4-Triazole. Journal of the Electrochemical Society, 2012, 159, F628-F634.	2.9	4
59	Blend Membranes of Highly Phosphonated Polysulfone and Polybenzimidazoles for High Temperature Proton Exchange Membrane Fuel Cells. ECS Transactions, 2011, 41, 2147-2159.	0.5	2
60	Mesoporous TiO ₂ electrocatalysts synthesized by gliding arc plasma for oxygen evolution reaction. Journal Physics D: Applied Physics, 2021, 54, 484003.	2.8	2
61	Ionic-Crosslinked Interpenetrating Polymer Network (IPN) Membranes for Anhydrous High Temperature Polymer Electrolyte Fuel Cells Based on PFSA Ionomer and Functionalized Polysiloxane. ECS Transactions, 2011, 41, 2135-2145.	0.5	1
62	Research and Development of Key Materials of PEMFC. , 2006, , 105.		0
63	On-Board Hydrogen Production: Warm Plasma Chain Catalysis. SSRN Electronic Journal, 0, , .	0.4	0