Haibao Huang

List of Publications by Year
in descending order

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108 papers	6,921 citations	41344 49 h-index	64796 79 g-index
109 all docs	109 docs citations	109 times ranked	5284 citing authors

#	Article	IF	Citations
1	Low temperature catalytic oxidation of volatile organic compounds: a review. Catalysis Science and Technology, 2015, 5, 2649-2669.	4.1	616
2	A novel Z-scheme Ag3VO4/BiVO4 heterojunction photocatalyst: Study on the excellent photocatalytic performance and photocatalytic mechanism. Applied Catalysis B: Environmental, 2019, 245, 448-458.	20.2	322
3	Complete Oxidation of Formaldehyde at Room Temperature Using TiO₂ Supported Metallic Pd Nanoparticles. ACS Catalysis, 2011, 1, 348-354.	11.2	276
4	Complete elimination of indoor formaldehyde over supported Pt catalysts with extremely low Pt content at ambient temperature. Journal of Catalysis, 2011, 280, 60-67.	6.2	213
5	Titanium oxide based photocatalytic materials development and their role of in the air pollutants degradation: Overview and forecast. Environment International, 2019, 125, 200-228.	10.0	208
6	Potassium-modulated Î´-MnO2 as robust catalysts for formaldehyde oxidation at room temperature. Applied Catalysis B: Environmental, 2020, 260, 118210.	20.2	178
7	Byproducts and pathways of toluene destruction via plasma-catalysis. Journal of Molecular Catalysis A, 2011, 336, 87-93.	4.8	171
8	Efficient MnOx supported on coconut shell activated carbon for catalytic oxidation of indoor formaldehyde at room temperature. Chemical Engineering Journal, 2018, 334, 2050-2057.	12.7	170
9	Effect of reduction treatment on structural properties of TiO2 supported Pt nanoparticles and their catalytic activity for formaldehyde oxidation. Journal of Materials Chemistry, 2011, 21, 9647.	6.7	157
10	Catalytic ozonation of VOCs at low temperature: A comprehensive review. Journal of Hazardous Materials, 2022, 422, 126847.	12.4	146
11	Mesoporous TiO 2 under VUV irradiation: Enhanced photocatalytic oxidation for VOCs degradation at room temperature. Chemical Engineering Journal, 2017, 327, 490-499.	12.7	124
12	Novel Z-scheme Ag-C3N4/SnS2 plasmonic heterojunction photocatalyst for degradation of tetracycline and H2 production. Chemical Engineering Journal, 2021, 405, 126555.	12.7	124
13	Reduced TiO2 with tunable oxygen vacancies for catalytic oxidation of formaldehyde at room temperature. Applied Surface Science, 2019, 473, 934-942.	6.1	109
14	Mechanistic study on formaldehyde removal over Pd/TiO2 catalysts: Oxygen transfer and role of water vapor. Chemical Engineering Journal, 2013, 230, 73-79.	12.7	108
15	Destruction of toluene by ozone-enhanced photocatalysis: Performance and mechanism. Applied Catalysis B: Environmental, 2011, 102, 449-453.	20.2	104
16	Highly dispersed and active supported Pt nanoparticles for gaseous formaldehyde oxidation: Influence of particle size. Chemical Engineering Journal, 2014, 252, 320-326.	12.7	100
17	Heterogeneous activation of peroxymonosulfate over monodispersed Co3O4/activated carbon for efficient degradation of gaseous toluene. Chemical Engineering Journal, 2018, 341, 383-391.	12.7	99
18	Catalytic oxidation of benzene over Mn modified TiO2/ZSM-5 under vacuum UV irradiation. Applied Catalysis B: Environmental, 2017, 203, 870-878.	20.2	97

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19	UV/H 2 O 2 : An efficient aqueous advanced oxidation process for VOCs removal. Chemical Engineering Journal, 2017, 324, 44-50.	12.7	95
20	Promotional role of Mn doping on catalytic oxidation of VOCs over mesoporous TiO2 under vacuum ultraviolet (VUV) irradiation. Applied Catalysis B: Environmental, 2018, 220, 78-87.	20.2	95
21	Efficient degradation of gaseous benzene by VUV photolysis combined with ozone-assisted catalytic oxidation: Performance and mechanism. Applied Catalysis B: Environmental, 2016, 186, 62-68.	20.2	92
22	Facile synthesis of amorphous mesoporous manganese oxides for efficient catalytic decomposition of ozone. Catalysis Science and Technology, 2018, 8, 4264-4273.	4.1	88
23	Wet scrubber coupled with UV/PMS process for efficient removal of gaseous VOCs: Roles of sulfate and hydroxyl radicals. Chemical Engineering Journal, 2019, 356, 632-640.	12.7	86
24	The deactivation mechanism of toluene on MnOx-CeO2 SCR catalyst. Applied Catalysis B: Environmental, 2020, 277, 119257.	20.2	86
25	Probing toluene catalytic removal mechanism over supported Pt nano- and single-atom-catalyst. Journal of Hazardous Materials, 2020, 392, 122258.	12.4	85
26	Ozone-catalytic oxidation of gaseous benzene over MnO2/ZSM-5 at ambient temperature: Catalytic deactivation and its suppression. Chemical Engineering Journal, 2015, 264, 24-31.	12.7	79
27	A novel Z-scheme CeO2/g-C3N4 heterojunction photocatalyst for degradation of Bisphenol A and hydrogen evolution and insight of the photocatalysis mechanism. Journal of Materials Science and Technology, 2021, 85, 18-29.	10.7	75
28	Synergetic degradation of VOCs by vacuum ultraviolet photolysis and catalytic ozonation over Mn-xCe/ZSM-5. Journal of Hazardous Materials, 2019, 364, 770-779.	12.4	74
29	A novel Au/g-C3N4 nanosheets/CeO2 hollow nanospheres plasmonic heterojunction photocatalysts for the photocatalytic reduction of hexavalent chromium and oxidation of oxytetracycline hydrochloride. Chemical Engineering Journal, 2021, 409, 128185.	12.7	74
30	Enhanced degradation of gaseous benzene under vacuum ultraviolet (VUV) irradiation over TiO2 modified by transition metals. Chemical Engineering Journal, 2015, 259, 534-541.	12.7	72
31	Combination of photocatalysis downstream the non-thermal plasma reactor for oxidation of gas-phase toluene. Journal of Hazardous Materials, 2009, 171, 535-541.	12.4	71
32	Catalytic oxidation of gaseous benzene with ozone over zeolite-supported metal oxide nanoparticles at room temperature. Catalysis Today, 2015, 258, 627-633.	4.4	71
33	Superior catalytic performance of Pd-loaded oxygen-vacancy-rich TiO2 for formaldehyde oxidation at room temperature. Journal of Catalysis, 2021, 396, 122-135.	6.2	65
34	Photocatalytic Oxidation of Gaseous Benzene under VUV Irradiation over TiO 2 /Zeolites Catalysts. Catalysis Today, 2017, 281, 649-655.	4.4	63
35	Enhanced photocatalytic degradation of methylene blue under vacuum ultraviolet irradiation. Catalysis Today, 2013, 201, 189-194.	4.4	61
36	The simultaneous catalytic removal of VOCs and O3 in a post-plasma. Catalysis Today, 2008, 139, 43-48.	4.4	60

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37	Photocatalytic destruction of air pollutants with vacuum ultraviolet (VUV) irradiation. Catalysis Today, 2011, 175, 310-315.	4.4	59
38	Urinary metabolites of organophosphate flame retardants in China: Health risk from tris(2-chloroethyl) phosphate (TCEP) exposure. Environment International, 2018, 121, 1363-1371.	10.0	59
39	Effect of K+ ions on efficient room-temperature degradation of formaldehyde over MnO2 catalysts. Catalysis Today, 2019, 327, 154-160.	4.4	57
40	In-situ synthesis of heterojunction TiO2/MnO2 nanostructure with excellent performance in vacuum ultraviolet photocatalytic oxidation of toluene. Applied Catalysis B: Environmental, 2019, 259, 118034.	20.2	57
41	Catalytic stability enhancement for pollutant removal via balancing lattice oxygen mobility and VOCs adsorption. Journal of Hazardous Materials, 2022, 424, 127337.	12.4	57
42	Contribution of UV light to the decomposition of toluene in dielectric barrier discharge plasma/photocatalysis system. Plasma Chemistry and Plasma Processing, 2007, 27, 577-588.	2.4	55
43	Amorphous MnO₂ surviving calcination: an efficient catalyst for ozone decomposition. Catalysis Science and Technology, 2019, 9, 5090-5099.	4.1	55
44	The efficacy of vacuum-ultraviolet light disinfection of some common environmental pathogens. BMC Infectious Diseases, 2020, 20, 127.	2.9	54
45	Photocatalytic reforming of glucose over La doped alkali tantalate photocatalysts for H2 production. Catalysis Communications, 2010, 12, 184-187.	3.3	53
46	Photocatalytic reforming of C3-polyols for H2 production. Applied Catalysis B: Environmental, 2011, 106, 681-688.	20.2	53
47	Catalytic oxidation of VOCs over Mn/TiO2/activated carbon under 185â€¯nm VUV irradiation. Chemosphere, 2018, 208, 550-558.	8.2	53
48	Fluorinated TiO2 coupling with Î±-MnO2 nanowires supported on different substrates for photocatalytic VOCs abatement under vacuum ultraviolet irradiation. Applied Catalysis B: Environmental, 2021, 280, 119388.	20.2	52
49	Z-scheme Au decorated carbon nitride/cobalt tetroxide plasmonic heterojunction photocatalyst for catalytic reduction of hexavalent chromium and oxidation of Bisphenol A. Journal of Hazardous Materials, 2021, 410, 124539.	12.4	52
50	Accelerated iron cycle inducing molecular oxygen activation for deep oxidation of aromatic VOCs in MoS2 co-catalytic Fe3+/PMS system. Applied Catalysis B: Environmental, 2022, 309, 121235.	20.2	52
51	Effect of redox state of Ag on indoor formaldehyde degradation over Ag/TiO2 catalyst at room temperature. Chemosphere, 2018, 213, 235-243.	8.2	51
52	Efficient photocatalytic oxidation of gaseous toluene over F-doped TiO2 in a wet scrubbing process. Chemical Engineering Journal, 2020, 386, 121025.	12.7	51
53	Mechanistic insights into toluene degradation under VUV irradiation coupled with photocatalytic oxidation. Journal of Hazardous Materials, 2020, 399, 122967.	12.4	48
54	Preparation and characterization of a hierarchical porous char from sewage sludge with superior adsorption capacity for toluene by a new two-step pore-fabricating process. Bioresource Technology, 2013, 146, 457-462.	9.6	42

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55	VUV photo-oxidation of gaseous benzene combined with ozone-assisted catalytic oxidation: Effect on transition metal catalyst. Applied Surface Science, 2017, 391, 662-667.	6.1	42
56	Vacuum ultraviolet (VUV)-based photocatalytic oxidation for toluene degradation over pure CeO2. Chemical Engineering Science, 2019, 200, 203-213.	3.8	42
57	A facile VUV/H2O system without auxiliary substances for efficient degradation of gaseous toluene. Chemical Engineering Journal, 2018, 334, 1422-1429.	12.7	41
58	Toluene degradation over Mn-TiO2/CeO2 composite catalyst under vacuum ultraviolet (VUV) irradiation. Chemical Engineering Science, 2019, 195, 985-994.	3.8	39
59	Synergetic effect of vacuum ultraviolet photolysis and ozone catalytic oxidation for toluene degradation over MnO2-rGO composite catalyst. Chemical Engineering Science, 2021, 231, 116288.	3.8	38
60	Enhanced degradation of gaseous benzene by a Fenton reaction. RSC Advances, 2017, 7, 71-76.	3.6	37
61	Efficient MnOx/SiO2@AC catalyst for ozone-catalytic oxidation of gaseous benzene at ambient temperature. Applied Surface Science, 2019, 470, 439-447.	6.1	37
62	Impact of NOx and NH3 addition on toluene oxidation over MnOx-CeO2 catalyst. Journal of Hazardous Materials, 2021, 416, 125939.	12.4	37
63	Efficient photocatalytic oxidation of gaseous toluene in a bubbling reactor of water. Chemosphere, 2019, 233, 754-761.	8.2	36
64	Efficient catalytic removal of airborne ozone under ambient conditions over manganese oxides immobilized on carbon nanotubes. Catalysis Science and Technology, 2019, 9, 4036-4046.	4.1	36
65	Supported ceria-modified silver catalysts with high activity and stability for toluene removal. Environment International, 2019, 128, 335-342.	10.0	36
66	Activated carbon supported MnO nanoparticles for efficient ozone decomposition at room temperature. Catalysis Today, 2020, 355, 573-579.	4.4	35
67	Abatement of Toluene in the Plasma-Driven Catalysis: Mechanism and Reaction Kinetics. IEEE Transactions on Plasma Science, 2011, 39, 877-882.	1.3	33
68	Insights into the photocatalysis mechanism of the novel 2D/3D Z-Scheme g-C3N4/SnS2 heterojunction photocatalysts with excellent photocatalytic performances. Journal of Hazardous Materials, 2021, 402, 123711.	12.4	33
69	Mechanistic insights into complete oxidation of chlorobenzene to CO2 via wet scrubber coupled with UV/PDS. Chemical Engineering Journal, 2020, 401, 126077.	12.7	32
70	Efficient activation of Pd/CeO2 catalyst by non-thermal plasma for complete oxidation of indoor formaldehyde at room temperature. Chemosphere, 2020, 246, 125762.	8.2	30
71	Selective photocatalytic oxidation of gaseous ammonia at ppb level over Pt and F modified TiO2. Applied Catalysis B: Environmental, 2022, 300, 120688.	20.2	30
72	Influence of peracetic acid modification on the physicochemical properties of activated carbon and its performance in the ozone-catalytic oxidation of gaseous benzene. Applied Surface Science, 2017, 420, 905-910.	6.1	30

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73	Toluene decomposition performance and NOx by-product formation during a DBD-catalyst process. Journal of Environmental Sciences, 2015, 28, 187-194.	6.1	29
74	Wet scrubber coupled with heterogeneous UV/Fenton for enhanced VOCs oxidation over Fe/ZSM-5 catalyst. Chemosphere, 2019, 227, 401-408.	8.2	28
75	Simultaneous removal of multiple indoor-air pollutants using a combined process of electrostatic precipitation and catalytic decomposition. Chemical Engineering Journal, 2020, 388, 124219.	12.7	27
76	Effect of oxygen mobility in the lattice of Au/TiO2 on formaldehyde oxidation. Kinetics and Catalysis, 2012, 53, 239-246.	1.0	26
77	Recent Development and Applications of Advanced Materials via Direct Ink Writing. Advanced Materials Technologies, 2022, 7, .	5.8	26
78	Constructing an ohmic junction of copper@ cuprous oxide nanocomposite with plasmonic enhancement for photocatalysis. Journal of Colloid and Interface Science, 2022, 616, 163-176.	9.4	25
79	TiO2 nanotube arrays modified with nanoparticles of platinum group metals (Pt, Pd, Ru): enhancement on photoelectrochemical performance. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	24
80	Reheat treatment under vacuum induces pre-calcined Î±-MnO2 with oxygen vacancy as efficient catalysts for toluene oxidation. Chemosphere, 2022, 289, 133081.	8.2	24
81	A review of volatile organic compounds (VOCs) degradation by vacuum ultraviolet (VUV) catalytic oxidation. Journal of Environmental Management, 2022, 307, 114559.	7.8	24
82	Plasma-Driven Catalysis Process for Toluene Abatement: Effect of Water Vapor. IEEE Transactions on Plasma Science, 2011, 39, 576-580.	1.3	23
83	Recent Development of VUV-Based Processes for Air Pollutant Degradation. Frontiers in Environmental Science, 2016, 4, .	3.3	23
84	Chemical looping combustion of biomass-derived syngas using ceria-supported oxygen carriers. Bioresource Technology, 2013, 140, 385-391.	9.6	22
85	Effective regulation of surface bridging hydroxyls on TiO2 for superior photocatalytic activity via ozone treatment. Applied Catalysis B: Environmental, 2022, 304, 120952.	20.2	22
86	Efficient degradation of H 2 S over transition metal modified TiO 2 under VUV irradiation: Performance and mechanism. Applied Surface Science, 2018, 433, 329-335.	6.1	21
87	Complete oxidation of formaldehyde over a Pd/CeO₂ catalyst at room temperature: tunable active oxygen species content by non-thermal plasma activation. Catalysis Science and Technology, 2020, 10, 6257-6265.	4.1	21
88	BTZ-copolymer loaded graphene aerogel as new type Green and metal-free visible light photocatalyst. Applied Catalysis B: Environmental, 2019, 240, 50-63.	20.2	20
89	VUV/TiO2 photocatalytic oxidation process of methyl orange and simultaneous utilization of the lamp-generated ozone. Chemical Engineering Science, 2018, 177, 380-390.	3.8	19
90	Toluene oxidation over mesoporous TiO2 in a combined process of wet-scrubbing and UV-catalysis. Chemosphere, 2020, 244, 125567.	8.2	19

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91	Highly efficient ozone decomposition against harsh environments over long-term stable amorphous MnOx catalysts. Applied Catalysis B: Environmental, 2022, 315, 121552.	20.2	18
92	Photooxidation of Gaseous Benzene by 185â€‰nm VUV Irradiation. Environmental Engineering Science, 2014, 31, 481-486.	1.6	17
93	Role of O₃ in the removal of HCHO using a DC streamer plasma. Journal Physics D: Applied Physics, 2019, 52, 465203.	2.8	16
94	Enhanced photo-degradation of gaseous toluene over MnOx/TiO2/activated carbon under a novel microwave discharge electrodeless lamps system. Applied Surface Science, 2021, 547, 148955.	6.1	15
95	Removal of Air Pollutants by Photocatalysis with Ozone in a Continuous-Flow Reactor. Environmental Engineering Science, 2010, 27, 651-656.	1.6	14
96	Activity enhancement of acetate precursor prepared on MnOx-CeO2 catalyst for low-temperature NH3-SCR: Effect of gaseous acetone addition. Chinese Chemical Letters, 2021, 32, 2509-2512.	9.0	14
97	A highly dispersed Coâ€“Fe bimetallic catalyst to activate peroxymonosulfate for VOC degradation in a wet scrubber. Environmental Science: Nano, 2021, 8, 2976-2987.	4.3	13
98	Removal of Formaldehyde Using Highly Active Pt/TiO2Catalysts without Irradiation. International Journal of Photoenergy, 2013, 2013, 1-6.	2.5	10
99	Mechanistic study of vacuum UV catalytic oxidation for toluene degradation over CeO2 nanorods. Green Energy and Environment, 2022, 7, 533-544.	8.7	10
100	Novel urchin-like Fe2O3@SiO2@TiO2 microparticles with magnetically separable and photocatalytic properties. RSC Advances, 2015, 5, 55363-55371.	3.6	8
101	A Photocatalytic Rotating Disc Reactor with TiO2 Nanowire Arrays Deposited for Industrial Wastewater Treatment. Molecules, 2017, 22, 337.	3.8	8
102	Regulation of mixed Ag valence state by non-thermal plasma for complete oxidation of formaldehyde. Chinese Chemical Letters, 2022, 33, 434-437.	9.0	8
103	Enhanced activity and water tolerance promoted by Ce on MnO/ZSM-5 for ozone decomposition. Chemosphere, 2021, 280, 130664.	8.2	8
104	Photocatalytic Oxidation of Gaseous Benzene under 185â€‰nm UV Irradiation. International Journal of Photoenergy, 2013, 2013, 1-6.	2.5	7
105	Accelerated oxidation of VOCs via vacuum ultraviolet photolysis coupled with wet scrubbing process. Journal of Environmental Sciences, 2023, 134, 55-64.	6.1	5
106	Impacts of sampling-tube loss on quantitative analysis of gaseous semi-volatile organic compounds (SVOCs) using an SPME-based active sampler. Chemosphere, 2022, 301, 134780.	8.2	3
107	Synergistic Effects of a Combination of Vacuum Ultravioletâ€“Induced Oxidation and Wet Absorption Process on Removal of Nitric Oxide at Room Temperature. Journal of Environmental Engineering, ASCE, 2021, 147, .	1.4	2
108	Quantitative Analysis of Indoor Gaseous Semi-Volatile Organic Compounds Using Solid-Phase Microextraction: Active Sampling and Calibration. Atmosphere, 2022, 13, 693.	2.3	1