Wei-Ning Wang

List of Publications by Year
in descending order

111 papers	6,453 citations	61984 43 h-index	66911 78 g-index
114 all docs	114 docs citations	114 times ranked	8218 citing authors

#	Article	IF	Citations
1	Mitigating the relative humidity effects on the simultaneous removal of VOCs and PM2.5 of a metalâ€“organic framework coated electret filter. Separation and Purification Technology, 2022, 285, 120309.	7.9	5
2	Unraveling the role of operating pressure in the rapid formation of Cu-BDC MOF via a microdroplet approach. Chemical Engineering Journal, 2022, 447, 137544.	12.7	7
3	Simultaneous removal of VOCs and PM2.5 by metal-organic framework coated electret filter media. Journal of Membrane Science, 2021, 618, 118629.	8.2	22
4	Data-driven parameter optimization for the synthesis of high-quality zeolitic imidazolate frameworks via a microdroplet route. Advanced Powder Technology, 2021, 32, 266-271.	4.1	6
5	Self-decontaminating nanofibrous filters for efficient particulate matter removal and airborne bacteria inactivation. Environmental Science: Nano, 2021, 8, 1081-1095.	4.3	23
6	Towards addressing environmental challenges: rational design of metal-organic frameworks-based photocatalysts via a microdroplet approach. JPhys Energy, 2021, 3, 032005.	5.3	2
7	Bimetallic metal-organic frameworks (MOFs) synthesized using the spray method for tunable CO2 adsorption. Chemical Engineering Journal, 2020, 382, 122825.	12.7	58
8	Unraveling the origin of the â€œTurn-Onâ€•effect of Al-MIL-53-NO₂ during H₂S detection. CrystEngComm, 2020, 22, 195-204.	2.6	24
9	Engineering stable Pt nanoparticles and oxygen vacancies on defective TiO2 via introducing strong electronic metal-support interaction for efficient CO2 photoreduction. Chemical Engineering Journal, 2020, 389, 123450.	12.7	99
10	The role of Fe3+ ions in fluorescence detection of H2S by a bimetallic metal-organic framework. Journal of Solid State Chemistry, 2020, 288, 121434.	2.9	17
11	Template-assisted spray-drying method for the fabrication of porous particles with tunable structures. Advanced Powder Technology, 2019, 30, 2908-2924.	4.1	59
12	Pressure-regulated synthesis of Cu(TPA)Â·(DMF) in microdroplets for selective CO2 adsorption. Dalton Transactions, 2019, 48, 1006-1016.	3.3	13
13	Colloid-assisted growth of metalâ€“organic framework nanoparticles. CrystEngComm, 2019, 21, 2268-2272.	2.6	7
14	Mechanistic Insight into Photocatalytic Pathways of MIL-100(Fe)/TiO₂ Composites. ACS Applied Materials & Interfaces, 2019, 11, 12516-12524.	8.0	103
15	Rational Design of Efficient Semiconductor-based Photocatalysts via Microdroplets: A Review. KONA Powder and Particle Journal, 2019, 36, 201-214.	1.7	8
16	Synthesis of Cu-Trimesic Acid/Cu-1,4-Benzenedioic Acid via Microdroplets: Role of Component Compositions. Crystal Growth and Design, 2019, 19, 1095-1102.	3.0	14
17	Iron Mesh-Based Metal Organic Framework Filter for Efficient Arsenic Removal. Environmental Science & Technology, 2018, 52, 4275-4284.	10.0	100
18	Iron oxide nanowire-based filter for inactivation of airborne bacteria. Environmental Science: Nano, 2018, 5, 1096-1106.	4.3	30

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19	Highly-oriented one-dimensional MOF-semiconductor nanoarrays for efficient photodegradation of antibiotics. Catalysis Science and Technology, 2018, 8, 2117-2123.	4.1	72
20	Simultaneous Detection and Removal of Formaldehyde at Room Temperature: Janus Au@ZnO@ZIF-8 Nanoparticles. Nano-Micro Letters, 2018, 10, 4.	27.0	84
21	MOF-based ternary nanocomposites for better CO₂photoreduction: roles of heterojunctions and coordinatively unsaturated metal sites. Journal of Materials Chemistry A, 2018, 6, 932-940.	10.3	63
22	Synthesis of highly crystalline hexagonal cesium tungsten bronze nanoparticles by flame-assisted spray pyrolysis. Advanced Powder Technology, 2018, 29, 2512-2520.	4.1	28
23	Rapid Formation of Metalâ€“Organic Frameworks (MOFs) Based Nanocomposites in Microdroplets and Their Applications for CO₂ Photoreduction. ACS Applied Materials & Interfaces, 2017, 9, 9688-9698.	8.0	91
24	Facile synthesis of ZnO@ZIF coreâ€“shell nanofibers: crystal growth and gas adsorption. CrystEngComm, 2017, 19, 2445-2450.	2.6	30
25	Formation of Nitrogen-Containing Organic Aerosol during Combustion of High-Sulfur-Content Coal. Energy & Fuels, 2017, 31, 14161-14168.	5.1	5
26	Mercury oxidation during coal combustion by injection of vanadium pentoxide (V2O5). International Journal of Coal Geology, 2017, 170, 54-59.	5.0	3
27	Characterization of organic and black carbon aerosol formation during coal combustion: An experimental study in a 1 MW pilot scale coal combustor. Fuel, 2016, 180, 653-658.	6.4	14
28	Biocompatibility of gold nanoparticles in retinal pigment epithelial cell line. Toxicology in Vitro, 2016, 37, 61-69.	2.4	66
29	Crumpled reduced graphene oxideâ€“amineâ€“titanium dioxide nanocomposites for simultaneous carbon dioxide adsorption and photoreduction. Catalysis Science and Technology, 2016, 6, 6187-6196.	4.1	33
30	Aerosol Processing of Crumpled Graphene Oxide-based Nanocomposites for Drug Delivery. Current Pharmaceutical Design, 2016, 22, 2491-2500.	1.9	6
31	Air quality metrics and wireless technology to maximize the energy efficiency of HVAC in a working auditorium. Building and Environment, 2015, 85, 287-297.	6.9	20
32	Elemental mercury oxidation in an electrostatic precipitator enhanced with in situ soft X-ray irradiation. Journal of the Air and Waste Management Association, 2015, 65, 455-465.	1.9	5
33	Surface Engineered CuO Nanowires with ZnO Islands for CO₂ Photoreduction. ACS Applied Materials & Interfaces, 2015, 7, 5685-5692.	8.0	100
34	Kinetics of sub-2Ânm TiO2 particle formation in an aerosol reactor during thermal decomposition of titanium tetraisopropoxide. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	25
35	Engineered Crumpled Graphene Oxide Nanocomposite Membrane Assemblies for Advanced Water Treatment Processes. Environmental Science & Technology, 2015, 49, 6846-6854.	10.0	108
36	Mechanistic evaluation of translocation and physiological impact of titanium dioxide and zinc oxide nanoparticles on the tomato (Solanum lycopersicum L.) plant. Metallomics, 2015, 7, 1584-1594.	2.4	423

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37	Comparison of CO2 Photoreduction Systems: A Review. Aerosol and Air Quality Research, 2014, 14, 533-549.	2.1	132
38	Application of Half Mini DMA for sub 2nm particle size distribution measurement in an electrospray and a flame aerosol reactor. Journal of Aerosol Science, 2014, 71, 52-64.	3.8	31
39	Thermal Modeling for a HVAC Controlled Real-Life Auditorium. , 2014, , .		2
40	Nanostructured Graphene-Titanium Dioxide Composites Synthesized by a Single-Step Aerosol Process for Photoreduction of Carbon Dioxide. Environmental Engineering Science, 2014, 31, 428-434.	1.6	25
41	Direct white light emission from a rare-earth-free aluminiumâ€“boronâ€“carbonâ€“oxynitride phosphor. Journal of Materials Chemistry C, 2014, 2, 4297-4303.	5.5	50
42	Transient nature of graphene quantum dot formation via a hydrothermal reaction. RSC Advances, 2014, 4, 55709-55715.	3.6	84
43	Facile Aerosol Synthesis and Characterization of Ternary Crumpled Grapheneâ€“TiO₂â€“Magnetite Nanocomposites for Advanced Water Treatment. ACS Applied Materials & Interfaces, 2014, 6, 11766-11774.	8.0	86
44	Measurement of Sub-2 nm Clusters of Pristine and Composite Metal Oxides during Nanomaterial Synthesis in Flame Aerosol Reactors. Analytical Chemistry, 2014, 86, 7523-7529.	6.5	25
45	Aerosol Synthesis of Self-Organized Nanostructured Hollow and Porous Carbon Particles Using a Dual Polymer System. Langmuir, 2014, 30, 11257-11262.	3.5	33
46	Nanoparticle synthesis and delivery by an aerosol route for watermelon plant foliar uptake. Journal of Nanoparticle Research, 2013, 15, 1.	1.9	211
47	Role of exhaust gas recycle on submicrometer particle formation during oxy-coal combustion. Proceedings of the Combustion Institute, 2013, 34, 3479-3487.	3.9	15
48	Analysis of biological and artificial chemical sensor repsonses to odor mixtures. , 2013, , .		0
49	Towards Better Phosphor Design: Effect of SiO₂Nanoparticles on Photoluminescence Enhancement of YAG:Ce. ECS Journal of Solid State Science and Technology, 2013, 2, R91-R95.	1.8	25
50	Low Temperature Synthesis of N-Doped TiO₂ Nanocatalysts for Photodegradation of Methyl Orange. Journal of Nanoscience and Nanotechnology, 2013, 13, 2376-2381.	0.9	7
51	Enhanced Carbon Dioxide Photoconversion Efficiency by 1D Structured Platinized TiO2 Films. ECS Transactions, 2013, 58, 305-309.	0.5	0
52	Green Synthesis of TiO₂ Nanoparticle Using <I>Aspergillus tubingensis</I>. Advanced Science, Engineering and Medicine, 2013, 5, 943-949.	0.3	59
53	Role of Pt Nanoparticles in Photoreactions on TiO2 Photoelectrodes. Materials Research Society Symposia Proceedings, 2012, 1446, 85.	0.1	0
54	Pulmonary toxicity of well-dispersed multi-wall carbon nanotubes following inhalation and intratracheal instillation. Nanotoxicology, 2012, 6, 587-599.	3.0	96

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55	Influence of Polymer Decomposition Temperature on the Formation of Rare-Earth Free Boron Carbon Oxynitride Phosphors. Journal of Chemical Engineering of Japan, 2012, 45, 995-1000.	0.6	23
56	Evaporation-Induced Crumpling of Graphene Oxide Nanosheets in Aerosolized Droplets: Confinement Force Relationship. Journal of Physical Chemistry Letters, 2012, 3, 3228-3233.	4.6	104
57	Direct synthesis of spherical YAG:Ce phosphor from precursor solution containing polymer and urea. Chemical Engineering Journal, 2012, 210, 461-466.	12.7	39
58	Size and Structure Matter: Enhanced CO₂ Photoreduction Efficiency by Size-Resolved Ultrafine Pt Nanoparticles on TiO₂ Single Crystals. Journal of the American Chemical Society, 2012, 134, 11276-11281.	13.7	691
59	Nano-Biohybrid Light-Harvesting Systems for Solar Energy Applications. Materials Research Society Symposia Proceedings, 2012, 1445, 1.	0.1	0
60	Pulmonary toxicity of well-dispersed single-wall carbon nanotubes after inhalation. Nanotoxicology, 2012, 6, 766-775.	3.0	43
61	Enhanced Water Photolysis with Pt Metal Nanoparticles on Single Crystal TiO₂ Surfaces. Langmuir, 2012, 28, 7528-7534.	3.5	49
62	Preparation and characterization of boron oxide-based red-emitting phosphors using Eu, Al and Ca additives. Materials Chemistry and Physics, 2012, 133, 392-397.	4.0	3
63	Engineered Nanoparticles and the Environment. , 2012, , 443-476.		2
64	Capture of Particles from an Iron and Steel Smelter with a Pulse-Energized Electrostatic Precipitator. Aerosol and Air Quality Research, 2012, 12, 673-682.	2.1	6
65	Biopersistence of inhaled MWCNT in rat lungs in a 4-week well-characterized exposure. Inhalation Toxicology, 2011, 23, 784-791.	1.6	27
66	Pathological features of rat lung following inhalation and intratracheal instillation of C60fullerene. Inhalation Toxicology, 2011, 23, 407-416.	1.6	27
67	Low-pressure Spray Pyrolysis. , 2011, , 861-868.		1
68	Flame Spray Pyrolysis. , 2011, , 869-879.		6
69	Rapid synthesis of nanostructured Cuâ€“TiO2â€“SiO2 composites for CO2 photoreduction by evaporation driven self-assembly. Catalysis Science and Technology, 2011, 1, 593.	4.1	97
70	Novel rare-earth-free tunable-color-emitting BCNO phosphors. Journal of Materials Chemistry, 2011, 21, 5183.	6.7	114
71	The energy-environment nexus: aerosol science and technology enabling solutions. Frontiers of Environmental Science and Engineering in China, 2011, 5, 299-312.	0.8	17
72	Role of dopant concentration, crystal phase and particle size on microbial inactivation of Cu-doped TiO₂nanoparticles. Nanotechnology, 2011, 22, 415704.	2.6	16

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73	Flame aerosol reactor synthesis of nanostructured SnO2 thin films: High gas-sensing properties by control of morphology. Sensors and Actuators B: Chemical, 2010, 150, 609-615.	7.8	22
74	Preparation of size-controlled tungsten oxide nanoparticles and evaluation of their adsorption performance. Materials Research Bulletin, 2010, 45, 165-173.	5.2	56
75	Controlled synthesis of carbon-based alumina nanophosphors with tunable blue-green luminescence. Materials Letters, 2010, 64, 836-839.	2.6	12
76	Synthesis of Gallium Nitride Nanoparticles by Microwave Plasmaâ€Enhanced CVD. Chemical Vapor Deposition, 2010, 16, 151-156.	1.3	15
77	Photocatalytic reduction of CO2 with H2O on mesoporous silica supported Cu/TiO2 catalysts. Applied Catalysis B: Environmental, 2010, 100, 386-392.	20.2	446
78	Inflammogenic effect of well-characterized fullerenes in inhalation and intratracheal instillation studies. Particle and Fibre Toxicology, 2010, 7, 4.	6.2	57
79	Effect of the Carbon Source on the Luminescence Properties of Boron Carbon Oxynitride Phosphor Particles. Journal of the Electrochemical Society, 2010, 157, J329.	2.9	42
80	Fabrication and Characterization of a Yellow-Emitting BCNO Phosphor for White Light-Emitting Diodes. Electrochemical and Solid-State Letters, 2009, 12, J33.	2.2	43
81	Chemical and photoluminescence analyses of new carbon-based boron oxynitride phosphors. Materials Research Bulletin, 2009, 44, 2099-2102.	5.2	30
82	Nanoparticle formation through solidâ€fed flame synthesis: Experiment and modeling. AICHE Journal, 2009, 55, 885-895.	3.6	35
83	Noninvasive in vivo electron paramagnetic resonance study to estimate pulmonary reducing ability in mice exposed to NiO or C60 nanoparticles. Journal of Magnetic Resonance Imaging, 2009, 29, 1432-1437.	3.4	7
84	Gene expression profiles in rat lung after inhalation exposure to C60 fullerene particles. Toxicology, 2009, 258, 47-55.	4.2	87
85	Highly Luminous Hollow Chloroapatite Phosphors Formed by a Template-Free Aerosol Route for Solid-State Lighting. Chemistry of Materials, 2009, 21, 4685-4691.	6.7	29
86	Development and Evaluation of an Aerosol Generation and Supplying System for Inhalation Experiments of Manufactured Nanoparticles. Environmental Science & Technology, 2009, 43, 5529-5534.	10.0	47
87	Photoluminescence Characteristics of Macroporous Eu-Doped Yttrium Oxide Particles Prepared by Spray Pyrolysis. Japanese Journal of Applied Physics, 2009, 48, 032001.	1.5	15
88	Facile Synthesis of New Fullâ€Colorâ€Emitting BCNO Phosphors with High Quantum Efficiency. Advanced Materials, 2008, 20, 3235-3238.	21.0	163
89	Rapid Synthesis of Nonâ€Aggregated Fine Chloroapatite Blue Phosphor Powders with High Quantum Efficiency. Advanced Materials, 2008, 20, 3422-3426.	21.0	50
90	Role of urea addition in the preparation of tetragonal BaTiO3 nanoparticles using flame-assisted spray pyrolysis. Journal of the European Ceramic Society, 2008, 28, 2573-2580.	5.7	36

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91	Investigation on the Correlations between Droplet and Particle Size Distribution in Ultrasonic Spray Pyrolysis. Industrial & Engineering Chemistry Research, 2008, 47, 1650-1659.	3.7	149
92	High luminance YAG:Ce nanoparticles fabricated from urea added aqueous precursor by flame process. Journal of Alloys and Compounds, 2008, 463, 350-357.	5.5	92
93	Photoluminescence Properties of Submicrometer Phosphors with Different Crystallite/Particle Sizes. Japanese Journal of Applied Physics, 2008, 47, 7220-7223.	1.5	6
94	Formation and Luminescence Enhancement of Agglomerate-Free YAG:Ce[sup 3+] Submicrometer Particles by Flame-Assisted Spray Pyrolysis. Journal of the Electrochemical Society, 2007, 154, J91.	2.9	43
95	Photoluminescence Optimization of Luminescent Nanocomposites Fabricated by Spray Pyrolysis of a Colloid-Solution Precursor. Journal of the Electrochemical Society, 2007, 154, J121.	2.9	45
96	Simulation and experimental study of spray pyrolysis of polydispersed droplets. Journal of Materials Research, 2007, 22, 1888-1898.	2.6	50
97	Low-Temperature Crystallization of Barium Ferrite Nanoparticles by a Sodium Citrate-Aided Synthetic Process. Journal of Physical Chemistry C, 2007, 111, 10175-10180.	3.1	63
98	Correlations between Crystallite/Particle Size and Photoluminescence Properties of Submicrometer Phosphors. Chemistry of Materials, 2007, 19, 1723-1730.	6.7	339
99	Technology Innovation in the Nanoparticle Project. KONA Powder and Particle Journal, 2007, 25, 237-243.	1.7	5
100	Vapor condensation on nanoparticles in the mixer of a particle size magnifier. International Journal of Heat and Mass Transfer, 2007, 50, 2333-2338.	4.8	21
101	Formation of BaTiO3 nanoparticles from an aqueous precursor by flame-assisted spray pyrolysis. Journal of the European Ceramic Society, 2007, 27, 4489-4497.	5.7	38
102	Polymer-Assisted Annealing of Spray-Pyrolyzed Powders for Formation of Luminescent Particles with Submicrometer and Nanometer Sizes. Journal of the American Ceramic Society, 2007, 90, 425-432.	3.8	24
103	A Pulse Combustionâ€Spray Pyrolysis Process for the Preparation of Nanoâ€and Submicrometerâ€Sized Oxide Particles. Journal of the American Ceramic Society, 2007, 90, 3779-3785.	3.8	13
104	Effects of Ethanol Addition and Ba/Ti Ratios on Preparation of Barium Titanate Nanocrystals Via a Spray Pyrolysis Method. Journal of the American Ceramic Society, 2006, 89, 888-893.	3.8	15
105	Evaporative cooling of micron-sized droplets in a low-pressure aerosol reactor. Chemical Engineering Science, 2006, 61, 6029-6034.	3.8	41
106	Direct Synthesis of Barium Titanate Nanoparticles Via a Low Pressure Spray Pyrolysis Method. Journal of Materials Research, 2005, 20, 2873-2882.	2.6	17
107	One-step synthesis of titanium oxide nanoparticles by spray pyrolysis of organic precursors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 123, 194-202.	3.5	77
108	Dispersion and aggregation of nanoparticles derived from colloidal droplets under low-pressure conditions. Journal of Colloid and Interface Science, 2005, 288, 423-431.	9.4	33

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109	Nickel and nickel oxide nanoparticles prepared from nickel nitrate hexahydrate by a low pressure spray pyrolysis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 111, 69-76.	3.5	124
110	Nanofiltration of l-phenylalanine and l-aspartic acid aqueous solutions. Journal of Membrane Science, 2002, 196, 59-67.	8.2	75
111	Experimental investigation on separation performance of nanofiltration membranes for inorganic electrolyte solutions. Desalination, 2002, 145, 115-122.	8.2	67