Zhen-Yu Wang

List of Publications by Year
in descending order

87	7,358	66343 42	54911 84
papers	citations	h-index	g-index

87	87	87	8136
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Xylem- and Phloem-Based Transport of CuO Nanoparticles in Maize (Zea mays L.). Environmental Science & Technology, 2012, 46, 4434-4441.	10.0	601
2	Graphene in the Aquatic Environment: Adsorption, Dispersion, Toxicity and Transformation. Environmental Science & Technology, 2014, 48, 9995-10009.	10.0	573
3	Nano-Biotechnology in Agriculture: Use of Nanomaterials to Promote Plant Growth and Stress Tolerance. Journal of Agricultural and Food Chemistry, 2020, 68, 1935-1947.	5.2	363
4	Sorption of antibiotic sulfamethoxazole varies with biochars produced at different temperatures. Environmental Pollution, 2013, 181, 60-67.	7.5	334
5	Toxicity and Internalization of CuO Nanoparticles to Prokaryotic Alga Microcystis aeruginosa as Affected by Dissolved Organic Matter. Environmental Science & Technology, 2011, 45, 6032-6040.	10.0	323
6	Characteristics and nutrient values of biochars produced from giant reed at different temperatures. Bioresource Technology, 2013, 130, 463-471.	9.6	301
7	CuO Nanoparticle Interaction with Human Epithelial Cells: Cellular Uptake, Location, Export, and Genotoxicity. Chemical Research in Toxicology, 2012, 25, 1512-1521.	3.3	269
8	Norfloxacin Sorption and Its Thermodynamics on Surface-Modified Carbon Nanotubes. Environmental Science & Technology, 2010, 44, 978-984.	10.0	208
9	Environmental processes and toxicity of metallic nanoparticles in aquatic systems as affected by natural organic matter. Environmental Science: Nano, 2016, 3, 240-255.	4.3	208
10	Mechanistic understanding toward the toxicity of graphene-family materials to freshwater algae. Water Research, 2017, 111, 18-27.	11.3	203
11	Photodegradation Elevated the Toxicity of Polystyrene Microplastics to Grouper (Epinephelus) Tj ETQq1 1 0.784314 rgBT /Overloc 2020, 54, 6202-6212.	10.0	187
12	Heteroaggregation of Graphene Oxide with Minerals in Aqueous Phase. Environmental Science & Technology, 2015, 49, 2849-2857.	10.0	182
13	Formation and Physicochemical Characteristics of Nano Biochar: Insight into Chemical and Colloidal Stability. Environmental Science & Technology, 2018, 52, 10369-10379.	10.0	178
14	CuO Nanoparticle Interaction with Arabidopsis thaliana: Toxicity, Parent-Progeny Transfer, and Gene Expression. Environmental Science & Technology, 2016, 50, 6008-6016.	10.0	160
15	Characterization and influence of biochars on nitrous oxide emission from agricultural soil. Environmental Pollution, 2013, 174, 289-296.	7.5	156
16	Mitigation of CuO nanoparticle-induced bacterial membrane damage by dissolved organic matter. Water Research, 2013, 47, 4169-4178.	11.3	152
17	Distribution of CuO nanoparticles in juvenile carp (Cyprinus carpio) and their potential toxicity. Journal of Hazardous Materials, 2011, 197, 304-310.	12.4	151
18	Toxicological effects of nano- and micro-polystyrene plastics on red tilapia: Are larger plastic particles more harmless?. Journal of Hazardous Materials, 2020, 396, 122693.	12.4	137

#	Article	IF	Citations
19	Adsorption and inhibition of acetylcholinesterase by different nanoparticles. Chemosphere, 2009, 77, 67-73.	8.2	132
20	Adsorption of Triton X-series surfactants and its role in stabilizing multi-walled carbon nanotube suspensions. Chemosphere, 2010, 79, 362-367.	8.2	112
21	Size Matters: Nano-Biochar Triggers Decomposition and Transformation Inhibition of Antibiotic Resistance Genes in Aqueous Environments. Environmental Science & Technology, 2020, 54, 8821-8829.	10.0	111
22	Reduced nitrification and abundance of ammonia-oxidizing bacteria in acidic soil amended with biochar. Chemosphere, 2015, 138, 576-583.	8.2	107
23	Remediation of petroleum contaminated soils through composting and rhizosphere degradation. Journal of Hazardous Materials, 2011, 190, 677-685.	12.4	105
24	Adsorption of Phenanthrene on Multilayer Graphene as Affected by Surfactant and Exfoliation. Environmental Science & Technology, 2014, 48, 331-339.	10.0	101
25	Algae response to engineered nanoparticles: current understanding, mechanisms and implications. Environmental Science: Nano, 2019, 6, 1026-1042.	4.3	96
26	Increased Adsorption of Sulfamethoxazole on Suspended Carbon Nanotubes by Dissolved Humic Acid. Environmental Science & Technology, 2013, 47, 7722-7728.	10.0	85
27	Uptake, Distribution, and Transformation of CuO NPs in a Floating Plant Eichhornia crassipes and Related Stomatal Responses. Environmental Science & Technology, 2017, 51, 7686-7695.	10.0	82
28	Nanotechnology as a new sustainable approach for controlling crop diseases and increasing agricultural production. Journal of Experimental Botany, 2020, 71, 507-519.	4.8	81
29	Effects of Carbon Quantum Dots on Aquatic Environments: Comparison of Toxicity to Organisms at Different Trophic Levels. Environmental Science & Technology, 2018, 52, 14445-14451.	10.0	76
30	CeO₂ Nanoparticles Regulate the Propagation of Antibiotic Resistance Genes by Altering Cellular Contact and Plasmid Transfer. Environmental Science & Technology, 2020, 54, 10012-10021.	10.0	73
31	New Insights into Black Carbon Nanoparticle-Induced Dispersibility of Goethite Colloids and Configuration-Dependent Sorption for Phenanthrene. Environmental Science & Technology, 2019, 53, 661-670.	10.0	71
32	Nitrogen-Doped Carbon Dots Increased Light Conversion and Electron Supply to Improve the Corn Photosystem and Yield. Environmental Science & Technology, 2021, 55, 12317-12325.	10.0	67
33	Biochar addition reduced net N mineralization of a coastal wetland soil in the Yellow River Delta, China. Geoderma, 2016, 282, 120-128.	5.1	65
34	Coadsorption, desorption hysteresis and sorption thermodynamics of sulfamethoxazole and carbamazepine on graphene oxide and graphite. Carbon, 2013, 65, 243-251.	10.3	64
35	Characteristics and mechanisms of chlorpyrifos and chlorpyrifos-methyl adsorption onto biochars: Influence of deashing and low molecular weight organic acid (LMWOA) aging and co-existence. Science of the Total Environment, 2019, 657, 953-962.	8.0	62
36	Elemental Sulfur Nanoparticles Enhance Disease Resistance in Tomatoes. ACS Nano, 2021, 15, 11817-11827.	14.6	60

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37	Trophic transfer and accumulation of TiO2 nanoparticles from clamworm (Perinereis aibuhitensis) to juvenile turbot (Scophthalmus maximus) along a marine benthic food chain. Water Research, 2016, 95, 250-259.	11.3	59
38	Pulmonary Surfactant Suppressed Phenanthrene Adsorption on Carbon Nanotubes through Solubilization and Competition As Examined by Passive Dosing Technique. Environmental Science & Technology, 2012, 46, 5369-5377.	10.0	56
39	Foliar Application with Iron Oxide Nanomaterials Stimulate Nitrogen Fixation, Yield, and Nutritional Quality of Soybean. ACS Nano, 2022, 16, 1170-1181.	14.6	56
40	The role of biochars in sustainable crop production and soil resiliency. Journal of Experimental Botany, 2020, 71, 520-542.	4.8	53
41	Rhizodegradation of petroleum hydrocarbons by Sesbania cannabina in bioaugmented soil with free and immobilized consortium. Journal of Hazardous Materials, 2012, 237-238, 262-269.	12.4	49
42	Toxicity of GO to Freshwater Algae in the Presence of Al₂O₃ Particles with Different Morphologies: Importance of Heteroaggregation. Environmental Science & Technology, 2018, 52, 13448-13456.	10.0	47
43	Phenanthrene binding by humic acidâ€“protein complexes as studied by passive dosing technique. Environmental Pollution, 2014, 184, 145-153.	7.5	45
44	Uptake, Transport, and Transformation of CeO₂ Nanoparticles by Strawberry and Their Impact on the Rhizosphere Bacterial Community. ACS Sustainable Chemistry and Engineering, 2020, 8, 4792-4800.	6.7	42
45	Configurable Ring Oscillator PUF Using Hybrid Logic Gates. IEEE Access, 2020, 8, 161427-161437.	4.2	40
46	Interaction of CuO nanoparticles with plant cells: internalization, oxidative stress, electron transport chain disruption, and toxicogenomic responses. Environmental Science: Nano, 2018, 5, 2269-2281.	4.3	39
47	Photosynthetic response mechanisms in typical C3 and C4 plants upon La₂O₃ nanoparticle exposure. Environmental Science: Nano, 2020, 7, 81-92.	4.3	39
48	Adsorption and inhibition of butyrylcholinesterase by different engineered nanoparticles. Chemosphere, 2010, 79, 86-92.	8.2	32
49	Enhanced Terahertz Radiation by Efficient Spin-to-Charge Conversion in Rashba-Mediated Dirac Surface States. Nano Letters, 2021, 21, 60-67.	9.1	31
50	Genotoxic response and damage recovery of macrophages to graphene quantum dots. Science of the Total Environment, 2019, 664, 536-545.	8.0	30
51	Humic acid mitigated toxicity of graphene-family materials to algae through reducing oxidative stress and heteroaggregation. Environmental Science: Nano, 2019, 6, 1909-1920.	4.3	28
52	Therapeutic Delivery of Nanoscale Sulfur to Suppress Disease in Tomatoes: In Vitro Imaging and Orthogonal Mechanistic Investigation. ACS Nano, 2022, 16, 11204-11217.	14.6	28
53	Graphene oxide mediated reduction of silver ions to silver nanoparticles under environmentally relevant conditions: Kinetics and mechanisms. Science of the Total Environment, 2019, 679, 270-278.	8.0	27
54	Molecular Mechanisms of Early Flowering in Tomatoes Induced by Manganese Ferrite (MnFe₂O₄) Nanomaterials. ACS Nano, 2022, 16, 5636-5646.	14.6	26

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55	Combined toxicity of nano-TiO2 and Cd2+ to Scenedesmus obliquus: Effects at different concentration ratios. Journal of Hazardous Materials, 2021, 418, 126354.	12.4	25
56	Trophic transfer of TiO₂ nanoparticles from marine microalga (Nitzschia closterium) to scallop (Chlamys farreri) and related toxicity. Environmental Science: Nano, 2017, 4, 415-424.	4.3	24
57	Photochemical Transformation and Catalytic Activity of Dissolved Black Nitrogen Released from Environmental Black Carbon. Environmental Science & Technology, 2021, 55, 6476-6484.	10.0	23
58	Downregulation of the photosynthetic machinery and carbon storage signaling pathways mediate La2O3 nanoparticle toxicity on radish taproot formation. Journal of Hazardous Materials, 2021, 411, 124971.	12.4	23
59	TiO2 hollow heterophase junction with enhanced pollutant adsorption, light harvesting, and charge separation for photocatalytic degradation of volatile organic compounds. Chemical Engineering Journal, 2020, 391, 123602.	12.7	20
60	TiO₂ Nanoparticles in the Marine Environment: Enhancing Bioconcentration, While Limiting Biotransformation of Arsenic in the Mussel Perna viridis. Environmental Science & Technology, 2020, 54, 12254-12261.	10.0	20
61	Transformation and species identification of CuO nanoparticles in plant cells (Nicotiana) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	4.3	18
62	New insight into the mechanism of graphene oxide-enhanced phytotoxicity of arsenic species. Journal of Hazardous Materials, 2021, 410, 124959.	12.4	18
63	Mechanisms of growth-promotion and Se-enrichment inBrassica chinensisL. by selenium nanomaterials: beneficial rhizosphere microorganisms, nutrient availability, and photosynthesis. Environmental Science: Nano, 2022, 9, 302-312.	4.3	18
64	Dimensional Crossover and Topological Nature of the Thin Films of a Three-Dimensional Topological Insulator by Band Gap Engineering. Nano Letters, 2019, 19, 4627-4633.	9.1	16
65	Effects of Low-Molecular-Weight Organic Acids on Soil Micropores and Implication for Organic Contaminant Availability. Communications in Soil Science and Plant Analysis, 2014, 45, 1120-1132.	1.4	14
66	Quantum Transport Signatures of a Close Candidate for a Type II Nodal-Line Semimetal. Journal of Physical Chemistry Letters, 2020, 11, 6475-6481.	4.6	13
67	Cell Walls Are Remodeled to Alleviate nY₂O₃ Cytotoxicity by Elaborate Regulation of de Novo Synthesis and Vesicular Transport. ACS Nano, 2021, 15, 13166-13177.	14.6	13
68	Novel Insights into the Impact of Nano-Biochar on Composition and Structural Transformation of Mineral/Nano-Biochar Heteroaggregates in the Presence of Root Exudates. Environmental Science & Technology, 2022, 56, 9816-9825.	10.0	13
69	Alleviative Effects of C₆₀ on the Trophic Transfer of Cadmium along the Food Chain in Aquatic Environment. Environmental Science & Technology, 2019, 53, 8381-8388.	10.0	12
70	TiO2 nanoparticles enhanced bioaccumulation and toxic performance of PAHs via trophic transfer. Journal of Hazardous Materials, 2021, 407, 124834.	12.4	12
71	Terahertz Generation via Picosecond Spin-to-Charge Conversion in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Ir</mml:mi><mml:mi>Mn</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> Heterojunction. Physical Review Applied, 2021, 16, .	3.8	12
72	Nitrogen-doped carbon dots alleviate the damage from tomato bacterial wilt syndrome: systemic acquired resistance activation and reactive oxygen species scavenging. Environmental Science: Nano, 2021, 8, 3806-3819.	4.3	12

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73	Complex optical conductivity of Bi2Se3 thin film: Approaching two-dimensional limit. Applied Physics Letters, 2021, 118, .	3.3	10
74	Dose-dependent effects of CeO₂ nanomaterials on tomato plant chemistry and insect herbivore resistance. Environmental Science: Nano, 2021, 8, 3577-3589.	4.3	10
75	In situ synthesis of stretchable and highly stable multi-color carbon-dots/polyurethane composite films for light-emitting devices. RSC Advances, 2020, 10, 1281-1286.	3.6	9
76	Collagen Fibril-Assembled Skin-Simulated Membrane for Continuous Molecular Separation. ACS Applied Materials & Interfaces, 2022, 14, 7358-7368.	8.0	9
77	Solid-State KOH Pretreatment of Corn Straw for Anaerobic Digestion: Methane Yield Enhancement, Potassium Flow Analysis, and Preliminary Economic Assessment. Energy & Fuels, 2019, 33, 11034-11040.	5.1	8
78	Transfer and transformation of CeO₂ NPs along a terrestrial trophic food chain. Environmental Science: Nano, 2020, 7, 588-598.	4.3	8
79	A dynamically configurable LFSR-based PUF design against machine learning attacks. CCF Transactions on High Performance Computing, 2021, 3, 31-56.	1.7	8
80	Nanomaterial-induced modulation of hormonal pathways enhances plant cell growth. Environmental Science: Nano, 2022, 9, 1578-1590.	4.3	8
81	Fermi Velocity Reduction of Dirac Fermions around the Brillouin Zone Center in In 2 Se 3 â€“Bilayer Graphene Heterostructures. Advanced Materials, 2021, 33, 2007503.	21.0	7
82	Topological phase transition in Sb-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>Mg</mml:mi></mml:mrow><mml:mn>3</m monocrystalline thin films. Physical Review B, 2021, 103, .	3.2	6
83	Nano-biochar modulates the formation of iron plaque through facilitating iron-involved redox reactions on aquatic plant root surfaces. Environmental Science: Nano, 2022, 9, 1974-1985.	4.3	4
84	Silica nanomaterials and earthworms synergistically regulate maize root metabolite profiles via promoting soil Si bioavailability. Environmental Science: Nano, 2021, 8, 3865-3878.	4.3	2
85	Hydrocarbon degradation potential of autochthonous bacteria from the Yellow River delta soil. Diqiu Huaxue, 2006, 25, 249-249.	0.5	0
86	Adsorption and Inhibition of Butyrylcholinesterase by Different Nanoparticles. , 2010, , 262-264.		0
87	Nano-TiO₂ retarded fetal development by inhibiting transplacental transfer of thyroid hormones in rat. Environmental Science: Nano, 0, , .	4.3	0