Zhiyong Zhang

List of Publications by Year
in descending order

117	6,789	66343 42	62596 80
papers	citations	h-index	g-index

135	135	135	8063
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Metabolism of Nanomaterials <i>in Vivo</i>: Blood Circulation and Organ Clearance. Accounts of Chemical Research, 2013, 46, 761-769.	15.6	424
2	Effects of rare earth oxide nanoparticles on root elongation of plants. Chemosphere, 2010, 78, 273-279.	8.2	377
3	Toxicity of zinc oxide nanoparticles to zebrafish embryo: a physicochemical study of toxicity mechanism. Journal of Nanoparticle Research, 2010, 12, 1645-1654.	1.9	348
4	Biotransformation of Ceria Nanoparticles in Cucumber Plants. ACS Nano, 2012, 6, 9943-9950.	14.6	319
5	Nano-CeO₂ Exhibits Adverse Effects at Environmental Relevant Concentrations. Environmental Science & Technology, 2011, 45, 3725-3730.	10.0	257
6	Uptake and distribution of ceria nanoparticles in cucumber plants. Metallomics, 2011, 3, 816.	2.4	226
7	Magnetic (Fe3O4) Nanoparticles Reduce Heavy Metals Uptake and Mitigate Their Toxicity in Wheat Seedling. Sustainability, 2017, 9, 790.	3.2	217
8	Acquired Superoxideâ€Scavenging Ability of Ceria Nanoparticles. Angewandte Chemie - International Edition, 2015, 54, 1832-1835.	13.8	179
9	Comparative toxicity of nanoparticulate/bulk Yb₂O₃ and YbCl₃ to cucumber (<i>Cucumis sativus</i>). Environmental Science & Technology, 2012, 46, 1834-1841.	10.0	153
10	Phytotoxicity and biotransformation of La₂O₃nanoparticles in a terrestrial plant cucumber (<i>Cucumis sativus</i>). Nanotoxicology, 2011, 5, 743-753.	3.0	151
11	Neurotoxicological consequence of long-term exposure to lanthanum. Toxicology Letters, 2006, 165, 112-120.	0.8	140
12	Lung deposition and extrapulmonary translocation of nano-ceria after intratracheal instillation. Nanotechnology, 2010, 21, 285103.	2.6	137
13	Acute toxic effects and genderâ€related biokinetics of silver nanoparticles following an intravenous injection in mice. Journal of Applied Toxicology, 2012, 32, 890-899.	2.8	136
14	Origin of the different phytotoxicity and biotransformation of cerium and lanthanum oxide nanoparticles in cucumber. Nanotoxicology, 2015, 9, 262-270.	3.0	123
15	Effect of cerium oxide nanoparticles on asparagus lettuce cultured in an agar medium. Environmental Science: Nano, 2014, 1, 459-465.	4.3	108
16	Neurotoxicological Evaluation of Long-Term Lanthanum Chloride Exposure in Rats. Toxicological Sciences, 2008, 103, 354-361.	3.1	106
17	Species-specific toxicity of ceria nanoparticles to<i>Lactuca</i>plants. Nanotoxicology, 2015, 9, 1-8.	3.0	106
18	Fate and Phytotoxicity of CeO2 Nanoparticles on Lettuce Cultured in the Potting Soil Environment. PLoS ONE, 2015, 10, e0134261.	2.5	100

#	Article	IF	Citations
19	Phytotoxicity, uptake and transformation of nano-CeO2 in sand cultured romaine lettuce. Environmental Pollution, 2017, 220, 1400-1408.	7.5	99
20	Xylem and Phloem Based Transport of CeO₂ Nanoparticles in Hydroponic Cucumber Plants. Environmental Science & Technology, 2017, 51, 5215-5221.	10.0	97
21	Toxicity and transformation of graphene oxide and reduced graphene oxide in bacteria biofilm. Science of the Total Environment, 2017, 580, 1300-1308.	8.0	97
22	Î²-Amyloid peptide increases levels of iron content and oxidative stress in human cell and Caenorhabditis elegans models of Alzheimer disease. Free Radical Biology and Medicine, 2011, 50, 122-129.	2.9	96
23	Surface-bound humic acid increased Pb2+ sorption on carbon nanotubes. Environmental Pollution, 2012, 167, 138-147.	7.5	88
24	Transformation of ceria nanoparticles in cucumber plants is influenced by phosphate. Environmental Pollution, 2015, 198, 8-14.	7.5	84
25	Comparison Study on the Antibacterial Activity of Nano- or Bulk-Cerium Oxide. Journal of Nanoscience and Nanotechnology, 2011, 11, 4103-4108.	0.9	83
26	Where Does the Transformation of Precipitated Ceria Nanoparticles in Hydroponic Plants Take Place?. Environmental Science & Technology, 2015, 49, 10667-10674.	10.0	82
27	A new gadolinium-loaded liquid scintillator for reactor neutrino detection. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 584, 238-243.	1.6	80
28	Comparative effects of nano and bulk-Fe3O4 on the growth of cucumber (Cucumis sativus). Ecotoxicology and Environmental Safety, 2018, 165, 547-554.	6.0	76
29	Mapping technique for biodistribution of elements in a model organism, Caenorhabditis elegans, after exposure to copper nanoparticles with microbeam synchrotron radiation X-ray fluorescence. Journal of Analytical Atomic Spectrometry, 2008, 23, 1121.	3.0	75
30	Effects of Copper Nanoparticles on the Development of Zebrafish Embryos. Journal of Nanoscience and Nanotechnology, 2010, 10, 8670-8676.	0.9	75
31	Nanomaterial Transformation in the Soilâ€“Plant System: Implications for Food Safety and Application in Agriculture. Small, 2020, 16, e2000705.	10.0	71
32	A comparative study on the accumulation, translocation and transformation of selenite, selenate, and SeNPs in a hydroponic-plant system. Ecotoxicology and Environmental Safety, 2020, 189, 109955.	6.0	70
33	Production of a gadolinium-loaded liquid scintillator for the Daya Bay reactor neutrino experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 763, 82-88.	1.6	68
34	Influence of sulfur on the accumulation of mercury in rice plant (Oryza sativa L.) growing in mercury contaminated soils. Chemosphere, 2017, 182, 293-300.	8.2	68
35	Long-term effects of lanthanum intake on the neurobehavioral development of the rat. Neurotoxicology and Teratology, 2006, 28, 119-124.	2.4	67
36	Effects of rare earth elements La and Yb on the morphological and functional development of zebrafish embryos. Journal of Environmental Sciences, 2012, 24, 209-213.	6.1	65

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37	Metal Impurities Dominate the Sorption of a Commercially Available Carbon Nanotube for Pb(II) from Water. Environmental Science & Technology, 2010, 44, 8144-8149.	10.0	61
38	Adsorption and desorption characteristics of arsenic onto ceria nanoparticles. Nanoscale Research Letters, 2012, 7, 84.	5.7	60
39	Understanding Enhanced Microbial MeHg Production in Mining-Contaminated Paddy Soils under Sulfate Amendment: Changes in Hg Mobility or Microbial Methylators?. Environmental Science & Technology, 2019, 53, 1844-1852.	10.0	58
40	Trophic Transfer and Transformation of CeO₂ Nanoparticles along a Terrestrial Food Chain: Influence of Exposure Routes. Environmental Science & Technology, 2018, 52, 7921-7927.	10.0	49
41	Silica nanoparticles alleviate mercury toxicity <i>via</i> immobilization and inactivation of Hg(<scp>ii</scp>) in soybean (<i>Glycine max</i>). Environmental Science: Nano, 2020, 7, 1807-1817.	4.3	48
42	Plant species-dependent transformation and translocation of ceria nanoparticles. Environmental Science: Nano, 2019, 6, 60-67.	4.3	46
43	Influence of Surface Charge on the Phytotoxicity, Transformation, and Translocation of CeO₂ Nanoparticles in Cucumber Plants. ACS Applied Materials & Interfaces, 2019, 11, 16905-16913.	8.0	45
44	Comparative Pulmonary Toxicity of Two Ceria Nanoparticles with the Same Primary Size. International Journal of Molecular Sciences, 2014, 15, 6072-6085.	4.1	44
45	Shape-Dependent Transformation and Translocation of Ceria Nanoparticles in Cucumber Plants. Environmental Science and Technology Letters, 2017, 4, 380-385.	8.7	44
46	Ecotoxicological assessment of lanthanum with Caenorhabditis elegans in liquid medium. Metallomics, 2010, 2, 806.	2.4	42
47	Graphene Oxide-Induced pH Alteration, Iron Overload, and Subsequent Oxidative Damage in Rice (<i>Oryza sativa</i> L.): A New Mechanism of Nanomaterial Phytotoxicity. Environmental Science & Technology, 2020, 54, 3181-3190.	10.0	42
48	Quantifying and Imaging Engineered Nanomaterials In Vivo: Challenges and Techniques. Small, 2013, 9, 1482-1491.	10.0	41
49	Phytotoxicity of CeO2 nanoparticles on radish plant (Raphanus sativus). Environmental Science and Pollution Research, 2017, 24, 13775-13781.	5.3	41
50	Toxicity of cerium and thorium on Daphnia magna. Ecotoxicology and Environmental Safety, 2016, 134, 226-232.	6.0	40
51	Ceria Nanoparticles as Enzyme Mimetics. Chinese Journal of Chemistry, 2017, 35, 791-800.	4.9	40
52	Effects of foliar applications of ceria nanoparticles and CeCl3 on common bean (Phaseolus vulgaris). Environmental Pollution, 2019, 250, 530-536.	7.5	37
53	Growing Rice (<i>Oryza sativa</i>) Aerobically Reduces Phytotoxicity, Uptake, and Transformation of CeO₂ Nanoparticles. Environmental Science & Technology, 2021, 55, 8654-8664.	10.0	37
54	Visible Light Response of Unintentionally Doped ZnO Nanowire Field Effect Transistors. Journal of Physical Chemistry C, 2009, 113, 16796-16801.	3.1	36

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55	Distribution and bioavailability of ceria nanoparticles in an aquatic ecosystem model. Chemosphere, 2012, 89, 530-535.	8.2	35
56	Distribution of ytterbium-169 in rat brain after intravenous injection. Toxicology Letters, 2005, 155, 247-252.	0.8	32
57	Size-dependent toxicity of ThO2 nanoparticles to green algae Chlorella pyrenoidosa. Aquatic Toxicology, 2019, 209, 113-120.	4.0	32
58	Elemental sulfur amendment enhance methylmercury accumulation in rice (Oryza sativa L.) grown in Hg mining polluted soil. Journal of Hazardous Materials, 2019, 379, 120701.	12.4	32
59	Influence of Speciation of Thorium on Toxic Effects to Green Algae Chlorella pyrenoidosa. International Journal of Molecular Sciences, 2017, 18, 795.	4.1	31
60	Changing exposure media can reverse the cytotoxicity of ceria nanoparticles for<i>Escherichia coli</i>. Nanotoxicology, 2012, 6, 233-240.	3.0	30
61	Effects of Ceria Nanoparticles and CeCl₃ on Plant Growth, Biological and Physiological Parameters, and Nutritional Value of Soil Grown Common Bean (<i>Phaseolus vulgaris</i>). Small, 2020, 16, e1907435.	10.0	29
62	Application of nanomaterials in the treatment of rheumatoid arthritis. RSC Advances, 2021, 11, 7129-7137.	3.6	29
63	Overexpression of Mitochondrial Ferritin Sensitizes Cells to Oxidative Stress Via an Iron-Mediated Mechanism. Antioxidants and Redox Signaling, 2009, 11, 1791-1803.	5.4	28
64	Immobilization of mercury by nano-elemental selenium and the underlying mechanisms in hydroponic-cultured garlic plant. Environmental Science: Nano, 2020, 7, 1115-1125.	4.3	28
65	Protein corona influences liver accumulation and hepatotoxicity of gold nanorods. NanoImpact, 2016, 3-4, 40-46.	4.5	27
66	Interactions Between Engineered Nanomaterials and Plants: Phytotoxicity, Uptake, Translocation, and Biotransformation. , 2015, , 77-99.		26
67	Elucidating the origin of the surface functionalization - dependent bacterial toxicity of graphene nanomaterials: Oxidative damage, physical disruption, and cell autolysis. Science of the Total Environment, 2020, 747, 141546.	8.0	26
68	Ytterbium and trace element distribution in brain and organic tissues of offspring rats after prenatal and postnatal exposure to ytterbium. Biological Trace Element Research, 2007, 117, 89-104.	3.5	25
69	Quantifying the total ionic release from nanoparticles after particle-cell contact. Environmental Pollution, 2015, 196, 194-200.	7.5	25
70	Deciphering the particle specific effects on metabolism in rat liver and plasma from ZnO nanoparticles versus ionic Zn exposure. Environment International, 2020, 136, 105437.	10.0	25
71	Direct measurement of lanthanum uptake and distribution in internodal cells of Chara. Plant Science, 2008, 174, 496-501.	3.6	22
72	Intranasal exposure to ZnO nanoparticles induces alterations in cholinergic neurotransmission in rat brain. Nano Today, 2020, 35, 100977.	11.9	22

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73	Overview of the methodology of nuclear analytical techniques for speciation studies of trace elements in the biological and environmental sciences. Analytical and Bioanalytical Chemistry, 2002, 372, 407-411.	3.7	20
74	Evidence for molecular antagonistic mechanism between mercury and selenium in rice (Oryza sativa) Tj ETQq0 0 0 rgBT /Overlock 10 Tf Elements in Medicine and Biology, 2018, 50, 435-440.	3.0	20
75	Quantifying the biodistribution of nanoparticles. Nature Nanotechnology, 2011, 6, 755-755.	31.5	18
76	Quantifying the distribution of ceria nanoparticles in cucumber roots: the influence of labeling. RSC Advances, 2015, 5, 4554-4560.	3.6	18
77	Applications of radiotracer techniques for the pharmacology and toxicology studies of nanomaterials. Science Bulletin, 2009, 54, 173-182.	9.0	17
78	Influence of phosphate on phytotoxicity of ceria nanoparticles in an agar medium. Environmental Pollution, 2017, 224, 392-399.	7.5	15
79	Crystal structures of multicopper oxidase CueO G304K mutant: structural basis of the increased laccase activity. Scientific Reports, 2018, 8, 14252.	3.3	15
80	<i>Bacillus subtilis</i> causes dissolution of ceria nanoparticles at the nanoâ€“bio interface. Environmental Science: Nano, 2019, 6, 216-223.	4.3	15
81	Effects of ceria nanoparticles and CeCl3 on growth, physiological and biochemical parameters of corn (Zea mays) plants grown in soil. NanoImpact, 2021, 22, 100311.	4.5	15
82	Effect of CeO2 nanoparticles on plant growth and soil microcosm in a soil-plant interactive system. Environmental Pollution, 2022, 300, 118938.	7.5	15
83	REE bound DNA in natural plant. Science in China Series B: Chemistry, 1999, 42, 357-362.	0.8	14
84	A Cytotoxicity Study of Fluorescent Carbon Nanodots Using Human Bronchial Epithelial Cells. Journal of Nanoscience and Nanotechnology, 2013, 13, 5254-5259.	0.9	14
85	Genome-Wide Identification and Analysis of Class III Peroxidases in Allotetraploid Cotton (Gossypium) Tj ETQq1 1 0.784314 rgBT /Overl	2.4	13
86	Title is missing!. Journal of Radioanalytical and Nuclear Chemistry, 2002, 251, 437-441.	1.5	12
87	Accumulation and Distribution of Samarium-153 in Rat Brain After Intraperitoneal Injection. Biological Trace Element Research, 2005, 104, 033-040.	3.5	12
88	Bioavailability and Distribution and of Ceria Nanoparticles in Simulated Aquatic Ecosystems, Quantification with a Radiotracer Technique. Journal of Nanoscience and Nanotechnology, 2010, 10, 8658-8662.	0.9	12
89	Quantifying the dissolution of nanomaterials at the nano-bio interface. Science China Chemistry, 2015, 58, 761-767.	8.2	10
90	Determination of rare earth elements in plant protoplasts by MAA. Science Bulletin, 2000, 45, 1497-1499.	1.7	9

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91	Pulmonary Toxicity of Ceria Nanoparticles in Mice After Intratracheal Instillation. Journal of Nanoscience and Nanotechnology, 2013, 13, 6575-6580.	0.9	9
92	Trp2 Peptide-Assembled Nanoparticles with Intrinsically Self-Chelating 64Cu Properties for PET Imaging Tracking and Dendritic Cell-Based Immunotherapy against Melanoma. ACS Applied Bio Materials, 2021, 4, 5707-5716.	4.6	9
93	Elucidating the origin of the toxicity of nano-CeO2 to Chlorella pyrenoidosa: the role of specific surface area and chemical composition. Environmental Science: Nano, 2021, 8, 1701-1712.	4.3	9
94	Effects of Lanthanum on Calcium and Magnesium Contents and Cytoplasmic Streaming of Internodal Cells of Chara corallina. Biological Trace Element Research, 2011, 143, 555-561.	3.5	8
95	Toxicity of Two Different Size Ceria Nanoparticles to Mice After Repeated Intranasal Instillation. Journal of Nanoscience and Nanotechnology, 2019, 19, 2474-2482.	0.9	8
96	Dissolution and Retention Process of CeO₂ Nanoparticles in Soil with Dynamic Redox Conditions. Environmental Science & Technology, 2021, 55, 14649-14657.	10.0	8
97	Effects of surface modification on toxicity of CeO2 nanoparticles to lettuce. NanoImpact, 2021, 24, 100364.	4.5	8
98	Radiolabeling of Nanomaterials: Advantages and Challenges. Frontiers in Toxicology, 2021, 3, 753316.	3.1	8
99	Impact of Albumin Pre-Coating on Gold Nanoparticles Uptake at Single-Cell Level. Nanomaterials, 2022, 12, 749.	4.1	7
100	Unambiguous effects of lanthanum?. Toxicology Letters, 2007, 170, 94-96.	0.8	6
101	Synthesis, Photothermal Effect and Cytotoxicity of Fe₃O₄@Au Nanocomposites. Journal of Nanoscience and Nanotechnology, 2019, 19, 2467-2473.	0.9	6
102	Harnessing perennial and indeterminant growth habits for ratoon cotton (<i>Gossypium</i> spp.) cropping. Ecosystem Health and Sustainability, 2020, 6, .	3.1	6
103	Preparation of186Re and188Re with high specific activity by the Szilard-Chalmers effect. Journal of Labelled Compounds and Radiopharmaceuticals, 2000, 43, 55-64.	1.0	5
104	Comparative study of core- and surface-radiolabeling strategies for the assembly of iron oxide nanoparticle-based theranostic nanocomposites. Nanoscale, 2019, 11, 5909-5913.	5.6	5
105	Measurement of 151Sm with the HI-13 accelerator mass spectrometry system. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 1689-1691.	1.4	4
106	Comparative toxicity of rod-shaped nano-CeO2 and nano-CePO4 to lettuce. Metallomics, 2021, 13, .	2.4	4
107	Direct Labeling of Antibodies IgG with Rhenium-186 Using Sodium Glucoheptonate. Radiochimica Acta, 1997, 79, 105-108.	1.2	2
108	Isotopic Tracer Studies on the Metabolism and Functional Roles of Mineral Elements in Institute of High Energy Physics, China. Journal of Nuclear Science and Technology, 2006, 43, 450-454.	1.3	2

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109	Effect of Iodine Supplement on Iodine Status and 5'-Deiodinase Activity in the Brain of Neonatal Rats with Iodine Deficiency. Biological Trace Element Research, 2006, 114, 207-216.	3.5	2
110	Uptake and elimination of lanthanum by excised roots of Triticum aestivum L.. Journal of Radioanalytical and Nuclear Chemistry, 2007, 272, 523-525.	1.5	2
111	Nanoparticles Determination by Laser Ablation Inductively Coupled Plasma Mass Spectrometry. Journal of Nanoscience and Nanotechnology, 2021, 21, 5436-5442.	0.9	2
112	Determination of extractable organic halogens in pine needles by neutron activation analysis. Journal of Radioanalytical and Nuclear Chemistry, 2004, 259, 129-134.	1.5	1
113	Nanomaterial Transformation: Nanomaterial Transformation in the Soilâ€"Plant System: Implications for Food Safety and Application in Agriculture (Small 21/2020). Small, 2020, 16, 2070116.	10.0	1
114	ç”¨äºŽä¸å¤¿èŽ·æ²»ç——çš„é’†æ¤å¸¦å‰‚. Chinese Science Bulletin, 2021, , .	0.7	1
115	Elemental distributions in rat olfactory bulbs after exposure to MnCl2 measured by synchrotron radiation X-ray fluorescence. Journal of Radioanalytical and Nuclear Chemistry, 2007, 272, 589-593.	1.5	0
116	Phytotoxicity of Rare Earth Nanomaterials. , 2018, , 119-133.		0
117	Professor Zhifang Chai: Scientific Contributions and Achievements. Chinese Chemical Letters, 2022, , .	9.0	0