Jason M Unrine

List of Publications by Year
in descending order

79 papers	6,198 citations	66343 42 h-index	71685 76 g-index
79 all docs	79 docs citations	79 times ranked	6540 citing authors

#	Article	IF	Citations
1	Analysis of engineered nanomaterials in complex matrices (environment and biota): General considerations and conceptual case studies. Environmental Toxicology and Chemistry, 2012, 31, 32-49.	4.3	390
2	Fate of Zinc Oxide and Silver Nanoparticles in a Pilot Wastewater Treatment Plant and in Processed Biosolids. Environmental Science & Technology, 2014, 48, 104-112.	10.0	326
3	Evidence for Biomagnification of Gold Nanoparticles within a Terrestrial Food Chain. Environmental Science & Technology, 2011, 45, 776-781.	10.0	317
4	Nanoparticle Size and Coating Chemistry Control Foliar Uptake Pathways, Translocation, and Leaf-to-Rhizosphere Transport in Wheat. ACS Nano, 2019, 13, 5291-5305.	14.6	303
5	Low Concentrations of Silver Nanoparticles in Biosolids Cause Adverse Ecosystem Responses under Realistic Field Scenario. PLoS ONE, 2013, 8, e57189.	2.5	284
6	Bioavailability of Gold Nanomaterials to Plants: Importance of Particle Size and Surface Coating. Environmental Science & Technology, 2012, 46, 8467-8474.	10.0	221
7	Nanotechnology for sustainable food production: promising opportunities and scientific challenges. Environmental Science: Nano, 2017, 4, 767-781.	4.3	202
8	Uptake, distribution and toxicity of gold nanoparticles in tobacco (<i>Nicotiana xanthi</i>) seedlings. Nanotoxicology, 2012, 6, 353-360.	3.0	192
9	Effect of silver nanoparticle surface coating on bioaccumulation and reproductive toxicity in earthworms (<i>Eisenia fetida</i>). Nanotoxicology, 2011, 5, 432-444.	3.0	186
10	Biotic and Abiotic Interactions in Aquatic Microcosms Determine Fate and Toxicity of Ag Nanoparticles. Part 1. Aggregation and Dissolution. Environmental Science & Technology, 2012, 46, 6915-6924.	10.0	173
11	Effects of Particle Size on Chemical Speciation and Bioavailability of Copper to Earthworms (<i>Eisenia fetida</i>) Exposed to Copper Nanoparticles. Journal of Environmental Quality, 2010, 39, 1942-1953.	2.0	153
12	Trophic Transfer of Au Nanoparticles from Soil along a Simulated Terrestrial Food Chain.. Environmental Science & Technology, 2012, 46, 9753-9760.	10.0	147
13	Influence of Natural Organic Matter and Surface Charge on the Toxicity and Bioaccumulation of Functionalized Ceria Nanoparticles in <i>Caenorhabditis elegans</i>. Environmental Science & Technology, 2014, 48, 1280-1289.	10.0	145
14	Chitosan, Carbon Quantum Dot, and Silica Nanoparticle Mediated dsRNA Delivery for Gene Silencing in <i>Aedes aegypti</i>: A Comparative Analysis. ACS Applied Materials & Interfaces, 2015, 7, 19530-19535.	8.0	141
15	Evidence for Bioavailability of Au Nanoparticles from Soil and Biodistribution within Earthworms (<i>Eisenia fetida</i>). Environmental Science & Technology, 2010, 44, 8308-8313.	10.0	135
16	Impact of Surface Charge on Cerium Oxide Nanoparticle Uptake and Translocation by Wheat (<i>Triticum aestivum</i>). Environmental Science & Technology, 2017, 51, 7361-7368.	10.0	133
17	Behavior of Ag nanoparticles in soil: Effects of particle surface coating, aging and sewage sludge amendment. Environmental Pollution, 2013, 182, 141-149.	7.5	129
18	Biotic and Abiotic Interactions in Aquatic Microcosms Determine Fate and Toxicity of Ag Nanoparticles: Part 2â€“Toxicity and Ag Speciation. Environmental Science & Technology, 2012, 46, 6925-6933.	10.0	128

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19	Impact of sulfidation on the bioavailability and toxicity of silver nanoparticles to Caenorhabditis elegans. Environmental Pollution, 2015, 196, 239-246.	7.5	122
20	Distribution, Elimination, and Biopersistence to 90 Days of a Systemically Introduced 30 nm Ceria-Engineered Nanomaterial in Rats. Toxicological Sciences, 2012, 127, 256-268.	3.1	114
21	Environmental release, fate and ecotoxicological effects of manufactured ceria nanomaterials. Environmental Science: Nano, 2014, 1, 533-548.	4.3	110
22	Bioaccumulation of trace elements in omnivorous amphibian larvae: Implications for amphibian health and contaminant transport. Environmental Pollution, 2007, 149, 182-192.	7.5	97
23	Biodistribution and oxidative stress effects of a systemically-introduced commercial ceria engineered nanomaterial. Nanotoxicology, 2009, 3, 234-248.	3.0	92
24	Toxicogenomic Responses of the Model Organism Caenorhabditis elegans to Gold Nanoparticles. Environmental Science & Technology, 2012, 46, 4115-4124.	10.0	92
25	Nanomaterials in Biosolids Inhibit Nodulation, Shift Microbial Community Composition, and Result in Increased Metal Uptake Relative to Bulk/Dissolved Metals. Environmental Science & Technology, 2015, 49, 8751-8758.	10.0	90
26	Multitechnique Investigation of the pH Dependence of Phosphate Induced Transformations of ZnO Nanoparticles. Environmental Science & Technology, 2014, 48, 4757-4764.	10.0	85
27	Microbial Bioavailability of Covalently Bound Polymer Coatings on Model Engineered Nanomaterials. Environmental Science & Technology, 2011, 45, 5253-5259.	10.0	84
28	Nanoparticle surface charge influences translocation and leaf distribution in vascular plants with contrasting anatomy. Environmental Science: Nano, 2019, 6, 2508-2519.	4.3	81
29	A functional assay-based strategy for nanomaterial risk forecasting. Science of the Total Environment, 2015, 536, 1029-1037.	8.0	79
30	Bioaccumulation of Gold Nanomaterials by <i>Manduca sexta</i>through Dietary Uptake of Surface Contaminated Plant Tissue. Environmental Science & Technology, 2012, 46, 12672-12678.	10.0	73
31	Toxicogenomic Responses of the Model Legume <i>Medicago truncatula</i> to Aged Biosolids Containing a Mixture of Nanomaterials (TiO₂, Ag, and ZnO) from a Pilot Wastewater Treatment Plant. Environmental Science & Technology, 2015, 49, 8759-8768.	10.0	70
32	Gold nanoparticle biodissolution by a freshwater macrophyte and its associated microbiome. Nature Nanotechnology, 2018, 13, 1072-1077.	31.5	68
33	Inâ€…Vivo Processing of Ceria Nanoparticles inside Liver: Impact on Freeâ€Radical Scavenging Activity and Oxidative Stress. ChemPlusChem, 2014, 79, 1083-1088.	2.8	65
34	Effect of natural organic matter on dissolution and toxicity of sulfidized silver nanoparticles to Caenorhabditis elegans. Environmental Science: Nano, 2016, 3, 728-736.	4.3	63
35	Size-Based Differential Transport, Uptake, and Mass Distribution of Ceria (CeO₂) Nanoparticles in Wetland Mesocosms. Environmental Science & Technology, 2018, 52, 9768-9776.	10.0	52
36	<i>In Situ</i> Measurement of CuO and Cu(OH)₂ Nanoparticle Dissolution Rates in Quiescent Freshwater Mesocosms. Environmental Science and Technology Letters, 2016, 3, 375-380.	8.7	50

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37	Plant and Microbial Responses to Repeated Cu(OH)2 Nanopesticide Exposures Under Different Fertilization Levels in an Agro-Ecosystem. Frontiers in Microbiology, 2018, 9, 1769.	3.5	48
38	Strategies for robust and accurate experimental approaches to quantify nanomaterial bioaccumulation across a broad range of organisms. Environmental Science: Nano, 2019, 6, 1619-1656.	4.3	48
39	Characterization of LipL as a Non-heme, Fe(II)-dependent Î±-Ketoglutarate:UMP Dioxygenase That Generates Uridine-5â€²-aldehyde during A-90289 Biosynthesis*. Journal of Biological Chemistry, 2011, 286, 7885-7892.	3.4	47
40	Functionalized-ZnO-Nanoparticle Seed Treatments to Enhance Growth and Zn Content of Wheat (<i>Triticum aestivum</i>) Seedlings. Journal of Agricultural and Food Chemistry, 2018, 66, 12166-12178.	5.2	47
41	Rat brain pro-oxidant effects of peripherally administered 5nm ceria 30 days after exposure. NeuroToxicology, 2012, 33, 1147-1155.	3.0	44
42	Distinct transcriptomic responses of Caenorhabditis elegans to pristine and sulfidized silver nanoparticles. Environmental Pollution, 2016, 213, 314-321.	7.5	44
43	ADVERSE EFFECTS OF ECOLOGICALLY RELEVANT DIETARY MERCURY EXPOSURE IN SOUTHERN LEOPARD FROG (RANA SPHENOCEPHALA) LARVAE. Environmental Toxicology and Chemistry, 2004, 23, 2964.	4.3	43
44	Enhanced toxicity of environmentally transformed ZnO nanoparticles relative to Zn ions in the epibenthic amphipod <i>Hyalella azteca</i>. Environmental Science: Nano, 2019, 6, 325-340.	4.3	36
45	Toxicogenomic responses of Caenorhabditis elegans to pristine and transformed zinc oxide nanoparticles. Environmental Pollution, 2019, 247, 917-926.	7.5	34
46	Effects of biosolids from a wastewater treatment plant receiving manufactured nanomaterials on Medicago truncatula and associated soil microbial communities at low nanomaterial concentrations. Science of the Total Environment, 2017, 609, 799-806.	8.0	32
47	Effect of CeO₂ nanomaterial surface functional groups on tissue and subcellular distribution of Ce in tomato (<i>Solanum lycopersicum</i>). Environmental Science: Nano, 2019, 6, 273-285.	4.3	32
48	Harmonizing across environmental nanomaterial testing media for increased comparability of nanomaterial datasets. Environmental Science: Nano, 2020, 7, 13-36.	4.3	32
49	Genomic mutations after multigenerational exposure of Caenorhabditis elegans to pristine and sulfidized silver nanoparticles. Environmental Pollution, 2019, 254, 113078.	7.5	31
50	Concentrations of Arsenic, Chromium, and Nickel in Toenail Samples From Appalachian Kentucky Residents. Journal of Environmental Pathology, Toxicology and Oncology, 2011, 30, 213-223.	1.2	31
51	Engineered nanoparticles interact with nutrients to intensify eutrophication in a wetland ecosystem experiment. Ecological Applications, 2018, 28, 1435-1449.	3.8	30
52	Differential Reactivity of Copper- and Gold-Based Nanomaterials Controls Their Seasonal Biogeochemical Cycling and Fate in a Freshwater Wetland Mesocosm. Environmental Science & Technology, 2020, 54, 1533-1544.	10.0	29
53	Toxicity and Transcriptomic Analysis in <i>Hyalella azteca</i> Suggests Increased Exposure and Susceptibility of Epibenthic Organisms to Zinc Oxide Nanoparticles. Environmental Science & Technology, 2013, 47, 9453-9460.	10.0	28
54	Responses of soil bacteria and fungal communities to pristine and sulfidized zinc oxide nanoparticles relative to Zn ions. Journal of Hazardous Materials, 2021, 405, 124258.	12.4	28

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55	DIETARY MERCURY EXPOSURE AND BIOACCUMULATION IN SOUTHERN LEOPARD FROG (RANA) Tj ETQq1 1 0.784314 rgBT /Overlock 1	4.3	26
56	Uptake and Bioactivity of Chitosan/Double-Stranded RNA Polyplex Nanoparticles in <i>Caenorhabditis elegans</i>. Environmental Science & Technology, 2019, 53, 3832-3840.	10.0	26
57	Dosing, Not the Dose: Comparing Chronic and Pulsed Silver Nanoparticle Exposures. Environmental Science & Technology, 2018, 52, 10048-10056.	10.0	24
58	Evidence of nickel and other trace elements and their relationship to clinical findings in acute Mesoamerican Nephropathy: A case-control analysis. PLoS ONE, 2020, 15, e0240988.	2.5	23
59	Press or pulse exposures determine the environmental fate of cerium nanoparticles in stream mesocosms. Environmental Toxicology and Chemistry, 2016, 35, 1213-1223.	4.3	22
60	Comparing plantâ€“insect trophic transfer of Cu from lab-synthesised nano-Cu(OH)2 with a commercial nano-Cu(OH)2 fungicide formulation. Environmental Chemistry, 2019, 16, 411.	1.5	21
61	Polymer-Coated Hydroxyapatite Nanocarrier for Double-Stranded RNA Delivery. Journal of Agricultural and Food Chemistry, 2020, 68, 6811-6818.	5.2	20
62	Carboxylic acids accelerate acidic environment-mediated nanoceria dissolution. Nanotoxicology, 2019, 13, 455-475.	3.0	19
63	RNAi in <i>Spodoptera frugiperda</i> Sf9 Cells via Nanomaterial Mediated Delivery of dsRNA: A Comparison of Poly-<scp>l</scp>-arginine Polyplexes and Poly-<scp>l</scp>-arginine-Functionalized Au Nanoparticles. ACS Applied Materials & Interfaces, 2020, 12, 25645-25657.	8.0	17
64	Effects of Soil pH and Coatings on the Efficacy of Polymer coated ZnO Nanoparticulate fertilizers in Wheat (<i>Triticum aestivum</i>). Environmental Science & Technology, 2021, 55, 13532-13540.	10.0	16
65	Surface coating effects on the sorption and dissolution of ZnO nanoparticles in soil. Environmental Science: Nano, 2019, 6, 2495-2507.	4.3	15
66	A comparison of blood and toenails as biomarkers of childrenâ€™s exposure to lead and their correlation with cognitive function. Science of the Total Environment, 2020, 700, 134519.	8.0	15
67	Surface-controlled dissolution rates: a case study of nanoceria in carboxylic acid solutions. Environmental Science: Nano, 2019, 6, 1478-1492.	4.3	14
68	Optimizing the dispersion of nanoparticulate TiO2-based UV filters in a non-polar medium used in sunscreen formulations â€“ The roles of surfactants and particle coatings. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 599, 124792.	4.7	14
69	The role of charge in the toxicity of polymer-coated cerium oxide nanomaterials to Caenorhabditis elegans. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2017, 201, 1-10.	2.6	12
70	A case-control study of trace-element status and lung cancer in Appalachian Kentucky. PLoS ONE, 2019, 14, e0212340.	2.5	12
71	Nanoceria distribution and effects are mouse-strain dependent. Nanotoxicology, 2020, 14, 827-846.	3.0	11
72	Comparison of Nanomaterials for Delivery of Double-Stranded RNA inCaenorhabditis elegans. Journal of Agricultural and Food Chemistry, 2020, 68, 7926-7934.	5.2	10

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73	Efficacy of chitosan/double-stranded RNA polyplex nanoparticles for gene silencing under variable environmental conditions. Environmental Science: Nano, 2020, 7, 1582-1592.	4.3	9
74	Elevated concentrations of trace elements in soil do not necessarily reflect metals available to plants. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2013, 48, 219-225.	1.5	8
75	Delivery of short hairpin RNA in the neotropical brown stink bug, Euschistus heros, using a composite nanomaterial. Pesticide Biochemistry and Physiology, 2021, 177, 104906.	3.6	5
76	Bloodâ€™s Concentration of Lead and Arsenic Associated with Anemia in Peruvian Children. Journal of Environmental and Public Health, 2021, 2021, 1-8.	0.9	3
77	Foreword to the Research Front on â€˜Nanotechnology and Agriculture'. Environmental Chemistry, 2019, 16, 375.	1.5	0
78	Foreword to the research front on â€˜Plastics in the Environmentâ€™. Environmental Chemistry, 2021, 18, 91.	1.5	0
79	The preparation temperature influences the physicochemical nature and activity of nanoceria. Beilstein Journal of Nanotechnology, 2021, 12, 525-540.	2.8	0