Gregory V. Lowry

List of Publications by Year
in descending order

167 papers	23,423 citations	8755 77 h-index	8627 151 g-index
170 all docs	170 docs citations	170 times ranked	20954 citing authors

#	Article	IF	Citations
1	Towards a definition of inorganic nanoparticles from an environmental, health and safety perspective. Nature Nanotechnology, 2009, 4, 634-641.	15.6	1,586
2	Environmental Transformations of Silver Nanoparticles: Impact on Stability and Toxicity. Environmental Science & Technology, 2012, 46, 6900-6914.	4.6	1,269
3	Nanoparticle Aggregation: Challenges to Understanding Transport and Reactivity in the Environment. Journal of Environmental Quality, 2010, 39, 1909-1924.	1.0	983
4	Transformations of Nanomaterials in the Environment. Environmental Science & Technology, 2012, 46, 6893-6899.	4.6	967
5	Aggregation and Sedimentation of Aqueous Nanoscale Zerovalent Iron Dispersions. Environmental Science & Technology, 2007, 41, 284-290.	4.6	917
6	Titanium Dioxide (P25) Produces Reactive Oxygen Species in Immortalized Brain Microglia (BV2):Â Implications for Nanoparticle Neurotoxicityâ€. Environmental Science & Technology, 2006, 40, 4346-4352.	4.6	800
7	TCE Dechlorination Rates, Pathways, and Efficiency of Nanoscale Iron Particles with Different Properties. Environmental Science & Technology, 2005, 39, 1338-1345.	4.6	708
8	Opportunities and challenges for nanotechnology in the agri-tech revolution. Nature Nanotechnology, 2019, 14, 517-522.	15.6	572
9	Stabilization of aqueous nanoscale zerovalent iron dispersions by anionic polyelectrolytes: adsorbed anionic polyelectrolyte layer properties and their effect on aggregation and sedimentation. Journal of Nanoparticle Research, 2008, 10, 795-814.	0.8	467
10	Sulfidation Processes of PVP-Coated Silver Nanoparticles in Aqueous Solution: Impact on Dissolution Rate. Environmental Science & Technology, 2011, 45, 5260-5266.	4.6	432
11	Effect of Particle Age (Fe0Content) and Solution pH On NZVI Reactivity:Â H2Evolution and TCE Dechlorination. Environmental Science & Technology, 2006, 40, 6085-6090.	4.6	418
12	Surface Modifications Enhance Nanoiron Transport and NAPL Targeting in Saturated Porous Media. Environmental Engineering Science, 2007, 24, 45-57.	0.8	403
13	Size-Controlled Dissolution of Organic-Coated Silver Nanoparticles. Environmental Science & Technology, 2012, 46, 752-759.	4.6	374
14	Sulfidation of Silver Nanoparticles: Natural Antidote to Their Toxicity. Environmental Science & Technology, 2013, 47, 13440-13448.	4.6	364
15	Effect of Chloride on the Dissolution Rate of Silver Nanoparticles and Toxicity to <i>E. coli</i>. Environmental Science & Technology, 2013, 47, 5738-5745.	4.6	355
16	Long-Term Transformation and Fate of Manufactured Ag Nanoparticles in a Simulated Large Scale Freshwater Emergent Wetland. Environmental Science & Technology, 2012, 46, 7027-7036.	4.6	351
17	Congener-Specific Dechlorination of Dissolved PCBs by Microscale and Nanoscale Zerovalent Iron in a Water/Methanol Solution. Environmental Science & Technology, 2004, 38, 5208-5216.	4.6	337
18	Fate of Zinc Oxide and Silver Nanoparticles in a Pilot Wastewater Treatment Plant and in Processed Biosolids. Environmental Science & Technology, 2014, 48, 104-112.	4.6	326

#	Article	IF	Citations
19	Effect of TCE Concentration and Dissolved Groundwater Solutes on NZVI-Promoted TCE Dechlorination and H₂ Evolution. Environmental Science & Technology, 2007, 41, 7881-7887.	4.6	317
20	Nanoparticle Size and Coating Chemistry Control Foliar Uptake Pathways, Translocation, and Leaf-to-Rhizosphere Transport in Wheat. ACS Nano, 2019, 13, 5291-5305.	7.3	303
21	Adsorbed Triblock Copolymers Deliver Reactive Iron Nanoparticles to the Oil/Water Interface. Nano Letters, 2005, 5, 2489-2494.	4.5	302
22	Low Concentrations of Silver Nanoparticles in Biosolids Cause Adverse Ecosystem Responses under Realistic Field Scenario. PLoS ONE, 2013, 8, e57189.	1.1	284
23	Guidance to improve the scientific value of zeta-potential measurements in nanoEHS. Environmental Science: Nano, 2016, 3, 953-965.	2.2	258
24	Removal of Antibiotic Florfenicol by Sulfide-Modified Nanoscale Zero-Valent Iron. Environmental Science & Technology, 2017, 51, 11269-11277.	4.6	251
25	Modeling Nanomaterial Environmental Fate in Aquatic Systems. Environmental Science & Technology, 2015, 49, 2587-2593.	4.6	241
26	Technology readiness and overcoming barriers to sustainably implement nanotechnology-enabled plant agriculture. Nature Food, 2020, 1, 416-425.	6.2	239
27	Effects of nano-scale zero-valent iron particles on a mixed culture dechlorinating trichloroethylene. Bioresource Technology, 2010, 101, 1141-1146.	4.8	227
28	Chemical Transformations during Aging of Zerovalent Iron Nanoparticles in the Presence of Common Groundwater Dissolved Constituents. Environmental Science & Technology, 2010, 44, 3455-3461.	4.6	220
29	Adsorbed Polyelectrolyte Coatings Decrease Fe⁰ Nanoparticle Reactivity with TCE in Water: Conceptual Model and Mechanisms. Environmental Science & Technology, 2009, 43, 1507-1514.	4.6	211
30	Methylation of Mercury by Bacteria Exposed to Dissolved, Nanoparticulate, and Microparticulate Mercuric Sulfides. Environmental Science & Technology, 2012, 46, 6950-6958.	4.6	208
31	Cysteine-Induced Modifications of Zero-valent Silver Nanomaterials: Implications for Particle Surface Chemistry, Aggregation, Dissolution, and Silver Speciation. Environmental Science & Technology, 2012, 46, 7037-7045.	4.6	208
32	Trichloroethene Hydrodechlorination in Water by Highly Disordered Monometallic Nanoiron. Chemistry of Materials, 2005, 17, 5315-5322.	3.2	204
33	Sulfur Loading and Speciation Control the Hydrophobicity, Electron Transfer, Reactivity, and Selectivity of Sulfidized Nanoscale Zerovalent Iron. Advanced Materials, 2020, 32, e1906910.	11.1	204
34	Nanotechnology for sustainable food production: promising opportunities and scientific challenges. Environmental Science: Nano, 2017, 4, 767-781.	2.2	202
35	Reactivity, Selectivity, and Long-Term Performance of Sulfidized Nanoscale Zerovalent Iron with Different Properties. Environmental Science & Technology, 2019, 53, 5936-5945.	4.6	194
36	Field-Scale Transport and Transformation of Carboxymethylcellulose-Stabilized Nano Zero-Valent Iron. Environmental Science & Technology, 2013, 47, 1573-1580.	4.6	182

#	Article	IF	Citations
37	Effect of kaolinite, silica fines and pH on transport of polymer-modified zero valent iron nano-particles in heterogeneous porous media. Journal of Colloid and Interface Science, 2012, 370, 1-10.	5.0	181
38	Using CaO- and MgO-rich industrial waste streams for carbon sequestration. Energy Conversion and Management, 2005, 46, 687-699.	4.4	167
39	Effects of Molecular Weight Distribution and Chemical Properties of Natural Organic Matter on Gold Nanoparticle Aggregation. Environmental Science & Technology, 2013, 47, 4245-4254.	4.6	165
40	Sulfidation Mechanism for Zinc Oxide Nanoparticles and the Effect of Sulfidation on Their Solubility. Environmental Science & Technology, 2013, 47, 2527-2534.	4.6	159
41	Critical Review: Role of Inorganic Nanoparticle Properties on Their Foliar Uptake and <i>in Planta</i> Translocation. Environmental Science & Technology, 2021, 55, 13417-13431.	4.6	154
42	Fe⁰ Nanoparticles Remain Mobile in Porous Media after Aging Due to Slow Desorption of Polymeric Surface Modifiers. Environmental Science & Technology, 2009, 43, 3824-3830.	4.6	148
43	Estimating Attachment of Nano- and Submicrometer-particles Coated with Organic Macromolecules in Porous Media: Development of an Empirical Model. Environmental Science & Technology, 2010, 44, 4531-4538.	4.6	146
44	CuO Nanoparticle Dissolution and Toxicity to Wheat (<i>Triticum aestivum)</i> in Rhizosphere Soil. Environmental Science & Technology, 2018, 52, 2888-2897.	4.6	146
45	Transport and Deposition of Polymer-Modified Fe⁰ Nanoparticles in 2-D Heterogeneous Porous Media: Effects of Particle Concentration, Fe⁰ Content, and Coatings. Environmental Science & Technology, 2010, 44, 9086-9093.	4.6	142
46	Emerging Contaminant or an Old Toxin in Disguise? Silver Nanoparticle Impacts on Ecosystems. Environmental Science & Technology, 2014, 48, 5229-5236.	4.6	138
47	Hydrophobic Interactions Increase Attachment of Gum Arabic- and PVP-Coated Ag Nanoparticles to Hydrophobic Surfaces. Environmental Science & Technology, 2011, 45, 5988-5995.	4.6	134
48	Natural Organic Matter Alters Biofilm Tolerance to Silver Nanoparticles and Dissolved Silver. Environmental Science & Technology, 2012, 46, 12687-12696.	4.6	133
49	Impact of Surface Charge on Cerium Oxide Nanoparticle Uptake and Translocation by Wheat (<i>Triticum aestivum</i>). Environmental Science & Technology, 2017, 51, 7361-7368.	4.6	133
50	Critical review: impacts of macromolecular coatings on critical physicochemical processes controlling environmental fate of nanomaterials. Environmental Science: Nano, 2016, 3, 283-310.	2.2	130
51	Iron and Sulfur Precursors Affect Crystalline Structure, Speciation, and Reactivity of Sulfidized Nanoscale Zerovalent Iron. Environmental Science & Technology, 2020, 54, 13294-13303.	4.6	128
52	Dechlorination Mechanism of 2,4-Dichlorophenol by Magnetic MWCNTs Supported Pd/Fe Nanohybrids: Rapid Adsorption, Gradual Dechlorination, and Desorption of Phenol. ACS Applied Materials & Interfaces, 2016, 8, 7333-7342.	4.0	126
53	Impact of sulfidation on the bioavailability and toxicity of silver nanoparticles to Caenorhabditis elegans. Environmental Pollution, 2015, 196, 239-246.	3.7	122
54	Sulfur Dose and Sulfidation Time Affect Reactivity and Selectivity of Post-Sulfidized Nanoscale Zerovalent Iron. Environmental Science & Technology, 2019, 53, 13344-13352.	4.6	120

#	Article	IF	Citations
55	Distributing sulfidized nanoscale zerovalent iron onto phosphorus-functionalized biochar for enhanced removal of antibiotic florfenicol. Chemical Engineering Journal, 2019, 359, 713-722.	6.6	120
56	Guiding the design space for nanotechnology to advance sustainable crop production. Nature Nanotechnology, 2020, 15, 801-810.	15.6	119
57	Progress towards standardized and validated characterizations for measuring physicochemical properties of manufactured nanomaterials relevant to nano health and safety risks. NanoImpact, 2018, 9, 14-30.	2.4	117
58	Temperature- and pH-Responsive Star Polymers as Nanocarriers with Potential for <i>in Vivo</i> Agrochemical Delivery. ACS Nano, 2020, 14, 10954-10965.	7.3	108
59	Current status and future direction for examining engineered nanoparticles in natural systems. Environmental Chemistry, 2014, 11, 351.	0.7	103
60	Correlation of the Physicochemical Properties of Natural Organic Matter Samples from Different Sources to Their Effects on Gold Nanoparticle Aggregation in Monovalent Electrolyte. Environmental Science & Technology, 2015, 49, 2188-2198.	4.6	103
61	Environmental Occurrences, Behavior, Fate, and Ecological Effects of Nanomaterials: An Introduction to the Special Series. Journal of Environmental Quality, 2010, 39, 1867-1874.	1.0	99
62	Empirical correlations to estimate agglomerate size and deposition during injection of a polyelectrolyte-modified Fe0 nanoparticle at high particle concentration in saturated sand. Journal of Contaminant Hydrology, 2010, 118, 152-164.	1.6	98
63	Unveiling the Role of Sulfur in Rapid Defluorination of Florfenicol by Sulfidized Nanoscale Zero-Valent Iron in Water under Ambient Conditions. Environmental Science & Technology, 2021, 55, 2628-2638.	4.6	98
64	Macroscopic and Microscopic Observations of Particle-Facilitated Mercury Transport from New Idria and Sulphur Bank Mercury Mine Tailings. Environmental Science & Technology, 2004, 38, 5101-5111.	4.6	97
65	Speciation Matters: Bioavailability of Silver and Silver Sulfide Nanoparticles to Alfalfa (<i>Medicago) Tj ETQq1 1 0.784314 rgBT /Overlock	4.6	96
66	Sulfidized Nanoscale Zero-Valent Iron: Tuning the Properties of This Complex Material for Efficient Groundwater Remediation. Accounts of Materials Research, 2021, 2, 420-431.	5.9	96
67	Sulfidation of copper oxide nanoparticles and properties of resulting copper sulfide. Environmental Science: Nano, 2014, 1, 347-357.	2.2	91
68	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.	4.6	90
69	Effect of Soil Organic Matter, Soil pH, and Moisture Content on Solubility and Dissolution Rate of CuO NPs in Soil. Environmental Science & Technology, 2019, 53, 4959-4967.	4.6	90
70	Stream Dynamics and Chemical Transformations Control the Environmental Fate of Silver and Zinc Oxide Nanoparticles in a Watershed-Scale Model. Environmental Science & Technology, 2015, 49, 7285-7293.	4.6	88
71	Polymer-Modified Fe⁰ Nanoparticles Target Entrapped NAPL in Two Dimensional Porous Media: Effect of Particle Concentration, NAPL Saturation, and Injection Strategy. Environmental Science & Technology, 2011, 45, 6102-6109.	4.6	86
72	Mechanisms of Neutralization of Bauxite Residue by Carbon Dioxide. Journal of Environmental Engineering, ASCE, 2009, 135, 433-438.	0.7	85

#	Article	IF	Citations
73	Microbial Bioavailability of Covalently Bound Polymer Coatings on Model Engineered Nanomaterials. Environmental Science & Technology, 2011, 45, 5253-5259.	4.6	84
74	Modeling Nanosilver Transformations in Freshwater Sediments. Environmental Science & Technology, 2013, 47, 12920-12928.	4.6	82
75	Nanoparticle surface charge influences translocation and leaf distribution in vascular plants with contrasting anatomy. Environmental Science: Nano, 2019, 6, 2508-2519.	2.2	81
76	Electromagnetic Induction of Zerovalent Iron (ZVI) Powder and Nanoscale Zerovalent Iron (NZVI) Particles Enhances Dechlorination of Trichloroethylene in Contaminated Groundwater and Soil: Proof of Concept. Environmental Science & Technology, 2016, 50, 872-880.	4.6	80
77	A functional assay-based strategy for nanomaterial risk forecasting. Science of the Total Environment, 2015, 536, 1029-1037.	3.9	79
78	Bacterial Nanocellulose Aerogel Membranes: Novel High-Porosity Materials for Membrane Distillation. Environmental Science and Technology Letters, 2016, 3, 85-91.	3.9	79
79	Adsorption of polychlorinated biphenyls to activated carbon: Equilibrium isotherms and a preliminary assessment of the effect of dissolved organic matter and biofilm loadings. Water Research, 2008, 42, 575-584.	5.3	78
80	Meditations on the Ubiquity and Mutability of Nano-Sized Materials in the Environment. ACS Nano, 2011, 5, 8466-8470.	7.3	77
81	Time and Nanoparticle Concentration Affect the Extractability of Cu from CuO NP-Amended Soil. Environmental Science & Technology, 2017, 51, 2226-2234.	4.6	77
82	Uptake and Distribution of Silver in the Aquatic Plant <i>Landoltia punctata</i> (Duckweed) Exposed to Silver and Silver Sulfide Nanoparticles. Environmental Science & Technology, 2017, 51, 4936-4943.	4.6	70
83	Chemistry of the Acid Neutralization Capacity of Bauxite Residue. Environmental Engineering Science, 2009, 26, 873-881.	0.8	69
84	Comparative Study of Polymeric Stabilizers for Magnetite Nanoparticles Using ATRP. Langmuir, 2010, 26, 16890-16900.	1.6	68
85	Gold nanoparticle biodissolution by a freshwater macrophyte and its associated microbiome. Nature Nanotechnology, 2018, 13, 1072-1077.	15.6	68
86	<i>In situ</i>remediation of subsurface contamination: opportunities and challenges for nanotechnology and advanced materials. Environmental Science: Nano, 2019, 6, 1283-1302.	2.2	65
87	CuO Nanoparticles Alter the Rhizospheric Bacterial Community and Local Nitrogen Cycling for Wheat Grown in a Calcareous Soil. Environmental Science & Technology, 2020, 54, 8699-8709.	4.6	65
88	Impacts of Pristine and Transformed Ag and Cu Engineered Nanomaterials on Surficial Sediment Microbial Communities Appear Short-Lived. Environmental Science & Technology, 2016, 50, 2641-2651.	4.6	63
89	A comparison of the effects of natural organic matter on sulfidated and nonsulfidated nanoscale zerovalent iron colloidal stability, toxicity, and reactivity to trichloroethylene. Science of the Total Environment, 2019, 671, 254-261.	3.9	60
90	Comparative Persistence of Engineered Nanoparticles in a Complex Aquatic Ecosystem. Environmental Science & Technology, 2018, 52, 4072-4078.	4.6	56

#	Article	IF	Citations
91	Thermal decomposition of nano-enabled thermoplastics: Possible environmental health and safety implications. Journal of Hazardous Materials, 2016, 305, 87-95.	6.5	55
92	Aging of Dissolved Copper and Copperâ€based Nanoparticles in Five Different Soils: Shortâ€term Kinetics vs. Longâ€term Fate. Journal of Environmental Quality, 2017, 46, 1198-1205.	1.0	55
93	Size-Based Differential Transport, Uptake, and Mass Distribution of Ceria (CeO₂) Nanoparticles in Wetland Mesocosms. Environmental Science & Technology, 2018, 52, 9768-9776.	4.6	52
94	Protein coating composition targets nanoparticles to leaf stomata and trichomes. Nanoscale, 2020, 12, 3630-3636.	2.8	52
95	Development and Placement of a Sorbent-Amended Thin Layer Sediment Cap in the Anacostia River. Soil and Sediment Contamination, 2007, 16, 313-322.	1.1	51
96	Quantifying the efficiency and selectivity of organohalide dechlorination by zerovalent iron. Environmental Sciences: Processes and Impacts, 2020, 22, 528-542.	1.7	51
97	<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.	3.9	50
98	Physical and chemical characteristics of potential seal strata in regions considered for demonstrating geological saline CO2 sequestration. Environmental Earth Sciences, 2011, 64, 925-948.	1.3	46
99	Mobility of Four Common Mercury Species in Model and Natural Unsaturated Soils. Environmental Science & Technology, 2016, 50, 3342-3351.	4.6	46
100	Parameter Identifiability in Application of Soft Particle Electrokinetic Theory To Determine Polymer and Polyelectrolyte Coating Thicknesses on Colloids. Langmuir, 2012, 28, 10334-10347.	1.6	45
101	Distinct transcriptomic responses of Caenorhabditis elegans to pristine and sulfidized silver nanoparticles. Environmental Pollution, 2016, 213, 314-321.	3.7	44
102	Temporal Evolution of Copper Distribution and Speciation in Roots of <i>Triticum aestivum</i> Exposed to CuO, Cu(OH)₂, and CuS Nanoparticles. Environmental Science & Technology, 2018, 52, 9777-9784.	4.6	44
103	Research strategy to determine when novel nanohybrids pose unique environmental risks. Environmental Science: Nano, 2015, 2, 11-18.	2.2	43
104	Much ado about Î±: reframing the debate over appropriate fate descriptors in nanoparticle environmental risk modeling. Environmental Science: Nano, 2015, 2, 27-32.	2.2	42
105	Field Evaluation of Bauxite Residue Neutralization by Carbon Dioxide, Vegetation, and Organic Amendments. Journal of Environmental Engineering, ASCE, 2010, 136, 1045-1053.	0.7	40
106	Biogenic Cyanide Production Promotes Dissolution of Gold Nanoparticles in Soil. Environmental Science & Technology, 2019, 53, 1287-1295.	4.6	38
107	Partitioning Behavior of Organic Contaminants in Carbon Storage Environments: A Critical Review. Environmental Science & Technology, 2013, 47, 37-54.	4.6	37
108	Impact of mercury speciation on its removal from water by activated carbon and organoclay. Water Research, 2019, 157, 600-609.	5.3	36

#	Article	IF	Citations
109	Star Polymer Size, Charge Content, and Hydrophobicity Affect their Leaf Uptake and Translocation in Plants. Environmental Science & Technology, 2021, 55, 10758-10768.	4.6	36
110	Comparative lifecycle inventory (LCI) of greenhouse gas (GHG) emissions of enhanced oil recovery (EOR) methods using different CO2 sources. International Journal of Greenhouse Gas Control, 2013, 16, 129-144.	2.3	35
111	Effect of silver concentration and chemical transformations on release and antibacterial efficacy in silver-containing textiles. NanoImpact, 2018, 11, 51-57.	2.4	32
112	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.	2.2	32
113	Harmonizing across environmental nanomaterial testing media for increased comparability of nanomaterial datasets. Environmental Science: Nano, 2020, 7, 13-36.	2.2	32
114	Biogeochemical transformations of mercury in solid waste landfills and pathways for release. Environmental Sciences: Processes and Impacts, 2016, 18, 176-189.	1.7	31
115	Electromagnetic induction of foam-based nanoscale zerovalent iron (NZVI) particles to thermally enhance non-aqueous phase liquid (NAPL) volatilization in unsaturated porous media: Proof of concept. Chemosphere, 2017, 183, 323-331.	4.2	31
116	Effect of Initial Speciation of Copper- and Silver-Based Nanoparticles on Their Long-Term Fate and Phytoavailability in Freshwater Wetland Mesocosms. Environmental Science & Technology, 2017, 51, 12114-12122.	4.6	31
117	Partitioning of uranyl between ferrihydrite and humic substances at acidic and circum-neutral pH. Geochimica Et Cosmochimica Acta, 2017, 215, 122-140.	1.6	31
118	Effect of emplaced nZVI mass and groundwater velocity on PCE dechlorination and hydrogen evolution in water-saturated sand. Journal of Hazardous Materials, 2017, 322, 136-144.	6.5	30
119	Engineered nanoparticles interact with nutrients to intensify eutrophication in a wetland ecosystem experiment. Ecological Applications, 2018, 28, 1435-1449.	1.8	30
120	Modified MODFLOW-based model for simulating the agglomeration and transport of polymer-modified Fe0 nanoparticles in saturated porous media. Environmental Science and Pollution Research, 2018, 25, 7180-7199.	2.7	29
121	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.	4.6	29
122	Inhibition of bacterial surface colonization by immobilized silver nanoparticles depends critically on the planktonic bacterial concentration. Journal of Colloid and Interface Science, 2016, 467, 17-27.	5.0	28
123	Adsorbed poly(aspartate) coating limits the adverse effects of dissolved groundwater solutes on Fe0 nanoparticle reactivity with trichloroethylene. Environmental Science and Pollution Research, 2018, 25, 7157-7169.	2.7	28
124	From mouse to mouseâ€ear cress: Nanomaterials as vehicles in plant biotechnology. Exploration, 2021, 1, 9-20.	5.4	27
125	Impacts of Sediment Particle Grain Size and Mercury Speciation on Mercury Bioavailability Potential. Environmental Science & Technology, 2021, 55, 12393-12402.	4.6	27
126	Nanotechnology patenting trends through an environmental lens: analysis of materials and applications. Journal of Nanoparticle Research, 2012, 14, 1.	0.8	26

#	Article	IF	Citations
127	Life cycle considerations of nano-enabled agrochemicals: are today's tools up to the task?. Environmental Science: Nano, 2018, 5, 1057-1069.	2.2	26
128	Speciation of Mercury in Selected Areas of the Petroleum Value Chain. Environmental Science & Technology, 2018, 52, 1655-1664.	4.6	26
129	Star Polymers with Designed Reactive Oxygen Species Scavenging and Agent Delivery Functionality Promote Plant Stress Tolerance. ACS Nano, 2022, 16, 4467-4478.	7.3	26
130	Characterizing convective heat transfer coefficients in membrane distillation cassettes. Journal of Membrane Science, 2017, 538, 108-121.	4.1	23
131	High molecular weight components of natural organic matter preferentially adsorb onto nanoscale zero valent iron and magnetite. Science of the Total Environment, 2018, 628-629, 177-185.	3.9	23
132	Characterization of engineered alumina nanofibers and their colloidal properties in water. Journal of Nanoparticle Research, 2015, 17, 1.	0.8	22
133	Press or pulse exposures determine the environmental fate of cerium nanoparticles in stream mesocosms. Environmental Toxicology and Chemistry, 2016, 35, 1213-1223.	2.2	22
134	Accurate and fast numerical algorithms for tracking particle size distributions during nanoparticle aggregation and dissolution. Environmental Science: Nano, 2017, 4, 89-104.	2.2	22
135	Persistence of copper-based nanoparticle-containing foliar sprays in Lactuca sativa (lettuce) characterized by spICP-MS. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	22
136	Phosphate Polymer Nanogel for Selective and Efficient Rare Earth Element Recovery. Environmental Science & Technology, 2021, 55, 12549-12560.	4.6	22
137	Neutralization of Bauxite Residue with Acidic Fly Ash. Environmental Engineering Science, 2009, 26, 431-440.	0.8	20
138	Distinguishing Engineered TiO₂ Nanomaterials from Natural Ti Nanomaterials in Soil Using spICP-TOFMS and Machine Learning. Environmental Science & Technology, 2022, 56, 2990-3001.	4.6	19
139	Graphite nanoparticle addition to fertilizers reduces nitrate leaching in growth of lettuce (Lactuca) Tj ETQq1 1 0.784314 rgBT /Overlock	2.2	18
140	Amphiphilic Thiol Polymer Nanogel Removes Environmentally Relevant Mercury Species from Both Produced Water and Hydrocarbons. Environmental Science & Technology, 2021, 55, 1231-1241.	4.6	16
141	Nanoparticle core properties affect attachment of macromolecule-coated nanoparticles to silica surfaces. Environmental Chemistry, 2014, 11, 257.	0.7	15
142	Reduction in bacterial contamination of hospital textiles by a novel silver-based laundry treatment. American Journal of Infection Control, 2016, 44, 1705-1708.	1.1	15
143	Multistep Method to Extract Moderately Soluble Copper Oxide Nanoparticles from Soil for Quantification and Characterization. Analytical Chemistry, 2020, 92, 9620-9628.	3.2	15
144	Comparative Study of Effects of CO₂Concentration and pH on Microbial Communities from a Saline Aquifer, a Depleted Oil Reservoir, and a Freshwater Aquifer. Environmental Engineering Science, 2016, 33, 806-816.	0.8	14

#	Article	IF	Citations
145	Measurement of Setschenow constants for six hydrophobic compounds in simulated brines and use in predictive modeling for oil and gas systems. Chemosphere, 2016, 144, 2247-2256.	4.2	14
146	Time-dependent bacterial transcriptional response to CuO nanoparticles differs from that of Cu²⁺ and provides insights into CuO nanoparticle toxicity mechanisms. Environmental Science: Nano, 2017, 4, 2321-2335.	2.2	14
147	Methanol-based extraction protocol for insoluble and moderately water-soluble nanoparticles in plants to enable characterization by single particle ICP-MS. Analytical and Bioanalytical Chemistry, 2021, 413, 299-314.	1.9	13
148	Copper release and transformation following natural weathering of nano-enabled pressure-treated lumber. Science of the Total Environment, 2019, 668, 234-244.	3.9	12
149	Measurement and Modeling of Setschenow Constants for Selected Hydrophilic Compounds in NaCl and CaCl₂ Simulated Carbon Storage Brines. Accounts of Chemical Research, 2017, 50, 1332-1341.	7.6	11
150	Copper and Gold Nanoparticles Increase Nutrient Excretion Rates of Primary Consumers. Environmental Science & Technology, 2020, 54, 10170-10180.	4.6	10
151	Why Was My Paper Rejected without Review?. Environmental Science & Technology, 2020, 54, 11641-11644.	4.6	10
152	Visualization tool for correlating nanomaterial properties and biological responses in zebrafish. Environmental Science: Nano, 2016, 3, 1280-1292.	2.2	8
153	Making Waves. Environmental Science & Technology, 2020, 54, 6449-6450.	4.6	7
154	New Linear Partitioning Models Based on Experimental Water: Supercritical CO2 Partitioning Data of Selected Organic Compounds. Environmental Science & Technology, 2016, 50, 5135-5142.	4.6	6
155	Preparation of palladized carbon nanotubes encapsulated iron composites: highly efficient dechlorination for trichloroethylene and low corrosion of nanoiron. Royal Society Open Science, 2018, 5, 172242.	1.1	6
156	Evolving Today to Best Serve Tomorrow. Environmental Science & Technology, 2020, 54, 5923-5924.	4.6	6
157	Investigation of pore water and soil extraction tests for characterizing the fate of poorly soluble metal-oxide nanoparticles. Chemosphere, 2021, 267, 128885.	4.2	6
158	Response to Comment on â€œSulfidation of Silver Nanoparticles: Natural Antidote to Their Toxicityâ€. Environmental Science & Technology, 2014, 48, 6051-6052.	4.6	5
159	Sulfide-Modified NZVI (S-NZVI): Synthesis, Characterization, and Reactivity. , 2019, , 359-386.		4
160	Data Science for Advancing Environmental Science, Engineering, and Technology: Upcoming Special and Virtual Issues in <i>ES</i><i>&T</i> and <i>ES</i><i>&T Letters</i>. Environmental Science & Technology, 2022, 56, 9827-9828.	4.6	4
161	Inching closer to realistic exposure models. Nature Nanotechnology, 2018, 13, 983-985.	15.6	2
162	Data Science for Advancing Environmental Science, Engineering, and Technology: Upcoming Special and Virtual Issues in <i>ES&T</i> and <i>ES&T Letters</i>. Environmental Science and Technology Letters, 2022, 9, 581-582.	3.9	2

#	Article	IF	Citations
163	Mechanistic, Mechanistic-Based Empirical, and Continuum-Based Concepts and Models for the Transport of Polyelectrolyte-Modified Nanoscale Zerovalent Iron (NZVI) in Saturated Porous Media. , 2019, , 235-291.		1
164	Biological Barriers, Processes, and Transformations at the Soilâ€“Plantâ€“Atmosphere Interfaces Driving the Uptake, Translocation, and Bioavailability of Inorganic Nanoparticles to Plants. , 2022, , 123-152.		1
165	ES&Tâ€™s Best Papers of 2020. Environmental Science & Technology, 2021, 55, 11489-11490.	4.6	0
166	Welcome to the Future: Introducing ES&Tâ€™s Inaugural Early Career Editorial Advisory Board. Environmental Science & Technology, 2021, 55, 811-812.	4.6	0
167	Sorption and transformation of biocides fromÂhydraulic fracturing in the Marcellus Shale: a review. Environmental Chemistry Letters, 2022, 20, 773-795.	8.3	0