David M Cwiertny

List of Publications by Year
in descending order

94	4,793	81900 39	98798 67
papers	citations	h-index	g-index

95	95	95	6338
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Adsorption of sulfur dioxide on hematite and goethite particle surfaces. Physical Chemistry Chemical Physics, 2007, 9, 5542.	2.8	303
2	Pharmaceuticals and personal care products in effluent matrices: A survey of transformation and removal during wastewater treatment and implications for wastewater management. Journal of Environmental Monitoring, 2010, 12, 1956.	2.1	286
3	Adsorption of Organic Acids on TiO₂ Nanoparticles: Effects of pH, Nanoparticle Size, and Nanoparticle Aggregation. Langmuir, 2008, 24, 6659-6667.	3.5	230
4	Chemistry and Photochemistry of Mineral Dust Aerosol. Annual Review of Physical Chemistry, 2008, 59, 27-51.	10.8	222
5	Occurrence of Neonicotinoid Insecticides in Finished Drinking Water and Fate during Drinking Water Treatment. Environmental Science and Technology Letters, 2017, 4, 168-173.	8.7	206
6	Combined Factors Influencing the Aggregation and Deposition of nano-TiO₂ in the Presence of Humic Acid and Bacteria. Environmental Science & Technology, 2012, 46, 6968-6976.	10.0	194
7	A critical review on the potential impacts of neonicotinoid insecticide use: current knowledge of environmental fate, toxicity, and implications for human health. Environmental Sciences: Processes and Impacts, 2020, 22, 1315-1346.	3.5	187
8	Exploring the Influence of Granular Iron Additives on 1,1,1-Trichloroethane Reduction. Environmental Science & Technology, 2006, 40, 6837-6843.	10.0	155
9	Characterization and acidâ€mobilization study of ironâ€containing mineral dust source materials. Journal of Geophysical Research, 2008, 113, .	3.3	139
10	Surface Chemistry and Dissolution of Î±-FeOOH Nanorods and Microrods: Environmental Implications of Size-Dependent Interactions with Oxalate. Journal of Physical Chemistry C, 2009, 113, 2175-2186.	3.1	120
11	Hydroxyl Radical Formation during Ozonation of Multiwalled Carbon Nanotubes: Performance Optimization and Demonstration of a Reactive CNT Filter. Environmental Science & Technology, 2015, 49, 3687-3697.	10.0	115
12	Use of Dithionite to Extend the Reactive Lifetime of Nanoscale Zero-Valent Iron Treatment Systems. Environmental Science & Technology, 2010, 44, 8649-8655.	10.0	103
13	Interpreting nanoscale size-effects in aggregated Fe-oxide suspensions: Reaction of Fe(II) with Goethite. Geochimica Et Cosmochimica Acta, 2008, 72, 1365-1380.	3.9	102
14	Influence of the Oxidizing Species on the Reactivity of Iron-Based Bimetallic Reductants. Environmental Science & Technology, 2007, 41, 3734-3740.	10.0	99
15	Tailored Synthesis of Photoactive TiO₂ Nanofibers and Au/TiO₂ Nanofiber Composites: Structure and Reactivity Optimization for Water Treatment Applications. Environmental Science & Technology, 2015, 49, 1654-1663.	10.0	98
16	Influence of Anionic Cosolutes and pH on Nanoscale Zerovalent Iron Longevity: Time Scales and Mechanisms of Reactivity Loss toward 1,1,1,2-Tetrachloroethane and Cr(VI). Environmental Science & Technology, 2012, 46, 8365-8373.	10.0	85
17	Considerations for large building water quality after extended stagnation. AWWA Water Science, 2020, 2, e1186.	2.1	85
18	Dissolution of Hematite Nanoparticle Aggregates: Influence of Primary Particle Size, Dissolution Mechanism, and Solution pH. Langmuir, 2012, 28, 15797-15808.	3.5	83

#	ARTICLE	IF	CITATIONS
19	Influence of Copper Loading and Surface Coverage on the Reactivity of Granular Iron toward 1,1,1-Trichloroethane. Environmental Science & Technology, 2006, 40, 1485-1490.	10.0	82
20	Environmental Designer Drugs: When Transformation May Not Eliminate Risk. Environmental Science & Technology, 2014, 48, 11737-11745.	10.0	75
21	Product-to-Parent Reversion of Trenbolone: Unrecognized Risks for Endocrine Disruption. Science, 2013, 342, 347-351.	12.6	73
22	Chlorinated Byproducts of Neonicotinoids and Their Metabolites: An Unrecognized Human Exposure Potential?. Environmental Science and Technology Letters, 2019, 6, 98-105.	8.7	70
23	Potential-Driven Electron Transfer Lowers the Dissociation Energy of the Câ€“F Bond and Facilitates Reductive Defluorination of Perfluorooctane Sulfonate (PFOS). ACS Applied Materials & Interfaces, 2019, 11, 33913-33922.	8.0	67
24	Influence of transition metal additives and temperature on the rate of organohalide reduction by granular iron: Implications for reaction mechanisms. Applied Catalysis B: Environmental, 2007, 76, 348-356.	20.2	66
25	Photoreductive dissolution of Feâ€containing mineral dust particles in acidic media. Journal of Geophysical Research, 2010, 115, .	3.3	65
26	Synthesis and optimization of Fe2O3 nanofibers for chromate adsorption from contaminated water sources. Chemosphere, 2016, 144, 975-981.	8.2	65
27	Co3O4 nanoparticles as oxygen carriers for chemical looping combustion: A materials characterization approach to understanding oxygen carrier performance. Chemical Engineering Journal, 2017, 319, 279-287.	12.7	64
28	1,1,2,2-Tetrachloroethane Reactions with OH-, Cr(II), Granular Iron, and a Copperâ^'Iron Bimetal:Â Insights from Product Formation and Associated Carbon Isotope Fractionation. Environmental Science & Technology, 2007, 41, 4111-4117.	10.0	62
29	Structural Dependence of Reductive Defluorination of Linear PFAS Compounds in a UV/Electrochemical System. Environmental Science & Technology, 2020, 54, 10668-10677.	10.0	62
30	Chlorinated Solvent Transformation by Palladized Zerovalent Iron: Mechanistic Insights from Reductant Loading Studies and Solvent Kinetic Isotope Effects. Environmental Science & Technology, 2013, 47, 7940-7948.	10.0	57
31	Role of Atmospheric CO₂ and H₂O Adsorption on ZnO and CuO Nanoparticle Aging: Formation of New Surface Phases and the Impact on Nanoparticle Dissolution. Journal of Physical Chemistry C, 2016, 120, 19195-19203.	3.1	57
32	Synthesis, Optimization, and Performance Demonstration of Electrospun Carbon Nanofiberâ€“Carbon Nanotube Composite Sorbents for Point-of-Use Water Treatment. ACS Applied Materials & Interfaces, 2016, 8, 11431-11440.	8.0	54
33	Synthesis and optimization of Agâ€“TiO2 composite nanofibers for photocatalytic treatment of impaired water sources. Journal of Hazardous Materials, 2015, 299, 141-148.	12.4	51
34	Functionalized polymer-iron oxide hybrid nanofibers: Electrospun filtration devices for metal oxyanion removal. Water Research, 2017, 117, 207-217.	11.3	50
35	Environmental Fate and Effects of Dichloroacetamide Herbicide Safeners: â€œInertâ€•yet Biologically Active Agrochemical Ingredients. Environmental Science and Technology Letters, 2015, 2, 260-269.	8.7	49
36	On the Nonlinear Relationship betweenkobsand Reductant Mass Loading in Iron Batch Systems. Environmental Science & Technology, 2005, 39, 8948-8957.	10.0	47

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37	Identification and Environmental Implications of Photo-Transformation Products of Trenbolone Acetate Metabolites. Environmental Science & Technology, 2013, 47, 5031-5041.	10.0	47
38	Phototransformation Rates and Mechanisms for Synthetic Hormone Growth Promoters Used in Animal Agriculture. Environmental Science & Technology, 2012, 46, 13202-13211.	10.0	45
39	Lack of Influence of Extracellular Polymeric Substances (EPS) Level on Hydroxyl Radical Mediated Disinfection of <i>Escherichia coli</i>. Environmental Science & Technology, 2012, 46, 241-249.	10.0	44
40	Performance comparison of hematite (Î±-Fe2O3)-polymer composite and core-shell nanofibers as point-of-use filtration platforms for metal sequestration. Water Research, 2019, 148, 492-503.	11.3	41
41	Î±-Fe₂O₃ Nanoparticles as Oxygen Carriers for Chemical Looping Combustion: An Integrated Materials Characterization Approach to Understanding Oxygen Carrier Performance, Reduction Mechanism, and Particle Size Effects. Energy & Fuels, 2018, 32, 7959-7970.	5.1	33
42	Nanogoethite Formation from Oxidation of Fe(II) Sorbed on Aluminum Oxide: Implications for Contaminant Reduction. Environmental Science & Technology, 2010, 44, 3765-3771.	10.0	29
43	Synthesis and optimization of BiVO4 and co-catalyzed BiVO4 nanofibers for visible light-activated photocatalytic degradation of aquatic micropollutants. Journal of Molecular Catalysis A, 2015, 404-405, 18-26.	4.8	29
44	Reduction of PCE and TCE by magnetite revisited. Environmental Sciences: Processes and Impacts, 2018, 20, 1340-1349.	3.5	29
45	Differences in Neonicotinoid and Metabolite Sorption to Activated Carbon Are Driven by Alterations to the Insecticidal Pharmacophore. Environmental Science & Technology, 2020, 54, 14694-14705.	10.0	29
46	Matrix-Independent Surface-Enhanced Raman Scattering Detection of Uranyl Using Electrospun Amidoximated Polyacrylonitrile Mats and Gold Nanostars. Analytical Chemistry, 2018, 90, 6766-6772.	6.5	26
47	N-Functionalized Carbon Nanotubes As a Source and Precursor of <i>N</i>-Nitrosodimethylamine: Implications for Environmental Fate, Transport, and Toxicity. Environmental Science & Technology, 2014, 48, 9279-9287.	10.0	23
48	Methane Dissociation on Î±-Fe₂O₃(0001) and Fe₃O₄(111) Surfaces: First-Principles Insights into Chemical Looping Combustion. Journal of Physical Chemistry C, 2019, 123, 6450-6463.	3.1	23
49	Surfactant-assisted fabrication of porous polymeric nanofibers with surface-enriched iron oxide nanoparticles: composite filtration materials for removal of metal cations. Environmental Science: Nano, 2018, 5, 669-681.	4.3	22
50	Functionalized electrospun polymer nanofibers for treatment of water contaminated with uranium. Environmental Science: Water Research and Technology, 2020, 6, 622-634.	2.4	22
51	Reactivity of Alkyl Polyhalides toward Granular Iron: Development of QSARs and Reactivity Cross Correlations for Reductive Dehalogenation. Environmental Science & Technology, 2010, 44, 7928-7936.	10.0	21
52	Environmental Photochemistry of Altrenogest: Photoisomerization to a Bioactive Product with Increased Environmental Persistence via Reversible Photohydration. Environmental Science & Technology, 2016, 50, 7480-7488.	10.0	21
53	Hematite decorated multi-walled carbon nanotubes (Î±-Fe2O3/MWCNTs) as sorbents for Cu(ii) and Cr(vi): comparison of hybrid sorbent performance to its nanomaterial building blocks. RSC Advances, 2016, 6, 99997-100007.	3.6	21
54	Photochemical Transformations of Dichloroacetamide Safeners. Environmental Science & Technology, 2019, 53, 6738-6746.	10.0	20

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55	Phosphate removal using surface enriched hematite and tetra-n-butylammonium bromide incorporated polyacrylonitrile composite nanofibers. Science of the Total Environment, 2021, 770, 145364.	8.0	20
56	A Comprehensive Statewide Spatiotemporal Stream Assessment of Per- and Polyfluoroalkyl Substances (PFAS) in an Agricultural Region of the United States. Environmental Science and Technology Letters, 2021, 8, 981-988.	8.7	20
57	Electrospun hematite nanofiber/mesoporous silica core/shell nanomaterials as an efficient adsorbent for heavy metals. RSC Advances, 2016, 6, 90516-90525.	3.6	17
58	Sulfate formation catalyzed by coal fly ash, mineral dust and iron(iii) oxide: variable influence of temperature and light. Environmental Sciences: Processes and Impacts, 2016, 18, 1484-1491.	3.5	17
59	Sorption and Mineral-Promoted Transformation of Synthetic Hormone Growth Promoters in Soil Systems. Journal of Agricultural and Food Chemistry, 2014, 62, 12277-12286.	5.2	16
60	Web-based data analytics framework for well forecasting and groundwater quality. Science of the Total Environment, 2021, 761, 144121.	8.0	16
61	Reversible Photohydration of Trenbolone Acetate Metabolites: Mechanistic Understanding of Product-to-Parent Reversion through Complementary Experimental and Theoretical Approaches. Environmental Science & Technology, 2016, 50, 6753-6761.	10.0	14
62	Linking Solid-State Reduction Mechanisms to Size-Dependent Reactivity of Metal Oxide Oxygen Carriers for Chemical Looping Combustion. ACS Applied Energy Materials, 2021, 4, 1163-1172.	5.1	14
63	Formation of bioactive transformation products during glucocorticoid chlorination. Environmental Science: Water Research and Technology, 2017, 3, 450-461.	2.4	13
64	Trenbolone acetate metabolites promote ovarian growth and development in adult Japanese medaka (Oryzias latipes). General and Comparative Endocrinology, 2014, 202, 1-7.	1.8	12
65	Coupled reversion and stream-hyporheic exchange processes increase environmental persistence of trenbolone metabolites. Nature Communications, 2015, 6, 7067.	12.8	12
66	Emerging investigator series: development and application of polymeric electrospun nanofiber mats as equilibrium-passive sampler media for organic compounds. Environmental Sciences: Processes and Impacts, 2017, 19, 1445-1456.	3.5	12
67	Environmental photochemistry of dienogest: phototransformation to estrogenic products and increased environmental persistence <i>via</i> reversible photohydration. Environmental Sciences: Processes and Impacts, 2017, 19, 1414-1426.	3.5	11
68	Deposition and disinfection of Escherichia coli O157:H7 on naturally occurring photoactive materials in a parallel plate chamber. Environmental Sciences: Processes and Impacts, 2014, 16, 194-202.	3.5	10
69	Rates and product identification for trenbolone acetate metabolite biotransformation under aerobic conditions. Environmental Toxicology and Chemistry, 2015, 34, 1472-1484.	4.3	10
70	Carbonâ€“titanium dioxide (C/TiO2) nanofiber composites for chemical oxidation of emerging organic contaminants in reactive filtration applications. Environmental Science: Nano, 2021, 8, 711-722.	4.3	10
71	Response to Comment on â€œ1,1,2,2-Tetrachloroethane Reactions with OH⁻, Cr(II), Granular Iron, and a Copperâˆ'Iron Bimetal:â€‰ Insights from Product Formation and Associated Carbon Isotope Fractionationâ€• Environmental Science & Technology, 2007, 41, 7949-7950.	10.0	9
72	Polymeric Nanofiber-Carbon Nanotube Composite Mats as Fast-Equilibrium Passive Samplers for Polar Organic Contaminants. Environmental Science & Technology, 2020, 54, 6703-6712.	10.0	9

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73	Detection and quantification of metastable photoproducts of trenbolone and altrenogest using liquid chromatographyâ€"tandem mass spectrometry. Journal of Chromatography A, 2019, 1603, 150-159.	3.7	8
74	Scalable Reactor Design for Electrocatalytic Nitrite Reduction with Minimal Mass Transfer Limitations. ACS ES&T Engineering, 2021, 1, 204-215.	7.6	8
75	Developing leaders to tackle wicked problems at the nexus of food, energy, and water systems. Elementa, 2020, 8, .	3.2	8
76	Uranyl Speciation on the Surface of Amidoximated Polyacrylonitrile Mats. Inorganic Chemistry, 2020, 59, 8134-8145.	4.0	8
77	Horizontal Attenuated Total Reflectance Fourier Transform Infrared and X-ray Photoelectron Spectroscopy Measurements of Water Adsorption on Oxidized Tin(II) Sulfide (SnS) Surfaces. Journal of Physical Chemistry C, 2013, 117, 472-482.	3.1	6
78	Intramolecular [2 + 2] Photocycloaddition of Altrenogest: Confirmation of Product Structure, Theoretical Mechanistic Insight, and Bioactivity Assessment. Journal of Organic Chemistry, 2019, 84, 11366-11371.	3.2	6
79	Benoxacor is enantioselectively metabolized by rat liver subcellular fractions. Chemico-Biological Interactions, 2020, 330, 109247.	4.0	6
80	Computational Approaches for the Prediction of Environmental Transformation Products: Chlorination of Steroidal Enones. Environmental Science & Technology, 2021, 55, 14658-14666.	10.0	6
81	Sorption and transport of trenbolone and altrenogest photoproducts in soilâ€"water systems. Environmental Sciences: Processes and Impacts, 2019, 21, 1650-1663.	3.5	5
82	Formation of trihalomethanes and haloacetic acids during chlorination of functionalized carbon nanotubes. Environmental Science: Nano, 2016, 3, 1327-1339.	4.3	4
83	Use of real-time sensors for compliance monitoring of nitrate in finished drinking water. Water Science and Technology, 2020, 82, 2725-2736.	2.5	4
84	Combining Experimental Sorption Parameters with QSAR to Predict Neonicotinoid and Transformation Product Sorption to Carbon Nanotubes and Granular Activated Carbon. ACS ES&T Water, 2022, 2, 247-258.	4.6	4
85	Acid- and Base-Mediated Hydrolysis of Dichloroacetamide Herbicide Safeners. Environmental Science & Technology, 2022, 56, 325-334.	10.0	4
86	Influence of organic surface coatings on the sorption of anticonvulsants on mineral surfaces. Environmental Sciences: Processes and Impacts, 2013, 15, 2038.	3.5	3
87	Bioactive Rearrangement Products from Aqueous Photolysis of Pharmaceutical Steroids. Organic Letters, 2019, 21, 3568-3571.	4.6	3
88	Editorial Perspectives: what is â€œsafeâ€•drinking water, anyway?. Environmental Science: Water Research and Technology, 2020, 6, 12-14.	2.4	3
89	Photolysis of Trenbolone Acetate Metabolites in the Presence of Nucleophiles: Evidence for Metastable Photoaddition Products and Reversible Associations with Dissolved Organic Matter. Environmental Science & Technology, 2020, 54, 12181-12190.	10.0	3
90	Estimating Consumers at Risk from Drinking Elevated Lead Concentrations: An Iowa Case Study. Environmental Science and Technology Letters, 2020, 7, 948-953.	8.7	3

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91	School and childcare center drinking water: Copper chemistry, health effects, occurrence, and remediation. AWWA Water Science, 2022, 4, .	2.1	3
92	A new year at <i>Environmental Science: Water Research & Technology</i>. Environmental Science: Water Research and Technology, 2018, 4, 7-8.	2.4	1
93	To new beginnings and a better alternative. Environmental Science: Water Research and Technology, 2015, 1, 9-10.	2.4	0
94	Looking back while moving forward. Environmental Science: Water Research and Technology, 2016, 2, 11-12.	2.4	0