

# David L Sedlak

## List of Publications by Citations

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116  
papers

10,270  
citations

51  
h-index

101  
g-index

123  
ext. papers

11,917  
ext. citations

9.1  
avg. IF

6.83  
L-index

#	Paper	IF	Citations
116	Pharmaceuticals, Personal Care Products, and Endocrine Disruptors in Water: Implications for the Water Industry. <i>Environmental Engineering Science</i> , <b>2003</b> , 20, 449-469	2	652
115	Challenges and Opportunities for Electrochemical Processes as Next-Generation Technologies for the Treatment of Contaminated Water. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 11292-302	10.3	526
114	Factors affecting the yield of oxidants from the reaction of nanoparticulate zero-valent iron and oxygen. <i>Environmental Science &amp; Technology</i> , <b>2008</b> , 42, 1262-7	10.3	519
113	N-Nitrosodimethylamine (NDMA) as a Drinking Water Contaminant: A Review. <i>Environmental Engineering Science</i> , <b>2003</b> , 20, 389-404	2	501
112	Formation of N-nitrosodimethylamine (NDMA) from dimethylamine during chlorination. <i>Environmental Science &amp; Technology</i> , <b>2002</b> , 36, 588-95	10.3	449
111	Persistence of perfluoroalkyl acid precursors in AFFF-impacted groundwater and soil. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 8187-95	10.3	399
110	Analysis of estrogenic hormones in municipal wastewater effluent and surface water using enzyme-linked immunosorbent assay and gas chromatography/tandem mass spectrometry. <i>Environmental Toxicology and Chemistry</i> , <b>2001</b> , 20, 133-139	3.8	308
109	The Technology Horizon for Photocatalytic Water Treatment: Sunrise or Sunset?. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 2937-2947	10.3	277
108	A silica-supported iron oxide catalyst capable of activating hydrogen peroxide at neutral pH values. <i>Environmental Science &amp; Technology</i> , <b>2009</b> , 43, 8930-5	10.3	271
107	Oxidative conversion as a means of detecting precursors to perfluoroalkyl acids in urban runoff. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 9342-9	10.3	269
106	In situ chemical oxidation of contaminated groundwater by persulfate: decomposition by Fe(III)- and Mn(IV)-containing oxides and aquifer materials. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 10330-6	10.3	265
105	Ligand-enhanced reactive oxidant generation by nanoparticulate zero-valent iron and oxygen. <i>Environmental Science &amp; Technology</i> , <b>2008</b> , 42, 6936-41	10.3	252
104	Chemistry. The chlorine dilemma. <i>Science</i> , <b>2011</b> , 331, 42-3	33.3	251
103	A N-Nitrosodimethylamine (NDMA) precursor analysis for chlorination of water and wastewater. <i>Water Research</i> , <b>2003</b> , 37, 3733-41	12.5	229
102	Oxidation of Benzene by Persulfate in the Presence of Fe(III)- and Mn(IV)-Containing Oxides: Stoichiometric Efficiency and Transformation Products. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 890-8	10.3	190
101	Oxidative stress induced by zero-valent iron nanoparticles and Fe(II) in human bronchial epithelial cells. <i>Environmental Science &amp; Technology</i> , <b>2009</b> , 43, 4555-60	10.3	184
100	A changing framework for urban water systems. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 10721-6	10.3	180

99	Synthetic Graphene Oxide Leaf for Solar Desalination with Zero Liquid Discharge. <i>Environmental Science &amp; Technology</i> , <b>2017</b> , 51, 11701-11709	10.3	179
98	Precursors of N-Nitrosodimethylamine in Natural Waters. <i>Environmental Science &amp; Technology</i> , <b>2003</b> , 37, 1331-1336	10.3	161
97	Attenuation of wastewater-derived contaminants in an effluent-dominated river. <i>Environmental Science &amp; Technology</i> , <b>2006</b> , 40, 7257-62	10.3	160
96	Use of the chiral pharmaceutical propranolol to identify sewage discharges into surface waters. <i>Environmental Science &amp; Technology</i> , <b>2005</b> , 39, 9244-52	10.3	152
95	Polyoxometalate-enhanced oxidation of organic compounds by nanoparticulate zero-valent iron and ferrous ion in the presence of oxygen. <i>Environmental Science &amp; Technology</i> , <b>2008</b> , 42, 4921-6	10.3	150
94	Evidence of remediation-induced alteration of subsurface poly- and perfluoroalkyl substance distribution at a former firefighter training area. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 6644-52	10.3	149
93	Aerobic Biotransformation of Fluorotelomer Thioether Amido Sulfonate (Lodyne) in AFFF-Amended Microcosms. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 7666-74	10.3	143
92	Phototransformation of wastewater-derived trace organic contaminants in open-water unit process treatment wetlands. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 10781-90	10.3	116
91	Sources and fate of nitrosodimethylamine and its precursors in municipal wastewater treatment plants. <i>Water Environment Research</i> , <b>2005</b> , 77, 32-9	2.8	116
90	Wastewater-Derived Dissolved Organic Nitrogen: Analytical Methods, Characterization, and Effects A Review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2006</b> , 36, 261-285	11.1	111
89	Kinetics and efficiency of H <sub>2</sub> O <sub>2</sub> activation by iron-containing minerals and aquifer materials. <i>Water Research</i> , <b>2012</b> , 46, 6454-62	12.5	110
88	Engineered Infiltration Systems for Urban Stormwater Reclamation. <i>Environmental Engineering Science</i> , <b>2013</b> , 30, 437-454	2	109
87	Chemistry of Superoxide Radical in Seawater: Reactions with Organic Cu Complexes. <i>Environmental Science &amp; Technology</i> , <b>2000</b> , 34, 1036-1042	10.3	107
86	Bioavailability of wastewater-derived organic nitrogen to the alga <i>Selenastrum Capricornutum</i> . <i>Water Research</i> , <b>2004</b> , 38, 3189-96	12.5	98
85	Bioavailability and characterization of dissolved organic nitrogen and dissolved organic phosphorus in wastewater effluents. <i>Science of the Total Environment</i> , <b>2015</b> , 511, 47-53	10.2	96
84	The Innovation Deficit in Urban Water: The Need for an Integrated Perspective on Institutions, Organizations, and Technology. <i>Environmental Engineering Science</i> , <b>2013</b> , 30, 395-408	2	94
83	Advanced Materials, Technologies, and Complex Systems Analyses: Emerging Opportunities to Enhance Urban Water Security. <i>Environmental Science &amp; Technology</i> , <b>2017</b> , 51, 10274-10281	10.3	93
82	Modular advanced oxidation process enabled by cathodic hydrogen peroxide production. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 7391-9	10.3	92

81	Chemistry of the Superoxide Radical (O <sub>2</sub> <sup>-</sup> ) in Seawater: Reactions with Inorganic Copper Complexes. <i>Journal of Physical Chemistry A</i> , <b>1998</b> , 102, 5693-5700	2.8	89
80	Beyond User Acceptance: A Legitimacy Framework for Potable Water Reuse in California. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 7552-61	10.3	85
79	Evaluation of pilot-scale biochar-amended woodchip bioreactors to remove nitrate, metals, and trace organic contaminants from urban stormwater runoff. <i>Water Research</i> , <b>2019</b> , 154, 1-11	12.5	83
78	Treatment of Aqueous Film-Forming Foam by Heat-Activated Persulfate Under Conditions Representative of In Situ Chemical Oxidation. <i>Environmental Science &amp; Technology</i> , <b>2017</b> , 51, 13878-13885	10.3	82
77	Unit Process Wetlands for Removal of Trace Organic Contaminants and Pathogens from Municipal Wastewater Effluents. <i>Environmental Engineering Science</i> , <b>2013</b> , 30, 421-436	2	77
76	Electrochemical Transformation of Trace Organic Contaminants in the Presence of Halide and Carbonate Ions. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 10143-52	10.3	73
75	Treatment of perfluoroalkyl acids by heat-activated persulfate under conditions representative of in situ chemical oxidation. <i>Chemosphere</i> , <b>2018</b> , 206, 457-464	8.4	70
74	Wastewater-effluent-dominated streams as ecosystem-management tools in a drier climate. <i>Frontiers in Ecology and the Environment</i> , <b>2015</b> , 13, 477-485	5.5	69
73	Inhibitory effect of dissolved silica on H <sub>2</sub> O <sub>2</sub> decomposition by iron(III) and manganese(IV) oxides: implications for H <sub>2</sub> O <sub>2</sub> -based in situ chemical oxidation. <i>Environmental Science &amp; Technology</i> , <b>2012</b> , 46, 1055-62	10.3	66
72	Formation and fate of chlorination by-products in reverse osmosis desalination systems. <i>Water Research</i> , <b>2010</b> , 44, 1616-26	12.5	66
71	A Tale of Two Treatments: The Multiple Barrier Approach to Removing Chemical Contaminants During Potable Water Reuse. <i>Accounts of Chemical Research</i> , <b>2019</b> , 52, 615-622	24.3	64
70	Dissolution of Mesoporous Silica Supports in Aqueous Solutions: Implications for Mesoporous Silica-based Water Treatment Processes. <i>Applied Catalysis B: Environmental</i> , <b>2012</b> , 126, 258-264	21.8	62
69	Sources and Environmental Fate of Strongly Complexed Nickel in Estuarine Waters: The Role of Ethylenediaminetetraacetate. <i>Environmental Science &amp; Technology</i> , <b>1999</b> , 33, 926-931	10.3	62
68	Biotransformation of trace organic contaminants in open-water unit process treatment wetlands. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 5136-44	10.3	58
67	Unexpected transformation of dissolved phenols to toxic dicarbonyls by hydroxyl radicals and UV light. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, 2311-2316	11.5	56
66	Uptake of EDTA-complexed Pb, Cd and Fe by solution- and sand-cultured <i>Brassica juncea</i> . <i>Plant and Soil</i> , <b>2006</b> , 286, 377-391	4.2	53
65	The Role of Reactive Nitrogen Species in Sensitized Photolysis of Wastewater-Derived Trace Organic Contaminants. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 6483-6491	10.3	49
64	Minimization of NDMA Formation during Chlorine Disinfection of Municipal Wastewater by Application of Pre-Formed Chloramines. <i>Environmental Engineering Science</i> , <b>2005</b> , 22, 882-890	2	48

63	Use of biodegradable dissolved organic carbon (BDOC) to assess the potential for transformation of wastewater-derived contaminants in surface waters. <i>Water Research</i> , <b>2008</b> , 42, 2943-52	12.5	47
62	Superior Removal of Disinfection Byproduct Precursors and Pharmaceuticals from Wastewater in a Staged Anaerobic Fluidized Membrane Bioreactor Compared to Activated Sludge. <i>Environmental Science and Technology Letters</i> , <b>2014</b> , 1, 459-464	11	46
61	Co-occurrence of Photochemical and Microbiological Transformation Processes in Open-Water Unit Process Wetlands. <i>Environmental Science &amp; Technology</i> , <b>2015</b> , 49, 14136-45	10.3	46
60	Chemisorption of Perfluorooctanoic Acid on Powdered Activated Carbon Initiated by Persulfate in Aqueous Solution. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 7618-24	10.3	44
59	Nitrate removal in shallow, open-water treatment wetlands. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 11512-20	10.3	44
58	Odorous compounds in municipal wastewater effluent and potable water reuse systems. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 9347-55	10.3	44
57	A framework for identifying characteristic odor compounds in municipal wastewater effluent. <i>Water Research</i> , <b>2012</b> , 46, 5970-80	12.5	43
56	Oxidation of organic contaminants by manganese oxide geomedia for passive urban stormwater treatment systems. <i>Water Research</i> , <b>2016</b> , 88, 481-491	12.5	42
55	The fate of estrogenic hormones in an engineered treatment wetland with dense macrophytes. <i>Water Environment Research</i> , <b>2005</b> , 77, 24-31	2.8	39
54	Quantification of 11 thyroid hormones and associated metabolites in blood using isotope-dilution liquid chromatography tandem mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , <b>2016</b> , 408, 5429-42	4.4	37
53	Iron oxide nanoparticle synthesis in aqueous and membrane systems for oxidative degradation of trichloroethylene from water. <i>Journal of Nanoparticle Research</i> , <b>2012</b> , 14, 1	2.3	36
52	Polymer-clay composite geomedia for sorptive removal of trace organic compounds and metals in urban stormwater. <i>Water Research</i> , <b>2019</b> , 157, 454-462	12.5	35
51	Sulfide-Induced Dissimilatory Nitrate Reduction to Ammonium Supports Anaerobic Ammonium Oxidation (Anammox) in an Open-Water Unit Process Wetland. <i>Applied and Environmental Microbiology</i> , <b>2017</b> , 83,	4.8	34
50	The Role of Iron Coordination in the Production of Reactive Oxidants from Ferrous Iron Oxidation by Oxygen and Hydrogen Peroxide. <i>ACS Symposium Series</i> , <b>2011</b> , 177-197	0.4	32
49	Biotransformation of AFFF Component 6:2 Fluorotelomer Thioether Amido Sulfonate Generates 6:2 Fluorotelomer Thioether Carboxylate under Sulfate-Reducing Conditions. <i>Environmental Science and Technology Letters</i> , <b>2018</b> , 5, 283-288	11	30
48	Effect of metal complexation on the degradation of dithiocarbamate fungicides. <i>Environmental Toxicology and Chemistry</i> , <b>2000</b> , 19, 820-826	3.8	28
47	Hydrophilic trace organic contaminants in urban stormwater: occurrence, toxicological relevance, and the need to enhance green stormwater infrastructure. <i>Environmental Science: Water Research and Technology</i> , <b>2020</b> , 6, 15-44	4.2	28
46	Rapid chiral separation of atenolol, metoprolol, propranolol and the zwitterionic metoprolol acid using supercritical fluid chromatography-tandem mass spectrometry - Application to wetland microcosms. <i>Journal of Chromatography A</i> , <b>2015</b> , 1409, 251-8	4.5	27

45	Chlorination of Phenols Revisited: Unexpected Formation of Unsaturated C-Dicarbonyl Ring Cleavage Products. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 826-834	10.3	27
44	Removal of nutrients, trace organic contaminants, and bacterial indicator organisms in a demonstration-scale unit process open-water treatment wetland. <i>Ecological Engineering</i> , <b>2017</b> , 109, 76-83	3.9	24
43	Superselective Removal of Lead from Water by Two-Dimensional MoS Nanosheets and Layer-Stacked Membranes. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 12602-12611	10.3	24
42	Barriers to Innovation in Urban Wastewater Utilities: Attitudes of Managers in California. <i>Environmental Management</i> , <b>2016</b> , 57, 1204-16	3.1	24
41	Chemical Regeneration of Manganese Oxide-Coated Sand for Oxidation of Organic Stormwater Contaminants. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 10728-10736	10.3	23
40	Impact of iron amendment on net methylmercury export from tidal wetland microcosms. <i>Environmental Science &amp; Technology</i> , <b>2010</b> , 44, 7659-65	10.3	22
39	Effects of Aqueous Film-Forming Foams (AFFFs) on Trichloroethene (TCE) Dechlorination by a Dehalococcoides mccartyi-Containing Microbial Community. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 3352-61	10.3	20
38	A mixed-methods approach to strategic planning for multi-benefit regional water infrastructure. <i>Journal of Environmental Management</i> , <b>2019</b> , 233, 218-237	7.9	19
37	Urban Water-Supply Reinvention. <i>Daedalus</i> , <b>2015</b> , 144, 72-82	2	18
36	Trace Element Removal in Distributed Drinking Water Treatment Systems by Cathodic HO <sub>2</sub> Production and UV Photolysis. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 195-204	10.3	15
35	Towards a New Paradigm of Urban Water Infrastructure: Identifying Goals and Strategies to Support Multi-Benefit Municipal Wastewater Treatment. <i>Water (Switzerland)</i> , <b>2018</b> , 10, 1127	3	15
34	The Unintended Consequences of the Reverse Osmosis Revolution. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 3999-4000	10.3	14
33	Analysis of estrogenic hormones in municipal wastewater effluent and surface water using enzyme-linked immunosorbent assay and gas chromatography/tandem mass spectrometry <b>2001</b> , 20, 133		13
32	Identification of transformation products from blocking agents formed in wetland microcosms using LC-Q-ToF. <i>Journal of Mass Spectrometry</i> , <b>2016</b> , 51, 207-18	2.2	12
31	The Impact of Peroxymonocarbonate (HCO <sub>2</sub> ) on the Transformation of Organic Contaminants during Hydrogen Peroxide (HO <sub>2</sub> ) Chemical Oxidation (ISCO). <i>Environmental Science and Technology Letters</i> , <b>2019</b> , 6, 781-786	11	11
30	Ring-Cleavage Products Produced during the Initial Phase of Oxidative Treatment of Alkyl-Substituted Aromatic Compounds. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 8352-8361	10.3	10
29	Response to Comment on Factors Affecting the Yield of Oxidants from the Reaction of Nanoparticulate Zero-Valent Iron and Oxygen. <i>Environmental Science &amp; Technology</i> , <b>2008</b> , 42, 5378-5378	10.3	9
28	The third route: Using extreme decentralization to create resilient urban water systems. <i>Water Research</i> , <b>2020</b> , 185, 116276	12.5	9

27	Simplified Process to Determine Rate Constants for Sunlight-Mediated Removal of Trace Organic and Microbial Contaminants in Unit Process Open-Water Treatment Wetlands. <i>Environmental Engineering Science</i> , <b>2019</b> , 36, 43-59	2	9
26	Animal Manure Separation Technologies Diminish the Environmental Burden of Steroid Hormones. <i>Environmental Science and Technology Letters</i> , <b>2015</b> , 2, 133-137	11	8
25	Interfacial Solar Evaporation by a 3D Graphene Oxide Stalk for Highly Concentrated Brine Treatment. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 15435-15445	10.3	8
24	Sulfur Cycle in a Wetland Microcosm: Extended S-Stable Isotope Analysis and Mass Balance. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 5498-5508	10.3	8
23	Sorption of recalcitrant phosphonates in reverse osmosis concentrates and wastewater effluents - influence of metal ions. <i>Water Science and Technology</i> , <b>2021</b> , 83, 934-947	2.2	8
22	The use of manganese oxide-coated sand for the removal of trace metal ions from stormwater. <i>Environmental Science: Water Research and Technology</i> , <b>2020</b> , 6, 593-603	4.2	7
21	Formation and Fate of Carbonyls in Potable Water Reuse Systems. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 10895-10903	10.3	7
20	Ubiquitous Production of Organosulfates During Treatment of Organic Contaminants with Sulfate Radicals. <i>Environmental Science and Technology Letters</i> , <b>2021</b> , 8, 574-580	11	7
19	Establishment and convergence of photosynthetic microbial biomats in shallow unit process open-water wetlands. <i>Water Research</i> , <b>2018</b> , 133, 132-141	12.5	6
18	Transformation of Trace Organic Contaminants from Reverse Osmosis Concentrate by Open-Water Unit-Process Wetlands with and without Ozone Pretreatment. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 16176-16185	10.3	5
17	Nitrate removal from reverse osmosis concentrate in pilot-scale open-water unit process wetlands. <i>Environmental Science: Water Research and Technology</i> , <b>2021</b> , 7, 650-661	4.2	5
16	The horizontal levee: a multi-benefit nature-based treatment system that improves water quality and protects coastal levees from the effects of sea level rise. <i>Water Research X</i> , <b>2020</b> , 7, 100052	8.1	4
15	Reactions of Unsaturated Carbonyls with Free Chlorine, Free Bromine, and Combined Chlorine. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 3305-3312	10.3	4
14	Introduction: Reinventing Urban Water Infrastructure. <i>Environmental Engineering Science</i> , <b>2013</b> , 30, 393-394		3
13	Use of stable nitrogen isotopes to track plant uptake of nitrogen in a nature-based treatment system. <i>Water Research X</i> , <b>2020</b> , 9, 100070	8.1	3
12	Protecting the sewershed. <i>Science</i> , <b>2020</b> , 369, 1429-1430	33.3	3
11	Enabling Water Reuse by Treatment of Reverse Osmosis Concentrate: The Promise of Constructed Wetlands. <i>ACS Environmental Au</i> ,		3
10	The Food-Environment Nexus. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 6597-6598	10.3	2

9	Response to Comment on Polyoxometalate-Enhanced Oxidation of Organic Compounds by Nanoparticulate Zero-Valent Iron and Ferrous Ion in the Presence of Oxygen. <i>Environmental Science &amp; Technology</i> , <b>2008</b> , 42, 8169-8169	10.3	2
8	Effect of metal complexation on the degradation of dithiocarbamate fungicides <b>2000</b> , 19, 820		2
7	Regenerated Manganese-Oxide Coated Sands: The Role of Mineral Phase in Organic Contaminant Reactivity. <i>Environmental Science &amp; Technology</i> , <b>2021</b> , 55, 5282-5290	10.3	2
6	Under-reporting Potential of Perfluorooctanesulfonic Acid (PFOS) under High-Ionic Strength Conditions. <i>Environmental Science and Technology Letters</i> ,	11	1
5	Quantification of 11 thyroid hormones and associated metabolites in blood using isotope-dilution liquid chromatography tandem mass spectrometry <b>2016</b> , 408, 5429		1
4	An electrochemical advanced oxidation process for the treatment of urban stormwater.. <i>Water Research X</i> , <b>2021</b> , 13, 100127	8.1	0
3	The third route: A techno-economic evaluation of extreme water and wastewater decentralization.. <i>Water Research</i> , <b>2022</b> , 218, 118408	12.5	0
2	Environmental Science & Technology Presents the 2017 Reviewer Awards. <i>Environmental Science &amp; Technology</i> , <b>2017</b> , 51, 12047-12048	10.3	
1	Environmental Science & Technology Presents the 2018 Reviewer Awards. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 11971-11972	10.3	