Timothy J Strathmann

List of Publications by Year
in descending order

113 papers	9,458 citations	34016 52 h-index	38300 95 g-index
113 all docs	113 docs citations	113 times ranked	9884 citing authors

#	Article	IF	Citations
1	Lignin valorization through integrated biological funneling and chemical catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12013-12018.	3.3	652
2	Chemical properties of biocrude oil from the hydrothermal liquefaction of Spirulina algae, swine manure, and digested anaerobic sludge. Bioresource Technology, 2011, 102, 8295-8303.	4.8	534
3	Adipic acid production from lignin. Energy and Environmental Science, 2015, 8, 617-628.	15.6	499
4	Thermochemical conversion of raw and defatted algal biomass via hydrothermal liquefaction and slow pyrolysis. Bioresource Technology, 2012, 109, 178-187.	4.8	377
5	Critical Review of Pd-Based Catalytic Treatment of Priority Contaminants in Water. Environmental Science & Technology, 2012, 46, 3655-3670.	4.6	373
6	Oxidation of sulfamethoxazole and related antimicrobial agents by TiO2 photocatalysis. Water Research, 2007, 41, 2612-2626.	5.3	346
7	Visible-Light-Mediated TiO2 Photocatalysis of Fluoroquinolone Antibacterial Agents. Environmental Science & Technology, 2007, 41, 4720-4727.	4.6	308
8	Photolytic and photocatalytic decomposition of aqueous ciprofloxacin: Transformation products and residual antibacterial activity. Water Research, 2010, 44, 3121-3132.	5.3	294
9	Oxidation of Carbamazepine by Mn(VII) and Fe(VI): Reaction Kinetics and Mechanism. Environmental Science & Technology, 2009, 43, 509-515.	4.6	246
10	Complete Utilization of Spent Coffee Grounds To Produce Biodiesel, Bio-Oil, and Biochar. ACS Sustainable Chemistry and Engineering, 2013, 1, 1286-1294.	3.2	246
11	Epitaxial Assembly in Aged Colloids. Journal of Physical Chemistry B, 2001, 105, 2177-2182.	1.2	244
12	Direct Photolysis of Human Metabolites of the Antibiotic Sulfamethoxazole: Evidence for Abiotic Back-Transformation. Environmental Science & Technology, 2013, 47, 6746-6755.	4.6	189
13	Oxidation Kinetics of Antibiotics during Water Treatment with Potassium Permanganate. Environmental Science & Technology, 2010, 44, 6416-6422.	4.6	158
14	Prediction of microalgae hydrothermal liquefaction products from feedstock biochemical composition. Green Chemistry, 2015, 17, 3584-3599.	4.6	158
15	Electrochemical treatment of perfluorooctanoic acid and perfluorooctane sulfonate: Insights into mechanisms and application to groundwater treatment. Chemical Engineering Journal, 2017, 317, 424-432.	6.6	157
16	Oxidation of Antibiotics during Water Treatment with Potassium Permanganate: Reaction Pathways and Deactivation. Environmental Science & Technology, 2011, 45, 3635-3642.	4.6	147
17	Microbially Mediated Abiotic Transformation of the Antimicrobial Agent Sulfamethoxazole under Iron-Reducing Soil Conditions. Environmental Science & Technology, 2011, 45, 4793-4801.	4.6	127
18	Effect of Soil Fulvic Acid on Nickel(II) Sorption and Bonding at the Aqueous-Boehmite (Î³-AlOOH) Interface. Environmental Science & Technology, 2005, 39, 4027-4034.	4.6	125

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19	Continuous-flow photocatalytic treatment of pharmaceutical micropollutants: Activity, inhibition, and deactivation of TiO2 photocatalysts in wastewater effluent. Applied Catalysis B: Environmental, 2013, 129, 1-12.	10.8	121
20	Speciation of aqueous Ni(II)-carboxylate and Ni(II)-fulvic acid solutions: Combined ATR-FTIR and XAFS analysis. Geochimica Et Cosmochimica Acta, 2004, 68, 3441-3458.	1.6	116
21	Rapid Destruction and Defluorination of Perfluorooctanesulfonate by Alkaline Hydrothermal Reaction. Environmental Science and Technology Letters, 2019, 6, 630-636.	3.9	101
22	Hydrothermal catalytic processing of saturated and unsaturated fatty acids to hydrocarbons with glycerol for in situ hydrogen production. Green Chemistry, 2014, 16, 1507.	4.6	98
23	Abiotic Reduction of Nitroaromatic Compounds by Aqueous Iron(II)â˘Catechol Complexes. Environmental Science & Technology, 2006, 40, 3006-3012.	4.6	97
24	Inactivation of Bacteriophage MS2 with Potassium Ferrate(VI). Environmental Science & Technology, 2012, 46, 12079-12087.	4.6	94
25	Reduction of Oxamyl and Related Pesticides by FeII:â€‰ Influence of Organic Ligands and Natural Organic Matter. Environmental Science & Technology, 2002, 36, 5172-5183.	4.6	93
26	Quantitative multiphase model for hydrothermal liquefaction of algal biomass. Green Chemistry, 2017, 19, 1163-1174.	4.6	91
27	Destruction of Per- and Polyfluoroalkyl Substances (PFASs) in Aqueous Film-Forming Foam (AFFF) with UV-Sulfite Photoreductive Treatment. Environmental Science & Technology, 2020, 54, 6957-6967.	4.6	88
28	Diclofenac, carbamazepine and triclocarban biodegradation in agricultural soils and the microorganisms and metabolic pathways affected. Science of the Total Environment, 2018, 640-641, 1393-1410.	3.9	87
29	Degradation of organic contaminants through activating bisulfite by cerium(IV): A sulfate radical-predominant oxidation process. Chemical Engineering Journal, 2019, 357, 328-336.	6.6	87
30	Mineral surface catalysis of reactions between FeII and oxime carbamate pesticides. Geochimica Et Cosmochimica Acta, 2003, 67, 2775-2791.	1.6	86
31	Evaluation of a hybrid ion exchange-catalyst treatment technology for nitrate removal from drinking water. Water Research, 2016, 96, 177-187.	5.3	84
32	Elucidation of Nitrate Reduction Mechanisms on a Pdâ€In Bimetallic Catalyst using Isotope Labeled Nitrogen Species. ChemCatChem, 2013, 5, 313-321.	1.8	83
33	Anion exchange resin removal of per- and polyfluoroalkyl substances (PFAS) from impacted water: A critical review. Water Research, 2021, 200, 117244.	5.3	83
34	Hydrogenation of aqueous nitrate and nitrite with ruthenium catalysts. Applied Catalysis B: Environmental, 2017, 211, 188-198.	10.8	80
35	Palladium Nanoparticles Encapsulated in Coreâ€"Shell Silica: A Structured Hydrogenation Catalyst with Enhanced Activity for Reduction of Oxyanion Water Pollutants. ACS Catalysis, 2014, 4, 3551-3559.	5.5	79
36	Reduction of the Carbamate Pesticides Oxamyl and Methomyl by Dissolved FeIIand CuI. Environmental Science & Technology, 2001, 35, 2461-2469.	4.6	78

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37	Hydrothermal Alkaline Treatment for Destruction of Per- and Polyfluoroalkyl Substances in Aqueous Film-Forming Foam. Environmental Science & Technology, 2021, 55, 3283-3295.	4.6	77
38	Insights into the Oxidation of Organic Cocontaminants during Cr(VI) Reduction by Sulfite: The Overlooked Significance of Cr(V). Environmental Science & Technology, 2020, 54, 1157-1166.	4.6	76
39	The identification of carbamazepine biodegrading phylotypes and phylotypes sensitive to carbamazepine exposure in two soil microbial communities. Science of the Total Environment, 2016, 571, 1241-1252.	3.9	73
40	Performance and life cycle environmental benefits of recycling spent ion exchange brines by catalytic treatment of nitrate. Water Research, 2015, 80, 267-280.	5.3	71
41	Ferrous iron sorption by hydrous metal oxides. Journal of Colloid and Interface Science, 2006, 297, 443-454.	5.0	68
42	Comparative Assessment of the Environmental Sustainability of Existing and Emerging Perchlorate Treatment Technologies for Drinking Water. Environmental Science & Technology, 2013, 47, 4644-4652.	4.6	67
43	Electrochemical Transformations of Perfluoroalkyl Acid (PFAA) Precursors and PFAAs in Groundwater Impacted with Aqueous Film Forming Foams. Environmental Science & Technology, 2018, 52, 10689-10697.	4.6	66
44	Reductive Defluorination of Branched Per- and Polyfluoroalkyl Substances with Cobalt Complex Catalysts. Environmental Science and Technology Letters, 2018, 5, 289-294.	3.9	65
45	Rapid Metal-Catalyzed Hydrodehalogenation of Iodinated X-Ray Contrast Media. Environmental Science & Technology, 2008, 42, 577-583.	4.6	63
46	Surface Complexation of the Zwitterionic Fluoroquinolone Antibiotic Ofloxacin to Nano-Anatase TiO₂ Photocatalyst Surfaces. Environmental Science & Technology, 2012, 46, 11896-11904.	4.6	62
47	Application of a Reâ€“Pd bimetallic catalyst for treatment of perchlorate in waste ion-exchange regenerant brine. Water Research, 2013, 47, 91-101.	5.3	62
48	Carbamazepine, triclocarban and triclosan biodegradation and the phylotypes and functional genes associated with xenobiotic degradation in four agricultural soils. Science of the Total Environment, 2019, 657, 1138-1149.	3.9	62
49	Mineral- and Base-Catalyzed Hydrolysis of Organophosphate Flame Retardants: Potential Major Fate-Controlling Sink in Soil and Aquatic Environments. Environmental Science & Technology, 2018, 52, 1997-2006.	4.6	58
50	Catalytic Hydrothermal Decarboxylation and Cracking of Fatty Acids and Lipids over Ru/C. ACS Sustainable Chemistry and Engineering, 2019, 7, 14400-14410.	3.2	58
51	Exploring beyond palladium: Catalytic reduction of aqueous oxyanion pollutants with alternative platinum group metals and new mechanistic implications. Chemical Engineering Journal, 2017, 313, 745-752.	6.6	57
52	Variability of Nitrogen Isotope Fractionation during the Reduction of Nitroaromatic Compounds with Dissolved Reductants. Environmental Science & Technology, 2008, 42, 8352-8359.	4.6	55
53	Removal of Per- and Polyfluoroalkyl Substances (PFASs) in Aqueous Film-Forming Foam (AFFF) Using Ion-Exchange and Nonionic Resins. Environmental Science & Technology, 2021, 55, 5001-5011.	4.6	54
54	TiO2-photocatalyzed transformation of the recalcitrant X-ray contrast agent diatrizoate. Applied Catalysis B: Environmental, 2013, 129, 114-122.	10.8	52

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55	Reduction of the Pesticides Oxamyl and Methomyl by FeII:Â Effect of pH and Inorganic Ligands. Environmental Science & Technology, 2002, 36, 653-661.	4.6	51
56	Rapid Reduction of N-Nitrosamine Disinfection Byproducts in Water with Hydrogen and Porous Nickel Catalysts. Environmental Science & Technology, 2008, 42, 262-269.	4.6	51
57	Role of Organically Complexed Iron(II) Species in the Reductive Transformation of RDX in Anoxic Environments. Environmental Science & Technology, 2007, 41, 1257-1264.	4.6	50
58	Influence of Rhenium Speciation on the Stability and Activity of Re/Pd Bimetal Catalysts used for Perchlorate Reduction. Environmental Science & Technology, 2010, 44, 4716-4721.	4.6	49
59	Catalytic hydrothermal deoxygenation of lipids and fatty acids to diesel-like hydrocarbons: a review. Green Chemistry, 2021, 23, 1114-1129.	4.6	46
60	Bioinspired Complex-Nanoparticle Hybrid Catalyst System for Aqueous Perchlorate Reduction: Rhenium Speciation and Its Influence on Catalyst Activity. ACS Catalysis, 2015, 5, 511-522.	5.5	45
61	Rapid removal of diclofenac in aqueous solution by soluble Mn(III) (aq) generated in a novel Electro-activated carbon fiber-permanganate (E-ACF-PM) process. Water Research, 2019, 165, 114975.	5.3	45
62	Adsorption of zwitterionic fluoroquinolone antibacterials to goethite: A charge distribution-multisite complexation model. Journal of Colloid and Interface Science, 2014, 428, 63-72.	5.0	42
63	Enhanced Transformation of Emerging Contaminants by Permanganate in the Presence of Redox Mediators. Environmental Science & Technology, 2020, 54, 1909-1919.	4.6	42
64	Hydroxamate siderophore-promoted reactions between iron(II) and nitroaromatic groundwater contaminants. Geochimica Et Cosmochimica Acta, 2009, 73, 1297-1311.	1.6	40
65	Valorization of Waste Lipids through Hydrothermal Catalytic Conversion to Liquid Hydrocarbon Fuels with in Situ Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2016, 4, 1775-1784.	3.2	39
66	Evolution of N-Containing Compounds during Hydrothermal Liquefaction of Sewage Sludge. ACS Sustainable Chemistry and Engineering, 2020, 8, 18303-18313.	3.2	39
67	Poreâ€scale evaluation of uranyl phosphate precipitation in a model groundwater system. Water Resources Research, 2013, 49, 874-890.	1.7	38
68	Abiotic reduction of nitroaromatic contaminants by iron(II) complexes with organothiol ligands. Environmental Toxicology and Chemistry, 2008, 27, 1257-1266.	2.2	37
69	Influence of Organic Ligands on the Reduction of Polyhalogenated Alkanes by Iron(II). Environmental Science & Technology, 2007, 41, 6740-6747.	4.6	36
70	Catalytic reduction of N-nitrosodimethylamine with nanophase nickelâ€"boron. Applied Catalysis B: Environmental, 2009, 90, 175-183.	10.8	35
71	Fate of per- and polyfluoroalkyl substances (PFAS) during hydrothermal liquefaction of municipal wastewater treatment sludge. Environmental Science: Water Research and Technology, 2020, 6, 1388-1399.	1.2	35
72	Quantitative Evaluation of an Integrated System for Valorization of Wastewater Algae as Bio-oil, Fuel Gas, and Fertilizer Products. Environmental Science & Technology, 2018, 52, 12717-12727.	4.6	33

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73	Kinetics and mechanism for hydrothermal conversion of polyhydroxybutyrate (PHB) for wastewater valorization. Green Chemistry, 2019, 21, 5586-5597.	4.6	33
74	Rejection of per- and polyfluoroalkyl substances (PFASs) in aqueous film-forming foam by high-pressure membranes. Water Research, 2021, 188, 116546.	5.3	33
75	Pilot-scale field demonstration of a hybrid nanofiltration and UV-sulfite treatment train for groundwater contaminated by per- and polyfluoroalkyl substances (PFASs). Water Research, 2021, 205, 117677.	5.3	33
76	Reinvestigating the role of reactive species in the oxidation of organic co-contaminants during Cr(VI) reactions with sulfite. Chemosphere, 2018, 196, 593-597.	4.2	32
77	A hybrid catalytic hydrogenation/membrane distillation process for nitrogen resource recovery from nitrate-contaminated waste ion exchange brine. Water Research, 2020, 175, 115688.	5.3	32
78	A Unified Modeling Framework to Advance Biofuel Production from Microalgae. Environmental Science & Technology, 2018, 52, 13591-13599.	4.6	31
79	Role of TEMPO in Enhancing Permanganate Oxidation toward Organic Contaminants. Environmental Science & Technology, 2021, 55, 7681-7689.	4.6	29
80	Application of Hydrothermal Alkaline Treatment for Destruction of Per- and Polyfluoroalkyl Substances in Contaminated Groundwater and Soil. Environmental Science & Technology, 2022, 56, 6647-6657.	4.6	29
81	Role of Orthophosphate As a Corrosion Inhibitor in Chloraminated Solutions Containing Tetravalent Lead Corrosion Product PbO₂. Environmental Science & Technology, 2012, 46, 11062-11069.	4.6	28
82	Impact of growth phases on photochemically produced reactive species in the extracellular matrix of algal cultivation systems. Environmental Science: Water Research and Technology, 2017, 3, 1095-1108.	1.2	28
83	Configuration Control in the Synthesis of Homo- and Heteroleptic Bis(oxazolinylphenolato/thiazolinylphenolato) Chelate Ligand Complexes of Oxorhenium(V): Isomer Effect on Ancillary Ligand Exchange Dynamics and Implications for Perchlorate Reduction Catalysis. Inorganic Chemistry, 2016, 55, 2597-2611.	1.9	26
84	Electrochemical treatment of poly- and perfluoroalkyl substances in brines. Environmental Science: Water Research and Technology, 2020, 6, 2704-2712.	1.2	26
85	X-ray Spectroscopic Characterization of Immobilized Rhenium Species in Hydrated Rheniumâ€“Palladium Bimetallic Catalysts Used for Perchlorate Water Treatment. Journal of Physical Chemistry C, 2014, 118, 11666-11676.	1.5	25
86	Tailoring diesel bioblendstock from integrated catalytic upgrading of carboxylic acids: a â€œfuel property firstâ€• approach. Green Chemistry, 2019, 21, 5813-5827.	4.6	25
87	Redox Reactivity of Organically Complexed Iron(II) Species with Aquatic Contaminants. ACS Symposium Series, 2011, , 283-313.	0.5	24
88	Reactions of aqueous ironâ€“DFOB (desferrioxamine B) complexes with flavin mononucleotide in the absence of strong iron(II) chelators. Geochimica Et Cosmochimica Acta, 2010, 74, 1513-1529.	1.6	22
89	Mechanism and Mitigation of the Decomposition of an Oxorhenium Complex-Based Heterogeneous Catalyst for Perchlorate Reduction in Water. Environmental Science & Technology, 2015, 49, 12932-12940.	4.6	22
90	Ruthenium Catalysts for the Reduction of <i>N</i>-Nitrosamine Water Contaminants. Environmental Science & Technology, 2018, 52, 4235-4243.	4.6	22

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91	A New Bioinspired Perchlorate Reduction Catalyst with Significantly Enhanced Stability via Rational Tuning of Rhenium Coordination Chemistry and Heterogeneous Reaction Pathway. Environmental Science & Technology, 2016, 50, 5874-5881.	4.6	21
92	Influence of terminal electron-accepting conditions on the soil microbial community and degradation of organic contaminants of emerging concern. Science of the Total Environment, 2020, 706, 135327.	3.9	19
93	Application of surface complexation modeling to the reactivity of iron(II) with nitroaromatic and oxime carbamate contaminants in aqueous TiO2 suspensions. Journal of Colloid and Interface Science, 2008, 321, 350-359.	5.0	18
94	Life cycle environmental impacts of regeneration options for anion exchange resin remediation of PFAS impacted water. Water Research, 2021, 207, 117798.	5.3	18
95	Contributions of biotic and abiotic pathways to anaerobic trichloroethene transformation in low permeability source zones. Journal of Contaminant Hydrology, 2019, 224, 103480.	1.6	17
96	Catalytic Denitrification in a Trickle Bed Reactor: Ion Exchange Waste Brine Treatment. Journal - American Water Works Association, 2017, 109, E129.	0.2	15
97	Catalytic Nitrate Removal in a Trickle Bed Reactor: Direct Drinking Water Treatment. Journal - American Water Works Association, 2017, 109, .	0.2	14
98	Demonstration and Evaluation of Hybrid Microalgae Aqueous Conversion Systems for Biofuel Production. ACS Sustainable Chemistry and Engineering, 2019, 7, 5835-5844.	3.2	14
99	Ligand Design for Isomer-Selective Oxorhenium(V) Complex Synthesis. Inorganic Chemistry, 2017, 56, 1757-1769.	1.9	12
100	DFT Comparison of <i>N</i>â€Nitrosodimethylamine Decomposition Pathways Over Ni and Pd. ChemCatChem, 2011, 3, 898-903.	1.8	11
101	Selective oxidation of colour-inducing constituents in raw sugar cane juice with potassium permanganate. Food Chemistry, 2019, 298, 125036.	4.2	11
102	Response to Comment on â€œCritical Review of Pd-Based Catalytic Treatment of Priority Contaminants in Waterâ€• Environmental Science & Technology, 2012, 46, 11469-11470.	4.6	10
103	Seasonal treatment and economic evaluation of an algal wastewater system for energy and nutrient recovery. Environmental Science: Water Research and Technology, 2019, 5, 1545-1557.	1.2	10
104	Why Was My Paper Rejected without Review?. Environmental Science & Technology, 2020, 54, 11641-11644.	4.6	10
105	Investigation of the kinetics of aquation of the 1:2 complex between CrIII and nitrilotriacetic acid. Polyhedron, 2009, 28, 269-278.	1.0	9
106	Abatement of Organic Contaminants by Mn(VII)/TEMPOs: Effects of TEMPOs Structure, Organic Contaminant Speciation, and Active Oxidizing Species. Environmental Science & Technology, 2022, 56, 10361-10371.	4.6	9
107	Use of treated effluent water in ethanol production from cellulose. Biomass and Bioenergy, 2013, 56, 22-28.	2.9	8
108	Heterogeneous Catalytic Reduction for Water Purification: Nanoscale Effects on Catalytic Activity, Selectivity, and Sustainability. , 2009, , 269-279.		3

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109	Vapor-phase conversion of aqueous 3-hydroxybutyric acid and crotonic acid to propylene over solid acid catalysts. Catalysis Science and Technology, 2021, 11, 6866-6876.	2.1	2
110	ION-PAIR ASSOCIATION OF SUBSTITUTED PHENOLATES WITH K+ IN OCTANOL. Environmental Toxicology and Chemistry, 1998, 17, 369.	2.2	2
111	Innovative Surfactant/Cosolvent Technologies for Removal of NAPL and Sorbed Contaminants from Aquifers. , 2002, , 93-108.		0
112	Heterogeneous Catalytic Reduction for Water Purification. , 2014, , 339-349.		0
113	Bridging the gap â€“ University, startup, and industry partnership to destroy per- and polyfluoroalkyl substance (PFAS) foreverÂ chemicals. IScience, 2021, 24, 102904.	1.9	0