Kerry N Mcphedran

List of Publications by Year
in descending order

55 papers	1,356 citations	304368 22 h-index	360668 35 g-index
58 all docs	58 docs citations	58 times ranked	1301 citing authors

#	Article	IF	Citations
1	Composite polyvinylidene fluoride (PVDF) membrane impregnated with Fe2O3 nanoparticles and multiwalled carbon nanotubes for catalytic degradation of organic contaminants. Journal of Membrane Science, 2015, 490, 227-235.	4.1	89
2	Effects of the non-indigenous cladoceran Cercopagis pengoi on the lower food web of Lake Ontario. Freshwater Biology, 2003, 48, 2094-2106.	1.2	82
3	Treatment of aqueous arsenic â€“ A review of biochar modification methods. Science of the Total Environment, 2020, 739, 139750.	3.9	81
4	Applications of biological sulfate reduction for remediation of arsenic â€“ A review. Chemosphere, 2019, 222, 932-944.	4.2	77
5	Coagulation/flocculation process with polyaluminum chloride for the remediation of oil sands process-affected water: Performance and mechanism study. Journal of Environmental Management, 2015, 160, 254-262.	3.8	59
6	Advanced Analytical Mass Spectrometric Techniques and Bioassays to Characterize Untreated and Ozonated Oil Sands Process-Affected Water. Environmental Science & Technology, 2014, 48, 11090-11099.	4.6	55
7	Investigation of the impact of organic solvent type and solution pH on the extraction efficiency of naphthenic acids from oil sands process-affected water. Chemosphere, 2016, 146, 472-477.	4.2	55
8	Isotherm and kinetic studies on adsorption of oil sands process-affected water organic compounds using granular activated carbon. Chemosphere, 2018, 202, 716-725.	4.2	53
9	Granular activated carbon for simultaneous adsorption and biodegradation of toxic oil sands process-affected water organic compounds. Journal of Environmental Management, 2015, 152, 49-57.	3.8	48
10	Effect of ozonation on the naphthenic acids' speciation and toxicity of pH-dependent organic extracts of oil sands process-affected water. Science of the Total Environment, 2015, 506-507, 66-75.	3.9	47
11	Fractionation of oil sands-process affected water using pH-dependent extractions: A study of dissociation constants for naphthenic acids species. Chemosphere, 2015, 127, 291-296.	4.2	44
12	Biogas production estimation using data-driven approaches for cold region municipal wastewater anaerobic digestion. Journal of Environmental Management, 2020, 253, 109708.	3.8	40
13	Pilot-scale UV/H2O2 advanced oxidation process for municipal reuse water: Assessing micropollutant degradation and estrogenic impacts on goldfish (Carassius auratus L.). Water Research, 2016, 101, 157-166.	5.3	36
14	Treatment of aqueous arsenic â€“ A review of biosorbent preparation methods. Journal of Environmental Management, 2020, 273, 111126.	3.8	35
15	Next-Generation Pyrosequencing Analysis of Microbial Biofilm Communities on Granular Activated Carbon in Treatment of Oil Sands Process-Affected Water. Applied and Environmental Microbiology, 2015, 81, 4037-4048.	1.4	34
16	Electrochemically modified adsorbents for treatment of aqueous arsenic: Pore diffusion in modified biomass vs. biochar. Chemical Engineering Journal, 2021, 423, 130061.	6.6	34
17	Ultra Performance Liquid Chromatography Ion Mobility Time-of-Flight Mass Spectrometry Characterization of Naphthenic Acids Species from Oil Sands Process-Affected Water. Environmental Science & Technology, 2015, 49, 11737-11745.	4.6	30
18	Mechanistic investigation of industrial wastewater naphthenic acids removal using granular activated carbon (GAC) biofilm based processes. Science of the Total Environment, 2016, 541, 238-246.	3.9	30

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19	Understanding the similarities and differences between ozone and peroxone in the degradation of naphthenic acids: Comparative performance for potential treatment. Chemosphere, 2017, 180, 149-159.	4.2	27
20	Impact of ozonation pre-treatment of oil sands process-affected water on the operational performance of a GAC-fluidized bed biofilm reactor. Biodegradation, 2014, 25, 811-823.	1.5	26
21	Characterization and distribution of metal and nonmetal elements in the Alberta oil sands region of Canada. Chemosphere, 2016, 147, 218-229.	4.2	25
22	Selenium removal from water using adsorbents: A critical review. Journal of Hazardous Materials, 2022, 424, 127603.	6.5	25
23	Dynamics of microbial community structure and nutrient removal from an innovative side-stream enhanced biological phosphorus removal process. Journal of Environmental Management, 2017, 198, 300-307.	3.8	22
24	Estimation of greenhouse gas and odour emissions from a cold region municipal biological nutrient removal wastewater treatment plant. Journal of Environmental Management, 2021, 281, 111864.	3.8	22
25	RNA in Municipal Wastewater Reveals Magnitudes of COVID-19 Outbreaks across Four Waves Driven by SARS-CoV-2 Variants of Concern. ACS ES&T Water, 2022, 2, 1852-1862.	2.3	22
26	Investigation of Mono/Competitive Adsorption of Environmentally Relevant Ionized Weak Acids on Graphite: Impact of Molecular Properties and Thermodynamics. Environmental Science & Technology, 2014, 48, 14472-14480.	4.6	21
27	Biogas maximization using data-driven modelling with uncertainty analysis and genetic algorithm for municipal wastewater anaerobic digestion. Journal of Environmental Management, 2021, 293, 112875.	3.8	21
28	A binary oxide-biochar composite for adsorption of arsenic from aqueous solutions: Combined microwave pyrolysis and electrochemical modification. Chemical Engineering Journal, 2022, 446, 137024.	6.6	21
29	Effect of Media on Biofilter Performance Following Ozonation of Secondary Treated Municipal Wastewater Effluent: Sand vs. GAC. Ozone: Science and Engineering, 2015, 37, 143-153.	1.4	19
30	Enhanced arsenate removal by Fe-impregnated canola straw: assessment of XANES solid-phase speciation, impacts of solution properties, sorption mechanisms, and evolutionary polynomial regression (EPR) models. Environmental Science and Pollution Research, 2021, 28, 12659-12676.	2.7	17
31	A novel method for fabrication of a binary oxide biochar composite for oxidative adsorption of arsenite: Characterization, adsorption mechanism and mass transfer modeling. Journal of Cleaner Production, 2022, 356, 131832.	4.6	17
32	An omic approach for the identification of oil sands process-affected water compounds using multivariate statistical analysis of ultrahigh resolution mass spectrometry datasets. Science of the Total Environment, 2015, 511, 230-237.	3.9	14
33	Pseudomonads biodegradation of aromatic compounds in oil sands process-affected water. Science of the Total Environment, 2015, 521-522, 59-67.	3.9	14
34	Impact of environmental conditions on bacterial photoreactivation in wastewater effluents. Environmental Sciences: Processes and Impacts, 2017, 19, 31-37.	1.7	13
35	Hydrophobic organic compound (HOC) partitioning behaviour to municipal wastewater colloidal organic carbon. Water Research, 2013, 47, 2222-2230.	5.3	10
36	Investigation of Hydrophobic Organic Carbon (HOC) Partitioning to 1 kDa Fractionated Municipal Wastewater Colloids. Environmental Science & Technology, 2013, 47, 2548-2553.	4.6	10

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37	Greenhouse gas emission estimation from municipal wastewater using a hybrid approach of generative adversarial network and data-driven modelling. Science of the Total Environment, 2021, 800, 149508.	3.9	9
38	Evaluation of the gas stripping technique for calculation of Henryâ€™s law constants using the initial slope method for 1,2,4,5-tetrachlorobenzene, pentachlorobenzene, and hexachlorobenzene. Chemosphere, 2013, 91, 1648-1652.	4.2	8
39	Evaluation of the STP model: Comparison of modelled and experimental results for ten polycyclic aromatic hydrocarbons (PAHs). Chemosphere, 2007, 69, 1802-1806.	4.2	7
40	Fate and mass balances of triclosan (TCS), tetrabromobisphenol A (TBBPA) and tribromobisphenol A (tri-BBPA) during the municipal wastewater treatment process. Water Quality Research Journal of Canada, 2013, 48, 255-265.	1.2	6
41	Probing the Adsorption of Weak Acids on Graphite Using Amplitude Modulationâ€“Frequency Modulation Atomic Force Microscopy. Langmuir, 2015, 31, 3069-3075.	1.6	6
42	Sustainably closed loop recycling of hierarchically porous polymer microbeads for efficient removal of cationic dyes. Environmental Science: Water Research and Technology, 2022, 8, 575-585.	1.2	6
43	Occurrence and predictive correlations of Escherichia coli and Enterococci at Sandpoint beach (Lake) Tj ETQq1 1 0.784314 rgBT /Ove Research Journal of Canada, 2013, 48, 99-110.	1.2	5
44	Assessment of hazard metrics for predicting field benthic invertebrate toxicity in the Detroit River, Ontario, Canada. Integrated Environmental Assessment and Management, 2017, 13, 410-422.	1.6	5
45	Operando Studies of Iodine Species in an Advanced Oxidative Water Treatment Reactor. ACS ES&T Water, 2021, 1, 2293-2304.	2.3	5
46	Traffic-derived contaminant loading in snow storage facilities during spring melt. Environmental Science and Pollution Research, 2022, 29, 27875-27893.	2.7	5
47	Urban stormwater runoff pollutant loadings: GIS land use classification vs. sample-based predictions. Environmental Science and Pollution Research, 2022, 29, 45349-45363.	2.7	5
48	Assessment of stormwater discharge contamination and toxicity for a cold-climate urban landscape. Environmental Sciences Europe, 2022, 34, 43.	2.6	4
49	Investigation of Effects of the Cosolvent Methanol on the Apparent Solubility of a Suite of Chlorobenzenes Using Headspace Solid-Phase Microextraction (HS-SPME). Journal of Chemical & Engineering Data, 2012, 57, 2373-2378.	1.0	3
50	Characterizing polychlorinated biphenyl exposure pathways from sediment and water in aquatic life using a food web bioaccumulation model. Integrated Environmental Assessment and Management, 2019, 15, 398-411.	1.6	2
51	Polybrominated Diphenyl Ethers (PBDEs) in Sediments of the Huronâ€“Erie Corridor. Bulletin of Environmental Contamination and Toxicology, 2019, 102, 450-456.	1.3	2
52	Assessment of a wastewater stabilization pond system for removal of arsenic, iron, and ammonia from reverse osmosis water treatment plant residual wastewater. Canadian Journal of Civil Engineering, 2022, 49, 1026-1039.	0.7	1
53	Optimization and assessment of an electrochemical advanced oxidation system for synthetic stormwater treatment. Environmental Science and Pollution Research, 2022, 29, 81505-81519.	2.7	1
54	Wastewater Colloidal Organic Carbon: Characterization of Filtration Fractions Using ¹H NMR. Water Environment Research, 2016, 88, 308-317.	1.3	0

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55	Assessment of Sediment Arsenic and Iron Occurrence and Leaching Potential in a Potable Water Treatment Wastewater Stabilization Pond System. Canadian Journal of Civil Engineering, 0, , .	0.7	0