Roland D Cusick

List of Publications by Year
in descending order

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36 papers	1,895 citations	361296 20 h-index	360920 35 g-index
36 all docs	36 docs citations	36 times ranked	2279 citing authors

#	Article	IF	Citations
1	Statistical and microbial analysis of bio-electrochemical sensors used for carbon monitoring at water resource recovery facilities. Environmental Science: Water Research and Technology, 2022, 8, 2052-2064.	1.2	6
2	Modeling the Plantwide Implications of Struvite Loss from Sidestream Precipitation Reactors. ACS ES&T Engineering, 2022, 2, 874-885.	3.7	1
3	Membrane-based electrochemical technologies: III. Selective ion removal and recovery. , 2022, , 403-444.		1
4	Mapping the National Phosphorus Recovery Potential from Centralized Wastewater and Corn Ethanol Infrastructure. Environmental Science & Technology, 2022, 56, 8691-8701.	4.6	5
5	Maize and soybean response to phosphorus fertilization with blends of struvite and monoammonium phosphate. Plant and Soil, 2021, 461, 547-563.	1.8	14
6	Electrochemical Disinfection in Water and Wastewater Treatment: Identifying Impacts of Water Quality and Operating Conditions on Performance. Environmental Science & Technology, 2021, 55, 3470-3482.	4.6	67
7	Defining Nutrient Colocation Typologies for Human-Derived Supply and Crop Demand To Advance Resource Recovery. Environmental Science & Technology, 2021, 55, 10704-10713.	4.6	6
8	Developing an integrated technology-environment-economics model to simulate food-energy-water systems in Corn Belt watersheds. Environmental Modelling and Software, 2021, 143, 105083.	1.9	16
9	Evaluating Long-Term Treatment Performance and Cost of Nutrient Removal at Water Resource Recovery Facilities under Stochastic Influent Characteristics Using Artificial Neural Networks as Surrogates for Plantwide Modeling. ACS ES&T Engineering, 2021, 1, 1517-1529.	3.7	9
10	Evaluating agronomic soil phosphorus tests for soils amended with struvite. Geoderma, 2021, 399, 115093.	2.3	9
11	Molecular Tuning of Redoxâ€Copolymers for Selective Electrochemical Remediation. Advanced Functional Materials, 2020, 30, 2004635.	7.8	34
12	Re-Envisioning Sanitation As a Human-Derived Resource System. Environmental Science & Technology, 2020, 54, 10446-10459.	4.6	20
13	Emerging investigator series: capacitive deionization for selective removal of nitrate and perchlorate: impacts of ion selectivity and operating constraints on treatment costs. Environmental Science: Water Research and Technology, 2020, 6, 925-934.	1.2	18
14	Advancing Sustainable Sanitation and Agriculture through Investments in Human-Derived Nutrient Systems. Environmental Science & Technology, 2020, 54, 9217-9227.	4.6	18
15	Recovering phosphorus as a coproduct from corn dry grind plants: A technoâ€economic evaluation. Cereal Chemistry, 2020, 97, 449-458.	1.1	10
16	Phosphorus fractionation and protein content control chemical phosphorus removal from corn biorefinery streams. Journal of Environmental Quality, 2020, 49, 220-227.	1.0	3
17	A review and metaâ€analysis of the agricultural potential of struvite as a phosphorus fertilizer. Soil Science Society of America Journal, 2020, 84, 653-671.	1.2	80
18	Electrochemical Remediation: Molecular Tuning of Redoxâ€Copolymers for Selective Electrochemical Remediation (Adv. Funct. Mater. 52/2020). Advanced Functional Materials, 2020, 30, 2070346.	7.8	3

#	Article	IF	Citations
19	Toward a Regional Phosphorus (Re)cycle in the US Midwest. Journal of Environmental Quality, 2019, 48, 1397-1413.	1.0	22
20	Aligning Product Chemistry and Soil Context for Agronomic Reuse of Human-Derived Resources. Environmental Science & Technology, 2019, 53, 6501-6510.	4.6	28
21	Global Sensitivity Analysis To Characterize Operational Limits and Prioritize Performance Goals of Capacitive Deionization Technologies. Environmental Science & Technology, 2019, 53, 3748-3756.	4.6	41
22	Reducing impedance to ionic flux in capacitive deionization with Bi-tortuous activated carbon electrodes coated with asymmetrically charged polyelectrolytes. Water Research X, 2019, 3, 100027.	2.8	17
23	Technoâ€economic feasibility of phosphorus recovery as a coproduct from corn wet milling plants. Cereal Chemistry, 2019, 96, 380-390.	1.1	14
24	Technoeconomic Analysis of Brackish Water Capacitive Deionization: Navigating Tradeoffs between Performance, Lifetime, and Material Costs. Environmental Science & Technology, 2019, 53, 13353-13363.	4.6	59
25	Enhancing capacitive deionization performance with charged structural polysaccharide electrode binders. Water Research, 2019, 148, 388-397.	5.3	28
26	Elucidating the impacts of initial supersaturation and seed crystal loading on struvite precipitation kinetics, fines production, and crystal growth. Water Research, 2018, 132, 252-259.	5.3	51
27	Characterizing the Impacts of Deposition Techniques on the Performance of MnO₂ Cathodes for Sodium Electrosorption in Hybrid Capacitive Deionization. Environmental Science & Technology, 2017, 51, 12027-12034.	4.6	72
28	Amplifying Progress toward Multiple Development Goals through Resource Recovery from Sanitation. Environmental Science & Technology, 2017, 51, 10765-10776.	4.6	70
29	A Combined Modeling and Experimental Study Assessing the Impact of Fluid Pulsation on Charge and Energy Efficiency in Capacitive Deionization. Journal of the Electrochemical Society, 2017, 164, E536-E547.	1.3	31
30	Electrochemical struvite precipitation from digestate with a fluidized bed cathode microbial electrolysis cell. Water Research, 2014, 54, 297-306.	5.3	129
31	Capacitive mixing power production from salinity gradient energy enhanced through exoelectrogen-generated ionic currents. Energy and Environmental Science, 2014, 7, 1159-1165.	15.6	69
32	Extracellular Palladium Nanoparticle Production using Geobacter sulfurreducens. ACS Sustainable Chemistry and Engineering, 2013, 1, 1165-1171.	3.2	109
33	Minimal RED Cell Pairs Markedly Improve Electrode Kinetics and Power Production in Microbial Reverse Electrodialysis Cells. Environmental Science & Technology, 2013, 47, 14518-14524.	4.6	33
34	Energy Capture from Thermolytic Solutions in Microbial Reverse-Electrodialysis Cells. Science, 2012, 335, 1474-1477.	6.0	232
35	Phosphate recovery as struvite within a single chamber microbial electrolysis cell. Bioresource Technology, 2012, 107, 110-115.	4.8	192
36	Performance of a pilot-scale continuous flow microbial electrolysis cell fed winery wastewater. Applied Microbiology and Biotechnology, 2011, 89, 2053-2063.	1.7	378