Corinne D Scown

List of Publications by Year
in descending order

62 papers	2,835 citations	159525 30 h-index	182361 51 g-index
66 all docs	66 docs citations	66 times ranked	3430 citing authors

#	Article	IF	Citations
1	Transforming biomass conversion with ionic liquids: process intensification and the development of a high-gravity, one-pot process for the production of cellulosic ethanol. Energy and Environmental Science, 2016, 9, 1042-1049.	15.6	201
2	Life-cycle net energy assessment of large-scale hydrogen production via photoelectrochemical water splitting. Energy and Environmental Science, 2014, 7, 3264-3278.	15.6	195
3	Grand Challenges for Life-Cycle Assessment of Biofuels. Environmental Science & Technology, 2011, 45, 1751-1756.	4.6	148
4	Near-complete depolymerization of polyesters with nano-dispersed enzymes. Nature, 2021, 592, 558-563.	13.7	129
5	Life-cycle implications and supply chain logistics of electric vehicle battery recycling in California. Environmental Research Letters, 2015, 10, 014011.	2.2	120
6	Techno-economic analysis and life-cycle greenhouse gas mitigation cost of five routes to bio-jet fuel blendstocks. Energy and Environmental Science, 2019, 12, 807-824.	15.6	109
7	Water Footprint of U.S. Transportation Fuels. Environmental Science & Technology, 2011, 45, 2541-2553.	4.6	103
8	Novel pathways for fuels and lubricants from biomass optimized using life-cycle greenhouse gas assessment. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7645-7649.	3.3	101
9	Lifeâ€Cycle Assessment Considerations for Batteries and Battery Materials. Advanced Energy Materials, 2021, 11, 2100771.	10.2	96
10	Energy and climate effects of second-life use of electric vehicle batteries in California through 2050. Journal of Power Sources, 2015, 288, 82-91.	4.0	89
11	Approaches for More Efficient Biological Conversion of Lignocellulosic Feedstocks to Biofuels and Bioproducts. ACS Sustainable Chemistry and Engineering, 2019, 7, 9062-9079.	3.2	89
12	From Sugars to Wheels: The Conversion of Ethanol to 1,3â€Butadiene over Metalâ€Promoted Magnesiaâ€Silicate Catalysts. ChemSusChem, 2016, 9, 1462-1472.	3.6	84
13	Life-Cycle Greenhouse Gas Emissions and Human Health Trade-Offs of Organic Waste Management Strategies. Environmental Science & Technology, 2020, 54, 9200-9209.	4.6	82
14	CO2 enabled process integration for the production of cellulosic ethanol using bionic liquids. Energy and Environmental Science, 2016, 9, 2822-2834.	15.6	63
15	Technoeconomic analysis for biofuels and bioproducts. Current Opinion in Biotechnology, 2021, 67, 58-64.	3.3	59
16	Accumulation of high-value bioproducts <i>in planta</i> can improve the economics of advanced biofuels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8639-8648.	3.3	57
17	Leveling the cost and carbon footprint of circular polymers that are chemically recycled to monomer. Science Advances, 2021, 7, .	4.7	54
18	Accelerating the Deployment of Anaerobic Digestion to Meet Zero Waste Goals. Environmental Science & Technology, 2018, 52, 13663-13669.	4.6	52

#	Article	IF	Citations
19	Bioenergy Potential from Food Waste in California. Environmental Science & Technology, 2017, 51, 1120-1128.	4.6	51
20	Life-Cycle Greenhouse Gas and Water Intensity of Cellulosic Biofuel Production Using Cholinium Lysinate Ionic Liquid Pretreatment. ACS Sustainable Chemistry and Engineering, 2017, 5, 10176-10185.	3.2	49
21	Tree-Based Automated Machine Learning to Predict Biogas Production for Anaerobic Co-digestion of Organic Waste. ACS Sustainable Chemistry and Engineering, 2021, 9, 12990-13000.	3.2	47
22	Sustainable manufacturing with synthetic biology. Nature Biotechnology, 2022, 40, 304-307.	9.4	46
23	Lifecycle greenhouse gas implications of US national scenarios for cellulosic ethanol production. Environmental Research Letters, 2012, 7, 014011.	2.2	42
24	Technoâ€economic and greenhouse gas analyses of lignin valorization to eugenol and phenolic products in integrated ethanol biorefineries. Biofuels, Bioproducts and Biorefining, 2019, 13, 978-993.	1.9	40
25	High-Efficiency Conversion of Ionic Liquid-Pretreated Woody Biomass to Ethanol at the Pilot Scale. ACS Sustainable Chemistry and Engineering, 2021, 9, 4042-4053.	3.2	40
26	Biosynthesis of polycyclopropanated high energy biofuels. Joule, 2022, 6, 1590-1605.	11.7	38
27	Use of ensiled biomass sorghum increases ionic liquid pretreatment efficiency and reduces biofuel production cost and carbon footprint. Green Chemistry, 2021, 23, 3127-3140.	4.6	37
28	Challenge clusters facing LCA in environmental decision-makingâ€"what we can learn from biofuels. International Journal of Life Cycle Assessment, 2015, 20, 1399-1414.	2.2	35
29	Role of Lignin in Reducing Life-Cycle Carbon Emissions, Water Use, and Cost for United States Cellulosic Biofuels. Environmental Science & Technology, 2014, 48, 8446-8455.	4.6	33
30	Upgrading Lignocellulosic Products to Dropâ€In Biofuels via Dehydrogenative Crossâ€Coupling and Hydrodeoxygenation Sequence. ChemSusChem, 2015, 8, 2609-2614.	3.6	31
31	Switchable ionic liquids based on di-carboxylic acids for one-pot conversion of biomass to an advanced biofuel. Green Chemistry, 2016, 18, 4012-4021.	4.6	31
32	Role of Digestate and Biochar in Carbon-Negative Bioenergy. Environmental Science & Technology, 2019, 53, 12989-12998.	4.6	31
33	Cost and Life-Cycle Greenhouse Gas Implications of Integrating Biogas Upgrading and Carbon Capture Technologies in Cellulosic Biorefineries. Environmental Science & Technology, 2020, 54, 12810-12819.	4.6	29
34	Managing Critical Infrastructure Interdependence through Economic Input-Output Methods. Journal of Infrastructure Systems, 2009, 15, 200-210.	1.0	28
35	Machine learning to predict biomass sorghum yields under future climate scenarios. Biofuels, Bioproducts and Biorefining, 2020, 14, 566-577.	1.9	28
36	Air Pollutant Emission Rates for Dry Anaerobic Digestion and Composting of Organic Municipal Solid Waste. Environmental Science & Technology, 2020, 54, 16097-16107.	4.6	27

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37	Sorghum biomass production in the continental United States and its potential impacts on soil organic carbon and nitrous oxide emissions. GCB Bioenergy, 2020, 12, 878-890.	2.5	25
38	Production Cost and Carbon Footprint of Biomass-Derived Dimethylcyclooctane as a High-Performance Jet Fuel Blendstock. ACS Sustainable Chemistry and Engineering, 2021, 9, 11872-11882.	3.2	21
39	Supply Cost and Life-Cycle Greenhouse Gas Footprint of Dry and Ensiled Biomass Sorghum for Biofuel Production. ACS Sustainable Chemistry and Engineering, 2020, 8, 15855-15864.	3.2	20
40	Strategies for near-term scale-up of cellulosic biofuel production using sorghum and crop residues in the US. Environmental Research Letters, 2018, 13, 124002.	2.2	19
41	A Minimal Information Set To Enable Verifiable Theoretical Battery Research. ACS Energy Letters, 2021, 6, 3831-3835.	8.8	19
42	A systematic method for selecting molecular descriptors as features when training models for predicting physiochemical properties. Fuel, 2022, 321, 123836.	3.4	19
43	Achieving Deep Cuts in the Carbon Intensity of U.S. Automobile Transportation by 2050: Complementary Roles for Electricity and Biofuels. Environmental Science & Technology, 2013, 47, 9044-9052.	4.6	18
44	Fertilizer demand and potential supply through nutrient recovery from organic waste digestate in California. Water Research, 2021, 206, 117717.	5.3	18
45	Greenhouse Gas Footprint, Water-Intensity, and Production Cost of Bio-Based Isopentenol as a Renewable Transportation Fuel. ACS Sustainable Chemistry and Engineering, 2019, 7, 15434-15444.	3.2	16
46	Temporal and geographic drivers of biomass residues in California. Resources, Conservation and Recycling, 2018, 139, 287-297.	5.3	15
47	Continental United States may lose 1.8 petagrams of soil organic carbon under climate change by 2100. Global Ecology and Biogeography, 2022, 31, 1147-1160.	2.7	15
48	Health and Climate Impacts from Long-Haul Truck Electrification. Environmental Science & Technology, 2021, 55, 8514-8523.	4.6	13
49	Dynamic Geospatial Modeling of the Building Stock To Project Urban Energy Demand. Environmental Science & Technology, 2018, 52, 7604-7613.	4.6	12
50	The implications of facility design and enabling policies on the economics of dry anaerobic digestion. Waste Management, 2021, 128, 122-131.	3.7	12
51	Data Management for Geospatial Vulnerability Assessment of Interdependencies in U.S. Power Generation. Journal of Infrastructure Systems, 2009, 15, 179-189.	1.0	11
52	Drop-in biofuels offer strategies for meeting Californiaâ€™s 2030 climate mandate. Environmental Research Letters, 2018, 13, 094018.	2.2	11
53	Performance-Based Payments for Soil Carbon Sequestration Can Enable a Low-Carbon Bioeconomy. Environmental Science & Technology, 2021, 55, 5180-5188.	4.6	11
54	Identifying Forage Sorghum Ideotypes for Advanced Biorefineries. ACS Sustainable Chemistry and Engineering, 2021, 9, 7873-7881.	3.2	11

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55	Energy consumption and charging load profiles from long-haul truck electrification in the United States. Environmental Research: Infrastructure and Sustainability, 2021, 1, 025007.	0.9	10
56	Alkanolamines as Dual Functional Solvents for Biomass Deconstruction and Bioenergy Production. Green Chemistry, 2021, 23, 8611-8631.	4.6	8
57	Hybrid Biologicalâ€"Chemical Approach Offers Flexibility and Reduces the Carbon Footprint of Biobased Plastics, Rubbers, and Fuels. ACS Sustainable Chemistry and Engineering, 2018, 6, 14523-14532.	3.2	7
58	Lower-Cost, Lower-Carbon Production of Circular Polydiketoenamine Plastics. ACS Sustainable Chemistry and Engineering, 2022, 10, 2740-2749.	3.2	6
59	Genomics Characterization of an Engineered Corynebacterium glutamicum in Bioreactor Cultivation Under Ionic Liquid Stress. Frontiers in Bioengineering and Biotechnology, 2021, 9, 766674.	2.0	6
60	Spatially-explicit water balance implications of carbon capture and sequestration. Environmental Modelling and Software, 2016, 75, 153-162.	1.9	5
61	Economic and greenhouse gas analysis of regional bioenergy-powered district energy systems in California. Resources, Conservation and Recycling, 2022, 180, 106187.	5.3	5
62	The Co-Optimization of Sustainable Aviation Fuel: Cost, Emissions, and Performance. , 2021, , .		2