Jeremy Gregory

List of Publications by Year
in descending order

69 papers	1,475 citations	279798 23 h-index	345221 36 g-index
75 all docs	75 docs citations	75 times ranked	1467 citing authors

#	Article	IF	Citations
1	Material Availability and the Supply Chain:â€‰ Risks, Effects, and Responses. Environmental Science & Technology, 2007, 41, 6649-6656.	10.0	111
2	Environmental life-cycle assessment. Nature Materials, 2017, 16, 693-697.	27.5	85
3	Comparative pavement life cycle assessment with parameter uncertainty. Transportation Research, Part D: Transport and Environment, 2013, 25, 131-138.	6.8	81
4	Nanoindentation of neat and polymers in polymer?matrix composites. Composites Science and Technology, 2005, 65, 595-607.	7.8	68
5	Evaluating the Economic Viability of a Material Recovery System: The Case of Cathode Ray Tube Glass. Environmental Science & Technology, 2009, 43, 9245-9251.	10.0	59
6	A Methodology for Robust Comparative Life Cycle Assessments Incorporating Uncertainty. Environmental Science & Technology, 2016, 50, 6397-6405.	10.0	58
7	Innovations to decarbonize materials industries. Nature Reviews Materials, 2022, 7, 275-294.	48.7	57
8	End-of-life LCA allocation methods: Open loop recycling impacts on robustness of material selection decisions. , 2009, , .		51
9	Sequential early-design guidance for residential single-family buildings using a probabilistic metamodel of energy consumption. Energy and Buildings, 2017, 134, 202-211.	6.7	49
10	Construction cost estimation: A parametric approach for better estimates of expected cost and variation. Transportation Research Part B: Methodological, 2017, 101, 295-305.	5.9	38
11	Constituent and composite quasi-static and fatigue fracture experiments. Composites Part A: Applied Science and Manufacturing, 2005, 36, 665-674.	7.6	37
12	Actionable insights with less data: guiding early building design decisions with streamlined probabilistic life cycle assessment. International Journal of Life Cycle Assessment, 2018, 23, 1903-1915.	4.7	37
13	Dynamic fleet-based life-cycle greenhouse gas assessment of the introduction of electric vehicles in the Portuguese light-duty fleet. International Journal of Life Cycle Assessment, 2015, 20, 1287-1299.	4.7	35
14	A fiber bridging model for fatigue delamination in composite materials. Acta Materialia, 2004, 52, 5493-5502.	7.9	34
15	Analyzing uncertainty in a comparative life cycle assessment of hand drying systems. International Journal of Life Cycle Assessment, 2013, 18, 1605-1617.	4.7	33
16	Stochastic comparative assessment of life-cycle greenhouse gas emissions from conventional and electric vehicles. International Journal of Life Cycle Assessment, 2015, 20, 854-864.	4.7	31
17	Thematic exploration of sectoral and cross-cutting challenges to circular economy implementation. Clean Technologies and Environmental Policy, 2021, 23, 915-936.	4.1	31
18	Probabilistic Characterization of Uncertain Inputs in the Life-Cycle Cost Analysis of Pavements. Transportation Research Record, 2013, 2366, 71-77.	1.9	30

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19	An integrated model for quantifying the impacts of pavement albedo and urban morphology on building energy demand. Energy and Buildings, 2020, 211, 109759.	6.7	30
20	Incorporating cost uncertainty and path dependence into treatment selection for pavement networks. Transportation Research Part C: Emerging Technologies, 2020, 110, 40-55.	7.6	29
21	Streamlined environmental and cost life-cycle approach for building thermal retrofits: A case of residential buildings in South European climates. Journal of Cleaner Production, 2018, 172, 2625-2635.	9.3	28
22	Role of the use phase and pavement-vehicle interaction in comparative pavement life cycle assessment as a function of context. Journal of Cleaner Production, 2019, 230, 1156-1164.	9.3	27
23	A Framework for Evaluating the Economic Performance of Recycling Systems: A Case Study of North American Electronics Recycling Systems. Environmental Science & Technology, 2008, 42, 6800-6808.	10.0	26
24	Building design-space exploration through quasi-optimization of life cycle impacts and costs. Building and Environment, 2018, 144, 34-44.	6.9	26
25	Quantifying Domestic Used Electronics Flows using a Combination of Material Flow Methodologies: A US Case Study. Environmental Science & Technology, 2016, 50, 5711-5719.	10.0	25
26	Environmental and economic implications of U.S. postconsumer plastic waste management. Resources, Conservation and Recycling, 2021, 167, 105391.	10.8	24
27	Towards comparable environmental product declarations of construction materials: Insights from a probabilistic comparative LCA approach. Building and Environment, 2021, 190, 107542.	6.9	23
28	What is the potential for prefabricated buildings to decrease costs and contribute to meeting EU environmental targets?. Building and Environment, 2021, 206, 108382.	6.9	23
29	Lifecycle Cost Analysis of Prefabricated Composite and Masonry Buildings: Comparative Study. Journal of Architectural Engineering, 2018, 24, .	1.6	21
30	Structured Underâ€Specification of Life Cycle Impact Assessment Data for Building Assemblies. Journal of Industrial Ecology, 2019, 23, 319-334.	5.5	20
31	Probabilistic Approach for Long-Run Price Projections: Case Study of Concrete and Asphalt. Journal of Construction Engineering and Management - ASCE, 2017, 143, .	3.8	18
32	Does Pavement Degradation Follow a Random Walk with Drift? Evidence from Variance Ratio Tests for Pavement Roughness. Journal of Infrastructure Systems, 2018, 24, .	1.8	18
33	Probabilistic Life-Cycle Cost Analysis of Pavements. Transportation Research Record, 2015, 2523, 47-55.	1.9	17
34	Quantifying Export Flows of Used Electronics: Advanced Methods to Resolve Used Goods within Trade Data. Environmental Science & Technology, 2014, 48, 3263-3271.	10.0	16
35	Probabilistic Life-Cycle Cost Analysis of Pavements Based on Simulation Optimization. Transportation Research Record, 2019, 2673, 389-396.	1.9	16
36	Streamlining the Life Cycle Assessment of Buildings by Structured Underâ€Specification and Probabilistic Triage. Journal of Industrial Ecology, 2019, 23, 268-279.	5.5	15

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37	Quantifying Location-Specific Impacts of Pavement Albedo on Radiative Forcing Using an Analytical Approach. Environmental Science & Technology, 2020, 54, 2411-2421.	10.0	15
38	The role of concrete in life cycle greenhouse gas emissions of US buildings and pavements. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	15
39	Carbon uptake of concrete in the US pavement network. Resources, Conservation and Recycling, 2021, 167, 105397.	10.8	12
40	Regional variation of greenhouse gas mitigation strategies for the United States building sector. Applied Energy, 2021, 302, 117527.	10.1	12
41	Embedding Flexibility within Pavement Management: Technique to Improve Expected Performance of Roadway Systems. Journal of Infrastructure Systems, 2019, 25, .	1.8	10
42	A Comparison of North American Electronics Recycling Systems. Electronics and the Environment, IEEE International Symposium on, 2007, , .	0.0	8
43	Potential Contribution of Deflection-Induced Fuel Consumption to U.S. Greenhouse Gas Emissions. Transportation Research Record, 2020, 2674, 931-937.	1.9	8
44	Modeling the economic and environmental performance of recycling systems. , 2008, , .		6
45	Overview of Pavement Life Cycle Assessment Use Phase Research at the MIT Concrete Sustainability Hub. , 2019, , .		6
46	A Simulation Framework for Network Level Cost Analysis in Infrastructure Systems. , 2015, , .		5
47	Probabilistic Characterization of Life-Cycle Agency and User Costs: Case Study of Minnesota. Transportation Research Record, 2017, 2639, 93-101.	1.9	5
48	Urban-Scale Evaluation of Cool Pavement Impacts on the Urban Heat Island Effect and Climate Change. Environmental Science & Technology, 2021, 55, 11501-11510.	10.0	5
49	Mitigating life cycle GHG emissions of roads to be built through 2030: Case study of a Chinese province. Journal of Environmental Management, 2022, 319, 115512.	7.8	5
50	A Process-Based Model of End-of-Life Electronics Recycling Driving Eco-Efficiency-Informed Decisions. , 2006, , .		4
51	Supply and demand in the material recovery system for cathode ray tube glass. , 2009, , .		4
52	Sensitivity analysis of a deflection-induced pavementâ€“vehicle interaction model. Road Materials and Pavement Design, 2019, 20, 1880-1898.	4.0	4
53	A weighted multi-output neural network model for the prediction of rigid pavement deterioration. International Journal of Pavement Engineering, 2022, 23, 2631-2643.	4.4	4
54	Modeling Inelastic Matrix Crack Tip Deformation in a Double Cantilever Beam Specimen. Journal of Composite Materials, 2006, 40, 143-156.	2.4	3

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55	Is economic value an effective proxy for embodied energy and environmental impact in material systems?. , 2009, , .		3
56	How much should be invested in hazard mitigation? Development of a streamlined hazard mitigation cost assessment framework. International Journal of Disaster Risk Reduction, 2018, 28, 578-584.	3.9	3
57	Characterizing architectural options for electronic waste recycling systems. , 2008, , .		2
58	Modeling the impact of product portfolio on the economic and environmental performance of recycling systems. , 2009, , .		2
59	The Impact of Pavement Albedo on Radiative Forcing and Building Energy Demand: Comparative Analysis of Urban Neighborhoods. Transportation Research Record, 2018, 2672, 88-96.	1.9	2
60	Environmental and economic evaluations of treatment strategies for pavement network performance-based planning. Transportation Research, Part D: Transport and Environment, 2021, 99, 103016.	6.8	2
61	Life cycle analysis of plastics for packaging: PVC and PET. , 2010, , .		1
62	Modeling electronic waste recovery systems under uncertainty. , 2010, , .		1
63	Assessing the sustainability of the material recovery system for CRT glass. , 2008, , .		0
64	Original equipment manufacturer end-of-life equipment collection metrics. , 2008, , .		0
65	Environmental assessment of information technology products using a triage approach. , 2011, , .		0
66	Methods for estimating end of life electronics exports from North America. , 2011, , .		0
67	A Review of Pavement Economic Studies at the MIT Concrete Sustainability Hub. , 2019, , .		0
68	Accounting for Variation in Life Cycle Inventories: The Case of Portland Cement Production in the U.S.. , 2016, , 145-149.		0
69	Texture-Informed Approach for Hurricane Loss Estimation: How Discounting Neighborhood Texture Leads to Undervaluing Wind Mitigation. Natural Hazards Review, 2022, 23, .	1.5	0