Sabbie A Miller

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Towards sustainable concrete. Nature Materials, 2017, 16, 698-699.	27.5	683
2	Environmental impacts and decarbonization strategies in the cement and concrete industries. Nature Reviews Earth & Environment, 2020, 1, 559-573.	29.7	483
3	Technologies and policies to decarbonize global industry: Review and assessment of mitigation drivers through 2070. Applied Energy, 2020, 266, 114848.	10.1	427
4	Carbon dioxide reduction potential in the global cement industry by 2050. Cement and Concrete Research, 2018, 114, 115-124.	11.0	359
5	Readily implementable techniques can cut annual CO ₂ emissions from the production of concrete by over 20%. Environmental Research Letters, 2016, 11, 074029.	5.2	278
6	Impacts of booming concrete production on water resources worldwide. Nature Sustainability, 2018, 1, 69-76.	23.7	247
7	Supplementary cementitious materials to mitigate greenhouse gas emissions from concrete: can there be too much of a good thing?. Journal of Cleaner Production, 2018, 178, 587-598.	9.3	132
8	Climate and health damages from global concrete production. Nature Climate Change, 2020, 10, 439-443.	18.8	114
9	Environmental Impacts of Alternative Cement Binders. Environmental Science & Technology, 2020, 54, 677-686.	10.0	93
10	Achieving net zero greenhouse gas emissions in the cement industry via value chain mitigation strategies. One Earth, 2021, 4, 1398-1411.	6.8	93
11	Rice-based ash in concrete: A review of past work and potential environmental sustainability. Resources, Conservation and Recycling, 2019, 146, 416-430.	10.8	63
12	Concrete mixture proportioning for desired strength and reduced global warming potential. Construction and Building Materials, 2016, 128, 410-421.	7.2	60
13	Comparison indices for design and proportioning of concrete mixtures taking environmental impacts into account. Cement and Concrete Composites, 2016, 68, 131-143.	10.7	54
14	A review of bioplastics at end-of-life: Linking experimental biodegradation studies and life cycle impact assessments. Resources, Conservation and Recycling, 2022, 181, 106236.	10.8	52
15	Literature review on policies to mitigate GHG emissions for cement and concrete. Resources, Conservation and Recycling, 2022, 182, 106278.	10.8	51
16	Greenhouse gas emissions from concrete can be reduced by using mix proportions, geometric aspects, and age as design factors. Environmental Research Letters, 2015, 10, 114017.	5.2	49
17	Natural fiber textile reinforced bio-based composites: Mechanical properties, creep, and environmental impacts. Journal of Cleaner Production, 2018, 198, 612-623.	9.3	43
18	Integrating durability-based service-life predictions with environmental impact assessments of natural fiberâ€–reinforced composite materials. Resources, Conservation and Recycling, 2015, 99, 72-83.	10.8	42

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19	Reducing greenhouse gas emissions for prescribed concrete compressive strength. Construction and Building Materials, 2018, 167, 918-928.	7.2	40
20	Hydrothermal aging of bio-based poly(lactic acid) (PLA) wood polymer composites: Studies on sorption behavior, morphology, and heat conductance. Construction and Building Materials, 2019, 214, 290-302.	7.2	34
21	The role of cement service-life on the efficient use of resources. Environmental Research Letters, 2020, 15, 024004.	5.2	28
22	The environmental attributes of wood fiber composites with bio-based or petroleum-based plastics. International Journal of Life Cycle Assessment, 2020, 25, 1145-1159.	4.7	28
23	Improvement in environmental performance of poly(Î²-hydroxybutyrate)-co-(Î²-hydroxyvalerate) composites through process modifications. Journal of Cleaner Production, 2013, 40, 190-198.	9.3	17
24	Eco-efficient design indices for reinforced concrete members. Materials and Structures/Materiaux Et Constructions, 2019, 52, 1.	3.1	17
25	Application of multi-criteria material selection techniques to constituent refinement in biobased composites. Materials & Design, 2013, 52, 1043-1051.	5.1	15
26	Incorporating spatiotemporal effects and moisture diffusivity into a multi-criteria materials selection methodology for woodâ€"polymer composites. Construction and Building Materials, 2014, 71, 589-601.	7.2	14
27	Quantitative Assessment of Alkali-Activated Materials: Environmental Impact and Property Assessments. Journal of Infrastructure Systems, 2020, 26, .	1.8	14
28	Environmental impacts and environmental justice implications of supplementary cementitious materials for use in concrete. Environmental Research: Infrastructure and Sustainability, 2021, 1, 025003.	2.3	12
29	Reducing the environmental impacts of plastics while increasing strength: Biochar fillers in biodegradable, recycled, and fossil-fuel derived plastics. Composites Part C: Open Access, 2022, 8, 100253.	3.2	12
30	Influence of carbon feedstock on potentially net beneficial environmental impacts of bio-based composites. Journal of Cleaner Production, 2016, 132, 266-278.	9.3	8
31	US industrial sector decoupling of energy use and greenhouse gas emissions under COVID: durability and decarbonization. Environmental Research Communications, 2021, 3, 031003.	2.3	7
32	Static versus Time-Dependent Material Selection Charts and Application in Wood Flour Composites. Journal of Biobased Materials and Bioenergy, 2015, 9, 273-283.	0.3	7
33	Using a micromechanical viscoelastic creep model to capture multi-phase deterioration in bio-based wood polymer composites exposed to moisture. Construction and Building Materials, 2022, 314, 125252.	7.2	6
34	Using internal micro-scale architectures from additive manufacturing to increase material efficiency. Journal of Cleaner Production, 2021, 291, 125799.	9.3	5
35	The role of data variability and uncertainty in the probability of mitigating environmental impacts from cement and concrete. Environmental Research Letters, 2021, 16, 054053.	5.2	5
36	Utilization of post-consumer carpet calcium carbonate (PC4) from carpet recycling as a mineral resource in concrete. Resources, Conservation and Recycling, 2021, 169, 105496.	10.8	5

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37	Effects of Leaching Method and Ashing Temperature of Rice Residues for Energy Production and Construction Materials. ACS Sustainable Chemistry and Engineering, 2021, 9, 3677-3687.	6.7	2
38	Evaluation of Functional Units Including Time-Dependent Properties for Environmental Impact Modeling of Biobased Composites. Journal of Biobased Materials and Bioenergy, 2013, 7, 588-599.	0.3	2