Niko Heeren

List of Publications by Year
in descending order

38 papers	1,971 citations	257429 24 h-index	361001 35 g-index
40 all docs	40 docs citations	40 times ranked	1748 citing authors

#	Article	IF	Citations
1	Technologies and policies to decarbonize global industry: Review and assessment of mitigation drivers through 2070. Applied Energy, 2020, 266, 114848.	10.1	427
2	Material efficiency strategies to reducing greenhouse gas emissions associated with buildings, vehicles, and electronicsâ€"a review. Environmental Research Letters, 2019, 14, 043004.	5.2	225
3	Global scenarios of resource and emission savings from material efficiency in residential buildings and cars. Nature Communications, 2021, 12, 5097.	12.8	121
4	Tracking Construction Material over Space and Time: Prospective and Geoâ€referenced Modeling of Building Stocks and Construction Material Flows. Journal of Industrial Ecology, 2019, 23, 253-267.	5.5	111
5	Environmental Impact of Buildingsâ€"What Matters?. Environmental Science & Technology, 2015, 49, 9832-9841.	10.0	87
6	A component based bottom-up building stock model for comprehensive environmental impact assessment and target control. Renewable and Sustainable Energy Reviews, 2013, 20, 45-56.	16.4	85
7	Big data GIS analysis for novel approaches in building stock modelling. Applied Energy, 2017, 208, 277-290.	10.1	74
8	Retrofit as a carbon sink: The carbon storage potentials of the EU housing stock. Journal of Cleaner Production, 2019, 214, 365-376.	9.3	74
9	A database seed for a community-driven material intensity research platform. Scientific Data, 2019, 6, 23.	5.3	66
10	Building Material Use and Associated Environmental Impacts in China 2000â€"2015. Environmental Science & Technology, 2018, 52, 14006-14014.	10.0	57
11	Housing and Mobility Demands of Individual Households and their Life Cycle Assessment. Environmental Science & Technology, 2013, 47, 5988-5997.	10.0	52
12	A novel integrated framework to evaluate greenhouse energy demand and crop yield production. Renewable and Sustainable Energy Reviews, 2018, 96, 487-501.	16.4	52
13	Life cycle assessment of dynamic building integrated photovoltaics. Solar Energy Materials and Solar Cells, 2016, 156, 75-82.	6.2	47
14	A framework for sustainable and circular system design: Development and application on thermal insulation materials. Resources, Conservation and Recycling, 2020, 154, 104631.	10.8	42
15	Comparative emission analysis of low-energy and zero-emission buildings. Building Research and Information, 2018, 46, 367-382.	3.9	41
16	Nullius in Verba1: Advancing Data Transparency in Industrial Ecology. Journal of Industrial Ecology, 2018, 22, 6-17.	5.5	36
17	ODYMâ€"An open software framework for studying dynamic material systems: Principles, implementation, and data structures. Journal of Industrial Ecology, 2020, 24, 446-458.	5.5	34
18	A combined GIS-archetype approach to model residential space heating energy: A case study for the Netherlands including validation. Applied Energy, 2020, 280, 115953.	10.1	33

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19	A comprehensive set of global scenarios of housing, mobility, and material efficiency for material cycles and energy systems modeling. Journal of Industrial Ecology, 2021, 25, 305-320.	5.5	33
20	Innovation for sustainability: toward a sustainable urban future in industrialized cities. Sustainability Science, 2012, 7, 91-100.	4.9	31
21	Linking service provision to material cycles: A new framework for studying the resource efficiencyâ€“climate change (RECC) nexus. Journal of Industrial Ecology, 2021, 25, 260-273.	5.5	31
22	Material efficiency and its contribution to climate change mitigation in Germany: A deep decarbonization scenario analysis until 2060. Journal of Industrial Ecology, 2021, 25, 479-493.	5.5	31
23	Material efficiency and climate change mitigation of passenger vehicles. Journal of Industrial Ecology, 2021, 25, 494-510.	5.5	30
24	Is a net life cycle balance for energy and materials achievable for a zero emission single-family building in Norway?. Energy and Buildings, 2018, 168, 457-469.	6.7	28
25	A general data model for socioeconomic metabolism and its implementation in an industrial ecology data commons prototype. Journal of Industrial Ecology, 2019, 23, 1016-1027.	5.5	21
26	GIS-based Decision Support System for Building Retrofit. Energy Procedia, 2017, 122, 403-408.	1.8	20
27	Building Inventory and Refurbishment Scenario Database Development for Switzerland. Journal of Industrial Ecology, 2018, 22, 629-642.	5.5	15
28	A comparative study on the environmental impact of greenhouses: A probabilistic approach. Science of the Total Environment, 2019, 675, 560-569.	8.0	14
29	The future in and of criticality assessments. Journal of Industrial Ecology, 2019, 23, 751-766.	5.5	14
30	Towards a 2000 Watt society â€“ assessing building-specific saving potentials of the Swiss residential building stock. International Journal of Sustainable Building Technology and Urban Development, 2012, 3, 43-49.	1.0	9
31	Investigations on the Sustainable Resource Use of Swiss Timber. Sustainability, 2021, 13, 1237.	3.2	9
32	Optimisation of energy-efficient greenhouses based on an integrated energy demand-yield production model. Biosystems Engineering, 2021, 202, 1-15.	4.3	8
33	Material efficiency for climate change mitigation. Journal of Industrial Ecology, 2021, 25, 254-259.	5.5	6
34	Data innovation in industrial ecology. Journal of Industrial Ecology, 2022, 26, 6-11.	5.5	2
35	Impact of CH2018 Climate Change Scenarios for Switzerland on todayâ€™s Swiss building stock. Journal of Physics: Conference Series, 2019, 1343, 012004.	0.4	1
36	Sustainability Assessment of the Housing System: Exploring the Interplay between the Material and Social Systems. , 2020, , 384-416.		1

#	Article	IF	Citations
37	Factors influencing the life-cycle GHG emissions of Brazilian office buildings. Buildings and Cities, 2021, 2, 856-873.	2.3	0
38	Welches sind die Ã¶kologischsten Holzverwendungen?. Schweizerische Zeitschrift Fur Forstwesen, 2015, 166, 335-338.	0.1	0