Fausto Freire

List of Publications by Year
in descending order

122	4,095	117625	138484
papers	citations	34 h-index	58 g-index

127	127	127	4391
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Impact of the electricity mix and use profile in the life-cycle assessment of electric vehicles. Renewable and Sustainable Energy Reviews, 2013, 24, 271-287.	16.4	244
2	Renewability and life-cycle energy efficiency of bioethanol and bio-ethyl tertiary butyl ether (bioETBE): Assessing the implications of allocation. Energy, 2006, 31, 3362-3380.	8.8	218
3	Life-cycle assessment of a house with alternative exterior walls: Comparison of three impact assessment methods. Energy and Buildings, 2012, 47, 572-583.	6.7	190
4	Greenhouse gas assessment of soybean production: implications of land use change and different cultivation systems. Journal of Cleaner Production, 2013, 54, 49-60.	9.3	127
5	Primary and secondary use of electric mobility batteries from a life cycle perspective. Journal of Power Sources, 2014, 262, 169-177.	7.8	115
6	Life-cycle assessment of electricity in Portugal. Applied Energy, 2014, 134, 563-572.	10.1	113
7	Life-cycle studies of biodiesel in Europe: A review addressing the variability of results and modeling issues. Renewable and Sustainable Energy Reviews, 2011, 15, 338-351.	16.4	110
8	Life-cycle energy and greenhouse gas analysis of three building types in a residential area in Lisbon. Energy and Buildings, 2014, 69, 344-353.	6.7	108
9	Carbon footprint of particleboard: a comparison between ISO/TS 14067, GHG Protocol, PAS 2050 and Climate Declaration. Journal of Cleaner Production, 2014, 66, 199-209.	9.3	104
10	Comparative life cycle assessment of lithium-ion batteries for electric vehicles addressing capacity fade. Journal of Cleaner Production, 2019, 229, 787-794.	9.3	102
11	Embodied energy and greenhouse gas emissions analysis of a prefabricated modular house: The â€œMobyâ€• case study. Journal of Cleaner Production, 2019, 212, 1044-1053.	9.3	88
12	Life cycle assessment of medium density particleboard (MDP) produced in Brazil. International Journal of Life Cycle Assessment, 2013, 18, 1404-1411.	4.7	77
13	Energy retrofit of historic buildings: Environmental assessment of cost-optimal solutions. Journal of Building Engineering, 2015, 4, 167-176.	3.4	76
14	Environmental life-cycle assessment of rapeseed-based biodiesel: Alternative cultivation systems and locations. Applied Energy, 2014, 114, 837-844.	10.1	71
15	Life-cycle sustainability assessment of key electricity generation systems in Portugal. Energy, 2019, 176, 131-142.	8.8	67
16	Life-cycle assessment of soybean-based biodiesel in Europe: comparing grain, oil and biodiesel import from Brazil. Journal of Cleaner Production, 2015, 102, 188-201.	9.3	64
17	Transportation matters â€“ Does it? GIS-based comparative environmental assessment of concrete mixes with cement, fly ash, natural and recycled aggregates. Resources, Conservation and Recycling, 2018, 137, 1-10.	10.8	63
18	Integrated life-cycle assessment and thermal dynamic simulation of alternative scenarios for the roof retrofit of a house. Building and Environment, 2014, 81, 204-215.	6.9	61

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19	Applying Multi-Criteria Decision Analysis to the Life-Cycle Assessment of vehicles. Journal of Cleaner Production, 2015, 107, 749-759.	9.3	61
20	Environmental sustainability of biodiesel in Brazil. Energy Policy, 2014, 65, 680-691.	8.8	58
21	Comparative life-cycle energy analysis of a new and an existing house: The significance of occupantâ€™s habits, building systems and embodied energy. Sustainable Cities and Society, 2016, 26, 507-518.	10.4	56
22	Circular economy strategies on business modelling: Identifying the greatest influences. Journal of Cleaner Production, 2021, 299, 126918.	9.3	52
23	Uncertainty Analysis in Biofuel Systems. Journal of Industrial Ecology, 2010, 14, 322-334.	5.5	46
24	Adaptive reuse of buildings: Eco-efficiency assessment of retrofit strategies for alternative uses of an historic building. Journal of Cleaner Production, 2017, 157, 94-105.	9.3	46
25	Life cycle assessment of electricity generation: a review of the characteristics of existing literature. International Journal of Life Cycle Assessment, 2020, 25, 36-54.	4.7	43
26	A review of fleet-based life-cycle approaches focusing on energy and environmental impacts of vehicles. Renewable and Sustainable Energy Reviews, 2017, 79, 935-945.	16.4	42
27	Economic-energy-environment analysis of prospective sugarcane bioethanol production in Brazil. Applied Energy, 2016, 181, 514-526.	10.1	41
28	A hybrid inputâ€“output multi-objective model to assess economicâ€“energyâ€“environment trade-offs in Brazil. Energy, 2015, 82, 769-785.	8.8	39
29	Fatty acid based prediction models for biodiesel properties incorporating compositional uncertainty. Fuel, 2017, 196, 13-20.	6.4	39
30	Impact of feedstock diversification on the cost-effectiveness of biodiesel. Applied Energy, 2014, 126, 281-296.	10.1	36
31	Environmental life-cycle assessment of rapeseed produced in Central Europe: addressing alternative fertilization and management practices. Journal of Cleaner Production, 2015, 99, 266-274.	9.3	35
32	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
33	Using anticipatory life cycle assessment to enable future sustainable construction. Journal of Industrial Ecology, 2020, 24, 178-192.	5.5	35
34	Dynamic Assessment of Construction Materials in Urban Building Stocks: A Critical Review. Environmental Science & Technology, 2019, 53, 9992-10006.	10.0	34
35	Life-cycle assessment of animal feed ingredients: Poultry fat, poultry by-product meal and hydrolyzed feather meal. Journal of Cleaner Production, 2020, 252, 119845.	9.3	34
36	Eco-efficiency in early design decisions: A multimethodology approach. Journal of Cleaner Production, 2021, 283, 124630.	9.3	32

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37	Greenhouse gas intensity of palm oil produced in Colombia addressing alternative land use change and fertilization scenarios. Applied Energy, 2014, 114, 958-967.	10.1	31
38	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
39	Environmental life cycle assessment of biodiesel produced with palm oil from Colombia. International Journal of Life Cycle Assessment, 2017, 22, 587-600.	4.7	31
40	Bioenergy production from algae using dairy manure as a nutrient source: Life cycle energy and greenhouse gas emission analysis. Applied Energy, 2015, 154, 1112-1121.	10.1	30
41	Marginal Life-Cycle Greenhouse Gas Emissions of Electricity Generation in Portugal and Implications for Electric Vehicles. Resources, 2016, 5, 41.	3.5	30
42	Incorporating uncertainty in the life cycle assessment of biodiesel from waste cooking oil addressing different collection systems. Resources, Conservation and Recycling, 2016, 112, 83-92.	10.8	30
43	Environmental and Cost Life Cycle Analysis of Different Recovery Processes of Organic Fraction of Municipal Solid Waste and Sewage Sludge. Waste and Biomass Valorization, 2019, 10, 3613-3634.	3.4	30
44	Life cycle assessment of biomass pellets: A review of methodological choices and results. Renewable and Sustainable Energy Reviews, 2020, 133, 110278.	16.4	30
45	Environmental impact trade-offs in building envelope retrofit strategies. International Journal of Life Cycle Assessment, 2017, 22, 557-570.	4.7	29
46	Building retrofit addressing occupancy: An integrated cost and environmental life-cycle analysis. Energy and Buildings, 2017, 140, 388-398.	6.7	29
47	Material flow analysis of forest biomass in Portugal to support a circular bioeconomy. Resources, Conservation and Recycling, 2021, 169, 105507.	10.8	29
48	Prefabricated versus conventional construction: Comparing life-cycle impacts of alternative structural materials. Journal of Building Engineering, 2021, 41, 102705.	3.4	29
49	Development and Application of Competencies for Graduate Programs in Energy and Sustainability. Journal of Professional Issues in Engineering Education and Practice, 2011, 137, 198-207.	0.9	28
50	A multi-objective interactive approach to assess economic-energy-environment trade-offs in Brazil. Renewable and Sustainable Energy Reviews, 2016, 54, 1429-1442.	16.4	28
51	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
52	Enriching the results of screening social life cycle assessment using content analysis: a case study of sugarcane in Brazil. International Journal of Life Cycle Assessment, 2019, 24, 781-793.	4.7	28
53	Life cycle assessment of wood pellets and wood split logs for residential heating. Science of the Total Environment, 2019, 689, 580-589.	8.0	28
54	Circular economy in the pig farming chain: Proposing a model for measurement. Journal of Cleaner Production, 2020, 260, 121003.	9.3	27

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55	PHâ€"Postharvest Technology. Biosystems Engineering, 2001, 78, 397-406.	0.4	26
56	Significance of mobility in the life-cycle assessment of buildings. Building Research and Information, 2016, 44, 376-393.	3.9	26
57	Influence of material choice, renovation rate, and electricity grid to achieve a Paris Agreement-compatible building stock: A Portuguese case study. Building and Environment, 2021, 195, 107773.	6.9	26
58	Water footprint profile of crop-based vegetable oils and waste cooking oil: Comparing two water scarcity footprint methods. Journal of Cleaner Production, 2018, 195, 1190-1202.	9.3	25
59	Robust multi-criteria weighting in comparative LCA and S-LCA: A case study of sugarcane production in Brazil. Journal of Cleaner Production, 2019, 218, 708-717.	9.3	25
60	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
61	Energy and Environmental Benefits of Rapeseed Oil Replacing Diesel. International Journal of Green Energy, 2009, 6, 287-301.	3.8	22
62	Addressing land use change and uncertainty in the life-cycle assessment ofÂwheat-based bioethanol. Energy, 2012, 45, 519-527.	8.8	22
63	A life cycle multi-objective economic and environmental assessment of distributed generation in buildings. Energy Conversion and Management, 2015, 97, 420-427.	9.2	22
64	Life cycle activity analysis: logistics and environmental policies for bottled water in Portugal. OR Spectrum, 2001, 23, 159-182.	3.4	21
65	A systematic review and life cycle assessment of biomass pellets and briquettes production in Latin America. Renewable and Sustainable Energy Reviews, 2022, 157, 112042.	16.4	20
66	Life-Cycle Greenhouse Gas Assessment of Nigerian Liquefied Natural Gas Addressing Uncertainty. Environmental Science & Technology, 2015, 49, 3949-3957.	10.0	19
67	Biodiesel from Waste Cooking Oils in Portugal: Alternative Collection Systems. Waste and Biomass Valorization, 2015, 6, 771-779.	3.4	19
68	Multi-Criteria and Life Cycle Assessment of Wood-Based Bioenergy Alternatives for Residential Heating: A Sustainability Analysis. Energies, 2019, 12, 4391.	3.1	19
69	Environmental impacts and costs of residential building retrofits â€“ What matters?. Sustainable Cities and Society, 2021, 67, 102733.	10.4	19
70	Greening transportation and parking at University of Coimbra. International Journal of Sustainability in Higher Education, 2017, 18, 23-38.	3.1	18
71	Effects on Greenhouse Gas Emissions of Introducing Electric Vehicles into an Electricity System with Large Storage Capacity. Journal of Industrial Ecology, 2018, 22, 288-299.	5.5	18
72	Life cycle assessment of a south European house addressing building design options for orientation, window sizing and building shape. Journal of Building Engineering, 2021, 39, 102276.	3.4	18

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73	A model for optimal energy planning of a commercial building integrating solar and cogeneration systems. Energy, 2013, 61, 211-223.	8.8	17
74	Integrating life-cycle assessment and multi-criteria decision analysis to compare alternative biodiesel chains. Annals of Operations Research, 2022, 312, 1359-1374.	4.1	17
75	Electric vehicles in Portugal: An integrated energy, greenhouse gas and cost life-cycle analysis. , 2012, , .		16
76	Life-cycle assessment of a civil explosive. Journal of Cleaner Production, 2015, 89, 159-164.	9.3	15
77	Life beyond the grid: A Life-Cycle Sustainability Assessment of household energy needs. Applied Energy, 2019, 255, 113881.	10.1	15
78	Ecodesign approach for pharmaceutical packaging based on Life Cycle Assessment. Science of the Total Environment, 2022, 816, 151565.	8.0	15
79	THERMAL ANALYSIS AND DRYING KINETICS OF OLIVE BAGASSE. Drying Technology, 1999, 17, 895-907.	3.1	14
80	Life-cycle assessment of fresh and frozen chestnut. Journal of Cleaner Production, 2017, 140, 742-752.	9.3	13
81	EXPERIMENTAL ANALYSIS OF THE DRYING KINETICS OF A FOOD PRODUCT. Drying Technology, 1998, 16, 1687-1702.	3.1	12
82	Lifeâ€Cycle Assessment of Ammunition Demilitarization in a Static Kiln. Propellants, Explosives, Pyrotechnics, 2013, 38, 296-302.	1.6	12
83	Vehicle environmental rating methodologies: Overview and application to light-duty vehicles. Renewable and Sustainable Energy Reviews, 2015, 45, 192-206.	16.4	12
84	Integrated environmental, energy and cost life-cycle analysis of windows: Optimal selection of components. Building and Environment, 2021, 188, 107516.	6.9	12
85	Planning strategies to address operational and price uncertainty in biodiesel production. Applied Energy, 2019, 238, 1573-1581.	10.1	11
86	Perspectives on Multi-criteria Decision Analysis and Life-Cycle Assessment. Multiple Criteria Decision Making, 2019, , 315-329.	0.8	11
87	Analysis of cost-environmental trade-offs in biodiesel production incorporating waste feedstocks: A multi-objective programming approach. Journal of Cleaner Production, 2019, 216, 64-73.	9.3	11
88	Global warming implications from increased forest biomass utilization for bioenergy in a supply-constrained context. Journal of Environmental Management, 2020, 263, 110292.	7.8	11
89	Embodied impacts of window systems: A comparative assessment of framing and glazing alternatives. Journal of Building Engineering, 2021, 35, 102042.	3.4	11
90	Life-cycle assessment of irrigated and rainfed sunflower addressing uncertainty and land use change scenarios. Journal of Cleaner Production, 2017, 140, 436-444.	9.3	10

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91	A Circular Economy Approach to Military Munitions: Valorization of Energetic Material from Ammunition Disposal through Incorporation in Civil Explosives. Sustainability, 2019, 11, 255.	3.2	10
92	Impact of Policy on Greenhouse Gas Emissions and Economics of Biodiesel Production. Environmental Science & Technology, 2014, 48, 7642-7650.	10.0	9
93	Environmental impacts of commuting modes in Lisbon: A life-cycle assessment addressing particulate matter impacts on health. International Journal of Sustainable Transportation, 2019, 13, 652-663.	4.1	9
94	Life cycle assessment of pharmaceutical packaging. International Journal of Life Cycle Assessment, 2022, 27, 978-992.	4.7	9
95	Life-Cycle Assessment of Alternative Envelope Construction for a New House in South-Western Europe: Embodied and Operational Magnitude. Energies, 2020, 13, 4145.	3.1	8
96	Integrating life cycle assessment in early process development stage: The case of extracting starch from mango kernel. Journal of Cleaner Production, 2021, 321, 128981.	9.3	8
97	Environmental Assessment of Ammunition: the Importance of a Life-Cycle Approach. Propellants, Explosives, Pyrotechnics, 2017, 42, 44-53.	1.6	7
98	Environmental and cost life-cycle approach to support selection of windows in early stages of building design. Journal of Cleaner Production, 2022, 363, 132624.	9.3	7
99	Reducing impacts from ammunitions: A comparative life-cycle assessment of four types of 9 mm ammunitions. Science of the Total Environment, 2016, 566-567, 34-40.	8.0	6
100	Life cycle assessment of a prefabricated house for seven locations in different climates. Journal of Building Engineering, 2022, 53, 104504.	3.4	6
101	Uncertainty Analysis of the Life-Cycle Greenhouse Gas Emissions and Energy Renewability of Biofuels. , 0, , .		5
102	Life Cycle Assessment of Locally Manufactured Small Wind Turbines and Pico-Hydro Plants. , 2019, , .		5
103	Dynamic life cycle assessment of straw-based renovation: A case study from a Portuguese neighbourhood. IOP Conference Series: Earth and Environmental Science, 2020, 588, 042054.	0.3	5
104	Comparative Life-Cycle Analysis of Insulation Materials in A Dwelling, Addressing Alternative Heating Systems and Life Spans. Journal of Clean Energy Technologies, 2016, 4, 462-465.	0.1	5
105	Life Cycle Activity Analysis Applied to the Portuguese Used Tire Market. , 0, , .		4
106	Environmental performance of palm oil biodiesel — A life-cycle perspective. , 2011, , .		4
107	Fleet-based LCA applied to the building sector â€“ Environmental and economic analysis of retrofit strategies. IOP Conference Series: Earth and Environmental Science, 2019, 323, 012172.	0.3	4
108	A hazard classification system based on incorporation of REACH regulation thresholds in the USEtox method. Journal of Cleaner Production, 2019, 228, 856-866.	9.3	4

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109	Key drivers of life-cycle environmental and cost assessment of windows for different European climate zones. Journal of Building Engineering, 2022, 50, 104206.	3.4	4
110	A life-cycle cost optimization model with environmental impact assessment for energy management of service buildings. , 2012, , .		3
111	Life-cycle GHG assessment of soybean biodiesel. , 2012, , .		3
112	Intake fraction estimates for on-road fine particulate matter (PM2.5) emissions: Exploring spatial variation of emissions and population distribution in Lisbon, Portugal. Atmospheric Environment, 2018, 190, 284-293.	4.1	3
113	AvaliaÃ§Ã£o Ambiental de Ciclo de Vida dos principais sistemas de geraÃ§Ã£o de eletricidade em Portugal. LALCA- Revista Latino Americana Em AvaliaÃ§Ã£o Do Ciclo De Vida, 2018, 2, 110-127.	0.3	3
114	Comparative assessment of environmental life-cycle-based tools: An application to particleboard. , 2011, , .		2
115	Environmental Life-Cycle Assessment of an Innovative Multifunctional Toilet. Energies, 2021, 14, 2307.	3.1	2
116	A Multiobjective Model for Biodiesel Blends Minimizing Cost and Greenhouse Gas Emissions. Lecture Notes in Computer Science, 2014, , 653-666.	1.3	2
117	Allocating Shadow Prices in a Multi-objective Chance Constrained Problem of Biodiesel Blending. Multiple Criteria Decision Making, 2018, , 133-149.	0.8	1
118	Environmental management of military ranges with the support of a life-cycle assessment approach. , 0, , 5-1-5-20.		1
119	Sustainable Rural Electrification: Harnessing a Cosmolocal Wind. Energies, 2022, 15, 4659.	3.1	1
120	Capturing uncertainty in GHG savings and carbon payback time of rapeseed oil displacing fossil diesel in Europe. , 2011, , .		0
121	Integrating the Sustainable Development Goals with the Water-Energy-Food Nexus: A Model for Agro-Industrial Companies. , 2021, , 46-53.		0
122	Life Cycle Activity Analysis: A Case Study of Plastic Panels. , 2002, , 323-352.		0