Otavio Cavalett

List of Publications by Year
in descending order

64 papers	3,541 citations	126708 33 h-index	138251 58 g-index
69 all docs	69 docs citations	69 times ranked	3642 citing authors

#	Article	IF	Citations
1	Integrated versus stand-alone second generation ethanol production from sugarcane bagasse and trash. Bioresource Technology, 2012, 103, 152-161.	4.8	294
2	Anaerobic digestion of vinasse from sugarcane biorefineries in Brazil from energy, environmental, and economic perspectives: Profit or expense?. Applied Energy, 2014, 113, 825-835.	5.1	238
3	Emergy assessment of integrated production systems of grains, pig and fish in small farms in the South Brazil. Ecological Modelling, 2006, 193, 205-224.	1.2	178
4	Sugarcane processing for ethanol and sugar in Brazil. Environmental Development, 2015, 15, 35-51.	1.8	177
5	Life Cycle Assessment of Poly(Lactic Acid) (PLA): Comparison Between Chemical Recycling, Mechanical Recycling and Composting. Journal of Polymers and the Environment, 2016, 24, 372-384.	2.4	153
6	Comparative LCA of ethanol versus gasoline in Brazil using different LCIA methods. International Journal of Life Cycle Assessment, 2013, 18, 647-658.	2.2	147
7	Biorefineries for the production of first and second generation ethanol and electricity from sugarcane. Applied Energy, 2013, 109, 72-78.	5.1	144
8	Environmental and economic assessment of sugarcane first generation biorefineries in Brazil. Clean Technologies and Environmental Policy, 2012, 14, 399-410.	2.1	136
9	Integrated environmental assessment of biodiesel production from soybean in Brazil. Journal of Cleaner Production, 2010, 18, 55-70.	4.6	128
10	Techno-economic and environmental assessment of renewable jet fuel production in integrated Brazilian sugarcane biorefineries. Applied Energy, 2018, 209, 290-305.	5.1	120
11	Techno-economic analysis and climate change impacts of sugarcane biorefineries considering different time horizons. Biotechnology for Biofuels, 2017, 10, 50.	6.2	113
12	Enhancing life cycle impact assessment from climate science: Review of recent findings and recommendations for application to LCA. Ecological Indicators, 2016, 71, 163-174.	2.6	108
13	Life cycle assessment of butanol production in sugarcane biorefineries in Brazil. Journal of Cleaner Production, 2015, 96, 557-568.	4.6	99
14	Emergy, nutrients balance, and economic assessment of soybean production and industrialization in Brazil. Journal of Cleaner Production, 2009, 17, 762-771.	4.6	90
15	Outlook for ethanol production costs in Brazil up to 2030, for different biomass crops and industrial technologies. Applied Energy, 2015, 147, 593-610.	5.1	89
16	Trends in global warming and human health impacts related to Brazilian sugarcane ethanol production considering black carbon emissions. Applied Energy, 2013, 104, 576-582.	5.1	85
17	Asserting the climate benefits of the coal-to-gas shift across temporal and spatial scales. Nature Climate Change, 2019, 9, 389-396.	8.1	85
18	Cogeneration in integrated first and second generation ethanol from sugarcane. Chemical Engineering Research and Design, 2013, 91, 1411-1417.	2.7	81

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19	Bridging the gap between impact assessment methods and climate science. Environmental Science and Policy, 2016, 64, 129-140.	2.4	69
20	The landâ€“energyâ€“water nexus of global bioenergy potentials from abandoned cropland. Nature Sustainability, 2021, 4, 525-536.	11.5	60
21	Brazilian Soybean Production: Emergy Analysis With an Expanded Scope. Bulletin of Science, Technology and Society, 2005, 25, 323-334.	1.1	57
22	Environmental and economic impacts of different sugarcane production systems in the ethanol biorefinery. Biofuels, Bioproducts and Biorefining, 2016, 10, 89-106.	1.9	55
23	Technical and economic assessment of trash recovery in the sugarcane bioenergy production system. Scientia Agricola, 2013, 70, 353-360.	0.6	53
24	Economic, environmental, and social impacts of different sugarcane production systems. Biofuels, Bioproducts and Biorefining, 2018, 12, 68-82.	1.9	53
25	Social life cycle assessment of first and second-generation ethanol production technologies in Brazil. International Journal of Life Cycle Assessment, 2018, 23, 617-628.	2.2	52
26	Techno-Economic and Environmental Assessment of Biomass Gasification and Fischerâ€“Tropsch Synthesis Integrated to Sugarcane Biorefineries. Energies, 2020, 13, 4576.	1.6	42
27	Optimal combination of bioenergy and solar photovoltaic for renewable energy production on abandoned cropland. Renewable Energy, 2021, 168, 45-56.	4.3	39
28	Sugarcane as a carbon source: The Brazilian case. Biomass and Bioenergy, 2012, 46, 5-12.	2.9	38
29	Butanol production in a sugarcane biorefinery using ethanol as feedstock. Part I: Integration to a first generation sugarcane distillery. Chemical Engineering Research and Design, 2014, 92, 1441-1451.	2.7	38
30	The Virtual Sugarcane Biorefineryâ€”A Simulation Tool to Support Public Policies Formulation in Bioenergy. Industrial Biotechnology, 2016, 12, 62-67.	0.5	38
31	Contribution of jet fuel from forest residues to multiple Sustainable Development Goals. Nature Sustainability, 2018, 1, 799-807.	11.5	37
32	Overview of recent landâ€cover changes in biodiversity hotspots. Frontiers in Ecology and the Environment, 2021, 19, 91-97.	1.9	36
33	A vertical integration simplified model for straw recovery as feedstock in sugarcane biorefineries. Biomass and Bioenergy, 2015, 81, 216-223.	2.9	34
34	Sugarcane ethanol and beef cattle integration in Brazil. Biomass and Bioenergy, 2019, 120, 448-457.	2.9	34
35	Butanol production in a sugarcane biorefinery using ethanol as feedstock. Part II: Integration to a second generation sugarcane distillery. Chemical Engineering Research and Design, 2014, 92, 1452-1462.	2.7	29
36	Hybrid Inputâ€Output Life Cycle Assessment of Firstâ€•and Secondâ€Generation Ethanol Production Technologies in Brazil. Journal of Industrial Ecology, 2016, 20, 764-774.	2.8	24

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37	Environmental impacts of technology learning curve for cellulosic ethanol in Brazil. Industrial Crops and Products, 2017, 106, 31-39.	2.5	22
38	Energy and Environmental Aspects of Using Eucalyptus from Brazil for Energy and Transportation Services in Europe. Sustainability, 2018, 10, 4068.	1.6	22
39	Life-cycle assessment to unravel co-benefits and trade-offs of large-scale biochar deployment in Norwegian agriculture. Resources, Conservation and Recycling, 2022, 179, 106030.	5.3	22
40	Identifying suitable areas for expanding sugarcane ethanol production in Brazil under conservation of environmentally relevant habitats. Journal of Cleaner Production, 2021, 292, 125318.	4.6	21
41	Climate change mitigation of drop-in biofuels for deep-sea shipping under a prospective life-cycle assessment. Journal of Cleaner Production, 2022, 364, 132662.	4.6	20
42	Participatory emergy synthesis of integrated food and biofuel production: a case study from Brazil. Environment, Development and Sustainability, 2012, 14, 167-182.	2.7	12
43	Assessment of lignocellulosic biorefineries in Germany using a hybrid LCA multiâ€objective optimization model. Journal of Industrial Ecology, 2019, 23, 1172-1185.	2.8	12
44	Advanced technologies for electricity production in the sugarcane value chain are a strategic option in a carbon reward policy context. Energy Policy, 2021, 159, 112637.	4.2	12
45	Unraveling the potential of sugarcane electricity for climate change mitigation in Brazil. Resources, Conservation and Recycling, 2021, 175, 105878.	5.3	11
46	Economic and environmental assessment of integrated 1st and 2nd generation sugarcane bioethanol production evaluating different 2nd generation process alternatives. Computer Aided Chemical Engineering, 2012, 30, 177-181.	0.3	10
47	Multiobjective optimization of economic and environmental performance of Fischer-Tropsch biofuels production integrated to sugarcane biorefineries. Industrial Crops and Products, 2021, 170, 113810.	2.5	10
48	Life Cycle Assessment of vinasse biogas production in sugarcane biorefineries. Computer Aided Chemical Engineering, 2017, , 2017-2022.	0.3	9
49	Towards Comparable Carbon Credits: Harmonization of LCA Models of Cellulosic Biofuels. Sustainability, 2021, 13, 10371.	1.6	8
50	Addressing the contributions of electricity from biomass in Brazil in the context of the Sustainable Development Goals using life cycle assessment methods. Journal of Industrial Ecology, 2022, 26, 980-995.	2.8	8
51	LCA and negative emission potential of retrofitted cement plants under oxyfuel conditions at high biogenic fuel shares. Scientific Reports, 2022, 12, .	1.6	8
52	Sustainability Assessment Methodologies. Green Energy and Technology, 2016, , 155-188.	0.4	7
53	A novel social life cycle assessment method for determining workersâ€™ human development: a case study of the sugarcane biorefineries in Brazil. International Journal of Life Cycle Assessment, 2021, 26, 2072-2084.	2.2	7
54	From political to climate crisis. Nature Climate Change, 2018, 8, 663-664.	8.1	6

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55	Opportunities and challenges for bioenergy-livestock integrated systems in Brazil. Industrial Crops and Products, 2021, 173, 114091.	2.5	6
56	Techno-economic and environmental assessment of bioenergy and livestock integrated systems in Brazil. Sustainable Production and Consumption, 2022, 32, 580-592.	5.7	6
57	Emergy and fair trade assessment of soybean production and processing in Brazil. Management of Environmental Quality, 2007, 18, 657-668.	2.2	5
58	The Agricultural Production Model. Green Energy and Technology, 2016, , 13-51.	0.4	5
59	The Role of Small-Scale Biofuel Production in Brazil: Lessons for Developing Countries. Agriculture (Switzerland), 2017, 7, 61.	1.4	5
60	Unraveling the role of biofuels in road transport under rapid electrification. Biofuels, Bioproducts and Biorefining, 0, , .	1.9	4
61	Techno-Economic Analysis of Second-Generation Ethanol in Brazil: Competitive, Complementary Aspects with First-Generation Ethanol. , 2014, , 1-29.		3
62	Environmental and economic assessment of the co-firing of the coal-bagassemixture in the Colombian sugarcane mills. Revista UIS IngenierÃas, 2019, 18, 77-88.	0.1	2
63	Evaluation of different cogeneration systems in first and second generation ethanol production from sugarcane. Computer Aided Chemical Engineering, 2012, , 172-176.	0.3	1
64	Simulating scenarios for compost and vinasse use to improve the economics and environmental aspects of representative Colombian sugarcane production systems. Renewable Agriculture and Food Systems, 2020, 35, 579-593.	0.8	1