# Diego Iribarren

List of Publications by Year
in descending order



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|---|---|---|---|
| 104 papers | 5,034 citations | 53794 45 h-index | 98798 67 g-index |
| 108 all docs | 108 docs citations | 108 times ranked | 4474 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Biomass Pyrolysis for Biochar or Energy Applications? A Life Cycle Assessment. Environmental Science & Technology, 2015, 49, 5195-5202. | 10.0 | 177 |
| 2 | Life cycle assessment of transportation fuels from biomass pyrolysis. Fuel, 2012, 97, 812-821. | 6.4 | 172 |
| 3 | Joint life cycle assessment and data envelopment analysis of grape production for vinification in the RÃas Baixas appellation (NW Spain). Journal of Cleaner Production, 2012, 27, 92-102. | 9.3 | 172 |
| 4 | A review of life-cycle approaches coupled with data envelopment analysis within multi-criteria decision analysis for sustainability assessment of energy systems. Journal of Cleaner Production, 2017, 150, 164-174. | 9.3 | 159 |
| 5 | Benchmarking environmental and operational parameters through eco-efficiency criteria for dairy farms. Science of the Total Environment, 2011, 409, 1786-1798. | 8.0 | 154 |
| 6 | The link between operational efficiency and environmental impacts. Science of the Total Environment, 2009, 407, 1744-1754. | 8.0 | 143 |
| 7 | Environmental and exergetic evaluation of hydrogen production via lignocellulosic biomass gasification. Journal of Cleaner Production, 2014, 69, 165-175. | 9.3 | 137 |
| 8 | Life-cycle performance of indirect biomass gasification as a green alternative to steam methane reforming for hydrogen production. International Journal of Hydrogen Energy, 2013, 38, 9961-9972. | 7.1 | 117 |
| 9 | Simulation and life cycle assessment of biofuel production via fast pyrolysis and hydroupgrading. Fuel, 2015, 139, 441-456. | 6.4 | 114 |
| 10 | Review of life-cycle environmental consequences of waste-to-energy solutions on the municipal solid waste management system. Resources, Conservation and Recycling, 2020, 157, 104778. | 10.8 | 112 |
| 11 | Life cycle assessment of biodiesel production from free fatty acid-rich wastes. Renewable Energy, 2012, 38, 155-162. | 8.9 | 106 |
| 12 | Further potentials in the joint implementation of life cycle assessment and data envelopment analysis. Science of the Total Environment, 2010, 408, 5265-5272. | 8.0 | 103 |
| 13 | Life cycle assessment of two alternative bioenergy systems involving Salix spp. biomass: Bioethanol production and power generation. Applied Energy, 2012, 95, 111-122. | 10.1 | 101 |
| 14 | A review of techno-economic data for road transportation fuels. Renewable and Sustainable Energy Reviews, 2019, 112, 11-26. | 16.4 | 93 |
| 15 | Life-cycle performance of hydrogen production via indirect biomass gasification with CO2 capture. International Journal of Hydrogen Energy, 2016, 41, 19484-19491. | 7.1 | 88 |
| 16 | Harmonised life-cycle global warming impact of renewable hydrogen. Journal of Cleaner Production, 2017, 149, 762-772. | 9.3 | 85 |
| 17 | On the feasibility of using emergy analysis as a source of benchmarking criteria through data envelopment analysis: A case study for wind energy. Energy, 2014, 67, 527-537. | 8.8 | 78 |
| 18 | Environmental impact efficiency in mussel cultivation. Resources, Conservation and Recycling, 2010, 54, 1269-1277. | 10.8 | 77 |

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|---|---|---|---|
| 19 | Life cycle sustainability assessment of hydrogen from biomass gasification: A comparison with conventional hydrogen. International Journal of Hydrogen Energy, 2019, 44, 21193-21203. | 7.1 | 73 |
| 20 | Carbon footprint of canned mussels from a business-to-consumer approach. A starting point for mussel processors and policy makers. Environmental Science and Policy, 2010, 13, 509-521. | 4.9 | 72 |
| 21 | Estimation of the carbon footprint of the Galician fishing activity (NW Spain). Science of the Total Environment, 2010, 408, 5284-5294. | 8.0 | 71 |
| 22 | Revisiting the Life Cycle Assessment of mussels from a sectorial perspective. Journal of Cleaner Production, 2010, 18, 101-111. | 9.3 | 70 |
| 23 | Life Cycle Assessment of fresh and canned mussel processing and consumption in Galicia (NW Spain). Resources, Conservation and Recycling, 2010, 55, 106-117. | 10.8 | 66 |
| 24 | On the environmental suitability of high- and low-enthalpy geothermal systems. Geothermics, 2015, 53, 27-37. | 3.4 | 65 |
| 25 | Comparative life cycle assessment of hydrogen-fuelled passenger cars. International Journal of Hydrogen Energy, 2021, 46, 35961-35973. | 7.1 | 64 |
| 26 | Revisiting the role of steam methane reforming with CO2 capture and storage for long-term hydrogen production. Science of the Total Environment, 2021, 771, 145432. | 8.0 | 64 |
| 27 | Robust eco-efficiency assessment of hydrogen from biomass gasification as an alternative to conventional hydrogen: A life-cycle study with and without external costs. Science of the Total Environment, 2019, 650, 1465-1475. | 8.0 | 61 |
| 28 | Prospective analysis of energy security: A practical life-cycle approach focused on renewable power generation and oriented towards policy-makers. Applied Energy, 2017, 190, 891-901. | 10.1 | 60 |
| 29 | Environmental benchmarking of wind farms according to their operational performance. Energy, 2013, 61, 589-597. | 8.8 | 57 |
| 30 | Life cycle assessment and data envelopment analysis approach for the selection of building components according to their environmental impact efficiency: a case study for external walls. Journal of Cleaner Production, 2015, 87, 707-716. | 9.3 | 57 |
| 31 | End of life of fuel cells and hydrogen products: From technologies to strategies. International Journal of Hydrogen Energy, 2019, 44, 20965-20977. | 7.1 | 57 |
| 32 | Prospective techno-economic and environmental assessment of a national hydrogen production mix for road transport. Applied Energy, 2020, 259, 114121. | 10.1 | 57 |
| 33 | Simulation and life cycle assessment of synthetic fuels produced via biogas dry reforming and Fischer-Tropsch synthesis. Fuel, 2019, 235, 1492-1500. | 6.4 | 56 |
| 34 | Integration of life-cycle indicators into energy optimisation models: the case study of power generation in Norway. Journal of Cleaner Production, 2016, 112, 2693-2696. | 9.3 | 55 |
| 35 | Energy balance and life cycle assessment of a microalgae-based wastewater treatment plant: A focus on alternative biogas uses. Bioresource Technology, 2018, 270, 138-146. | 9.6 | 55 |
| 36 | Environmental and thermodynamic evaluation of CO2 capture, transport and storage with and without enhanced resource recovery. Energy, 2013, 50, 477-485. | 8.8 | 54 |

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| 37 | Environmental impact efficiency of natural gas combined cycle power plants: A combined life cycle assessment and dynamic data envelopment analysis approach. Science of the Total Environment, 2018, 615, 29-37. | 8.0 | 53 |
| 38 | Implementing by-product management into the Life Cycle Assessment of the mussel sector. Resources, Conservation and Recycling, 2010, 54, 1219-1230. | 10.8 | 51 |
| 39 | Exergy analysis of hydrogen production via biogas dry reforming. International Journal of Hydrogen Energy, 2018, 43, 11688-11695. | 7.1 | 50 |
| 40 | Assessing the social acceptance of hydrogen for transportation in Spain: An unintentional focus on target population for a potential hydrogen economy. International Journal of Hydrogen Energy, 2016, 41, 5203-5208. | 7.1 | 48 |
| 41 | Computation of Operational and Environmental Benchmarks Within Selected Galician Fishing Fleets. Journal of Industrial Ecology, 2011, 15, 776-795. | 5.5 | 47 |
| 42 | Review of Life-Cycle Approaches Coupled with Data Envelopment Analysis: Launching the CFP + DEA Method for Energy Policy Making. Scientific World Journal, The, 2015, 2015, 1-10. | 2.1 | 47 |
| 43 | Assessing the Life-Cycle Performance of Hydrogen Production via Biofuel Reforming in Europe. Resources, 2015, 4, 398-411. | 3.5 | 45 |
| 44 | Delving into sensible measures to enhance the environmental performance of biohydrogen: A quantitative approach based on process simulation, life cycle assessment and data envelopment analysis. Bioresource Technology, 2016, 214, 376-385. | 9.6 | 45 |
| 45 | Harmonising the cumulative energy demand of renewable hydrogen for robust comparative life-cycle studies. Journal of Cleaner Production, 2018, 175, 384-393. | 9.3 | 45 |
| 46 | Comparative life cycle sustainability assessment of renewable and conventional hydrogen. Science of the Total Environment, 2021, 756, 144132. | 8.0 | 43 |
| 47 | Exergy analysis of alternative configurations of a system coproducing synthetic fuels and electricity via biomass gasification, Fischer-Tropsch synthesis and a combined-cycle scheme. Fuel, 2017, 194, 375-394. | 6.4 | 40 |
| 48 | Using harmonised life-cycle indicators to explore the role of hydrogen in the environmental performance of fuel cell electric vehicles. International Journal of Hydrogen Energy, 2020, 45, 25758-25765. | 7.1 | 39 |
| 49 | Screening of socio-economic indicators for sustainability assessment: a combined life cycle assessment and data envelopment analysis approach. International Journal of Life Cycle Assessment, 2016, 21, 202-214. | 4.7 | 38 |
| 50 | Life-cycle assessment of Fischerâ€“Tropsch products from biosyngas. Renewable Energy, 2013, 59, 229-236. | 8.9 | 36 |
| 51 | Prospective Analysis of Life-Cycle Indicators through Endogenous Integration into a National Power Generation Model. Resources, 2016, 5, 39. | 3.5 | 36 |
| 52 | Harmonising methodological choices in life cycle assessment of hydrogen: A focus on acidification and renewable hydrogen. International Journal of Hydrogen Energy, 2019, 44, 19426-19433. | 7.1 | 35 |
| 53 | Prospective carbon footprint comparison of hydrogen options. Science of the Total Environment, 2020, 728, 138212. | 8.0 | 34 |
| 54 | Sustainability-oriented efficiency of retail supply chains: A combination of Life Cycle Assessment and dynamic network Data Envelopment Analysis. Science of the Total Environment, 2020, 705, 135977. | 8.0 | 33 |

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| 55 | Updating the carbon footprint of the Galician fishing activity (NW Spain). Science of the Total Environment, 2011, 409, 1609-1611. | 8.0 | 32 |
| 56 | Potential environmental effects of probiotics used in aquaculture. Aquaculture International, 2012, 20, 779-789. | 2.2 | 32 |
| 57 | Long-term production technology mix of alternative fuels for road transport: A focus on Spain. Energy Conversion and Management, 2020, 226, 113498. | 9.2 | 31 |
| 58 | An integrated techno-economic, environmental and social assessment of the solar thermochemical fuel pathway. Sustainable Energy and Fuels, 2020, 4, 3992-4002. | 4.9 | 31 |
| 59 | Prospective energy security scenarios in Spain: The future role of renewable power generation technologies and climate change implications. Renewable Energy, 2018, 126, 202-209. | 8.9 | 30 |
| 60 | Combined use of Data Envelopment Analysis and Life Cycle Assessment for operational and environmental benchmarking in the service sector: A case study of grocery stores. Science of the Total Environment, 2019, 667, 799-808. | 8.0 | 30 |
| 61 | Is coal extension a sensible option for energy planning? A combined energy systems modelling and life cycle assessment approach. Energy Policy, 2018, 114, 413-421. | 8.8 | 29 |
| 62 | Long-term opportunities for electricity production through municipal solid waste incineration when internalising external costs. Journal of Cleaner Production, 2019, 215, 870-877. | 9.3 | 28 |
| 63 | Energy-socio-economic-environmental modelling for the EU energy and post-COVID-19 transitions. Science of the Total Environment, 2022, 805, 150329. | 8.0 | 27 |
| 64 | On the feasibility of producing hydrogen with net carbon fixation by the decomposition of vegetable and microalgal oils. Energy and Environmental Science, 2012, 5, 6126. | 30.8 | 26 |
| 65 | Life-cycle performance of hydrogen as an energy management solution in hydropower plants: A case study in Central Italy. International Journal of Hydrogen Energy, 2015, 40, 16660-16672. | 7.1 | 26 |
| 66 | How do methodological choices affect the carbon footprint of microalgal biodiesel? A harmonised life cycle assessment. Journal of Cleaner Production, 2019, 207, 560-568. | 9.3 | 24 |
| 67 | Life-cycle consequences of internalising socio-environmental externalities of power generation. Science of the Total Environment, 2018, 612, 386-391. | 8.0 | 23 |
| 68 | Preliminary assessment of plastic waste valorization via sequential pyrolysis and catalytic reforming. Journal of Material Cycles and Waste Management, 2012, 14, 301-307. | 3.0 | 22 |
| 69 | Is Labor a Suitable Input in LCA + DEA Studies? Insights on the Combined Use of Economic, Environmental and Social Parameters. Social Sciences, 2013, 2, 114-130. | 1.4 | 21 |
| 70 | Prospective Life Cycle Assessment of the Increased Electricity Demand Associated with the Penetration of Electric Vehicles in Spain. Energies, 2018, 11, 1185. | 3.1 | 20 |
| 71 | A protocol for the definition of supply chains in product social life cycle assessment: application to bioelectricity. Sustainable Energy and Fuels, 2020, 4, 5533-5542. | 4.9 | 20 |
| 72 | A taxonomy of models for investigating hydrogen energy systems. Renewable and Sustainable Energy Reviews, 2022, 167, 112698. | 16.4 | 19 |

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| 73 | Efficiency assessment of diets in the Spanish regions: A multi-criteria cross-cutting approach. Journal of Cleaner Production, 2020, 242, 118491. | 9.3 | 18 |
| 74 | Life cycle assessment of volatile fatty acids production from protein- and carbohydrate-rich organic wastes. Bioresource Technology, 2021, 321, 124528. | 9.6 | 16 |
| 75 | Social life cycle assessment of green methanol and benchmarking against conventional fossil methanol. Science of the Total Environment, 2022, 824, 153840. | 8.0 | 16 |
| 76 | Sustainability-oriented management of retail stores through the combination of life cycle assessment and dynamic data envelopment analysis. Science of the Total Environment, 2019, 683, 49-60. | 8.0 | 15 |
| 77 | Influence of climate change externalities on the sustainability-oriented prioritisation of prospective energy scenarios. Energy, 2020, 196, 117179. | 8.8 | 15 |
| 78 | Lifeâ€cycle performance of natural gas power plants with preâ€combustion CO<sub>2</sub> capture. , 2015, 5, 268-276. | | 14 |
| 79 | Dynamic Ecocentric Assessment Combining Emergy and Data Envelopment Analysis: Application to Wind Farms. Resources, 2016, 5, 8. | 3.5 | 13 |
| 80 | Life cycle sustainability assessment of synthetic fuels from date palm waste. Science of the Total Environment, 2021, 796, 148961. | 8.0 | 13 |
| 81 | Life Cycle Costing and Eco-Efficiency Assessment of Fuel Production by Coprocessing Biomass in Crude Oil Refineries. Energies, 2019, 12, 4664. | 3.1 | 12 |
| 82 | Sensitivity of operational and environmental benchmarks of retail stores to decision-makers' preferences through Data Envelopment Analysis. Science of the Total Environment, 2020, 718, 137330. | 8.0 | 12 |
| 83 | Enhanced prioritisation of prospective scenarios for power generation in Spain: How and which one?. Energy, 2019, 169, 369-379. | 8.8 | 11 |
| 84 | Harmonised carbon and energy footprints of fossil hydrogen. International Journal of Hydrogen Energy, 2021, 46, 17587-17594. | 7.1 | 11 |
| 85 | Comparative Social Life Cycle Assessment of Two Biomass-to-Electricity Systems. International Journal of Environmental Research and Public Health, 2021, 18, 4918. | 2.6 | 11 |
| 86 | Thermodynamic, economic and environmental assessment of energy systems including the use of gas from manure fermentation in the context of the Spanish potential. Energy, 2020, 200, 117452. | 8.8 | 10 |
| 87 | Hourly marginal electricity mixes and their relevance for assessing the environmental performance of installations with variable load or power. Science of the Total Environment, 2022, 843, 156963. | 8.0 | 10 |
| 88 | Modeling, simulation and lifeâ€cycle assessment of the use of bioâ€oil and char in conventional refineries. Biofuels, Bioproducts and Biorefining, 2020, 14, 30-42. | 3.7 | 9 |
| 89 | Life cycle assessment of pyrolysis oil applications. Biomass Conversion and Biorefinery, 2015, 5, 1. | 4.6 | 7 |
| 90 | Coupled life cycle thinking and data envelopment analysis for quantitative sustainability improvement. , 2021, , 295-320. | | 6 |

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| 91 | Definition, assessment and prioritisation of strategies to mitigate social life-cycle impacts across the supply chain of bioelectricity: A case study in Portugal. Renewable Energy, 2022, 194, 1110-1118. | 8.9 | 6 |
| 92 | Techno-economic comparison of optimized natural gas combined cycle power plants with CO2 capture. Energy, 2022, 255, 124617. | 8.8 | 6 |
| 93 | Harmonised life-cycle indicators of nuclear-based hydrogen. International Journal of Hydrogen Energy, 2020, 46, 29724-29724. | 7.1 | 5 |
| 94 | Validation of GreenH2armonyÂ® as a Tool for the Computation of Harmonised Life-Cycle Indicators of Hydrogen. Energies, 2020, 13, 1603. | 3.1 | 5 |
| 95 | Lessons for regional energy modelling: enhancing demand-side transport and residential policies in Madrid. Regional Studies, 2019, 53, 826-837. | 4.4 | 3 |
| 96 | Social Life Cycle Assessment of a Proton Exchange Membrane Fuel Cell stack. E3S Web of Conferences, 2022, 334, 09001. | 0.5 | 3 |
| 97 | Cumulative Energy Demand of Hydrogen Energy Systems. Environmental Footprints and Eco-design of Products and Processes, 2019, , 47-75. | 1.1 | 2 |
| 98 | Towards Energy Self-sufficiency in Large Metropolitan Areas: Business Opportunities on Renewable Electricity in Madrid. , 2018, , 17-31. | | 1 |
| 99 | Potentials and Limitations of Combined Life Cycle Approaches and Multi-dimensional Assessment. , 2018, , 313-316. | | 1 |
| 100 | Life cycle assessment of trigeneration plants. , 2020, , 125-139. | | 1 |
| 101 | Enhancing the Economic Dimension of LCA + DEA Studies for Sustainability Assessment. , 0, , . | | 1 |
| 102 | Prospective Assessment of the Carbon Footprint of a National Power Generation System. Environmental Footprints and Eco-design of Products and Processes, 2019, , 1-17. | 1.1 | 1 |
| 103 | Methodology for Carbon Footprint Calculation in Crop and Livestock Production. , 2015, , 80-103. | | 0 |
| 104 | Carbon Footprint as a Single Indicator in Energy Systems: The Case of BiofuelsÂand CO2 Capture Technologies. Ecoproduction, 2014, , 81-104. | 0.8 | 0 |