

Jo Dewulf

List of Publications by Year in descending order

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Version: 2024-02-01

123
papers

5,368
citations

87888

38
h-index

91884

69
g-index

132
all docs

132
docs citations

132
times ranked

5487
citing authors

#	ARTICLE	IF	CITATIONS
1	Circular economy indicators: What do they measure?. Resources, Conservation and Recycling, 2019, 146, 452-461.	10.8	591
2	Fluoroquinolone antibiotics: An emerging class of environmental micropollutants. Science of the Total Environment, 2014, 500-501, 250-269.	8.0	526
3	Performance indicators for a circular economy: A case study on post-industrial plastic waste. Resources, Conservation and Recycling, 2017, 120, 46-54.	10.8	286
4	Exergy: Its Potential and Limitations in Environmental Science and Technology. Environmental Science & Technology, 2008, 42, 2221-2232.	10.0	270
5	A critical review of resource recovery from municipal wastewater treatment plants " market supply potentials, technologies and bottlenecks. Environmental Science: Water Research and Technology, 2020, 6, 877-910.	2.4	228
6	Heterogeneous Photocatalysis as an Advanced Oxidation Process for the Abatement of Chlorinated, Monocyclic Aromatic and Sulfurous Volatile Organic Compounds in Air: State of the Art. Critical Reviews in Environmental Science and Technology, 2007, 37, 489-538.	12.8	181
7	Detailed Analysis of the Composition of Selected Plastic Packaging Waste Products and Its Implications for Mechanical and Thermochemical Recycling. Environmental Science & Technology, 2020, 54, 13282-13293.	10.0	149
8	A review of methods and data to determine raw material criticality. Resources, Conservation and Recycling, 2020, 155, 104617.	10.8	137
9	Rethinking the Area of Protection "Natural Resources" in Life Cycle Assessment. Environmental Science & Technology, 2015, 49, 5310-5317.	10.0	116
10	Resource savings by urban mining: The case of desktop and laptop computers in Belgium. Resources, Conservation and Recycling, 2016, 107, 53-64.	10.8	106
11	Exergy-based accounting for land as a natural resource in life cycle assessment. International Journal of Life Cycle Assessment, 2013, 18, 939-947.	4.7	104
12	Modeling the anaerobic digestion of cane-molasses vinasse: Extension of the Anaerobic Digestion Model No. 1 (ADM1) with sulfate reduction for a very high strength and sulfate rich wastewater. Water Research, 2015, 71, 42-54.	11.3	99
13	Mineral resources in life cycle impact assessment"part I: a critical review of existing methods. International Journal of Life Cycle Assessment, 2020, 25, 784-797.	4.7	95
14	Using material flow analysis and life cycle assessment in decision support: A case study on WEEE valorization in Belgium. Resources, Conservation and Recycling, 2019, 142, 1-9.	10.8	85
15	Mineral resources in life cycle impact assessment: part II " recommendations on application-dependent use of existing methods and on future method development needs. International Journal of Life Cycle Assessment, 2020, 25, 798-813.	4.7	84
16	Accounting for land use in life cycle assessment: The value of NPP as a proxy indicator to assess land use impacts on ecosystems. Science of the Total Environment, 2016, 550, 143-156.	8.0	83
17	Design from recycling: A complex mixed plastic waste case study. Resources, Conservation and Recycling, 2020, 155, 104646.	10.8	83
18	Effect of liquid hot water pre-treatment on sugarcane press mud methane yield. Bioresource Technology, 2014, 169, 284-290.	9.6	74

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19	Advancing circular economy benefit indicators and application on open-loop recycling of mixed and contaminated plastic waste fractions. <i>Journal of Cleaner Production</i> , 2019, 211, 1-13.	9.3	73
20	Towards harmonizing natural resources as an area of protection in life cycle impact assessment. <i>International Journal of Life Cycle Assessment</i> , 2017, 22, 1912-1927.	4.7	70
21	Environmental sustainability of conventional and organic farming: Accounting for ecosystem services in life cycle assessment. <i>Science of the Total Environment</i> , 2019, 695, 133841.	8.0	65
22	Criticality on the international scene: Quo vadis?. <i>Resources Policy</i> , 2016, 50, 169-176.	9.6	64
23	Assessment of the sustainability of technology by means of a thermodynamically based life cycle analysis. <i>Environmental Science and Pollution Research</i> , 2002, 9, 267-273.	5.3	59
24	Environmental life cycle assessment of grain maize production: An analysis of factors causing variability. <i>Science of the Total Environment</i> , 2016, 553, 551-564.	8.0	59
25	Moving from linear to circular household plastic packaging in Belgium: Prospective life cycle assessment of mechanical and thermochemical recycling. <i>Resources, Conservation and Recycling</i> , 2021, 171, 105633.	10.8	59
26	A Holistic Sustainability Framework for Waste Management in European Cities: Concept Development. <i>Sustainability</i> , 2018, 10, 2184.	3.2	54
27	Environmental sustainability assessment of a microalgae raceway pond treating aquaculture wastewater: From up-scaling to system integration. <i>Bioresource Technology</i> , 2015, 190, 321-331.	9.6	47
28	Co-digestion of rice straw and cow dung to supply cooking fuel and fertilizers in rural India: Impact on human health, resource flows and climate change. <i>Science of the Total Environment</i> , 2017, 609, 1600-1615.	8.0	47
29	The sulfur chain in biogas production from sulfate-rich liquid substrates: a review on dynamic modeling with vinasse as model substrate. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 1405-1420.	3.2	46
30	Material flow analysis for management of waste TVs from households in urban areas of Vietnam. <i>Resources, Conservation and Recycling</i> , 2018, 139, 78-89.	10.8	46
31	Quantitative sustainability assessment of household food waste management in the Amsterdam Metropolitan Area. <i>Resources, Conservation and Recycling</i> , 2020, 160, 104854.	10.8	45
32	Exergetic sustainability assessment of batch versus continuous wet granulation based pharmaceutical tablet manufacturing: a cohesive analysis at three different levels. <i>Green Chemistry</i> , 2013, 15, 3039.	9.0	43
33	Ecological Footprints and Biocapacity: Essential Elements in Sustainability Assessment. , 2006, , 143-157.		42
34	Development and application of a predictive modelling approach for household packaging waste flows in sorting facilities. <i>Waste Management</i> , 2021, 120, 290-302.	7.4	42
35	Accounting for the occupation of the marine environment as a natural resource in life cycle assessment: An exergy based approach. <i>Resources, Conservation and Recycling</i> , 2014, 91, 1-10.	10.8	41
36	Environmental impact of non-certified versus certified (ASC) intensive <i>Pangasius</i> aquaculture in Vietnam, a comparison based on a statistically supported LCA. <i>Environmental Pollution</i> , 2016, 219, 156-165.	7.5	41

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37	Towards a more direct policy feedback in circular economy monitoring via a societal needs perspective. <i>Resources, Conservation and Recycling</i> , 2019, 149, 363-371.	10.8	41
38	Quantifying the impacts of primary metal resource use in life cycle assessment based on recent mining data. <i>Resources, Conservation and Recycling</i> , 2013, 73, 180-187.	10.8	40
39	Toward an Overall Analytical Framework for the Integrated Sustainability Assessment of the Production and Supply of Raw Materials and Primary Energy Carriers. <i>Journal of Industrial Ecology</i> , 2015, 19, 963-977.	5.5	40
40	Towards a comprehensive sustainability methodology to assess anthropogenic impacts on ecosystems: Review of the integration of Life Cycle Assessment, Environmental Risk Assessment and Ecosystem Services Assessment. <i>Science of the Total Environment</i> , 2022, 808, 152125.	8.0	35
41	Heterogeneous photocatalysis of moxifloxacin in water: Chemical transformation and ecotoxicity. <i>Chemosphere</i> , 2015, 119, S75-S80.	8.2	34
42	Microstructural Contributions of Different Polyolefins to the Deformation Mechanisms of Their Binary Blends. <i>Polymers</i> , 2020, 12, 1171.	4.5	34
43	Challenges and recommendations for environmental sustainability assessments of pharmaceutical products in the healthcare sector. <i>Green Chemistry</i> , 2017, 19, 3493-3509.	9.0	33
44	Abiotic resource use in life cycle impact assessment – Part I- towards a common perspective. <i>Resources, Conservation and Recycling</i> , 2020, 154, 104596.	10.8	33
45	Volatile organic compounds in an urban environment: a comparison among Belgium, Vietnam and Ethiopia. <i>International Journal of Environmental Analytical Chemistry</i> , 2013, 93, 298-314.	3.3	31
46	Towards sustainable resource management: identification and quantification of human actions that compromise the accessibility of metal resources. <i>Resources, Conservation and Recycling</i> , 2021, 167, 105403.	10.8	30
47	Expanding the collection portfolio of plastic packaging: Impact on quantity and quality of sorted plastic waste fractions. <i>Resources, Conservation and Recycling</i> , 2022, 178, 106025.	10.8	29
48	Quantifying the environmental impacts of a European citizen through a macro-economic approach, a focus on climate change and resource consumption. <i>Journal of Cleaner Production</i> , 2016, 124, 217-225.	9.3	26
49	Multivariate input-output and material flow analysis of current and future plastic recycling rates from waste electrical and electronic equipment: The case of small household appliances. <i>Resources, Conservation and Recycling</i> , 2021, 174, 105772.	10.8	25
50	Analysis of the Cultured Meat Production System in Function of Its Environmental Footprint: Current Status, Gaps and Recommendations. <i>Foods</i> , 2021, 10, 2941.	4.3	24
51	Using the product environmental footprint for supply chain management: lessons learned from a case study on pork. <i>International Journal of Life Cycle Assessment</i> , 2017, 22, 1354-1372.	4.7	23
52	Estimation of the Unregistered Inflow of Electrical and Electronic Equipment to a Domestic Market: A Case Study on Televisions in Vietnam. <i>Environmental Science & Technology</i> , 2016, 50, 2424-2433.	10.0	21
53	Top-down characterization of resource use in LCA: from problem definition of resource use to operational characterization factors for dissipation of elements to the environment. <i>International Journal of Life Cycle Assessment</i> , 2020, 25, 2255-2273.	4.7	21
54	Global land use impacts on biomass production – a spatial-differentiated resource-related life cycle impact assessment method. <i>International Journal of Life Cycle Assessment</i> , 2015, 20, 440-450.	4.7	20

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55	Cobalt in end-of-life products in the EU, where does it end up? - The MaTrace approach. <i>Resources, Conservation and Recycling</i> , 2020, 158, 104842.	10.8	20
56	Abiotic resource use in life cycle impact assessmentâ€”Part II â€” Linking perspectives and modelling concepts. <i>Resources, Conservation and Recycling</i> , 2020, 155, 104595.	10.8	20
57	Greater circularity leads to lower criticality, and other links between criticality and the circular economy. <i>Resources, Conservation and Recycling</i> , 2020, 159, 104718.	10.8	19
58	Sustainability assessment of organic waste management in three EU Cities: Analysing stakeholder-based solutions. <i>Waste Management</i> , 2021, 132, 44-55.	7.4	19
59	Data quality assessment framework for critical raw materials. The case of cobalt. <i>Resources, Conservation and Recycling</i> , 2020, 157, 104564.	10.8	18
60	Development of circularity indicators based on the in-use occupation of materials. <i>Journal of Cleaner Production</i> , 2021, 279, 123889.	9.3	18
61	The SPPD-WRF Framework: A Novel and Holistic Methodology for Strategic Planning and Process Design of Water Resource Factories. <i>Sustainability</i> , 2020, 12, 4168.	3.2	17
62	Life cycle assessment of edible insects (<i>Protaetia brevitarsis seulensis</i> larvae) as a future protein and fat source. <i>Scientific Reports</i> , 2021, 11, 14030.	3.3	17
63	What gets measured gets managed â€” does it? Uncovering the waste electrical and electronic equipment flows in the European Union. <i>Resources, Conservation and Recycling</i> , 2022, 181, 106222.	10.8	17
64	Oxygen transport within the biofilm matrix of a membrane biofilm reactor treating gaseous toluene. <i>Journal of Chemical Technology and Biotechnology</i> , 2012, 87, 751-757.	3.2	16
65	Resource efficiency indicators to assess circular economy strategies: A case study on four materials in laptops. <i>Resources, Conservation and Recycling</i> , 2022, 178, 106099.	10.8	16
66	Exergy-Based Efficiency Analysis of Pyrometallurgical Processes. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2010, 41, 1205-1219.	2.1	15
67	Inferring time-variable effects of nutrient enrichment on marine ecosystems using inverse modelling and ecological network analysis. <i>Science of the Total Environment</i> , 2014, 493, 708-718.	8.0	15
68	Environmental sustainability assessment of renewablesâ€”based propylene glycol at full industrial scale production. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 1808-1815.	3.2	15
69	Human health benefits and burdens of a pharmaceutical treatment: Discussion of a conceptual integrated approach. <i>Environmental Research</i> , 2016, 144, 19-31.	7.5	14
70	Environmental sustainability assessment of the manufacturing process of a biological active pharmaceutical ingredient. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 1937-1944.	3.2	14
71	Impact of consumer behaviour on the environmental sustainability profile of food production and consumption chains â€” a case study on chicken meat. <i>Resources, Conservation and Recycling</i> , 2022, 178, 106089.	10.8	14
72	Microbial community dynamics reflect reactor stability during the anaerobic digestion of a very high strength and sulfateâ€”rich vinasse. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 975-984.	3.2	13

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73	Quantification of the global and regional impacts of gas flaring on human health via spatial differentiation. <i>Environmental Pollution</i> , 2021, 291, 118213.	7.5	13
74	Material system analysis: A novel multilayer system approach to correlate EU flows and stocks of Li-ion batteries and their raw materials. <i>Journal of Industrial Ecology</i> , 2022, 26, 1261-1276.	5.5	13
75	Analysis of long-term statistical data of cobalt flows in the EU. <i>Resources, Conservation and Recycling</i> , 2021, 173, 105690.	10.8	12
76	Toward a Framework for Resource Efficiency Evaluation in Industry: Recommendations for Research and Innovation Projects. <i>Resources</i> , 2017, 6, 5.	3.5	11
77	Human health benefit and burden of the schizophrenia health care pathway in Belgium: paliperidone palmitate long-acting injections. <i>BMC Health Services Research</i> , 2019, 19, 393.	2.2	11
78	Towards product-oriented sustainability in the (primary) metal supply sector. <i>Resources, Conservation and Recycling</i> , 2019, 145, 40-48.	10.8	11
79	Dynamic capillary diffusion system for monoterpene and sesquiterpene calibration: quantitative measurement and determination of physical properties. <i>International Journal of Environmental Analytical Chemistry</i> , 2013, 93, 637-649.	3.3	10
80	How to integrate nutritional recommendations and environmental policy targets at the meal level: A university canteen example. <i>Sustainable Production and Consumption</i> , 2020, 21, 120-131.	11.0	10
81	Understanding Attitudes towards Renewable Energy Technologies and the Effect of Local Experiences. <i>Energies</i> , 2021, 14, 7596.	3.1	10
82	Life Cycle Assessment as an Environmental Sustainability Tool. , 2006, , 87-110.		9
83	Re-evaluating Primary Biotic Resource Use for Marine Biomass Production: A New Calculation Framework. <i>Environmental Science & Technology</i> , 2015, 49, 11586-11593.	10.0	9
84	Prospective material and substance flow analysis of the end-of-life phase of crystalline silicon-based PV modules. <i>Resources, Conservation and Recycling</i> , 2022, 176, 105917.	10.8	9
85	Introduction of a natural resource balance indicator to assess soil organic carbon management: Agricultural Biomass Productivity Benefit. <i>Journal of Environmental Management</i> , 2018, 224, 202-214.	7.8	8
86	The environmental impact of household's water use: A case study in Flanders assessing various water sources, production methods and consumption patterns. <i>Science of the Total Environment</i> , 2021, 770, 145398.	8.0	8
87	Life cycle assessment and energy comparison of aseptic ohmic heating and appertization of chopped tomatoes with juice. <i>Scientific Reports</i> , 2021, 11, 13041.	3.3	8
88	The Sustainable Process Index (SPI). , 2006, , 159-172.		7
89	Net Energy Balancing and Fuel-Cycle Analysis. , 2006, , 73-86.		7
90	Analysis of a pharmaceutical batch freeze dryer: resource consumption, hotspots, and factors for potential improvement. <i>Drying Technology</i> , 2019, 37, 1563-1582.	3.1	7

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91	Assessment of Biofuels. , 2006, , 231-245.		6
92	Sustainability Performance Indicators. , 2006, , 39-53.		6
93	A successful strategy for start-up of a laboratory-scale UASB reactor treating sulfate-rich sugar cane vinasse. Journal of Chemical Technology and Biotechnology, 2020, 95, 205-212.	3.2	6
94	Retrospective and prospective material flow analysis of the post-consumer plastic packaging waste management system in Flanders. Waste Management, 2022, 147, 10-21.	7.4	6
95	Assessment of Sustainable Land Use in Producing Biomass. , 2006, , 173-192.		5
96	Oleochemical and Petrochemical Surfactants: An Overall Assessment. , 2006, , 265-279.		5
97	Accelerated solid-phase dynamic extraction for the analysis of biogenic volatile organic compounds in air. International Journal of Environmental Analytical Chemistry, 2011, 91, 1206-1217.	3.3	5
98	Modeling Fossil Energy Demands of Primary Nonferrous Metal Production: The Case of Copper. Environmental Science & Technology, 2013, 47, 13917-13924.	10.0	5
99	The public health benefit and burden of mass drug administration programs in Vietnamese schoolchildren: Impact of mebendazole. PLoS Neglected Tropical Diseases, 2018, 12, e0006954.	3.0	5
100	Development of a life cycle impact assessment framework accounting for biodiversity in deep seafloor ecosystems: A case study on the Clarion Clipperton Fracture Zone. Science of the Total Environment, 2021, 770, 144747.	8.0	5
101	Consumer and Food Product Determinants of Food Wasting: A Case Study on Chicken Meat. Sustainability, 2021, 13, 7027.	3.2	5
102	A critical review of criticality methods for a European Life Cycle Sustainability Assessment. Procedia CIRP, 2022, 105, 428-433.	1.9	5
103	Environmental Performance Assessment of a Novel Process Concept for Propanol Production from Widely Available and Wasted Methane Sources. Industrial & Engineering Chemistry Research, 2022, 61, 11071-11079.	3.7	5
104	Material system analysis: Functional and nonfunctional cobalt in the EU, 2012-2016. Journal of Industrial Ecology, 2022, 26, 1277-1293.	5.5	5
105	Assessment of Bio-Based Pharmaceuticals: The Cephalexin Case. , 2006, , 315-329.		4
106	Quantifying the primary biotic resource use by fisheries: A global assessment. Science of the Total Environment, 2020, 719, 137352.	8.0	4
107	Assessment of Biotechnology-Based Chemicals. , 2006, , 299-313.		3
108	A multi-stakeholder and interdisciplinary approach to waste management and circular economy: The case of Flanders and Ghent, Belgium. European Spatial Research and Policy, 2020, 27, 43-57.	0.4	3

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109	Long-term retrospective analysis of the societal metabolism of cobalt in the European Union. Journal of Cleaner Production, 2022, 338, 130437.	9.3	3
110	Statistical entropy of resources using a categorization tree for material enumeration: Framework development and application to a plastic packaging case study. Resources, Conservation and Recycling, 2022, 181, 106259.	10.8	3
111	The Contribution of Renewables to Society. , 2006, , 1-18.		2
112	Assessment of the Energy Production Industry: Modern Options for Producing Secondary Energy Carriers from Biomass. , 2006, , 209-230.		2
113	Assessment of Organic Waste Treatment. , 2006, , 247-263.		2
114	Assessment of Bio-Based Packaging Materials. , 2006, , 281-297.		2
115	Quantifying the handprintâ€™Footprint balance into a single score: The example of pharmaceuticals. PLoS ONE, 2020, 15, e0229235.	2.5	2
116	Introduction to the special issue â€œSustainability Issues of Food Processing and Packaging: the Role of Life Cycle Assessmentâ€• International Journal of Life Cycle Assessment, 2021, 26, 726-737.	4.7	2
117	Tracking the Fate of Aluminium in the EU Using the MaTrace Model. Resources, 2021, 10, 72.	3.5	2
118	The Potential of Renewables as a Feedstock for Chemistry and Energy. , 2006, , 19-37.		1
119	Exergy. , 2006, , 111-125.		1
120	Assessment of the Forest Products Industries. , 2006, , 193-208.		0
121	Life Cycle Inventory Analysis Applied to Renewable Resources. , 2006, , 55-72.		0
122	Material Flow Analysis and the Use of Renewables from a Systems Perspective. , 2006, , 127-142.		0
123	Biogas production from biowaste in Kenya and its contribution to environmental sustainability. Afrika Focus, 2012, 25, 91-93.	0.2	0