

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	Prospective material and substance flow analysis of the end-of-life phase of crystalline silicon-based PV modules. Resources, Conservation and Recycling, 2022, 176, 105917.	10.8	9
2	Expanding the collection portfolio of plastic packaging: Impact on quantity and quality of sorted plastic waste fractions. Resources, Conservation and Recycling, 2022, 178, 106025.	10.8	29
3	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. Science of the Total Environment, 2022, 808, 152125.	8.0	35
4	Impact of consumer behaviour on the environmental sustainability profile of food production and consumption chains – a case study on chicken meat. Resources, Conservation and Recycling, 2022, 178, 106089.	10.8	14
5	Resource efficiency indicators to assess circular economy strategies: A case study on four materials in laptops. Resources, Conservation and Recycling, 2022, 178, 106099.	10.8	16
6	Long-term retrospective analysis of the societal metabolism of cobalt in the European Union. Journal of Cleaner Production, 2022, 338, 130437.	9.3	3
7	What gets measured gets managed – does it? Uncovering the waste electrical and electronic equipment flows in the European Union. Resources, Conservation and Recycling, 2022, 181, 106222.	10.8	17
8	A critical review of criticality methods for a European Life Cycle Sustainability Assessment. Procedia CIRP, 2022, 105, 428-433.	1.9	5
9	Material system analysis: A novel multilayer system approach to correlate EU flows and stocks of Li-ion batteries and their raw materials. Journal of Industrial Ecology, 2022, 26, 1261-1276.	5.5	13
10	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
11	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
12	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
13	Material system analysis: Functional and nonfunctional cobalt in the EU, 2012–2016. Journal of Industrial Ecology, 2022, 26, 1277-1293.	5.5	5
14	Development of circularity indicators based on the in-use occupation of materials. Journal of Cleaner Production, 2021, 279, 123889.	9.3	18
15	Development and application of a predictive modelling approach for household packaging waste flows in sorting facilities. Waste Management, 2021, 120, 290-302.	7.4	42
16	Introduction to the special issue – Sustainability Issues of Food Processing and Packaging: the Role of Life Cycle Assessment – International Journal of Life Cycle Assessment, 2021, 26, 726-737.	4.7	2
17	Towards sustainable resource management: identification and quantification of human actions that compromise the accessibility of metal resources. Resources, Conservation and Recycling, 2021, 167, 105403.	10.8	30
18	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

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19	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
20	Consumer and Food Product Determinants of Food Wasting: A Case Study on Chicken Meat. <i>Sustainability</i> , 2021, 13, 7027.	3.2	5
21	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
22	Tracking the Fate of Aluminium in the EU Using the MaTrace Model. <i>Resources</i> , 2021, 10, 72.	3.5	2
23	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
24	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
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	Analysis of long-term statistical data of cobalt flows in the EU. <i>Resources, Conservation and Recycling</i> , 2021, 173, 105690.	10.8	12
27	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
28	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
29	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
30	Understanding Attitudes towards Renewable Energy Technologies and the Effect of Local Experiences. <i>Energies</i> , 2021, 14, 7596.	3.1	10
31	A successful strategy for start-up of a laboratory-scale UASB reactor treating sulfate-rich sugar cane vinasse. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 205-212.	3.2	6
32	Design from recycling: A complex mixed plastic waste case study. <i>Resources, Conservation and Recycling</i> , 2020, 155, 104646.	10.8	83
33	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
34	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
35	Detailed Analysis of the Composition of Selected Plastic Packaging Waste Products and Its Implications for Mechanical and Thermochemical Recycling. <i>Environmental Science & Technology</i> , 2020, 54, 13282-13293.	10.0	149
36	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

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37	The SPPD-WRF Framework: A Novel and Holistic Methodology for Strategical Planning and Process Design of Water Resource Factories. Sustainability, 2020, 12, 4168.	3.2	17
38	Cobalt in end-of-life products in the EU, where does it end up? - The MaTrace approach. Resources, Conservation and Recycling, 2020, 158, 104842.	10.8	20
39	Abiotic resource use in life cycle impact assessmentâ€™Part II â€™ Linking perspectives and modelling concepts. Resources, Conservation and Recycling, 2020, 155, 104595.	10.8	20
40	Data quality assessment framework for critical raw materials. The case of cobalt. Resources, Conservation and Recycling, 2020, 157, 104564.	10.8	18
41	Quantifying the primary biotic resource use by fisheries: A global assessment. Science of the Total Environment, 2020, 719, 137352.	8.0	4
42	Mineral resources in life cycle impact assessment: part II â€™ 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
43	Quantifying the handprintâ€™Footprint balance into a single score: The example of pharmaceuticals. PLoS ONE, 2020, 15, e0229235.	2.5	2
44	A review of methods and data to determine raw material criticality. Resources, Conservation and Recycling, 2020, 155, 104617.	10.8	137
45	A critical review of resource recovery from municipal wastewater treatment plants â€™ market supply potentials, technologies and bottlenecks. Environmental Science: Water Research and Technology, 2020, 6, 877-910.	2.4	228
46	Mineral resources in life cycle impact assessmentâ€™part I: a critical review of existing methods. International Journal of Life Cycle Assessment, 2020, 25, 784-797.	4.7	95
47	Greater circularity leads to lower criticality, and other links between criticality and the circular economy. Resources, Conservation and Recycling, 2020, 159, 104718.	10.8	19
48	Quantitative sustainability assessment of household food waste management in the Amsterdam Metropolitan Area. Resources, Conservation and Recycling, 2020, 160, 104854.	10.8	45
49	Microstructural Contributions of Different Polyolefins to the Deformation Mechanisms of Their Binary Blends. Polymers, 2020, 12, 1171.	4.5	34
50	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
51	Environmental sustainability of conventional and organic farming: Accounting for ecosystem services in life cycle assessment. Science of the Total Environment, 2019, 695, 133841.	8.0	65
52	Environmental sustainability assessment of renewablesâ€™based propylene glycol at full industrial scale production. Journal of Chemical Technology and Biotechnology, 2019, 94, 1808-1815.	3.2	15
53	Human health benefit and burden of the schizophrenia health care pathway in Belgium: paliperidone palmitate long-acting injections. BMC Health Services Research, 2019, 19, 393.	2.2	11
54	Towards a more direct policy feedback in circular economy monitoring via a societal needs perspective. Resources, Conservation and Recycling, 2019, 149, 363-371.	10.8	41

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55	Circular economy indicators: What do they measure?. Resources, Conservation and Recycling, 2019, 146, 452-461.	10.8	591
56	Towards product-oriented sustainability in the (primary) metal supply sector. Resources, Conservation and Recycling, 2019, 145, 40-48.	10.8	11
57	Environmental sustainability assessment of the manufacturing process of a biological active pharmaceutical ingredient. Journal of Chemical Technology and Biotechnology, 2019, 94, 1937-1944.	3.2	14
58	Analysis of a pharmaceutical batch freeze dryer: resource consumption, hotspots, and factors for potential improvement. Drying Technology, 2019, 37, 1563-1582.	3.1	7
59	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
60	Advancing circular economy benefit indicators and application on open-loop recycling of mixed and contaminated plastic waste fractions. Journal of Cleaner Production, 2019, 211, 1-13.	9.3	73
61	Microbial community dynamics reflect reactor stability during the anaerobic digestion of a very high strength and sulfate-rich vinasse. Journal of Chemical Technology and Biotechnology, 2018, 93, 975-984.	3.2	13
62	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
63	Introduction of a natural resource balance indicator to assess soil organic carbon management: Agricultural Biomass Productivity Benefit. Journal of Environmental Management, 2018, 224, 202-214.	7.8	8
64	A Holistic Sustainability Framework for Waste Management in European Cities: Concept Development. Sustainability, 2018, 10, 2184.	3.2	54
65	Material flow analysis for management of waste TVs from households in urban areas of Vietnam. Resources, Conservation and Recycling, 2018, 139, 78-89.	10.8	46
66	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
67	Challenges and recommendations for environmental sustainability assessments of pharmaceutical products in the healthcare sector. Green Chemistry, 2017, 19, 3493-3509.	9.0	33
68	Using the product environmental footprint for supply chain management: lessons learned from a case study on pork. International Journal of Life Cycle Assessment, 2017, 22, 1354-1372.	4.7	23
69	Towards harmonizing natural resources as an area of protection in life cycle impact assessment. International Journal of Life Cycle Assessment, 2017, 22, 1912-1927.	4.7	70
70	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. Science of the Total Environment, 2017, 609, 1600-1615.	8.0	47
71	Toward a Framework for Resource Efficiency Evaluation in Industry: Recommendations for Research and Innovation Projects. Resources, 2017, 6, 5.	3.5	11
72	Criticality on the international scene: Quo vadis?. Resources Policy, 2016, 50, 169-176.	9.6	64

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73	Environmental impact of non-certified versus certified (ASC) intensive Pangasius aquaculture in Vietnam, a comparison based on a statistically supported LCA. <i>Environmental Pollution</i> , 2016, 219, 156-165.	7.5	41
74	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
75	Accounting for land use in life cycle assessment: The value of NPP as a proxy indicator to assess land use impacts on ecosystems. <i>Science of the Total Environment</i> , 2016, 550, 143-156.	8.0	83
76	Resource savings by urban mining: The case of desktop and laptop computers in Belgium. <i>Resources, Conservation and Recycling</i> , 2016, 107, 53-64.	10.8	106
77	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
78	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
79	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
80	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
81	Rethinking the Area of Protection of Natural Resources in Life Cycle Assessment. <i>Environmental Science & Technology</i> , 2015, 49, 5310-5317.	10.0	116
82	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
83	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
84	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. <i>Water Research</i> , 2015, 71, 42-54.	11.3	99
85	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
86	Heterogeneous photocatalysis of moxifloxacin in water: Chemical transformation and ecotoxicity. <i>Chemosphere</i> , 2015, 119, S75-S80.	8.2	34
87	Fluoroquinolone antibiotics: An emerging class of environmental micropollutants. <i>Science of the Total Environment</i> , 2014, 500-501, 250-269.	8.0	526
88	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
89	Effect of liquid hot water pre-treatment on sugarcane press mud methane yield. <i>Bioresource Technology</i> , 2014, 169, 284-290.	9.6	74
90	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

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91	Exergy-based accounting for land as a natural resource in life cycle assessment. <i>International Journal of Life Cycle Assessment</i> , 2013, 18, 939-947.	4.7	104
92	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
93	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
94	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
95	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
96	Modeling Fossil Energy Demands of Primary Nonferrous Metal Production: The Case of Copper. <i>Environmental Science & Technology</i> , 2013, 47, 13917-13924.	10.0	5
97	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
98	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
99	Biogas production from biowaste in Kenya and its contribution to environmental sustainability. <i>Afrika Focus</i> , 2012, 25, 91-93.	0.2	0
100	Accelerated solid-phase dynamic extraction for the analysis of biogenic volatile organic compounds in air. <i>International Journal of Environmental Analytical Chemistry</i> , 2011, 91, 1206-1217.	3.3	5
101	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
102	Exergy: Its Potential and Limitations in Environmental Science and Technology. <i>Environmental Science & Technology</i> , 2008, 42, 2221-2232.	10.0	270
103	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. <i>Critical Reviews in Environmental Science and Technology</i> , 2007, 37, 489-538.	12.8	181
104	The Contribution of Renewables to Society. , 2006, , 1-18.		2
105	The Sustainable Process Index (SPI). , 2006, , 159-172.		7
106	Assessment of Sustainable Land Use in Producing Biomass. , 2006, , 173-192.		5
107	Assessment of the Forest Products Industries. , 2006, , 193-208.		0
108	Assessment of the Energy Production Industry: Modern Options for Producing Secondary Energy Carriers from Biomass. , 2006, , 209-230.		2

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109	Assessment of Biofuels. , 2006, , 231-245.		6
110	Assessment of Organic Waste Treatment. , 2006, , 247-263.		2
111	Oleochemical and Petrochemical Surfactants: An Overall Assessment. , 2006, , 265-279.		5
112	Assessment of Bio-Based Packaging Materials. , 2006, , 281-297.		2
113	Assessment of Biotechnology-Based Chemicals. , 2006, , 299-313.		3
114	Assessment of Bio-Based Pharmaceuticals: The Cephalexin Case. , 2006, , 315-329.		4
115	The Potential of Renewables as a Feedstock for Chemistry and Energy. , 2006, , 19-37.		1
116	Sustainability Performance Indicators. , 2006, , 39-53.		6
117	Life Cycle Inventory Analysis Applied to Renewable Resources. , 2006, , 55-72.		0
118	Net Energy Balancing and Fuel-Cycle Analysis. , 2006, , 73-86.		7
119	Life Cycle Assessment as an Environmental Sustainability Tool. , 2006, , 87-110.		9
120	Exergy. , 2006, , 111-125.		1
121	Material Flow Analysis and the Use of Renewables from a Systems Perspective. , 2006, , 127-142.		0
122	Ecological Footprints and Biocapacity: Essential Elements in Sustainability Assessment. , 2006, , 143-157.		42
123	Assessment of the sustainability of technology by means of a thermodynamically based life cycle analysis. Environmental Science and Pollution Research, 2002, 9, 267-273.	5.3	59