

Roland Hischer

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

4,983
citations

147801

31
h-index

91884

69
g-index

81
all docs

81
docs citations

81
times ranked

5486
citing authors

#	ARTICLE	IF	CITATIONS
1	Safe(r) by design guidelines for the nanotechnology industry. <i>NanoImpact</i> , 2022, 25, 100385.	4.5	15
2	Material flow, economic and environmental life cycle performances of informal electronic waste recycling in a Thai community. <i>Resources, Conservation and Recycling</i> , 2022, 180, 106129.	10.8	22
3	Resource Pressure of Carpets: Guiding Their Circular Design. <i>Sustainability</i> , 2022, 14, 2530.	3.2	1
4	Charging sustainable batteries. <i>Nature Sustainability</i> , 2022, 5, 176-178.	23.7	70
5	Safe(r) by design in the nanotechnology sector. <i>NanoImpact</i> , 2022, 26, 100394.	4.5	1
6	Application and adaptation of a scale-up framework for life cycle assessment to resource recovery from waste systems. <i>Journal of Cleaner Production</i> , 2022, 355, 131720.	9.3	5
7	<i>In vitro</i> -based human toxicity effect factors: challenges and opportunities for nanomaterial impact assessment. <i>Environmental Science: Nano</i> , 2022, 9, 1913-1925.	4.3	5
8	Resource pressure – A circular design method. <i>Resources, Conservation and Recycling</i> , 2021, 164, 105179.	10.8	32
9	Towards a more environmentally sustainable production of graphene-based materials. <i>International Journal of Life Cycle Assessment</i> , 2021, 26, 327-343.	4.7	21
10	Factors Allowing Users to Influence the Environmental Performance of Their T-Shirt. <i>Sustainability</i> , 2021, 13, 2498.	3.2	13
11	Environmental Consequences of Closing the Textile Loop – Life Cycle Assessment of a Circular Polyester Jacket. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2964.	2.5	17
12	Bio-Based Polyester Fiber Substitutes: From GWP to a More Comprehensive Environmental Analysis. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2993.	2.5	13
13	Combining environmental and economic factors to evaluate the reuse of electrical and electronic equipment – a Swiss case study. <i>Resources, Conservation and Recycling</i> , 2021, 166, 105307.	10.8	21
14	Integrative approach in a safe by design context combining risk, life cycle and socio-economic assessment for safer and sustainable nanomaterials. <i>NanoImpact</i> , 2021, 23, 100335.	4.5	27
15	Towards more flexibility and transparency in life cycle inventories for Lithium-ion batteries. <i>Resources, Conservation and Recycling</i> , 2021, 170, 105619.	10.8	46
16	How Relevant Are Direct Emissions of Microplastics into Freshwater from an LCA Perspective?. <i>Sustainability</i> , 2021, 13, 9922.	3.2	10
17	Comparing the environmental performance of industrial recycling routes for lithium nickel-cobalt-manganese oxide 111 vehicle batteries. <i>Procedia CIRP</i> , 2021, 98, 97-102.	1.9	7
18	Life cycle assessment of engineered nanomaterials. , 2021, , 443-458.		4

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19	Safe(r) by design implementation in the nanotechnology industry. <i>NanoImpact</i> , 2020, 20, 100267.	4.5	22
20	Ecological resource availability: a method to estimate resource budgets for a sustainable economy. <i>Global Sustainability</i> , 2020, 3, .	3.3	14
21	Digital transformationâ€™life cycle assessment of digital services, multifunctional devices and cloud computing. <i>International Journal of Life Cycle Assessment</i> , 2020, 25, 2093-2098.	4.7	32
22	Cotton and Surgical Masksâ€™What Ecological Factors Are Relevant for Their Sustainability?. <i>Sustainability</i> , 2020, 12, 10245.	3.2	32
23	Ecological resource potential. <i>MethodsX</i> , 2020, 7, 101151.	1.6	2
24	Environmental impacts of household appliances in Europe and scenarios for their impact reduction. <i>Journal of Cleaner Production</i> , 2020, 267, 121952.	9.3	32
25	Towards Urban Miningâ€™Estimating the Potential Environmental Benefits by Applying an Alternative Construction Practice. A Case Study from Switzerland. <i>Sustainability</i> , 2020, 12, 5041.	3.2	21
26	A circular economy within the planetary boundaries: Towards a resource-based, systemic approach. <i>Resources, Conservation and Recycling</i> , 2020, 155, 104673.	10.8	103
27	Relative potency factor approach enables the use of <i>in vitro</i> information for estimation of human effect factors for nanoparticle toxicity in life-cycle impact assessment. <i>Nanotoxicology</i> , 2020, 14, 275-286.	3.0	13
28	An integrated pathway based on <i>in vitro</i> data for the human hazard assessment of nanomaterials. <i>Environment International</i> , 2020, 137, 105505.	10.0	43
29	The Availability of Suitable Datasets for the LCA Analysis of Chemical Substances. , 2020, , 3-32.		5
30	Environmental assessment of the Urban Mining and Recycling (UMAR) unit by applying the LCA framework. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 225, 012043.	0.3	8
31	Powering a Sustainable and Circular Economyâ€™An Engineering Approach to Estimating Renewable Energy Potentials within Earth System Boundaries. <i>Energies</i> , 2019, 12, 4723.	3.1	32
32	Fate modelling of nanoparticle releases in LCA: An integrative approach towards â€™USEtox4Nanoâ€™. <i>Journal of Cleaner Production</i> , 2019, 206, 701-712.	9.3	21
33	Eco-Efficient Process Improvement at the Early Development Stage: Identifying Environmental and Economic Process Hotspots for Synergetic Improvement Potential. <i>Environmental Science & Technology</i> , 2018, 52, 5959-5967.	10.0	11
34	Life cycle assessment of manufactured nanomaterials: Where are we?. <i>NanoImpact</i> , 2018, 10, 108-120.	4.5	129
35	Predicting the environmental impact of a future nanocellulose production at industrial scale: Application of the life cycle assessment scale-up framework. <i>Journal of Cleaner Production</i> , 2018, 174, 283-295.	9.3	132
36	How suitable is LCA for nanotechnology assessment? Overview of current methodological pitfalls and potential solutions: 65th LCA Discussion Forum, Swiss Federal Institute of Technology, ZÃ¼rich, May 24, 2017. <i>International Journal of Life Cycle Assessment</i> , 2018, 23, 191-196.	4.7	9

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37	Car vs. Packaging – A First, Simple (Environmental) Sustainability Assessment of Our Changing Shopping Behaviour. Sustainability, 2018, 10, 3061.	3.2	28
38	Safety Assessment of Graphene-Based Materials: Focus on Human Health and the Environment. ACS Nano, 2018, 12, 10582-10620.	14.6	438
39	Early-Stage Sustainability Evaluation of Nanoscale Cathode Materials for Lithium Ion Batteries. ChemSusChem, 2018, 11, 2068-2076.	6.8	10
40	Derivation of health effect factors for nanoparticles to be used in LCIA. NanolImpact, 2017, 7, 41-53.	4.5	18
41	Most important factors of variability and uncertainty in an LCA study of nanomaterials – Findings from a case study with nano titanium dioxide. NanolImpact, 2017, 7, 17-26.	4.5	25
42	Key physicochemical properties of nanomaterials in view of their toxicity: an exploratory systematic investigation for the example of carbon-based nanomaterial. Journal of Nanoparticle Research, 2017, 19, 1.	1.9	4
43	From laboratory to industrial scale: a scale-up framework for chemical processes in life cycle assessment studies. Journal of Cleaner Production, 2016, 135, 1085-1097.	9.3	325
44	Human health characterization factors of nano-TiO ₂ for indoor and outdoor environments. International Journal of Life Cycle Assessment, 2016, 21, 1452-1462.	4.7	32
45	LICARA nanoSCAN - A tool for the self-assessment of benefits and risks of nanoproducts. Environment International, 2016, 91, 150-160.	10.0	53
46	Multi-perspective application selection: a method to identify sustainable applications for new materials using the example of cellulose nanofiber reinforced composites. Journal of Cleaner Production, 2016, 112, 1199-1210.	9.3	24
47	Life cycle assessment of post-consumer plastics production from waste electrical and electronic equipment (WEEE) treatment residues in a Central European plastics recycling plant. Science of the Total Environment, 2015, 529, 158-167.	8.0	111
48	Life cycle assessment study of a field emission display television device. International Journal of Life Cycle Assessment, 2015, 20, 61-73.	4.7	25
49	Nanoparticles in facade coatings: a survey of industrial experts on functional and environmental benefits and challenges. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	18
50	Life cycle assessment of facade coating systems containing manufactured nanomaterials. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	66
51	Life Cycle Assessment of a New Technology To Extract, Functionalize and Orient Cellulose Nanofibers from Food Waste. ACS Sustainable Chemistry and Engineering, 2015, 3, 1047-1055.	6.7	69
52	Grey Energy and Environmental Impacts of ICT Hardware. Advances in Intelligent Systems and Computing, 2015, , 171-189.	0.6	23
53	The Material Basis of ICT. Advances in Intelligent Systems and Computing, 2015, , 209-221.	0.6	29
54	The Transition from Desktop Computers to Tablets: A Model for Increasing Resource Efficiency?. Advances in Intelligent Systems and Computing, 2015, , 243-256.	0.6	13

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55	Evaluating the sustainability of electronic media: Strategies for life cycle inventory data collection and their implications for LCA results. <i>Environmental Modelling and Software</i> , 2014, 56, 27-36.	4.5	24
56	Life cycle assessment of manufactured nanomaterials: inventory modelling rules and application example. <i>International Journal of Life Cycle Assessment</i> , 2014, 19, 941-943.	4.7	9
57	Framework for LCI modelling of releases of manufactured nanomaterials along their life cycle. <i>International Journal of Life Cycle Assessment</i> , 2014, 19, 838-849.	4.7	23
58	Benefit of GEOSS Interoperability in Assessment of Environmental Impacts Illustrated by the Case of Photovoltaic Systems. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2012, 5, 1722-1728.	4.9	9
59	Life cycle assessment of engineered nanomaterials: State of the art and strategies to overcome existing gaps. <i>Science of the Total Environment</i> , 2012, 425, 271-282.	8.0	191
60	Environmental impacts of the Swiss collection and recovery systems for Waste Electrical and Electronic Equipment (WEEE): A follow-up. <i>Science of the Total Environment</i> , 2011, 409, 1746-1756.	8.0	178
61	ecoinvent â€œ Consistent, Transparent and Qualityâ€™Ensured Background Database for Life Cycle Assessment & Co. <i>Chemie-Ingenieur-Technik</i> , 2011, 83, 1590-1596.	0.8	4
62	Environmental impacts of lighting technologies â€™ Life cycle assessment and sensitivity analysis. <i>Environmental Impact Assessment Review</i> , 2011, 31, 334-343.	9.2	81
63	LCA study of a plasma television device. <i>International Journal of Life Cycle Assessment</i> , 2010, 15, 428-438.	4.7	68
64	Using non-local databases for the environmental assessment of industrial activities: The case of Latin America. <i>Environmental Impact Assessment Review</i> , 2010, 30, 145-157.	9.2	24
65	The applicability of non-local LCI data for LCA. <i>Environmental Impact Assessment Review</i> , 2010, 30, 192-199.	9.2	33
66	Isolation and Purification of Medium Chain Length Poly(3-hydroxyalkanoates) (mcl-PHA) for Medical Applications Using Nonchlorinated Solvents. <i>Biomacromolecules</i> , 2010, 11, 2716-2723.	5.4	45
67	Life cycle assessment study of a Chinese desktop personal computer. <i>Science of the Total Environment</i> , 2009, 407, 1755-1764.	8.0	100
68	Towards a framework for life cycle thinking in the assessment of nanotechnology. <i>Journal of Cleaner Production</i> , 2008, 16, 910-926.	9.3	142
69	CurauÃ; fibers in the automobile industry â€™ a sustainability assessment. <i>Journal of Cleaner Production</i> , 2007, 15, 1032-1040.	9.3	304
70	Does WEEE recycling make sense from an environmental perspective?. <i>Environmental Impact Assessment Review</i> , 2005, 25, 525-539.	9.2	242
71	Developments in Wood and Packaging Materials Life Cycle Inventories in ecoinvent (9 pp). <i>International Journal of Life Cycle Assessment</i> , 2005, 10, 50-58.	4.7	33
72	The ecoinvent Database: Overview and Methodological Framework (7 pp). <i>International Journal of Life Cycle Assessment</i> , 2005, 10, 3-9.	4.7	832

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73	Establishing Life Cycle Inventories of Chemicals Based on Differing Data Availability (9 pp). International Journal of Life Cycle Assessment, 2005, 10, 59-67.	4.7	111
74	Waste Treatment and Assessment of Long-Term Emissions (8pp). International Journal of Life Cycle Assessment, 2005, 10, 77-84.	4.7	56
75	Selected modelling principles applied in the ecoinvent database. Journal of Life Cycle Assessment Japan, 2005, 1, 112-122.	0.0	44
76	Progress in modern life cycle assessment: practice and research. International Journal of Life Cycle Assessment, 2004, 9, 143-151.	4.7	5
77	Multifunctional electronic media-traditional media. International Journal of Life Cycle Assessment, 2003, 8, 201-208.	4.7	42
78	Environmental impacts of an international conference. Environmental Impact Assessment Review, 2002, 22, 543-557.	9.2	61
79	Guidelines for consistent reporting of exchanges/to nature within life cycle inventories (LCI). International Journal of Life Cycle Assessment, 2001, 6, 192.	4.7	19
80	Approach toward <i>In Vitro</i> -Based Human Toxicity Effect Factors for the Life Cycle Impact Assessment of Inhaled Low-Solubility Particles. Environmental Science & Technology, 0, , .	10.0	0