Stephan Pfister

List of Publications by Year
in descending order

112 papers	8,957 citations	47006 47 h-index	42399 92 g-index
118 all docs	118 docs citations	118 times ranked	6432 citing authors

#	Article	IF	Citations
1	Assessing the Environmental Impacts of Freshwater Consumption in LCA. Environmental Science & Technology, 2009, 43, 4098-4104.	10.0	1,032
2	Water scarcity assessments in the past, present, and future. Earth's Future, 2017, 5, 545-559.	6.3	545
3	A revised approach to water footprinting to make transparent the impacts of consumption and production on global freshwater scarcity. Global Environmental Change, 2010, 20, 113-120.	7.8	480
4	The WULCA consensus characterization model for water scarcity footprints: assessing impacts of water consumption based on available water remaining (AWARE). International Journal of Life Cycle Assessment, 2018, 23, 368-378.	4.7	471
5	COMPARISON OF BOTTOM-UP AND TOP-DOWN APPROACHES TO CALCULATING THE WATER FOOTPRINTS OF NATIONS. Economic Systems Research, 2011, 23, 371-385.	2.7	288
6	Review of methods addressing freshwater use in life cycle inventory and impact assessment. International Journal of Life Cycle Assessment, 2013, 18, 707-721.	4.7	268
7	Virtual Scarce Water in China. Environmental Science & Technology, 2014, 48, 7704-7713.	10.0	251
8	Environmental Impacts of Water Use in Global Crop Production: Hotspots and Trade-Offs with Land Use. Environmental Science & Technology, 2011, 45, 5761-5768.	10.0	234
9	A framework for assessing off-stream freshwater use in LCA. International Journal of Life Cycle Assessment, 2010, 15, 439-453.	4.7	203
10	Monthly water stress: spatially and temporally explicit consumptive water footprint of global crop production. Journal of Cleaner Production, 2014, 73, 52-62.	9.3	199
11	Life Cycle Inventory and Carbon and Water FoodPrint of Fruits and Vegetables: Application to a Swiss Retailer. Environmental Science & Technology, 2012, 46, 3253-3262.	10.0	196
12	Understanding the LCA and ISO water footprint: A response to Hoekstra (2016) â€œA critique on the water-scarcity weighted water footprint in LCAâ€• Ecological Indicators, 2017, 72, 352-359.	6.3	158
13	Global emission hotspots of coal power generation. Nature Sustainability, 2019, 2, 113-121.	23.7	149
14	Growing environmental footprint of plastics driven by coal combustion. Nature Sustainability, 2022, 5, 139-148.	23.7	148
15	LCIA framework and cross-cutting issues guidance within the UNEP-SETAC Life Cycle Initiative. Journal of Cleaner Production, 2017, 161, 957-967.	9.3	141
16	A new water footprint calculation method integrating consumptive and degradative water use into a single stand-alone weighted indicator. International Journal of Life Cycle Assessment, 2013, 18, 204-207.	4.7	132
17	Projected water consumption in future global agriculture: Scenarios and related impacts. Science of the Total Environment, 2011, 409, 4206-4216.	8.0	118
18	GIS-Based Regionalized Life Cycle Assessment: How Big Is Small Enough? Methodology and Case Study of Electricity Generation. Environmental Science & Technology, 2012, 46, 1096-1103.	10.0	115

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19	Characterization Factors for Water Consumption and Greenhouse Gas Emissions Based on Freshwater Fish Species Extinction. Environmental Science & Technology, 2011, 45, 5272-5278.	10.0	114
20	The environmental relevance of freshwater consumption in global power production. International Journal of Life Cycle Assessment, 2011, 16, 580-591.	4.7	110
21	Global water footprint assessment of hydropower. Renewable Energy, 2016, 99, 711-720.	8.9	104
22	Spatially Explicit Analysis of Biodiversity Loss Due to Global Agriculture, Pasture and Forest Land Use from a Producer and Consumer Perspective. Environmental Science & Technology, 2016, 50, 3928-3936.	10.0	101
23	Spatially explicit assessment of water embodied in European trade: A product-level multi-regional input-output analysis. Global Environmental Change, 2016, 38, 171-182.	7.8	98
24	Effects of Consumptive Water Use on Biodiversity in Wetlands of International Importance. Environmental Science & Technology, 2013, 47, 12248-12257.	10.0	95
25	Global guidance on environmental life cycle impact assessment indicators: impacts of climate change, fine particulate matter formation, water consumption and land use. International Journal of Life Cycle Assessment, 2018, 23, 2189-2207.	4.7	94
26	Characterization Factors for Thermal Pollution in Freshwater Aquatic Environments. Environmental Science & Technology, 2010, 44, 9364-9369.	10.0	93
27	Environmental impacts of an advanced oxidation process as tertiary treatment in a wastewater treatment plant. Science of the Total Environment, 2019, 694, 133572.	8.0	91
28	Global thermal pollution of rivers from thermoelectric power plants. Environmental Research Letters, 2016, 11, 104011.	5.2	89
29	Global guidance on environmental life cycle impact assessment indicators: progress and case study. International Journal of Life Cycle Assessment, 2016, 21, 429-442.	4.7	88
30	Reducing humanityâ€™s water footprint. Environmental Science & Technology, 2010, 44, 6019-6021.	10.0	86
31	The water â€œshoesizeâ€•vs. footprint of bioenergy. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, E93-4.	7.1	84
32	Consensus building on the development of a stress-based indicator for LCA-based impact assessment of water consumption: outcome of the expert workshops. International Journal of Life Cycle Assessment, 2015, 20, 577-583.	4.7	84
33	LCâ€‰IMPACT: A regionalized life cycle damage assessment method. Journal of Industrial Ecology, 2020, 24, 1201-1219.	5.5	80
34	Teleconnecting Consumption to Environmental Impacts at Multiple Spatial Scales. Journal of Industrial Ecology, 2014, 18, 7-9.	5.5	79
35	Accounting for a scarce resource: virtual water and water footprint in the global water system. Current Opinion in Environmental Sustainability, 2013, 5, 599-606.	6.3	74
36	Analysis of water use impact assessment methods (part A): evaluation of modeling choices based on a quantitative comparison of scarcity and human health indicators. International Journal of Life Cycle Assessment, 2015, 20, 139-160.	4.7	72

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37	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
38	Hydropower's Biogenic Carbon Footprint. PLoS ONE, 2016, 11, e0161947.	2.5	69
39	A new method for analyzing sustainability performance of global supply chains and its application to material resources. Science of the Total Environment, 2019, 684, 164-177.	8.0	65
40	Framework for integrating animal welfare into life cycle sustainability assessment. International Journal of Life Cycle Assessment, 2018, 23, 1476-1490.	4.7	64
41	Assessing the Environmental Impact of Water Consumption by Energy Crops Grown in Spain. Journal of Industrial Ecology, 2013, 17, 90-102.	5.5	58
42	Consistent characterisation factors at midpoint and endpoint relevant to agricultural water scarcity arising from freshwater consumption. International Journal of Life Cycle Assessment, 2018, 23, 2276-2287.	4.7	58
43	Overview and recommendations for regionalized life cycle impact assessment. International Journal of Life Cycle Assessment, 2019, 24, 856-865.	4.7	57
44	Global Biodiversity Loss by Freshwater Consumption and Eutrophication from Swiss Food Consumption. Environmental Science & Technology, 2016, 50, 7019-7028.	10.0	55
45	The land-water nexus of biofuel production in Brazil: Analysis of synergies and trade-offs using a multiregional input-output model. Journal of Cleaner Production, 2019, 214, 52-61.	9.3	55
46	Quantifying Area Changes of Internationally Important Wetlands Due to Water Consumption in LCA. Environmental Science & Technology, 2013, 47, 9799-9807.	10.0	54
47	Towards an Integrated Family of Footprint Indicators. Journal of Industrial Ecology, 2013, 17, 337-339.	5.5	51
48	Modelling spatially explicit impacts from phosphorus emissions in agriculture. International Journal of Life Cycle Assessment, 2015, 20, 785-795.	4.7	48
49	Bringing it all together: linking measures to secure nationsâ€™ food supply. Current Opinion in Environmental Sustainability, 2017, 29, 98-117.	6.3	47
50	Value Choices in Life Cycle Impact Assessment of Stressors Causing Human Health Damage. Journal of Industrial Ecology, 2011, 15, 796-815.	5.5	46
51	A highly resolved MRIO database for analyzing environmental footprints and Green Economy Progress. Science of the Total Environment, 2021, 755, 142587.	8.0	46
52	Modeling the Local Biodiversity Impacts of Agricultural Water Use: Case Study of a Wetland in the Coastal Arid Area of Peru. Environmental Science & Technology, 2012, 46, 4966-4974.	10.0	45
53	Water Footprint: Pitfalls on Common Ground. Environmental Science & Technology, 2014, 48, 4-4.	10.0	43
54	Impacts of River Water Consumption on Aquatic Biodiversity in Life Cycle Assessmentâ€”A Proposed Method, and a Case Study for Europe. Environmental Science & Technology, 2014, 48, 3236-3244.	10.0	43

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55	A matter of meters: state of the art in the life cycle assessment of enhanced geothermal systems. Energy and Environmental Science, 2016, 9, 2720-2743.	30.8	43
56	Ecoinvent 3: assessing water use in LCA and facilitating water footprinting. International Journal of Life Cycle Assessment, 2016, 21, 1349-1360.	4.7	43
57	Biodiversity Impacts from Salinity Increase in a Coastal Wetland. Environmental Science & Technology, 2013, 47, 6384-6392.	10.0	42
58	Dealing with uncertainty in water scarcity footprints. Environmental Research Letters, 2016, 11, 054008.	5.2	42
59	Estimating Water Consumption of Potential Natural Vegetation on Global Dry Lands: Building an LCA Framework for Green Water Flows. Environmental Science & Technology, 2013, 47, 12258-12265.	10.0	41
60	Global freshwater thermal emissions from steam-electric power plants with once-through cooling systems. Energy, 2016, 97, 46-57.	8.8	41
61	International trade of global scarce water use in agriculture: Modeling on watershed level with monthly resolution. Ecological Economics, 2019, 159, 301-311.	5.7	40
62	Making Sense of the Minefield of Footprint Indicators. Environmental Science & Technology, 2015, 49, 2601-2603.	10.0	38
63	Area of concern: a new paradigm in life cycle assessment for the development of footprint metrics. International Journal of Life Cycle Assessment, 2016, 21, 276-280.	4.7	38
64	Saving the Planetâ€™s Climate or Water Resources? The Trade-Off between Carbon and Water Footprints of European Biofuels. Sustainability, 2015, 7, 6665-6683.	3.2	37
65	Environmental Impacts ofJatropha curcasBiodiesel in India. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-10.	3.0	34
66	Spatial and temporal specific characterisation factors for water use impact assessment in Spain. International Journal of Life Cycle Assessment, 2015, 20, 128-138.	4.7	34
67	Does Southâ€toâ€North Water Transfer Reduce the Environmental Impact of Water Consumption in China?. Journal of Industrial Ecology, 2012, 16, 647-654.	5.5	33
68	Criticality of Water: Aligning Water and Mineral Resources Assessment. Environmental Science & Technology, 2015, 49, 12315-12323.	10.0	33
69	Biodiversity impacts from water consumption on a global scale for use in life cycle assessment. International Journal of Life Cycle Assessment, 2017, 22, 1247-1256.	4.7	33
70	Defining freshwater as a natural resource: a framework linking water use to the area of protection natural resources. International Journal of Life Cycle Assessment, 2019, 24, 960-974.	4.7	33
71	Taking into account water use impacts in the LCA of biofuels: an Argentinean case study. International Journal of Life Cycle Assessment, 2011, 16, 869-877.	4.7	32
72	Analysis of water use impact assessment methods (part B): applicability for water footprinting and decision making with a laundry case study. International Journal of Life Cycle Assessment, 2015, 20, 865-879.	4.7	31

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73	Large-Scale Hydrological Modeling for Calculating Water Stress Indices: Implications of Improved Spatiotemporal Resolution, Surface-Groundwater Differentiation, and Uncertainty Characterization. Environmental Science & Technology, 2015, 49, 4971-4979.	10.0	30
74	Ecosystem quality in LCIA: status quo, harmonization, and suggestions for the way forward. International Journal of Life Cycle Assessment, 2018, 23, 1995-2006.	4.7	30
75	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
76	Waterâ€“Energyâ€“Food Nexus Framework for Promoting Regional Integration in Central Asia. Water (Switzerland), 2020, 12, 1896.	2.7	27
77	Assessing the environmental impacts of freshwater thermal pollution from global power generation in LCA. Science of the Total Environment, 2017, 580, 1014-1026.	8.0	26
78	Regional Carrying Capacities of Freshwater Consumptionâ€”Current Pressure and Its Sources. Environmental Science & Technology, 2020, 54, 9083-9094.	10.0	23
79	Measuring ecological impact of water consumption by bioethanol using life cycle impact assessment. International Journal of Life Cycle Assessment, 2012, 17, 16-24.	4.7	22
80	Building consensus on water use assessment of livestock production systems and supply chains: Outcome and recommendations from the FAO LEAP Partnership. Ecological Indicators, 2021, 124, 107391.	6.3	22
81	Regionalization in LCA: current status in concepts, software and databasesâ€”69th LCA forum, Swiss Federal Institute of Technology, Zurich, 13 September, 2018. International Journal of Life Cycle Assessment, 2019, 24, 364-369.	4.7	21
82	Regionalized Life Cycle Inventories of Global Sulfidic Copper Tailings. Environmental Science & Technology, 2022, 56, 4553-4564.	10.0	21
83	Uncertainty analysis of the environmental sustainability of biofuels. Energy, Sustainability and Society, 2015, 5, .	3.8	20
84	Enhancing comprehensive measurement of social impacts in S-LCA by including environmental and economic aspects. International Journal of Life Cycle Assessment, 2018, 23, 133-146.	4.7	19
85	Improving water ecosystem sustainability of urban water system by management strategies optimization. Journal of Environmental Management, 2020, 254, 109766.	7.8	18
86	Water scarcity footprint of hydropower based on a seasonal approach - Global assessment with sensitivities of model assumptions tested on specific cases. Science of the Total Environment, 2020, 724, 138188.	8.0	18
87	A Multimedia Hydrological Fate Modeling Framework To Assess Water Consumption Impacts in Life Cycle Assessment. Environmental Science & Technology, 2018, 52, 4658-4667.	10.0	17
88	Global Assessment of Agricultural Productivity Losses from Soil Compaction and Water Erosion. Environmental Science & Technology, 2021, 55, 12162-12171.	10.0	17
89	Globally Regionalized Monthly Life Cycle Impact Assessment of Particulate Matter. Environmental Science & Technology, 2020, 54, 16028-16038.	10.0	16
90	Assessing Impacts on the Natural Resource Soil in Life Cycle Assessment: Methods for Compaction and Water Erosion. Environmental Science & Technology, 2020, 54, 6496-6507.	10.0	15

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91	BOARD-INVITED REVIEW: Quantifying water use in ruminant production. Journal of Animal Science, 2017, 95, 2001.	0.5	14
92	Water Footprint Symposium: where next for water footprint and water assessment methodology?. International Journal of Life Cycle Assessment, 2014, 19, 1561-1565.	4.7	13
93	Mine waste as a sustainable resource for facing bricks. Journal of Cleaner Production, 2022, 368, 133118.	9.3	12
94	Giving Legs to Handprint Thinking: Foundations for Evaluating the Good We Do. Earth's Future, 2020, 8, e2019EF001422.	6.3	11
95	Exploring the potential impact of implementing carbon capture technologies in fossil fuel power plants on regional European water stress index levels. International Journal of Greenhouse Gas Control, 2015, 39, 318-328.	4.6	10
96	Regionalized LCA in practice: the need for a universal shapefile to match LCI and LCIA. International Journal of Life Cycle Assessment, 2020, 25, 1867-1871.	4.7	10
97	An LCA impact assessment model linking land occupation and malnutrition-related DALYs. International Journal of Life Cycle Assessment, 2019, 24, 1620-1630.	4.7	8
98	The greenhouse gas emissions, water consumption, and heat emissions of global steam-electric power production: a generating unit level analysis and database. Environmental Research Letters, 2020, 15, 104029.	5.2	7
99	Quantifying the Valuation of Animal Welfare Among Americans. Journal of Agricultural and Environmental Ethics, 2020, 33, 261-282.	1.7	6
100	Methodology and optimization tool for a personalized low environmental impact and healthful diet specific to country and season. Journal of Industrial Ecology, 2021, 25, 1147.	5.5	6
101	Footprints and Safe Operation Space: Walk the Line?. Environmental Science & Technology, 2014, 48, 8935-8935.	10.0	5
102	Water Footprinting in Life Cycle Assessment: How to Count the Drops and Assess the Impacts?. LCA Compendium, 2016, , 73-114.	0.8	5
103	Method Development for Including Environmental Water Requirement in the Water Stress Index. Water Resources Management, 2018, 32, 1585-1598.	3.9	5
104	Quantifying uncertainty for AWARE characterization factors. Journal of Industrial Ecology, 2021, 25, 1588-1601.	5.5	4
105	Water Use. LCA Compendium, 2015, , 223-245.	0.8	4
106	Letter to the editor re: â€œThe scarcity-weighted water footprint provides unreliable water sustainability scoringâ€•by. Science of the Total Environment, 2022, 825, 154108.	8.0	3
107	Response to Fang and Heijungs. Journal of Industrial Ecology, 2014, 18, 72-72.	5.5	2
108	LCA of key technologies for future electricity supplyâ€”68th LCA forum, Swiss Federal Institute of Technology, Zurich, 16 April, 2018. International Journal of Life Cycle Assessment, 2018, 23, 1716-1721.	4.7	2

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109	Linking land use inventories to biodiversity impact assessment methods. International Journal of Life Cycle Assessment, 2021, 26, 2315.	4.7	2
110	Assessment of Implementing Carbon Capture Technologies in Fossil Fuel Power Plants on Regional European Water Stress Index Levels. Energy Procedia, 2014, 63, 7198-7204.	1.8	1
111	Preface to the Thematic Section: Mine Tailings: Problem or Opportunity? Towards a Combined Remediation and Resource Recovery Approach. Journal of Sustainable Metallurgy, 2021, 7, 1440.	2.3	1
112	Activities of Water Use in LCA (WULCA). Journal of Life Cycle Assessment Japan, 2015, 11, 257-261.	0.0	0