

# Sai Liang

## List of Publications by Year in descending order

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Version: 2024-02-01

129  
papers

6,911  
citations

44042

48  
h-index

71651

76  
g-index

132  
all docs

132  
docs citations

132  
times ranked

4437  
citing authors

#	ARTICLE	IF	CITATIONS
1	Temporal Trend and Spatial Distribution of Speciated Atmospheric Mercury Emissions in China During 1978–2014. <i>Environmental Science &amp; Technology</i> , 2016, 50, 13428-13435.	4.6	255
2	Economic development and converging household carbon footprints in China. <i>Nature Sustainability</i> , 2020, 3, 529-537.	11.5	224
3	Food-energy-water (FEW) nexus for urban sustainability: A comprehensive review. <i>Resources, Conservation and Recycling</i> , 2019, 142, 215-224.	5.3	210
4	Targeted opportunities to address the climate–trade dilemma in China. <i>Nature Climate Change</i> , 2016, 6, 201-206.	8.1	206
5	Features, trajectories and driving forces for energy-related GHG emissions from Chinese mega cities: The case of Beijing, Tianjin, Shanghai and Chongqing. <i>Energy</i> , 2012, 37, 245-254.	4.5	185
6	Carbon dioxide emission drivers for a typical metropolis using input–output structural decomposition analysis. <i>Energy Policy</i> , 2013, 58, 312-318.	4.2	170
7	Revisiting drivers of energy intensity in China during 1997–2007: A structural decomposition analysis. <i>Energy Policy</i> , 2014, 67, 640-647.	4.2	157
8	China high resolution emission database (CHRED) with point emission sources, gridded emission data, and supplementary socioeconomic data. <i>Resources, Conservation and Recycling</i> , 2018, 129, 232-239.	5.3	129
9	Trans-provincial health impacts of atmospheric mercury emissions in China. <i>Nature Communications</i> , 2019, 10, 1484.	5.8	126
10	Betweenness-Based Method to Identify Critical Transmission Sectors for Supply Chain Environmental Pressure Mitigation. <i>Environmental Science &amp; Technology</i> , 2016, 50, 1330-1337.	4.6	125
11	Decoupling Analysis and Socioeconomic Drivers of Environmental Pressure in China. <i>Environmental Science &amp; Technology</i> , 2014, 48, 1103-1113.	4.6	122
12	Mercury Flows in China and Global Drivers. <i>Environmental Science &amp; Technology</i> , 2017, 51, 222-231.	4.6	121
13	Environmental impact and economic assessment of secondary lead production: Comparison of main spent lead-acid battery recycling processes in China. <i>Journal of Cleaner Production</i> , 2017, 144, 142-148.	4.6	120
14	Virtual scarce water embodied in inter-provincial electricity transmission in China. <i>Applied Energy</i> , 2017, 187, 438-448.	5.1	119
15	Supply chain sustainability risk and assessment. <i>Journal of Cleaner Production</i> , 2019, 225, 857-867.	4.6	113
16	Income-Based Greenhouse Gas Emissions of Nations. <i>Environmental Science &amp; Technology</i> , 2017, 51, 346-355.	4.6	107
17	Critical review of the energy-water-carbon nexus in cities. <i>Energy</i> , 2019, 171, 1017-1032.	4.5	107
18	Lifting China’s Water Spell. <i>Environmental Science &amp; Technology</i> , 2014, 48, 11048-11056.	4.6	105

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19	Atmospheric Mercury Footprints of Nations. <i>Environmental Science &amp; Technology</i> , 2015, 49, 3566-3574.	4.6	105
20	Life cycle assessment of biodiesel production in China. <i>Bioresource Technology</i> , 2013, 129, 72-77.	4.8	101
21	Socioeconomic Drivers of Mercury Emissions in China from 1992 to 2007. <i>Environmental Science &amp; Technology</i> , 2013, 47, 3234-3240.	4.6	101
22	Virtual Atmospheric Mercury Emission Network in China. <i>Environmental Science &amp; Technology</i> , 2014, 48, 2807-2815.	4.6	99
23	Socioeconomic Drivers of Greenhouse Gas Emissions in the United States. <i>Environmental Science &amp; Technology</i> , 2016, 50, 7535-7545.	4.6	96
24	CO <sub>2</sub> Emissions Embodied in Interprovincial Electricity Transmissions in China. <i>Environmental Science &amp; Technology</i> , 2017, 51, 10893-10902.	4.6	96
25	Scarcity-weighted fossil fuel footprint of China at the provincial level. <i>Applied Energy</i> , 2020, 258, 114081.	5.1	95
26	Mapping global carbon footprint in China. <i>Nature Communications</i> , 2020, 11, 2237.	5.8	92
27	Virtual Water Scarcity Risk to the Global Trade System. <i>Environmental Science &amp; Technology</i> , 2018, 52, 673-683.	4.6	86
28	Life cycle assessment of High Speed Rail in China. <i>Transportation Research, Part D: Transport and Environment</i> , 2015, 41, 367-376.	3.2	76
29	What is driving CO <sub>2</sub> emissions in a typical manufacturing center of South China? The case of Jiangsu Province. <i>Energy Policy</i> , 2011, 39, 7078-7083.	4.2	75
30	Temporal and spatial variations in consumption-based carbon dioxide emissions in China. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 40, 60-68.	8.2	68
31	Comparing urban solid waste recycling from the viewpoint of urban metabolism based on physical input-output model: A case of Suzhou in China. <i>Waste Management</i> , 2012, 32, 220-225.	3.7	66
32	Urban food-energy-water nexus indicators: A review. <i>Resources, Conservation and Recycling</i> , 2019, 151, 104481.	5.3	66
33	Developing the Chinese Environmentally Extended Input-Output (CEEIO) Database. <i>Journal of Industrial Ecology</i> , 2017, 21, 953-965.	2.8	65
34	An improved input-output model for energy analysis: A case study of Suzhou. <i>Ecological Economics</i> , 2010, 69, 1805-1813.	2.9	63
35	Comparisons of four categories of waste recycling in China's paper industry based on physical input-output life-cycle assessment model. <i>Waste Management</i> , 2012, 32, 603-612.	3.7	63
36	Four system boundaries for carbon accounts. <i>Ecological Modelling</i> , 2015, 318, 118-125.	1.2	62

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37	Structure of the Global Virtual Carbon Network: Revealing Important Sectors and Communities for Emission Reduction. <i>Journal of Industrial Ecology</i> , 2015, 19, 307-320.	2.8	62
38	Toward low-carbon development: Assessing emissions-reduction pressure among Chinese cities. <i>Journal of Environmental Management</i> , 2020, 271, 111036.	3.8	59
39	Emerging challenges and opportunities for the food-“energy”-water nexus in urban systems. <i>Current Opinion in Chemical Engineering</i> , 2017, 17, 48-53.	3.8	58
40	Virtual water scarcity risk to global trade under climate change. <i>Journal of Cleaner Production</i> , 2019, 230, 1013-1026.	4.6	56
41	Quantifying the Urban Food-“Energy”-Water Nexus: The Case of the Detroit Metropolitan Area. <i>Environmental Science &amp; Technology</i> , 2019, 53, 779-788.	4.6	56
42	Urban Metabolism in China Achieving Dematerialization and Decarbonization in Suzhou. <i>Journal of Industrial Ecology</i> , 2011, 15, 420-434.	2.8	55
43	Carbon dioxide mitigation target of China in 2020 and key economic sectors. <i>Energy Policy</i> , 2013, 58, 90-96.	4.2	55
44	Waste oil derived biofuels in China bring brightness for global GHG mitigation. <i>Bioresource Technology</i> , 2013, 131, 139-145.	4.8	55
45	Uncovering urban food-energy-water nexus based on physical input-output analysis: The case of the Detroit Metropolitan Area. <i>Applied Energy</i> , 2019, 252, 113422.	5.1	54
46	Greenhouse gas emission factors of purchased electricity from interconnected grids. <i>Applied Energy</i> , 2016, 184, 751-758.	5.1	51
47	A Quasi-Input-Output model to improve the estimation of emission factors for purchased electricity from interconnected grids. <i>Applied Energy</i> , 2017, 200, 249-259.	5.1	51
48	Big Data and Industrial Ecology. <i>Journal of Industrial Ecology</i> , 2015, 19, 205-210.	2.8	50
49	Primary Suppliers Driving Atmospheric Mercury Emissions through Global Supply Chains. <i>One Earth</i> , 2019, 1, 254-266.	3.6	50
50	Virtual water scarcity risk in China. <i>Resources, Conservation and Recycling</i> , 2020, 160, 104886.	5.3	50
51	Potential Role of Fiscal Decentralization on Interprovincial Differences in CO <sub>2</sub> Emissions in China. <i>Environmental Science &amp; Technology</i> , 2021, 55, 813-822.	4.6	49
52	Unintended consequences of bioethanol feedstock choice in China. <i>Bioresource Technology</i> , 2012, 125, 312-317.	4.8	48
53	Consumption-based human health impacts of primary PM2.5: The hidden burden of international trade. <i>Journal of Cleaner Production</i> , 2017, 167, 133-139.	4.6	48
54	Regional water footprints and interregional virtual water transfers in China. <i>Journal of Cleaner Production</i> , 2019, 228, 1401-1412.	4.6	47

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55	Structural analysis of material flows in China based on physical and monetary input-output models. <i>Journal of Cleaner Production</i> , 2017, 158, 209-217.	4.6	46
56	Scale, distribution and variations of global greenhouse gas emissions driven by U.S. households. <i>Environment International</i> , 2019, 133, 105137.	4.8	46
57	Quantifying Direct and Indirect Spatial Food-Energy-Water (FEW) Nexus in China. <i>Environmental Science &amp; Technology</i> , 2020, 54, 9791-9803.	4.6	46
58	Trade-Induced Atmospheric Mercury Deposition over China and Implications for Demand-Side Controls. <i>Environmental Science &amp; Technology</i> , 2018, 52, 2036-2045.	4.6	45
59	Virtual CO <sub>2</sub> Emission Flows in the Global Electricity Trade Network. <i>Environmental Science &amp; Technology</i> , 2018, 52, 6666-6675.	4.6	43
60	Interactions of energy technology development and new energy exploitation with water technology development in China. <i>Energy</i> , 2011, 36, 6960-6966.	4.5	42
61	Global Drivers of Russian Timber Harvest. <i>Journal of Industrial Ecology</i> , 2016, 20, 515-525.	2.8	42
62	Spatially explicit carbon emissions at the county scale. <i>Resources, Conservation and Recycling</i> , 2021, 173, 105706.	5.3	41
63	Investigating Reasons for Differences in the Results of Environmental, Physical, and Hybrid Input-Output Models. <i>Journal of Industrial Ecology</i> , 2013, 17, 432-439.	2.8	37
64	Identifying critical sectors and supply chain paths for the consumption of domestic resource extraction in China. <i>Journal of Cleaner Production</i> , 2019, 208, 1577-1586.	4.6	37
65	Virtual scarce water flows and economic benefits of the Belt and Road Initiative. <i>Journal of Cleaner Production</i> , 2020, 253, 119936.	4.6	37
66	China's retrofitting measures in coal-fired power plants bring significant mercury-related health benefits. <i>One Earth</i> , 2020, 3, 777-787.	3.6	37
67	Managing urban energy system: A case of Suzhou in China. <i>Energy Policy</i> , 2011, 39, 2910-2918.	4.2	36
68	Unintended Environmental Consequences and Co-benefits of Economic Restructuring. <i>Environmental Science &amp; Technology</i> , 2013, 47, 12894-12902.	4.6	36
69	How to Deal with Resource Productivity. <i>Journal of Industrial Ecology</i> , 2013, 17, 440-451.	2.8	36
70	A dual strategy for controlling energy consumption and air pollution in China's metropolis of Beijing. <i>Energy</i> , 2015, 81, 294-303.	4.5	36
71	Trade-off between carbon reduction benefits and ecological costs of biomass-based power plants with carbon capture and storage (CCS) in China. <i>Journal of Cleaner Production</i> , 2017, 144, 279-286.	4.6	36
72	Spatial-temporal analysis of selected industrial aquatic heavy metal pollution in China. <i>Journal of Cleaner Production</i> , 2019, 238, 117944.	4.6	36

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73	An integrated assessment system for the carrying capacity of the water environment based on system dynamics. <i>Journal of Environmental Management</i> , 2021, 295, 113045.	3.8	36
74	How real time pricing modifies Chinese households' electricity consumption. <i>Journal of Cleaner Production</i> , 2018, 178, 776-790.	4.6	34
75	Understanding the tele-coupling mechanism of urban food-energy-water nexus: Critical sources, nodes, and supply chains. <i>Journal of Cleaner Production</i> , 2019, 235, 297-307.	4.6	34
76	CO <sub>2</sub> Emissions Embodied in International Migration from 1995 to 2015. <i>Environmental Science &amp; Technology</i> , 2020, 54, 12530-12538.	4.6	34
77	Input-output networks offer new insights of economic structure. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 527, 121178.	1.2	33
78	Multi-pollutant based grey water footprint of Chinese regions. <i>Resources, Conservation and Recycling</i> , 2021, 164, 105202.	5.3	32
79	Socioeconomic drivers of water use in China during 2002-2017. <i>Resources, Conservation and Recycling</i> , 2020, 154, 104636.	5.3	31
80	Global timber harvest footprints of nations and virtual timber trade flows. <i>Journal of Cleaner Production</i> , 2020, 250, 119503.	4.6	30
81	Dynamic Carbon Emission Linkages Across Boundaries. <i>Earth's Future</i> , 2019, 7, 197-209.	2.4	29
82	The evolution of virtual water flows in China's electricity transmission network and its driving forces. <i>Journal of Cleaner Production</i> , 2020, 242, 118336.	4.6	29
83	Reutilisation-extended material flows and circular economy in China. <i>Waste Management</i> , 2013, 33, 1552-1560.	3.7	28
84	Final production-based emissions of regions in China. <i>Economic Systems Research</i> , 2018, 30, 18-36.	1.2	28
85	Mapping economic drivers of China's NO <sub>x</sub> emissions due to energy consumption. <i>Journal of Cleaner Production</i> , 2019, 241, 118130.	4.6	28
86	Understanding the industrial NO <sub>x</sub> and SO <sub>2</sub> pollutant emissions in China from sector linkage perspective. <i>Science of the Total Environment</i> , 2021, 770, 145242.	3.9	28
87	A two-tiered attribution structural decomposition analysis to reveal drivers at both sub-regional and sectoral levels: A case study of energy consumption in the Jing-Jin-Ji region. <i>Journal of Cleaner Production</i> , 2019, 213, 165-175.	4.6	27
88	Data Acquisition for Applying Physical Input-Output Tables in Chinese Cities. <i>Journal of Industrial Ecology</i> , 2011, 15, 825-835.	2.8	25
89	Sustainable urban materials management for air pollutants mitigation based on urban physical input-output model. <i>Energy</i> , 2012, 42, 387-392.	4.5	25
90	Resource impacts of municipal solid waste treatment systems in Chinese cities based on hybrid life cycle assessment. <i>Resources, Conservation and Recycling</i> , 2018, 130, 215-225.	5.3	25

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91	Achieving Dewaterization in Industrial Parks. <i>Journal of Industrial Ecology</i> , 2011, 15, 597-613.	2.8	24
92	Modeling domestic geographical transfers of toxic substances in WEEE: A case study of spent lead-acid batteries in China. <i>Journal of Cleaner Production</i> , 2018, 198, 1559-1566.	4.6	24
93	Saving less in China facilitates global CO2 mitigation. <i>Nature Communications</i> , 2020, 11, 1358.	5.8	24
94	Global Supply Chain Drivers of Agricultural Antibiotic Emissions in China. <i>Environmental Science &amp; Technology</i> , 2022, 56, 5860-5873.	4.6	24
95	Clustering economic sectors in China on a life cycle basis to achieve environmental sustainability. <i>Frontiers of Environmental Science and Engineering</i> , 2013, 7, 97-108.	3.3	23
96	Scaling of global input-output networks. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 452, 311-319.	1.2	22
97	The disposal and willingness to pay for residents' scrap fluorescent lamps in China: A case study of Beijing. <i>Resources, Conservation and Recycling</i> , 2016, 114, 103-111.	5.3	22
98	Network resilience of phosphorus cycling in China has shifted by natural flows, fertilizer use and dietary transitions between 1600 and 2012. <i>Nature Food</i> , 2020, 1, 365-375.	6.2	22
99	Spatially Explicit Global Hotspots Driving China's Mercury Related Health Impacts. <i>Environmental Science &amp; Technology</i> , 2020, 54, 14547-14557.	4.6	19
100	Looping Mercury Cycle in Global Environmental-Economic System Modeling. <i>Environmental Science &amp; Technology</i> , 2022, 56, 2861-2879.	4.6	19
101	Waste management of urban agglomeration on a life cycle basis. <i>Resources, Conservation and Recycling</i> , 2013, 78, 47-53.	5.3	16
102	Atmospheric Mercury Outflow from China and Interprovincial Trade. <i>Environmental Science &amp; Technology</i> , 2018, 52, 13792-13800.	4.6	16
103	Determinants of Greenhouse Gas Emissions from Interconnected Grids in China. <i>Environmental Science &amp; Technology</i> , 2019, 53, 1432-1440.	4.6	16
104	Spatial disparity of life-cycle greenhouse gas emissions from corn straw-based bioenergy production in China. <i>Applied Energy</i> , 2022, 305, 117854.	5.1	16
105	Energy Perspectives on the Environmental Performance and Sustainability of Small-Scale Gold Production Systems in Ghana. <i>Sustainability</i> , 2017, 9, 2034.	1.6	15
106	Chinese environmentally extended input-output database for 2017 and 2018. <i>Scientific Data</i> , 2021, 8, 256.	2.4	14
107	Three-dimensional hybrid enterprise input-output model for material metabolism analysis: a case study of coal mines in China. <i>Clean Technologies and Environmental Policy</i> , 2011, 13, 71-85.	2.1	13
108	Trade-related water scarcity risk under the Belt and Road Initiative. <i>Science of the Total Environment</i> , 2021, 801, 149781.	3.9	13

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109	Critical transmission sectors in embodied atmospheric mercury emission network in China. <i>Journal of Industrial Ecology</i> , 2021, 25, 1644-1656.	2.8	12
110	Identifying sectoral impacts on global scarce water uses from multiple perspectives. <i>Journal of Industrial Ecology</i> , 2021, 25, 1503-1517.	2.8	12
111	Rapid Increase in Cement-Related Mercury Emissions and Deposition in China during 2005–2015. <i>Environmental Science &amp; Technology</i> , 2020, 54, 14204-14214.	4.6	11
112	Socioeconomic drivers of water withdrawals driven by provincial energy demand in China. <i>Journal of Cleaner Production</i> , 2020, 258, 120971.	4.6	11
113	Critical transmission sectors for provincial food-water nexus in China. <i>Journal of Cleaner Production</i> , 2021, 279, 123886.	4.6	11
114	Sustainability performance of global chemical industry based on green total factor productivity. <i>Science of the Total Environment</i> , 2022, 830, 154787.	3.9	11
115	Global Economic Structure Transition Boosts Atmospheric Mercury Emissions in China. <i>Earth's Future</i> , 2021, 9, e2021EF002076.	2.4	10
116	Mapping spatial supply chain paths for embodied water flows driven by food demand in China. <i>Science of the Total Environment</i> , 2021, 786, 147480.	3.9	8
117	Role of Trade in India's Rising Atmospheric Mercury Emissions. <i>Environmental Science &amp; Technology</i> , 2022, 56, 790-803.	4.6	8
118	Co-benefits and trade-offs of environmental pressures: A case study of Zhejiang's socio-economic evolution. <i>Journal of Cleaner Production</i> , 2020, 255, 120365.	4.6	7
119	Planetary Boundaries for Forests and Their National Exceedance. <i>Environmental Science &amp; Technology</i> , 2021, 55, 15423-15434.	4.6	7
120	Effects of economic structural transition on PM2.5-Related Human Health Impacts in China. <i>Journal of Cleaner Production</i> , 2021, 298, 126793.	4.6	5
121	Socioeconomic determinants for the changing food-related scarce water uses in Chinese regions. <i>Journal of Cleaner Production</i> , 2021, 316, 128190.	4.6	5
122	Evaluating the synergy strength among environmental pressures at the sectoral level of China from the producer, consumer and supplier perspectives. <i>Journal of Cleaner Production</i> , 2020, 275, 124199.	4.6	3
123	Sustainable Urban Solid Waste Management from both Life Cycle and Urban Metabolism Perspectives. , 2012, , .		1
124	Forecast Modelling via Variations in Binary Image-Encoded Information Exploited by Deep Learning Neural Networks. <i>PLoS ONE</i> , 2016, 11, e0157028.	1.1	1
125	Virtual Special Issue on Resource Footprints of Humanity: Call for Papers. <i>Resources, Conservation and Recycling</i> , 2017, 126, A2-A3.	5.3	1
126	Resource footprints of humanity. <i>Resources, Conservation and Recycling</i> , 2018, 132, 267-268.	5.3	1



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127	Cascading costs of snow cover reduction trend in northern hemisphere. <i>Science of the Total Environment</i> , 2021, 806, 150970.	3.9	1
128	Inequality of household consumption and PM <sub>2.5</sub> footprint across socioeconomic groups in China. <i>Environmental Research Letters</i> , 2022, 17, 044019.	2.2	1
129	The distributed environmental benefits from driving electrical vehicles—evidence from China. <i>Resources, Conservation and Recycling</i> , 2022, 182, 106338.	5.3	1