Keisuke Nansai

List of Publications by Year
in descending order

105 papers	3,548 citations	136885 32 h-index	155592 55 g-index
107 all docs	107 docs citations	107 times ranked	3063 citing authors

#	Article	IF	Citations
1	Global socio-economic losses and environmental gains from the Coronavirus pandemic. PLoS ONE, 2020, 15, e0235654.	1.1	218
2	Review of critical metal dynamics to 2050 for 48 elements. Resources, Conservation and Recycling, 2020, 155, 104669.	5.3	185
3	Total material requirement for the global energy transition to 2050: A focus on transport and electricity. Resources, Conservation and Recycling, 2019, 148, 91-103.	5.3	164
4	Global Flows of Critical Metals Necessary for Low-Carbon Technologies: The Case of Neodymium, Cobalt, and Platinum. Environmental Science & Technology, 2014, 48, 1391-1400.	4.6	142
5	A review of methods and data to determine raw material criticality. Resources, Conservation and Recycling, 2020, 155, 104617.	5.3	137
6	Major metals demand, supply, and environmental impacts to 2100: A critical review. Resources, Conservation and Recycling, 2021, 164, 105107.	5.3	114
7	CO2 emission clusters within global supply chain networks: Implications for climate change mitigation. Global Environmental Change, 2015, 35, 486-496.	3.6	106
8	Nitrogen footprints: Regional realities and options to reduce nitrogen loss to the environment. Ambio, 2017, 46, 129-142.	2.8	102
9	Carbon footprint of Japanese health care services from 2011 to 2015. Resources, Conservation and Recycling, 2020, 152, 104525.	5.3	86
10	Material and Energy Dependence of Services and Its Implications for Climate Change. Environmental Science & Technology, 2009, 43, 4241-4246.	4.6	85
11	Global Mining Risk Footprint of Critical Metals Necessary for Low-Carbon Technologies: The Case of Neodymium, Cobalt, and Platinum in Japan. Environmental Science & Technology, 2015, 49, 2022-2031.	4.6	84
12	Estimates of Embodied Global Energy and Air-Emission Intensities of Japanese Products for Building a Japanese Inputâ€“Output Life Cycle Assessment Database with a Global System Boundary. Environmental Science & Technology, 2012, 46, 9146-9154.	4.6	79
13	IMPROVING THE COMPLETENESS OF PRODUCT CARBON FOOTPRINTS USING A GLOBAL LINK INPUTâ€“OUTPUT MODEL: THE CASE OF JAPAN. Economic Systems Research, 2009, 21, 267-290.	1.2	78
14	Global distribution of material consumption: Nickel, copper, and iron. Resources, Conservation and Recycling, 2018, 133, 369-374.	5.3	76
15	Changes in the Carbon Footprint of Japanese Households in an Aging Society. Environmental Science & Technology, 2014, 48, 6069-6080.	4.6	72
16	Implementing the material footprint to measure progress towards Sustainable Development Goals 8 and 12. Nature Sustainability, 2022, 5, 157-166.	11.5	69
17	Responsible mineral and energy futures: views at the nexus. Journal of Cleaner Production, 2014, 84, 322-338.	4.6	64
18	Geo-Referenced Multimedia Environmental Fate Model (G-CIEMS):Â Model Formulation and Comparison to the Generic Model and Monitoring Approaches. Environmental Science & Technology, 2004, 38, 5682-5693.	4.6	63

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19	Role of Motor Vehicle Lifetime Extension in Climate Change Policy. Environmental Science & Technology, 2011, 45, 1184-1191.	4.6	62
20	Production-based emissions, consumption-based emissions and consumption-based health impacts of PM2.5 carbonaceous aerosols in Asia. Atmospheric Environment, 2014, 97, 406-415.	1.9	59
21	Compilation and Application of Japanese Inventories for Energy Consumption and Air Pollutant Emissions Using Inputâˆ'Output Tables. Environmental Science & Technology, 2003, 37, 2005-2015.	4.6	58
22	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.	2.2	58
23	Life-cycle analysis of charging infrastructure for electric vehicles. Applied Energy, 2001, 70, 251-265.	5.1	55
24	Better cars or older cars?: Assessing CO2 emission reduction potential of passenger vehicle replacement programs. Global Environmental Change, 2013, 23, 1807-1818.	3.6	53
25	Global land-use change hidden behind nickel consumption. Science of the Total Environment, 2017, 586, 730-737.	3.9	52
26	Efficient use of cement and concrete to reduce reliance on supply-side technologies for net-zero emissions. Nature Communications, 2022, 13, .	5.8	51
27	Identifying critical supply chain paths and key sectors for mitigating primary carbonaceous PM_{2.5} mortality in Asia. Economic Systems Research, 2017, 29, 105-123.	1.2	45
28	What Factors Have Changed Japanese Resource Productivity?. Journal of Industrial Ecology, 2008, 12, 657-668.	2.8	42
29	Finding environmentally important industry clusters: Multiway cut approach using nonnegative matrix factorization. Social Networks, 2013, 35, 423-438.	1.3	41
30	Global Metal Use Targets in Line with Climate Goals. Environmental Science & Technology, 2020, 54, 12476-12483.	4.6	39
31	Affluent countries inflict inequitable mortality and economic loss on Asia via PM2.5 emissions. Environment International, 2020, 134, 105238.	4.8	36
32	Consumption in the G20 nations causes particulate air pollution resulting in two million premature deaths annually. Nature Communications, 2021, 12, 6286.	5.8	36
33	Sustainable energy transitions require enhanced resource governance. Journal of Cleaner Production, 2021, 312, 127698.	4.6	34
34	Trends in Japanese households' critical-metals material footprints. Ecological Economics, 2015, 119, 118-126.	2.9	32
35	Characterization of Economic Requirements for a â€œCarbon-Debt-Free Countryâ€• Environmental Science & Technology, 2012, 46, 155-163.	4.6	29
36	Integrating Circular Economy Strategies with Low-Carbon Scenarios: Lithium Use in Electric Vehicles. Environmental Science & Technology, 2019, 53, 11657-11665.	4.6	28

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37	Our health, our planet: a cross-sectional analysis on the association between health consciousness and pro-environmental behavior among health professionals. International Journal of Environmental Health Research, 2020, 30, 63-74.	1.3	28
38	Effects of electric vehicles (EV) on environmental loads with consideration of regional differences of electric power generation and charging characteristic of EV users in Japan. Applied Energy, 2002, 71, 111-125.	5.1	27
39	Identifying environmentally important supply chain clusters in the automobile industry. Economic Systems Research, 2013, 25, 265-286.	1.2	27
40	Understanding international trade network complexity of platinum: The case of Japan. Resources Policy, 2016, 49, 415-421.	4.2	27
41	GIS-based modelling of electric-vehicleâ€“grid integration in a 100% renewable electricity grid. Applied Energy, 2020, 262, 114577.	5.1	26
42	Global Distribution of Used and Unused Extracted Materials Induced by Consumption of Iron, Copper, and Nickel. Environmental Science & Technology, 2019, 53, 1555-1563.	4.6	25
43	A flexible multiregional inputâ€“output database for city-level sustainability footprint analysis in Japan. Resources, Conservation and Recycling, 2020, 154, 104588.	5.3	25
44	Simple Indicator To Identify the Environmental Soundness of Growth of Consumption and Technology:Â â€œEco-velocity of Consumptionâ€• Environmental Science & Technology, 2007, 41, 1465-1472.	4.6	24
45	The Economic and Environmental Consequences of Automobile Lifetime Extension and Fuel Economy Improvement: Japan's Case. Economic Systems Research, 2008, 20, 3-28.	1.2	24
46	Fertility-rate recovery and double-income policies require solving the carbon gap under the Paris Agreement. Resources, Conservation and Recycling, 2018, 133, 385-394.	5.3	24
47	Exploring carbon footprint reduction pathways through urban lifestyle changes: a practical approach applied to Japanese cities. Environmental Research Letters, 2021, 16, 084001.	2.2	24
48	Site-Dependent Life-Cycle Analysis by the SAME Approach:Â Its Concept, Usefulness, and Application to the Calculation of Embodied Impact Intensity by Means of an Inputâˆ’Output Analysis. Environmental Science & Technology, 2005, 39, 7318-7328.	4.6	23
49	Identifying common features among household consumption patterns optimized to minimize specific environmental burdens. Journal of Cleaner Production, 2008, 16, 538-548.	4.6	23
50	The role of primary processing in the supply risks of critical metals. Economic Systems Research, 2017, 29, 335-356.	1.2	23
51	Identifying the Substance Flow of Metals Embedded in Japanese International Trade by Use of Waste Input-Output Material Flow Analysis (WIO-MFA) Model. ISIJ International, 2011, 51, 1934-1939.	0.6	21
52	Global copper cycles and greenhouse gas emissions in a 1.5ÂÂ°C world. Resources, Conservation and Recycling, 2022, 179, 106118.	5.3	21
53	Nexus between economy-wide metal inputs and the deterioration of sustainable development goals. Resources, Conservation and Recycling, 2019, 149, 12-19.	5.3	19
54	Greater circularity leads to lower criticality, and other links between criticality and the circular economy. Resources, Conservation and Recycling, 2020, 159, 104718.	5.3	19

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55	Hybrid life-cycle assessment (LCA) of CO2 emission with management alternatives for household food wastes in Japan. Waste Management and Research, 2010, 28, 496-507.	2.2	18
56	Inputâ€“Output and Hybrid LCA. LCA Compendium, 2016, , 219-291.	0.8	18
57	Economic and social determinants of global physical flows of critical metals. Resources Policy, 2017, 52, 107-113.	4.2	18
58	Responsibility for food loss from a regional supply-chain perspective. Resources, Conservation and Recycling, 2019, 146, 373-383.	5.3	18
59	Contraction and convergence of in-use metal stocks to meet climate goals. Global Environmental Change, 2021, 69, 102284.	3.6	18
60	Drivers of CO₂ emissions in international aviation: the case of Japan. Environmental Research Letters, 2020, 15, 104036.	2.2	17
61	High-Resolution Inventory of Japanese Anthropogenic Mercury Emissions. Environmental Science & Technology, 2012, 46, 4933-4940.	4.6	16
62	Quantifying lifestyle based social equity implications for national sustainable development policy. Environmental Research Letters, 2020, 15, 084044.	2.2	16
63	Global supply chain analysis of nickel: importance and possibility of controlling the resource logistics. Metallurgical Research and Technology, 2014, 111, 339-346.	0.4	15
64	Clarifying Demographic Impacts on Embodied and Materially Retained Carbon toward Climate Change Mitigation. Environmental Science & Technology, 2019, 53, 14123-14133.	4.6	15
65	ANALYSIS OF PHOSPHORUS DEPENDENCY IN ASIA. Sociotechnica, 2014, 11, 119-126.	0.4	15
66	Influence of income difference on carbon and material footprints for critical metals: the case of Japanese households. Journal of Economic Structures, 2016, 5, .	0.6	14
67	Hidden phosphorus flows related with non-agriculture industrial activities: A focus on steelmaking and metal surface treatment. Resources, Conservation and Recycling, 2015, 105, 360-367.	5.3	13
68	Industrial clusters with substantial carbon-reduction potential. Economic Systems Research, 2019, 31, 248-266.	1.2	12
69	Proposal of a simple indicator for sustainable consumption: classifying goods and services into three types focusing on their optimal consumption levels. Journal of Cleaner Production, 2007, 15, 879-885.	4.6	11
70	Does product lifetime extension increase our income at the expense of energy consumption?. Energy Economics, 2009, 31, 197-210.	5.6	10
71	Compilation and application of a primary PM2.5 emissions inventory with high sectoral resolution in Japan. Atmospheric Environment, 2009, 43, 759-768.	1.9	9
72	Material Flow of Iron in Global Supply Chain. ISIJ International, 2014, 54, 2657-2662.	0.6	9

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73	Conflicting consequences of price-induced product lifetime extension in circular economy: The impact on metals, greenhouse gas, and sales of air conditioners. Resources, Conservation and Recycling, 2020, 162, 105023.	5.3	9
74	Embedding a low-carbon interregional supply chain into a recovery plan for future natural disasters. Journal of Cleaner Production, 2021, 315, 128160.	4.6	9
75	Sources of Chinaâ€™s Fossil Energy-Use Change. Energies, 2019, 12, 699.	1.6	8
76	Significance of country-specific context in metal scarcity assessment from a perspective of short-term mining capacity. Resources, Conservation and Recycling, 2021, 166, 105305.	5.3	8
77	How Has Dematerialization Contributed to Reducing Oil Price Pressure?: A Qualitative Inputâ^'Output Analysis for the Japanese Economy during 1990â^'2000. Environmental Science & Technology, 2009, 43, 245-252.	4.6	7
78	Fixed-capital formation for services in Japan incurs substantial carbon-intensive material consumption. Resources, Conservation and Recycling, 2022, 182, 106334.	5.3	7
79	Consumption-based accounting of steel alloying elements and greenhouse gas emissions associated with the metal use: the case of Japan. Journal of Economic Structures, 2016, 5, .	0.6	6
80	Environmental Input-Output Database Building in Japan. Eco-efficiency in Industry and Science, 2009, , 653-688.	0.1	6
81	Shifting agriculture is the dominant driver of forest disturbance in threatened forest speciesâ€™ ranges. Communications Earth & Environment, 2022, 3, .	2.6	6
82	Examining the inconsistency of mercury flow in post-Minamata Convention global trade concerning artisanal and small-scale gold mining activity. Resources, Conservation and Recycling, 2022, 185, 106461.	5.3	6
83	Development of Geo-Referenced Environmental Fate Model (G-CIEMS) for Chemical Contaminants Based on GIS (Geographic Information System). Journal of Environmental Chemistry, 2005, 15, 385-395.	0.1	5
84	Effects of product replacement programs on climate change. Journal of Cleaner Production, 2019, 221, 157-166.	4.6	5
85	Responsibility of consumers for mining capacity: decomposition analysis of scarcity-weighted metal footprints in the case of Japan. IScience, 2021, 24, 102025.	1.9	5
86	Global distribution of material stocks: iron, copper and nickel. Materiaux Et Techniques, 2017, 105, 511.	0.3	5
87	Forest Tax Payment Responsibility from the Forest Service Footprint Perspective. Environmental Science & Technology, 2021, 55, 3165-3174.	4.6	4
88	Critical supply chains for mitigating PM2.5 emission-related mortalities in India. Scientific Reports, 2021, 11, 11914.	1.6	4
89	Bottlenecks in material cycle of nickel. Materiaux Et Techniques, 2016, 104, 604.	0.3	4
90	9th International Conference on EcoBalance (9th ICEB)â€"towards and beyond 2020, November 9â€"12, 2010, Tokyo, Japan. International Journal of Life Cycle Assessment, 2011, 16, 478-487.	2.2	3

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91	Role of linkage structures in supply chain for managing greenhouse gas emissions. Journal of Economic Structures, 2018, 7, .	0.6	3
92	Practical determination of sectoral environmental burdens applied to input-output analysis. Journal of Life Cycle Assessment Japan, 2006, 2, 22-41.	0.0	3
93	Accounting for Changes in Automobile Gasoline Consumption in Japan: 2000â€“2007. Journal of Economic Structures, 2012, 1, .	0.6	2
94	Economic consequences of the Home Appliance Eco-Point Program in Japan: a dynamic discrete choice approach. Applied Economics, 2019, 51, 4551-4563.	1.2	2
95	Material Flow of Iron in Global Supply Chain. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 750-755.	0.1	1
96	EcoBalance 2016-responsible value chains for sustainability (October 3-6, 2016, Kyoto, Japan). International Journal of Life Cycle Assessment, 2017, 22, 1165-1174.	2.2	1
97	Sustainable opportunities for critical metals. One Earth, 2021, 4, 327-330.	3.6	1
98	Development of Database on Japanese Sectoral Energy Consumption, CO2 and Air Pollutant Emissions Intensities Based on the Input-Output Tables. , 2003, , 1745-1748.		1
99	Revisiting Japanese carbon footprint studies. , 2017, , 335-350.		1
100	Approaches to Supply Chain Risk Management from LCA Studies. Journal of Life Cycle Assessment Japan, 2018, 14, 292-301.	0.0	0
101	Resource Flows and Stocks in the Global Economy. , 2021, , 119-140.		0
102	Conference Report on the 9th International Conference on EcoBalance (EcoBalance2010) (Detail) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.0	0
103	Frontiers of Global MRIO Development Have Been Brought Together Here!. Journal of Life Cycle Assessment Japan, 2013, 9, 65-66.	0.0	0
104	Database Development of Embodied Global-environmental-burden Intensities for Japanese Products with GLIO. Journal of Life Cycle Assessment Japan, 2013, 9, 101-107.	0.0	0
105	Role of Ethical Consumption in Resource Lifecycle. Material Cycles and Waste Management Research, 2017, 28, 267-274.	0.0	0