Shuai Wang

List of Publications by Year in descending order

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66343 40979 9,654 147 42 93 citations h-index g-index papers 151 151 151 5774 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Revegetation in China's Loess Plateau is approaching sustainable water resource limits. Nature Climate Change, 2016, 6, 1019-1022.	18.8	1,270
2	Reduced sediment transport in the Yellow River due to anthropogenic changes. Nature Geoscience, 2016, 9, 38-41.	12.9	948
3	Hydrogeomorphic Ecosystem Responses to Natural and Anthropogenic Changes in the Loess Plateau of China. Annual Review of Earth and Planetary Sciences, 2017, 45, 223-243.	11.0	607
4	Quantifying the impacts of climate change and ecological restoration on streamflow changes based on a <scp>B</scp> udyko hydrological model in <scp>C</scp> hina's <scp>L</scp> oess <scp>P</scp> lateau. Water Resources Research, 2015, 51, 6500-6519.	4.2	370
5	Increasing global vegetation browning hidden in overall vegetation greening: Insights from time-varying trends. Remote Sensing of Environment, 2018, 214, 59-72.	11.0	322
6	Drivers and impacts of changes in China's drylands. Nature Reviews Earth & Environment, 2021, 2, 858-873.	29.7	255
7	Unravelling the complexity in achieving the 17 sustainable-development goals. National Science Review, 2019, 6, 386-388.	9.5	245
8	Vegetation changes in recent large-scale ecological restoration projects and subsequent impact on water resources in China's Loess Plateau. Science of the Total Environment, 2016, 569-570, 1032-1039.	8.0	218
9	Ecosystem service trade-offs and their influencing factors: A case study in the Loess Plateau of China. Science of the Total Environment, 2017, 607-608, 1250-1263.	8.0	199
10	Linking ecosystem processes and ecosystem services. Current Opinion in Environmental Sustainability, 2013, 5, 4-10.	6.3	197
11	Effects of precipitation and restoration vegetation on soil erosion in a semi-arid environment in the Loess Plateau, China. Catena, 2016, 137, 1-11.	5.0	190
12	Determining the hydrological responses to climate variability and land use/cover change in the Loess Plateau with the Budyko framework. Science of the Total Environment, 2016, 557-558, 331-342.	8.0	178
13	Influence of land use change on the ecosystem service trade-offs in the ecological restoration area: Dynamics and scenarios in the Yanhe watershed, China. Science of the Total Environment, 2018, 644, 556-566.	8.0	166
14	Responses of soil moisture in different land cover types to rainfall events in a re-vegetation catchment area of the Loess Plateau, China. Catena, 2013, 101, 122-128.	5.0	163
15	Socio-ecological changes on the Loess Plateau of China after Grain to Green Program. Science of the Total Environment, 2019, 678, 565-573.	8.0	154
16	The effects of afforestation on soil organic and inorganic carbon: A case study of the Loess Plateau of China. Catena, 2012, 95, 145-152.	5.0	145
17	Land use optimization based on ecosystem service assessment: A case study in the Yanhe watershed. Land Use Policy, 2018, 72, 303-312.	5 . 6	127
18	Comparison of Four Spatial Interpolation Methods for Estimating Soil Moisture in a Complex Terrain Catchment. PLoS ONE, 2013, 8, e54660.	2. 5	117

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19	Soil moisture decline following the plantation of Robinia pseudoacacia forests: Evidence from the Loess Plateau. Forest Ecology and Management, 2018, 412, 62-69.	3.2	112
20	The effects of vegetation on runoff and soil loss: Multidimensional structure analysis and scale characteristics. Journal of Chinese Geography, 2018, 28, 59-78.	3.9	112
21	Decoupling of SDGs followed by re-coupling as sustainable development progresses. Nature Sustainability, 2022, 5, 452-459.	23.7	107
22	Evolution and effects of the social-ecological system over a millennium in China's Loess Plateau. Science Advances, 2020, 6, .	10.3	105
23	A comparative analysis of forest cover and catchment water yield relationships in northern China. Forest Ecology and Management, 2011, 262, 1189-1198.	3.2	103
24	Driving forces of changes in the water and sediment relationship in the Yellow River. Science of the Total Environment, 2017, 576, 453-461.	8.0	102
25	Advances in hydrological modelling with the Budyko framework. Progress in Physical Geography, 2016, 40, 409-430.	3.2	88
26	Ecological effects and potential risks of the water diversion project in the Heihe River Basin. Science of the Total Environment, 2018, 619-620, 794-803.	8.0	83
27	Reducing soil erosion by improving community functional diversity in semiâ€arid grasslands. Journal of Applied Ecology, 2015, 52, 1063-1072.	4.0	81
28	Changes in soil organic and inorganic carbon stocks in deep profiles following cropland abandonment along a precipitation gradient across the Loess Plateau of China. Agriculture, Ecosystems and Environment, 2018, 258, 1-13.	5.3	74
29	Landscape functional zoning at a county level based on ecosystem services bundle: Methods comparison and management indication. Journal of Environmental Management, 2019, 249, 109315.	7.8	74
30	Improve forest restoration initiatives to meet Sustainable Development Goal 15. Nature Ecology and Evolution, 2021, 5, 10-13.	7.8	69
31	Effects of revegetation and precipitation gradient on soil carbon and nitrogen variations in deep profiles on the Loess Plateau of China. Science of the Total Environment, 2018, 626, 399-411.	8.0	68
32	Precipitation gradient determines the tradeoff between soil moisture and soil organic carbon, total nitrogen, and species richness in the Loess Plateau, China. Science of the Total Environment, 2017, 575, 1538-1545.	8.0	65
33	Spatial Consistency Assessments for Global Land-Cover Datasets: A Comparison among GLC2000, CCI LC, MCD12, GLOBCOVER and GLCNMO. Remote Sensing, 2018, 10, 1846.	4.0	63
34	Classification–coordination–collaboration: a systems approach for advancing Sustainable Development Goals. National Science Review, 2020, 7, 838-840.	9.5	60
35	The multi-scale spatial variance of soil moisture in the semi-arid Loess Plateau of China. Journal of Soils and Sediments, 2012, 12, 694-703.	3.0	58
36	Regional development boundary of China's Loess Plateau: Water limit and land shortage. Land Use Policy, 2018, 74, 130-136.	5.6	56

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37	Untangling the interactions among the Sustainable Development Goals in China. Science Bulletin, 2022, 67, 977-984.	9.0	55
38	Metacoupling supply and demand for soil conservation service. Current Opinion in Environmental Sustainability, 2018, 33, 136-141.	6.3	53
39	Yellow River water rebalanced by human regulation. Scientific Reports, 2019, 9, 9707.	3.3	53
40	Quantification of the ecosystem carrying capacity on China's Loess Plateau. Ecological Indicators, 2019, 101, 192-202.	6.3	51
41	Ecosystem service provision of grain legume and cereal intercropping in Africa. Agricultural Systems, 2020, 178, 102761.	6.1	49
42	Coupling human and natural systems for sustainability: experience from China's Loess Plateau. Earth System Dynamics, 2022, 13, 795-808.	7.1	48
43	Water use characteristics of native and exotic shrub species in the semi-arid Loess Plateau using an isotope technique. Agriculture, Ecosystems and Environment, 2019, 276, 55-63.	5.3	47
44	Response of vegetation to drought in the Tibetan Plateau: Elevation differentiation and the dominant factors. Agricultural and Forest Meteorology, 2021, 306, 108468.	4.8	47
45	Effects of soil physicochemical properties and stand age on fine root biomass and vertical distribution of plantation forests in the Loess Plateau of China. Ecological Research, 2012, 27, 827-836.	1.5	45
46	Exploring the effects of the "Grain for Green―program on the differences in soil water in the semi-arid Loess Plateau of China. Ecological Engineering, 2017, 107, 144-151.	3.6	45
47	Soil Moisture Variations with Land Use along the Precipitation Gradient in the North–South Transect of the Loess Plateau. Land Degradation and Development, 2017, 28, 926-935.	3.9	45
48	Mapping total soil nitrogen from a site in northeastern China. Catena, 2018, 166, 134-146.	5.0	43
49	Driving forces and their contribution to the recent decrease in sediment flux to ocean of major rivers in China. Science of the Total Environment, 2018, 634, 534-541.	8.0	40
50	Structure, function, and dynamic mechanisms of coupled human–natural systems. Current Opinion in Environmental Sustainability, 2018, 33, 87-91.	6.3	39
51	Quantifying the effects of human activities and climate variability on vegetation cover change in a hyperâ€arid endorheic basin. Land Degradation and Development, 2018, 29, 3294-3304.	3.9	38
52	Trade-offs between forest ecosystem services. Forest Policy and Economics, 2013, 26, 145-146.	3.4	37
53	Ecosystem services management: an integrated approach. Current Opinion in Environmental Sustainability, 2013, 5, 11-15.	6.3	36
54	Spatial variation and influencing factors of the effectiveness of afforestation in China's Loess Plateau. Science of the Total Environment, 2021, 771, 144904.	8.0	36

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55	Mapping the complexity of the food-energy-water nexus from the lens of Sustainable Development Goals in China. Resources, Conservation and Recycling, 2022, 183, 106357.	10.8	36
56	Comparison of transpiration between different aged black locust (Robinia pseudoacacia) trees on the semi-arid Loess Plateau, China. Journal of Arid Land, 2016, 8, 604-617.	2.3	34
57	Nonlinear dynamics of fires in Africa over recent decades controlled by precipitation. Global Change Biology, 2020, 26, 4495-4505.	9.5	34
58	Evaluation of ecosystem resilience to drought based on drought intensity and recovery time. Agricultural and Forest Meteorology, 2022, 314, 108809.	4.8	34
59	Carbon Sequestration Function of Check-Dams: A Case Study of the Loess Plateau in China. Ambio, 2014, 43, 926-931.	5 . 5	32
60	Developing policy for the Yellow River sediment sustainable control. National Science Review, 2016, 3, 162-164.	9.5	32
61	River flow is critical for vegetation dynamics: Lessons from multi-scale analysis in a hyper-arid endorheic basin. Science of the Total Environment, 2017, 603-604, 290-298.	8.0	32
62	A multiple importance–satisfaction analysis framework for the sustainable management of protected areas: Integrating ecosystem services and basic needs. Ecosystem Services, 2020, 46, 101219.	5.4	30
63	Integrating vegetation suitability in sustainable revegetation for the Loess Plateau, China. Science of the Total Environment, 2021, 759, 143572.	8.0	30
64	A coupled human-natural system analysis of water yield in the Yellow River basin, China. Science of the Total Environment, 2021, 762, 143141.	8.0	30
65	Is the runoff coefficient increasing or decreasing after ecological restoration on China's Loess Plateau?. International Soil and Water Conservation Research, 2021, 9, 333-343.	6.5	30
66	Pathways from payments for ecosystem services program to socioeconomic outcomes. Ecosystem Services, 2019, 39, 101005.	5. 4	29
67	Effects of reforestation on plant species diversity on the Loess Plateau of China: A case study in Danangou catchment. Science of the Total Environment, 2019, 651, 979-989.	8.0	29
68	A process-based framework for soil ecosystem services study and management. Science of the Total Environment, 2018, 627, 282-289.	8.0	28
69	Finding pathways to synergistic development of Sustainable Development Goals in China. Humanities and Social Sciences Communications, 2022, 9, .	2.9	28
70	Balancing community livelihoods and biodiversity conservation of protected areas in East Africa. Current Opinion in Environmental Sustainability, 2018, 33, 26-33.	6.3	27
71	Vegetation dynamic trends and the main drivers detected using the ensemble empirical mode decomposition method in East Africa. Land Degradation and Development, 2018, 29, 2542-2553.	3.9	27
72	Alignment of social and ecological structures increased the ability of river management. Science Bulletin, 2019, 64, 1318-1324.	9.0	27

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73	A Synthesizing Land-cover Classification Method Based on Google Earth Engine: A Case Study in Nzhelele and Levhuvu Catchments, South Africa. Chinese Geographical Science, 2020, 30, 397-409.	3.0	27
74	A solution to the conflicts of multiple planning boundaries: Landscape functional zoning in a resource-based city in China. Habitat International, 2018, 77, 43-55.	5.8	26
75	Global ecological regionalization: from biogeography to ecosystem services. Current Opinion in Environmental Sustainability, 2018, 33, 1-8.	6.3	26
76	Temporal stability of surface soil moisture of different vegetation types in the Loess Plateau of China. Catena, 2015, 128, 1-15.	5.0	24
77	Grassland gross carbon dioxide uptake based on an improved model tree ensemble approach considering human interventions: global estimation and covariation with climate. Global Change Biology, 2017, 23, 2720-2742.	9.5	24
78	Socioeconomic impacts of a protected area in China: An assessment from rural communities of Qianjiangyuan National Park Pilot. Land Use Policy, 2020, 99, 104849.	5.6	24
79	Inconsistent changes in NPP and LAI determined from the parabolic LAI versus NPP relationship. Ecological Indicators, 2021, 131, 108134.	6.3	24
80	Poverty reduction, environmental protection and ecosystem services: A prospective theory for sustainable development. Chinese Geographical Science, 2014, 24, 83-92.	3.0	23
81	Vulnerability assessment of the global water erosion tendency: Vegetation greening can partly offset increasing rainfall stress. Land Degradation and Development, 2019, 30, 1061-1069.	3.9	23
82	Exploring responses of lake area to river regulation and implications for lake restoration in arid regions. Ecological Engineering, 2019, 128, 18-26.	3.6	22
83	Integrating multiple influencing factors in evaluating the socioeconomic effects of payments for ecosystem services. Ecosystem Services, 2021, 51, 101348.	5.4	22
84	Comprehensive analysis of relationship between vegetation attributes and soil erosion on hillslopes in the Loess Plateau of China. Environmental Earth Sciences, 2014, 72, 1721-1731.	2.7	20
85	Slower vegetation greening faced faster social development on the landscape of the Belt and Road region. Science of the Total Environment, 2019, 697, 134103.	8.0	20
86	Response of net reduction rate in vegetation carbon uptake to climate change across a unique gradient zone on the Tibetan Plateau. Environmental Research, 2022, 203, 111894.	7.5	20
87	Linking vegetation cover patterns to hydrological responses using two process-based pattern indices at the plot scale. Science China Earth Sciences, 2013, 56, 1888-1898.	5.2	19
88	Identifying priority biophysical indicators for promoting food-energy-water nexus within planetary boundaries. Resources, Conservation and Recycling, 2020, 163, 105102.	10.8	19
89	Rapid increase of potential evapotranspiration weakens the effect of precipitation on aridity in global drylands. Journal of Arid Environments, 2021, 186, 104414.	2.4	19
90	Responses of soil ammonia oxidation and ammonia-oxidizing communities to land-use conversion and fertilization in an acidic red soil of southern China. European Journal of Soil Biology, 2017, 80, 110-120.	3.2	18

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91	Check dam infilling archives elucidate historical sedimentary dynamics in a semiarid landscape of the Loess Plateau, China. Ecological Engineering, 2018, 118, 161-170.	3.6	18
92	African dryland ecosystem changes controlled by soil water. Land Degradation and Development, 2019, 30, 1564-1573.	3.9	18
93	Representation of biodiversity and ecosystem services in East Africa's protected area network. Ambio, 2020, 49, 245-257.	5 . 5	18
94	Comparison between tourists' and inhabitants' willingness to pay for nature in the Tibetan Plateau. Journal of Cleaner Production, 2020, 255, 120219.	9.3	17
95	The trend shift caused by ecological restoration accelerates the vegetation greening of China's drylands since the 1980s. Environmental Research Letters, 2022, 17, 044062.	5 . 2	17
96	Vertical Distributions of Soil Organic Carbon and its Influencing Factors Under Different Land Use Types in the Desert Riparian Zone of Downstream Heihe River Basin, China. Journal of Geophysical Research D: Atmospheres, 2018, 123, 7741-7753.	3.3	16
97	Assessing the integrity of soil erosion in different patch covers in semi-arid environment. Journal of Hydrology, 2019, 571, 71-86.	5 . 4	16
98	Estimation of Global Grassland Net Ecosystem Carbon Exchange Using a Model Tree Ensemble Approach. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005034.	3.0	16
99	Responses and feedbacks of African dryland ecosystems to environmental changes. Current Opinion in Environmental Sustainability, 2021, 48, 29-35.	6.3	16
100	Achieving a fit between social and ecological systems in drylands for sustainability. Current Opinion in Environmental Sustainability, 2021, 48, 53-58.	6.3	16
101	Runoff sensitivity increases with land use/cover change contributing to runoff decline across the middle reaches of the Yellow River basin. Journal of Hydrology, 2021, 600, 126536.	5.4	16
102	Effects of minimum soil disturbance practices on controlling water erosion in China's slope farmland: A metaâ€analysis. Land Degradation and Development, 2019, 30, 706-716.	3.9	15
103	Frequency analyses of peak discharge and suspended sediment concentration in the United States. Journal of Soils and Sediments, 2020, 20, 1157-1168.	3.0	15
104	A retrospective analysis on changes in sediment flux in the Mississippi River system: trends, driving forces, and implications. Journal of Soils and Sediments, 2020, 20, 1719-1729.	3.0	15
105	Improving representation of collective memory in socioâ€hydrological models and new insights into flood risk management. Journal of Flood Risk Management, 2021, 14, e12679.	3.3	15
106	Ecological restoration intensifies evapotranspiration in the Kubuqi Desert. Ecological Engineering, 2022, 175, 106504.	3.6	15
107	Landscape change and its drivers: a Southern African perspective. Current Opinion in Environmental Sustainability, 2018, 33, 80-86.	6.3	14
108	Detecting land degradation in Southern Africa using Time Series Segment and Residual Trend (TSS-RESTREND). Journal of Arid Environments, 2021, 184, 104314.	2.4	14

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109	Global Surface Soil Moisture Dynamics in 1979–2016 Observed from ESA CCI SM Dataset. Water (Switzerland), 2019, 11, 883.	2.7	13
110	Temporal and Spatial Changes of Soil Organic Carbon Stocks in the Forest Area of Northeastern China. Forests, 2019, 10, 1023.	2.1	13
111	Quantifying responses of net primary productivity to agricultural expansion in drylands. Land Degradation and Development, 2021, 32, 2050-2060.	3.9	13
112	Reversal of the sediment load increase in the Amazon basin influenced by divergent trends of sediment transport from the Solimões and Madeira Rivers. Catena, 2020, 195, 104804.	5.0	12
113	Multilevel analysis of factors affecting participants' land reconversion willingness after the Grain for Green Program. Ambio, 2021, 50, 1394-1403.	5.5	12
114	Bundling regions for promoting Sustainable Development Goals. Environmental Research Letters, 2022, 17, 044021.	5.2	12
115	Survey of Community Livelihoods and Landscape Change along the Nzhelele and Levuvhu River Catchments in Limpopo Province, South Africa. Land, 2020, 9, 91.	2.9	11
116	Spatio-temporal patterns of oasis dynamics in China's drylands between 1987 and 2017. Environmental Research Letters, 2022, 17, 064044.	5.2	11
117	Variability of Tamarix spp. characteristics in riparian plant communities are affected by soil properties and accessibility of anthropogenic disturbance in the lower reaches of Heihe River, China. Forest Ecology and Management, 2018, 410, 174-186.	3.2	10
118	Sediment transport under increasing anthropogenic stress: Regime shifts within the Yellow River, China. Ambio, 2020, 49, 2015-2025.	5.5	10
119	Do Fallow Season Cover Crops Increase N2O or CH4 Emission from Paddy Soils in the Mono-Rice Cropping System?. Agronomy, 2021, 11, 199.	3.0	10
120	Suitability evaluation of potential arable land in the Mediterranean region. Journal of Environmental Management, 2022, 313, 115011.	7.8	10
121	Divergent trends of ecosystemâ€scale photosynthetic efficiency between arid and humid lands across the globe. Global Ecology and Biogeography, 2022, 31, 1824-1837.	5.8	10
122	Linking the soil moisture distribution pattern to dynamic processes along slope transects in the Loess Plateau, China. Environmental Monitoring and Assessment, 2015, 187, 778.	2.7	9
123	Multivariate control of root biomass in a semi-arid grassland on the Loess Plateau, China. Plant and Soil, 2014, 379, 315-324.	3.7	8
124	An integrated probabilistic assessment to analyse stochasticity of soil erosion in different restoration vegetation types. Hydrology and Earth System Sciences, 2017, 21, 1491-1514.	4.9	8
125	Effects of biochar and 3,4-dimethylpyrazole phosphate (DMPP) on soil ammonia-oxidizing bacteria and nosZ-N2O reducers in the mitigation of N2O emissions from paddy soils. Journal of Soils and Sediments, 2021, 21, 1089-1098.	3.0	8
126	Adopting "Difference-in-Differences―Method to Monitor Crop Response to Agrometeorological Hazards with Satellite Data: A Case Study of Dry-Hot Wind. Remote Sensing, 2021, 13, 482.	4.0	8

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127	Responses of two desert shrubs to simulated rainfall pulses in an arid environment, northwestern China. Plant and Soil, 2019, 435, 239-255.	3.7	7
128	Responses of CH4 and N2O fluxes to land-use conversion and fertilization in a typical red soil region of southern China. Scientific Reports, 2017, 7, 10571.	3.3	6
129	Vegetation responses and tradeâ€offs with soilâ€related ecosystem services after shrub removal: A metaâ€analysis. Land Degradation and Development, 2019, 30, 1219-1228.	3.9	6
130	Threshold of vapour–pressure deficit constraint on light use efficiency varied with soil water content. Ecohydrology, 2022, 15, e2305.	2.4	6
131	Sustainable city development challenged by extreme weather in a warming world. Geography and Sustainability, 2022, 3, 114-118.	4.3	6
132	The vulnerability of ecosystem structure in the semi-arid area revealed by the functional trait networks. Ecological Indicators, 2022, 139, 108894.	6.3	6
133	Combined effects of rainfall regime and plot length on runoff and soil loss in the Loess Plateau of China. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2018, 109, 397-406.	0.3	5
134	Enhanced coupling of light use efficiency and water use efficiency in arid and semiâ€arid environments. Ecohydrology, 2022, 15, e2391.	2.4	5
135	Comparative analysis of annual rings of perennial forbs in the Loess Plateau, China. Dendrochronologia, 2016, 38, 82-89.	2.2	4
136	Soil moisture temporal stability analysis for typical hilly and gully re-vegetated catchment in the Loess Plateau, China. Environmental Earth Sciences, 2016, 75, 1.	2.7	3
137	Divergent change patterns observed in hydrological fluxes entering China's two largest lakes. Science of the Total Environment, 2022, 817, 152969.	8.0	3
138	Trends and attribution analysis of modelled evapotranspiration on the Tibetan Plateau. Hydrological Processes, 2022, 36, .	2.6	3
139	Effects of land use patterns on slope soil water in the semiarid Loess Plateau, China. Journal of Chinese Geography, 2022, 32, 701-716.	3.9	3
140	Potential of Chamomile recutita Plant Material to Inhibit Urease Activity and Reduce NH3 Volatilization in Two Agricultural Soils. Atmosphere, 2021, 12, 1223.	2.3	2
141	Elevation dependence of climate effects on ecosystem multifunctionality states over the Qinghai-Tibet Plateau. Global Ecology and Conservation, 2022, , e02066.	2.1	2
142	Earth surface processes and environmental sustainability in China: preface. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2018, 109, 373-374.	0.3	1
143	Stochastic soil moisture dynamic modelling: a case study in the Loess Plateau, China. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2018, 109, 437-444.	0.3	1
144	Decreased virtual water outflows from the Yellow River basin are increasingly critical to China. Hydrology and Earth System Sciences, 2022, 26, 2035-2044.	4.9	1

Shuai Wang

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145	Does having more sustainable communities bring better sustainability?. Innovation(China), 2022, 3, 100267.	9.1	1
146	Structure Disentanglement and Effect Analysis of the Arid Riverscape Social-Ecological System Using a Network Approach. Sustainability, 2019, 11, 5159.	3.2	0
147	Response to concerns about the African fire trends controlled by precipitation over recent decades. Global Change Biology, 2022, 28, .	9.5	0