Olivier Evrard

List of Publications by Year in descending order

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129 papers 4,007 citations

94381 37 h-index 54 g-index

166 all docs

166 docs citations

166 times ranked 2865 citing authors

#	Article	IF	CITATIONS
1	The challenges and opportunities of addressing particle size effects in sediment source fingerprinting: A review. Earth-Science Reviews, 2017, 169, 85-103.	4.0	194
2	Sediment fingerprinting in fluvial systems: review of tracers, sediment sources and mixing models. International Journal of Sediment Research, 2013, 28, 560-578.	1.8	175
3	Radiocesium transfer from hillslopes to the Pacific Ocean after the Fukushima Nuclear Power Plant accident: A review. Journal of Environmental Radioactivity, 2015, 148, 92-110.	0.9	143
4	Sediment source fingerprinting: benchmarking recent outputs, remaining challenges and emerging themes. Journal of Soils and Sediments, 2020, 20, 4160-4193.	1.5	124
5	Tracking the early dispersion of contaminated sediment along rivers draining the Fukushima radioactive pollution plume. Anthropocene, 2013, 1, 23-34.	1.6	90
6	Spatial and temporal variation of muddy floods in central Belgium, off-site impacts and potential control measures. Catena, 2007, 70, 443-454.	2.2	89
7	Drivers of erosion and suspended sediment transport in three headwater catchments of the Mexican Central Highlands. Geomorphology, 2010, 123, 243-256.	1.1	87
8	Combining suspended sediment monitoring and fingerprinting to determine the spatial origin of fine sediment in a mountainous river catchment. Earth Surface Processes and Landforms, 2011, 36, 1072-1089.	1.2	85
9	Temporal variability of suspended sediment sources in an alpine catchment combining river/rainfall monitoring and sediment fingerprinting. Earth Surface Processes and Landforms, 2012, 37, 828-846.	1.2	79
10	Sediment dynamics during the rainy season in tropical highland catchments of central Mexico using fallout radionuclides. Geomorphology, 2010, 124, 42-54.	1.1	71
11	Relative Contribution of Rill/Interrill and Gully/Channel Erosion to Small Reservoir Siltation in Mediterranean Environments. Land Degradation and Development, 2016, 27, 785-797.	1.8	68
12	Tracing sediment sources in a tropical highland catchment of central Mexico by using conventional and alternative fingerprinting methods. Hydrological Processes, 2013, 27, 911-922.	1.1	67
13	The impact of typhoons on sediment connectivity: lessons learnt from contaminated coastal catchments of the Fukushima Prefecture (Japan). Earth Surface Processes and Landforms, 2017, 42, 306-317.	1.2	65
14	Increase in soil erosion after agricultural intensification: Evidence from a lowland basin in France. Anthropocene, 2014, 7, 30-41.	1.6	62
15	A comparison of geological and statistical approaches to element selection for sediment fingerprinting. Journal of Soils and Sediments, 2015, 15, 2117-2131.	1.5	59
16	Effectiveness of erosion mitigation measures to prevent muddy floods: A case study in the Belgian loam belt. Agriculture, Ecosystems and Environment, 2007, 118, 149-158.	2.5	56
17	Tracing sediment sources during floods using Diffuse Reflectance Infrared Fourier Transform Spectrometry (DRIFTS): A case study in a highly erosive mountainous catchment (Southern French) Tj ETQq1 1 0.	.7 8 4814 r	gB35/Overloci
18	Evolution of radioactive dose rates in fresh sediment deposits along coastal rivers draining Fukushima contamination plume. Scientific Reports, 2013, 3, 3079.	1.6	51

#	Article	IF	CITATIONS
19	Combining multiple fallout radionuclides (137Cs, 7Be, 210Pbxs) to investigate temporal sediment source dynamics in tropical, ephemeral riverine systems. Journal of Soils and Sediments, 2016, 16, 1130-1144.	1.5	51
20	Quantifying land use contributions to suspended sediment in a large cultivated catchment of Southern Brazil (Guaporé River, Rio Grande do Sul). Agriculture, Ecosystems and Environment, 2017, 237, 95-108.	2.5	51
21	Do forests represent a long-term source of contaminated particulate matter in the Fukushima Prefecture?. Journal of Environmental Management, 2016, 183, 742-753.	3.8	50
22	A global review of sediment source fingerprinting research incorporating fallout radiocesium (137Cs). Geomorphology, 2020, 362, 107103.	1.1	50
23	Quantifying suspended sediment sources during runoff events in headwater catchments using spectrocolorimetry. Journal of Soils and Sediments, 2013, 13, 1478-1492.	1.5	49
24	Fingerprinting sediment sources in the outlet reservoir of a hilly cultivated catchment in Tunisia. Journal of Soils and Sediments, 2013, 13, 801-815.	1.5	49
25	Measuring and modelling soil erosion and sediment yields in a large cultivated catchment under no-till of Southern Brazil. Soil and Tillage Research, 2017, 174, 24-33.	2.6	48
26	Modelling the impact of land use change and rainfall seasonality on sediment export from an agricultural catchment of the northwestern European loess belt. Agriculture, Ecosystems and Environment, 2010, 138, 83-94.	2.5	45
27	Renewed soil erosion and remobilisation of radioactive sediment in Fukushima coastal rivers after the 2013 typhoons. Scientific Reports, 2014, 4, 4574.	1.6	45
28	Effectiveness of landscape decontamination following the Fukushima nuclear accident: a review. Soil, 2019, 5, 333-350.	2.2	45
29	A grassed waterway and earthen dams to control muddy floods from a cultivated catchment of the Belgian loess belt. Geomorphology, 2008, 100, 419-428.	1.1	43
30	Mass balance and decontamination times of Polycyclic Aromatic Hydrocarbons in rural nested catchments of an early industrialized region (Seine River basin, France). Science of the Total Environment, 2014, 470-471, 608-617.	3.9	42
31	Rainfall erosivity in catchments contaminated with fallout from the Fukushima Daiichi nuclear power plant accident. Hydrology and Earth System Sciences, 2016, 20, 2467-2482.	1.9	42
32	Evidence of the radioactive fallout in France due to the Fukushima nuclear accident. Journal of Environmental Radioactivity, 2012, 114, 54-60.	0.9	41
33	From shifting cultivation to teak plantation: effect on overland flow and sediment yield in a montane tropical catchment. Scientific Reports, 2017, 7, 3987.	1.6	41
34	Quantifying and modelling the impact of land consolidation and field borders on soil redistribution in agricultural landscapes (1954–2009). Catena, 2013, 110, 184-195.	2.2	40
35	Tracing the sources of suspended sediment and particle-bound trace metal elements in an urban catchment coupling elemental and isotopic geochemistry, and fallout radionuclides. Environmental Science and Pollution Research, 2018, 25, 28667-28681.	2.7	40
36	Quantifying the dominant sources of sediment in a drained lowland agricultural catchment: The application of a thorium-based particle size correction in sediment fingerprinting. Geomorphology, 2015, 250, 271-281.	1.1	38

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#	Article	IF	CITATIONS
37	Investigating the metal contamination of sediment transported by the 2016 Seine River flood (Paris,) Tj ETQq1	1 0.784314	rgBT /Overl
38	Novel Insights into Fukushima Nuclear Accident from Isotopic Evidence of Plutonium Spread along Coastal Rivers. Environmental Science & Environmental	4.6	37
39	Environmental DNA provides information on sediment sources: A study in catchments affected by Fukushima radioactive fallout. Science of the Total Environment, 2019, 665, 873-881.	3.9	37
40	Persistence of environmental DNA in cultivated soils: implication of this memory effect for reconstructing the dynamics of land use and cover changes. Scientific Reports, 2020, 10, 10502.	1.6	37
41	Seasonal evolution of runoff generation on agricultural land in the Belgian loess belt and implications for muddy flood triggering. Earth Surface Processes and Landforms, 2008, 33, 1285-1301.	1.2	36
42	Depth distribution of cesium-137 in paddy fields across the Fukushima pollution plume in 2013. Journal of Environmental Radioactivity, 2015, 147, 157-164.	0.9	36
43	Environmental mobility of 110mAg: lessons learnt from Fukushima accident (Japan) and potential use for tracking the dispersion of contamination within coastal catchments. Journal of Environmental Radioactivity, 2014, 130, 44-55.	0.9	34
44	Fingerprinting sediment sources in a large agricultural catchment under noâ€tillage in Southern Brazil (Conceição River). Land Degradation and Development, 2018, 29, 939-951.	1.8	34
45	A worldwide meta-analysis (1977–2020) of sediment core dating using fallout radionuclides including & amp;lt;sup>137Cs and & amp;lt;sup>210Pb _{xs} . Earth System Science Data. 2021. 13. 4951-4966.	3.7	34
46	Remanence of lead pollution in an urban river system: a multi-scale temporal and spatial study in the Seine River basin, France. Environmental Science and Pollution Research, 2014, 21, 4134-4148.	2.7	33
47	Tracing the origin of suspended sediment in a large Mediterranean river by combining continuous river monitoring and measurement of artificial and natural radionuclides. Science of the Total Environment, 2015, 502, 122-132.	3.9	33
48	Reliability of an expert-based runoff and erosion model: Application of STREAM to different environments. Catena, 2009, 78, 129-141.	2.2	31
49	Plutonium aided reconstruction of caesium atmospheric fallout in European topsoils. Scientific Reports, 2020, 10, 11858.	1.6	31
50	Silver and thallium historical trends in the Seine River basin. Journal of Environmental Monitoring, 2010, 12, 2177.	2.1	29
51	Vertical distributions of 137Cs in soils: a meta-analysis. Journal of Soils and Sediments, 2015, 15, 81-95.	1.5	29
52	Using Chernobylâ€derived ¹³⁷ Cs to document recent sediment deposition rates on the River Plava floodplain (Central European Russia). Hydrological Processes, 2013, 27, 807-821.	1.1	28
53	Prefaceâ€"Addressing challenges to advance sediment fingerprinting research. Journal of Soils and Sediments, 2015, 15, 2033-2037.	1.5	28
54	Medium term high frequency observation of discharges and suspended sediment in a Mediterranean mountainous catchment. Journal of Hydrology, 2019, 568, 562-574.	2.3	28

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55	Use of fallout radionuclides (7Be, 210Pb) to estimate resuspension of Escherichia coli from streambed sediments during floods in a tropical montane catchment. Environmental Science and Pollution Research, 2016, 23, 3427-3435.	2.7	27
56	Investigating the source of radiocesium contaminated sediment in two Fukushima coastal catchments with sediment tracing techniques. Anthropocene, 2016, 13, 57-68.	1.6	26
57	Suspended sediment dynamics in a Southeast Asian mountainous catchment: Combining river monitoring and fallout radionuclide tracers. Journal of Hydrology, 2014, 519, 1811-1823.	2.3	25
58	Tracing Sediment Sources in a Subtropical Agricultural Catchment of Southern Brazil Cultivated With Conventional and Conservation Farming Practices. Land Degradation and Development, 2017, 28, 1426-1436.	1.8	25
59	Source dynamics of radiocesium-contaminated particulate matter deposited in an agricultural water reservoir after the Fukushima nuclear accident. Science of the Total Environment, 2018, 612, 1079-1090.	3.9	25
60	Impact of urban pressure on the spatial and temporal dynamics of PAH fluxes in an urban tributary of the Seine River (France). Chemosphere, 2019, 219, 1002-1013.	4.2	25
61	Modeling the migration of fallout radionuclides to quantify the contemporary transfer of fine particles in Luvisol profiles under different land uses and farming practices. Soil and Tillage Research, 2014, 140, 82-97.	2.6	24
62	Quantifying sediment sources in a lowland agricultural catchment pond using 137Cs activities and radiogenic 87Sr/86Sr ratios. Science of the Total Environment, 2016, 566-567, 968-980.	3.9	24
63	Quantifying the dilution of the radiocesium contamination in Fukushima coastal river sediment (2011–2015). Scientific Reports, 2016, 6, 34828.	1.6	24
64	Investigating the temporal dynamics of suspended sediment during flood events with 7Be and 210Pbxs measurements in a drained lowland catchment. Scientific Reports, 2017, 7, 42099.	1.6	24
65	Key factors influencing metal concentrations in sediments along Western European Rivers: A long-term monitoring study (1945–2020). Science of the Total Environment, 2022, 805, 149778.	3.9	24
66	Spatial and temporal variability of 7Be and 210Pb wet deposition during four successive monsoon storms in a catchment of northern Laos. Journal of Environmental Radioactivity, 2014, 136, 195-205.	0.9	23
67	Potential of phosphorus fractions to trace sediment sources in a rural catchment of Southern Brazil: Comparison with the conventional approach based on elemental geochemistry. Geoderma, 2019, 337, 1067-1076.	2.3	23
68	Quantification of sediment source contributions in two paired catchments of the Brazilian Pampa using conventional and alternative fingerprinting approaches. Hydrological Processes, 2020, 34, 2965-2986.	1.1	23
69	Mobilization and transport of pesticides with runoff and suspended sediment during flooding events in an agricultural catchment of Southern Brazil. Environmental Science and Pollution Research, 2021, 28, 39370-39386.	2.7	23
70	Improving the quantification of sediment source contributions using different mathematical models and spectral preprocessing techniques for individual or combined spectra of ultraviolet–visible, near- and middle-infrared spectroscopy. Geoderma, 2021, 384, 114815.	2.3	21
71	A comparison of management approaches to control muddy floods in central Belgium, northern France and southern England. Land Degradation and Development, 2010, 21, 322-335.	1.8	20
72	Reconstruction of uranium and plutonium isotopic signatures in sediment accumulated in the Mano Dam reservoir, Japan, before and after the Fukushima nuclear accident. Chemosphere, 2019, 225, 849-858.	4.2	20

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73	Evidence of Chlordecone Resurrection by Glyphosate in French West Indies. Environmental Science & Envi	4.6	20
74	How to evaluate sediment fingerprinting source apportionments. Journal of Soils and Sediments, 2022, 22, 1315-1328.	1.5	20
75	Combining measurements and modelling to quantify the contribution of atmospheric fallout, local industry and road traffic to PAH stocks in contrasting catchments. Environmental Pollution, 2014, 189, 152-160.	3.7	19
76	A new method for determining 236U/238U isotope ratios in environmental samples by means OF ICP-MS/MS. Talanta, 2020, 206, 120221.	2.9	19
77	Combining spectroscopy and magnetism with geochemical tracers to improve the discrimination of sediment sources in a homogeneous subtropical catchment. Catena, 2020, 195, 104800.	2.2	19
78	Core-derived historical records of suspended sediment origin in a mesoscale mountainous catchment: the River Bléone, French Alps. Journal of Soils and Sediments, 2012, 12, 1463-1478.	1.5	18
79	Combining 137Cs measurements and a spatially distributed erosion model to assess soil redistribution in a hedgerow landscape in northwestern France (1960–2010). Catena, 2014, 119, 78-89.	2.2	18
80	Tracing Sediment Sources Using Midâ€infrared Spectroscopy in Arvorezinha Catchment, Southern Brazil. Land Degradation and Development, 2017, 28, 1603-1614.	1.8	18
81	Using spectrocolourimetry to trace sediment source dynamics in coastal catchments draining the main Fukushima radioactive pollution plume (2011–2017). Journal of Soils and Sediments, 2019, 19, 3290-3301.	1.5	18
82	Quantifying the effect of overland flow on Escherichia coli pulses during floods: Use of a tracer-based approach in an erosion-prone tropical catchment. Journal of Hydrology, 2021, 594, 125935.	2.3	17
83	Quantification of vertical solid matter transfers in soils during pedogenesis by a multi-tracer approach. Journal of Soils and Sediments, 2017, 17, 408-422.	1.5	16
84	Plutonium isotopic signatures in soils and their variation (2011-2014) in sediment transiting a coastal river in the Fukushima Prefecture, Japan. Environmental Pollution, 2018, 240, 167-176.	3.7	16
85	Innovative combination of tracing methods to differentiate between legacy and contemporary PAH sources in the atmosphere-soil-river continuum in an urban catchment (Orge River, France). Science of the Total Environment, 2019, 669, 448-458.	3.9	16
86	Afforestation of degraded grasslands reduces sediment transport and may contribute to streamflow regulation in small catchments in the short-run. Catena, 2021, 204, 105371.	2.2	16
87	Suspended sediment source and propagation during monsoon events across nested sub-catchments with contrasted land uses in Laos. Journal of Hydrology: Regional Studies, 2017, 9, 69-84.	1.0	15
88	Hydroâ€sedimentary Dynamics of a Drained Agricultural Headwater Catchment: A Nested Monitoring Approach. Vadose Zone Journal, 2017, 16, 1-11.	1.3	15
89	Erosional response to land abandonment in rural areas of Western Europe during the Anthropocene: A case study in the Massif-Central, France. Agriculture, Ecosystems and Environment, 2019, 284, 106582.	2.5	15
90	Sources and export of particle-borne organic matter during a monsoon flood in a catchment of northern Laos. Biogeosciences, 2015, 12, 1073-1089.	1.3	14

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91	Quantifying the impact of no-tillage on soil redistribution in a cultivated catchment of Southern Brazil (1964–2016) with 137Cs inventory measurements. Agriculture, Ecosystems and Environment, 2019, 284, 106588.	2.5	14
92	Spatio-temporal assessment of the polychlorinated biphenyl (PCB) sediment contamination in four major French river corridors (1945–2018). Earth System Science Data, 2020, 12, 1153-1170.	3.7	14
93	Investigating the use of fallout and geogenic radionuclides as potential tracing properties to quantify the sources of suspended sediment in a mining catchment in New Caledonia, South Pacific. Journal of Soils and Sediments, 2020, 20, 1112-1128.	1.5	13
94	Improving the design and implementation of sediment fingerprinting studies: summary and outcomes of the TRACING 2021 Scientific School. Journal of Soils and Sediments, 2022, 22, 1648-1661.	1.5	13
95	Investigating the relationships between chemical element concentrations and discharge to improve our understanding of their transport patterns in rural catchments under subtropical climate conditions. Science of the Total Environment, 2020, 748, 141345.	3.9	12
96	Regional trends in eutrophication across the Loire river basin during the 20th century based on multi-proxy paleolimnological reconstructions. Agriculture, Ecosystems and Environment, 2020, 301, 107065.	2.5	12
97	Deciphering human and climatic controls on soil erosion in intensively cultivated landscapes after 1950 (Loire Valley, France). Anthropocene, 2021, 34, 100287.	1.6	12
98	Radionuclide contamination in flood sediment deposits in the coastal rivers draining the main radioactive pollution plume of Fukushima Prefecture, Japan (2011–2020). Earth System Science Data, 2021, 13, 2555-2560.	3.7	12
99	Prefaceâ€"evaluating the response of critical zone processes to human impacts with sediment source fingerprinting. Journal of Soils and Sediments, 2019, 19, 3245-3254.	1.5	11
100	Tracing hotspots of soil erosion in high mountain environments: how forensic science based on plant eDNA can lead the way. An opinion. Plant and Soil, 2022, 476, 729-742.	1.8	10
101	Pesticide resurrection. Environmental Chemistry Letters, 2022, 20, 3357-3362.	8.3	9
102	Retention of 10Be, 137Cs and 210Pbxs in soils: Impact of physico-chemical characteristics. Geoderma, 2020, 367, 114242.	2.3	8
103	Quantifying hydro-sedimentary transfers in a lowland tile-drained agricultural catchment. Catena, 2021, 198, 105033.	2.2	8
104	A quick and lowâ€cost technique to identify layers associated with heavy rainfall in sediment archives during the Anthropocene. Sedimentology, 2020, 67, 486-501.	1.6	7
105	Quantifying the impact of noâ€till on runoff in southern Brazil at hillslope and catchment scales. Hydrological Processes, 2021, 35, e14094.	1.1	7
106	Impact of the 2019 typhoons on sediment source contributions and radiocesium concentrations inArivers draining the Fukushima radioactive plume,ÂJapan. Comptes Rendus - Geoscience, 2020, 352, 199-211.	0.4	7
107	Method for detecting and characterising actinide-bearing micro-particles in soils and sediment of the Fukushima Prefecture, Japan. Journal of Radioanalytical and Nuclear Chemistry, 2019, 321, 57-69.	0.7	6
108	Reconstructing the impact of nickel mining activities on sediment supply to the rivers and the lagoon of South Pacific Islands: Lessons learnt from the Thio early mining site (New Caledonia). Geomorphology, 2021, 372, 107459.	1.1	6

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109	Examining suspended sediment sources and dynamics during flood events in a drained catchment using radiogenic strontium isotope ratios (87 Sr/86 Sr). Chemical Geology, 2017, 449, 147-157.	1.4	5
110	Radiocarbon and radiocesium in litter fall at Kawamata, ~ 45Âkm NW from the Fukushima Dai-ichi nuclear power plant (Japan). Journal of Radioanalytical and Nuclear Chemistry, 2019, 319, 1093-1101.	0.7	5
111	Quantification of spatial and temporal variations in trace element fluxes originating from urban areas at the catchment scale. Journal of Soils and Sediments, 2020, 20, 4055-4069.	1.5	5
112	Mapping the spatial distribution of global 137Cs fallout in soils of South America as a baseline for Earth Science studies. Earth-Science Reviews, 2021, 214, 103542.	4.0	5
113	Quantifying the impact of noâ€till on sediment yield in southern Brazil at the hillslope and catchment scales. Hydrological Processes, 2021, 35, e14286.	1.1	5
114	Tributary contributions to sediment deposited in the JacuÃ-Delta, Southern Brazil. Journal of Great Lakes Research, 2022, 48, 669-685.	0.8	5
115	Tracing total and dissolved material in a western Canadian basin using quality control samples to guide the selection of fingerprinting parameters for modelling. Catena, 2021, 200, 105095.	2.2	4
116	Combining colour parameters and geochemical tracers to improve sediment source discrimination in a mining catchment (New Caledonia, South Pacific Islands). Soil, 2021, 7, 743-766.	2.2	4
117	Comparison of techniques to localise U-bearing particles in environmental samples. Journal of Radioanalytical and Nuclear Chemistry, 2022, 331, 1701-1714.	0.7	4
118	240Pu/239Pu signatures allow refining the chronology of radionuclide fallout in South America. Science of the Total Environment, 2022, , 156943.	3.9	4
119	Terrain analysis, erosion simulations, and sediment fingerprinting: a case study assessing the erosion sensitivity of agricultural catchments in the border of the volcanic plateau of Southern Brazil. Journal of Soils and Sediments, 2022, 22, 1023.	1.5	3
120	Tracing Sediment Sources Using Strontium Isotopes in a Pond Draining an Agricultural Catchment (Loire River Basin, France). Procedia Earth and Planetary Science, 2015, 13, 30-34.	0.6	2
121	Tracking the origin and dispersion of contaminated sediments transported by rivers draining the Fukushima radioactive contaminant plume. Proceedings of the International Association of Hydrological Sciences, 0, 367, 237-243.	1.0	2
122	Dynamic parameterization of soil surface characteristics for hydrological models in agricultural catchments. Catena, 2022, 214, 106257.	2.2	2
123	Quantifying the resuspension of sediment and associated metallic contaminants with fallout radionuclide measurements in a channelized river draining an industrial catchment. Journal of Soils and Sediments, 2016, 16, 294-308.	1.5	1
124	Accroissement de la contribution des sources d'érosion aux rivières et plans d'eau (1950-2010)Â: le cas du Louroux (Indre-et-Loire, France). Houille Blanche, 2017, 103, 11-18.	0.3	1
125	Les observatoires du ruissellement : comprendre les processus pour améliorer les modélisations. Houille Blanche, 2020, 106, 7-16.	0.3	1
126	Impact of radiocesium contamination in flood sediment deposited after the 2019 typhoon on decontaminated fields of Fukushima Prefecture, Japan. Comptes Rendus - Geoscience, 2022, 354, 131-140.	0.4	1

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#	Article	IF	CITATIONS
127	Des versants aux masses d'eau : érosion, colmatage et envasement. Houille Blanche, 2017, 103, 5-6.	0.3	0
128	The decontamination following the Fukushima nuclear accident. Atomos, 2020, 62, 712-716.	0.0	0
129	<i>Escherichia coli</i> concentration, multiscale monitoring over the decade 2011–2021 in the Mekong River basin, Lao PDR. Earth System Science Data, 2022, 14, 2883-2894.	3.7	0