

# Anne-Catherine Pierson-Wickmann

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6087743/publications.pdf>

Version: 2024-02-01

51  
papers

2,035  
citations

257101

24  
h-index

243296

44  
g-index

56  
all docs

56  
docs citations

56  
times ranked

2651  
citing authors

| #  | ARTICLE                                                                                                                                                                                           | IF   | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Large colonial organisms with coordinated growth in oxygenated environments 2.1â€‰Gyr ago. <i>Nature</i> , 2010, 466, 100-104.                                                                    | 13.7 | 235       |
| 2  | Unexpected spatial stability of water chemistry in headwater stream networks. <i>Ecology Letters</i> , 2018, 21, 296-308.                                                                         | 3.0  | 149       |
| 3  | Are nanoplastics able to bind significant amount of metals? The lead example. <i>Environmental Pollution</i> , 2019, 249, 940-948.                                                                | 3.7  | 124       |
| 4  | Trace metals in polyethylene debris from the North Atlantic subtropical gyre. <i>Environmental Pollution</i> , 2019, 245, 371-379.                                                                | 3.7  | 123       |
| 5  | Oxygen dynamics in the aftermath of the Great Oxidation of Earthâ€™s atmosphere. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 16736-16741. | 3.3  | 112       |
| 6  | Compartmentalization of physical and chemical properties in hard-rock aquifers deduced from chemical and groundwater age analyses. <i>Applied Geochemistry</i> , 2008, 23, 2686-2707.             | 1.4  | 105       |
| 7  | Hydrologically driven seasonal changes in the sources and production mechanisms of dissolved organic carbon in a small lowland catchment. <i>Water Resources Research</i> , 2013, 49, 5792-5803.  | 1.7  | 60        |
| 8  | Carbon isotopes as tracers of dissolved organic carbon sources and water pathways in headwater catchments. <i>Journal of Hydrology</i> , 2011, 402, 228-238.                                      | 2.3  | 59        |
| 9  | Behavior of Re and Os during low-temperature alteration: Results from Himalayan soils and altered black shales. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 1539-1548.                     | 1.6  | 57        |
| 10 | Long-Term Effects of High Nitrogen Loads on Cation and Carbon Riverine Export in Agricultural Catchments. <i>Environmental Science &amp; Technology</i> , 2012, 46, 9447-9455.                    | 4.6  | 56        |
| 11 | The Os isotopic composition of Himalayan river bedloads and bedrocks: importance of black shales. <i>Earth and Planetary Science Letters</i> , 2000, 176, 203-218.                                | 1.8  | 55        |
| 12 | The 2.1 Ga Old Francevillian Biota: Biogenicity, Taphonomy and Biodiversity. <i>PLoS ONE</i> , 2014, 9, e99438.                                                                                   | 1.1  | 53        |
| 13 | DOC sources and DOC transport pathways in a small headwater catchment as revealed by carbon isotope fluctuation during storm events. <i>Biogeosciences</i> , 2014, 11, 3043-3056.                 | 1.3  | 49        |
| 14 | Acidification processes and soil leaching influenced by agricultural practices revealed by strontium isotopic ratios. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 4688-4704.               | 1.6  | 47        |
| 15 | Os-Sr-Nd results from sediments in the Bay of Bengal: Implications for sediment transport and the marine Os record. <i>Paleoceanography</i> , 2001, 16, 435-444.                                  | 3.0  | 46        |
| 16 | Climate-correlated variations in seawater 187Os/188Os over the past 200,000Âˆyr: Evidence from the Cariaco Basin, Venezuela. <i>Earth and Planetary Science Letters</i> , 2007, 263, 246-258.     | 1.8  | 44        |
| 17 | Fluxes and sources of particulate organic carbon in the Ganga-Brahmaputra river system. <i>Global Biogeochemical Cycles</i> , 2006, 20, n/a-n/a.                                                  | 1.9  | 42        |
| 18 | High chemical weathering rates in first-order granitic catchments induced by agricultural stress. <i>Chemical Geology</i> , 2009, 265, 369-380.                                                   | 1.4  | 42        |

| #  | ARTICLE                                                                                                                                                                                                                                                             | IF  | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Offshore Frontal Part of the Makran Accretionary Prism: The Chamak Survey (Pakistan). <i>Frontiers in Earth Sciences</i> , 2007, , 351-366.                                                                                                                         | 0.1 | 42        |
| 20 | Origin of fecal contamination in waters from contrasted areas: Stanols as Microbial Source Tracking markers. <i>Water Research</i> , 2012, 46, 4009-4016.                                                                                                           | 5.3 | 39        |
| 21 | Soap- and metal-free polystyrene latex particles as a nanoplastic model. <i>Environmental Science: Nano</i> , 2019, 6, 2253-2258.                                                                                                                                   | 2.2 | 38        |
| 22 | Extreme Variability of Steroid Profiles in Cow Feces and Pig Slurries at the Regional Scale: Implications for the Use of Steroids to Specify Fecal Pollution Sources in Waters. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 7294-7302.            | 2.4 | 36        |
| 23 | Physical, biogeochemical and isotopic processes related to heterogeneity of a shallow crystalline rock aquifer. <i>Biogeochemistry</i> , 2006, 81, 331-347.                                                                                                         | 1.7 | 31        |
| 24 | Exceptional preservation of expandable clay minerals in the ca. 2.1Ga black shales of the Francevillian basin, Gabon and its implication for atmospheric oxygen accumulation. <i>Chemical Geology</i> , 2013, 362, 181-192.                                         | 1.4 | 31        |
| 25 | Constraints on the Sources and Production Mechanisms of Dissolved Organic Matter in Soils from Molecular Biomarkers. <i>Vadose Zone Journal</i> , 2014, 13, 1-9.                                                                                                    | 1.3 | 25        |
| 26 | Highlighting the wide variability in arsenic speciation in wetlands: A new insight into the control of the behavior of arsenic. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 203, 284-302.                                                                        | 1.6 | 25        |
| 27 | Sources of dissolved organic matter during storm and inter-storm conditions in a lowland headwater catchment: constraints from high-frequency molecular data. <i>Biogeosciences</i> , 2015, 12, 4333-4343.                                                          | 1.3 | 23        |
| 28 | Iron speciation at the riverbank surface in wetland and potential impact on the mobility of trace metals. <i>Science of the Total Environment</i> , 2019, 651, 443-455.                                                                                             | 3.9 | 22        |
| 29 | Unusual microbial mat-related structural diversity 2.1 billion years ago and implications for the Francevillian biota. <i>Geobiology</i> , 2018, 16, 476-497.                                                                                                       | 1.1 | 20        |
| 30 | AgrHyS: An Observatory of Response Times in Agro-Hydro Systems. <i>Vadose Zone Journal</i> , 2018, 17, 1-16.                                                                                                                                                        | 1.3 | 19        |
| 31 | Iron isotope fractionation in iron-organic matter associations: Experimental evidence using filtration and ultrafiltration. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 250, 98-116.                                                                             | 1.6 | 19        |
| 32 | Development of a combined isotopic and mass-balance approach to determine dissolved organic carbon sources in eutrophic reservoirs. <i>Chemosphere</i> , 2011, 83, 356-366.                                                                                         | 4.2 | 18        |
| 33 | Sedimentology and U-Pb dating of Carboniferous to Permian continental series of the northern Massif Central (France): Local palaeogeographic evolution and larger scale correlations. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2019, 533, 109228. | 1.0 | 17        |
| 34 | A comparative study on the pore-size and filter type effect on the molecular composition of soil and stream dissolved organic matter. <i>Organic Geochemistry</i> , 2017, 110, 36-44.                                                                               | 0.9 | 16        |
| 35 | Experimental evidence of REE size fraction redistribution during redox variation in wetland soil. <i>Science of the Total Environment</i> , 2018, 631-632, 580-588.                                                                                                 | 3.9 | 15        |
| 36 | Trace Fossils from the Brioverian (Ediacaran-Fortunian) in Brittany (NW France). <i>Ichnos</i> , 2018, 25, 11-24.                                                                                                                                                   | 0.8 | 15        |

| #  | ARTICLE                                                                                                                                                                                                                                                  | IF  | CITATIONS |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 37 | Helium trapped in historical slags: a search for temporal variation of the He isotopic composition of air. <i>Earth and Planetary Science Letters</i> , 2001, 194, 165-175.                                                                              | 1.8 | 13        |
| 38 | Nanoscale relationships between uranium and carbonaceous material in alteration halos around unconformity-related uranium deposits of the Kiggavik camp, Paleoproterozoic Thelon Basin, Nunavut, Canada. <i>Ore Geology Reviews</i> , 2016, 79, 382-391. | 1.1 | 13        |
| 39 | Rare earth elements as tracers of active colloidal organic matter composition. <i>Environmental Chemistry</i> , 2020, 17, 133.                                                                                                                           | 0.7 | 12        |
| 40 | Impure marbles of the Lesser Himalaya: another source of continental radiogenic osmium. <i>Earth and Planetary Science Letters</i> , 2002, 204, 203-214.                                                                                                 | 1.8 | 11        |
| 41 | Mineralogical sources of the buffer capacity in a granite catchment determined by strontium isotopes. <i>Applied Geochemistry</i> , 2008, 23, 2888-2905.                                                                                                 | 1.4 | 10        |
| 42 | The role of the early diagenetic dolomitic concretions in the preservation of the 2.1-Ga paleoenvironmental signal: The Paleoproterozoic of the Franceville Basin, Gabon. <i>Comptes Rendus - Geoscience</i> , 2016, 348, 609-618.                       | 0.4 | 10        |
| 43 | Agricultural Practices and Hydrologic Conditions Shape the Temporal Pattern of Soil and Stream Water Dissolved Organic Matter. <i>Ecosystems</i> , 2020, 23, 1325-1343.                                                                                  | 1.6 | 10        |
| 44 | How does calcium drive the structural organization of iron-organic matter aggregates? A multiscale investigation. <i>Environmental Science: Nano</i> , 2020, 7, 2833-2849.                                                                               | 2.2 | 10        |
| 45 | Os isotopic compositions of leachates and bulk sediments from the Bengal Fan. <i>Earth and Planetary Science Letters</i> , 1997, 150, 117-127.                                                                                                           | 1.8 | 9         |
| 46 | First evidence of Ediacaran-Fortunian elliptical body fossils in the Brioverian series of Brittany, NW France. <i>Lethaia</i> , 2018, 51, 513-522.                                                                                                       | 0.6 | 8         |
| 47 | Chemical Differentiation between Immersed and Dry Wood Samples in Nunavik (Northern Quebec). <i>Journal of Environmental and Earth System Science</i> , 2021, 126, 1021-1031.                                                                            | 0.4 | 7         |
| 48 | More than redox, biological organic ligands control iron isotope fractionation in the riparian wetland. <i>Scientific Reports</i> , 2021, 11, 1933.                                                                                                      | 1.6 | 5         |
| 49 | Re-Os Isotopic Characteristics of Himalayan River Sediments and Source Rocks. <i>Mineralogical Magazine</i> , 1998, 62A, 1178-1179.                                                                                                                      | 0.6 | 4         |
| 50 | Monitoring the Organic Matter Quality Highlights the Ways in Which Organic Matter Is Removed from Wetland Soil. <i>Geosciences (Switzerland)</i> , 2021, 11, 134.                                                                                        | 1.0 | 1         |
| 51 | Does ultrafiltration kinetics bias iron isotope compositions?. <i>Chemical Geology</i> , 2021, 566, 120082.                                                                                                                                              | 1.4 | 1         |