

# GwenaÃ«l Abril

## List of Publications by Year in descending order

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96  
papers

6,580  
citations

50170

46  
h-index

74018

75  
g-index

97  
all docs

97  
docs citations

97  
times ranked

6538  
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon Dioxide Emission from European Estuaries. , 1998, 282, 434-436.		480
2	Carbon dioxide and methane emissions and the carbon budget of a 10-year old tropical reservoir (Petit Tj ETQq0 0,0 rgBT /Overlock 10	1.9	379
3	Behaviour of Organic Carbon in Nine Contrasting European Estuaries. Estuarine, Coastal and Shelf Science, 2002, 54, 241-262.	0.9	321
4	Amazon River carbon dioxide outgassing fuelled by wetlands. Nature, 2014, 505, 395-398.	13.7	293
5	The European carbon balance. Part 3: forests. Global Change Biology, 2010, 16, 1429-1450.	4.2	247
6	Technical Note: Large overestimation of &lt;i>p&lt;/i>&lt;sub&lt;/sub>CO&lt;sub&lt;/sub>2&lt;sub&lt;/sub> calculated from pH and alkalinity in acidic, organic-rich freshwaters. Biogeosciences, 2015, 12, 67-78.	1.3	244
7	Carbon dioxide in European coastal waters. Estuarine, Coastal and Shelf Science, 2006, 70, 375-387.	0.9	239
8	Gas transfer velocities of CO2 and CH4 in a tropical reservoir and its river downstream. Journal of Marine Systems, 2007, 66, 161-172.	0.9	204
9	Methane and carbon dioxide emissions from tropical reservoirs: Significance of downstream rivers. Geophysical Research Letters, 2006, 33, .	1.5	191
10	The European carbon balance. Part 4: integration of carbon and other trace&lt;sup&lt;/sup>gas fluxes. Global Change Biology, 2010, 16, 1451-1469.	4.2	157
11	Inorganic and organic carbon biogeochemistry in the Gautami Godavari estuary (Andhra Pradesh,) Tj ETQq1 1 0.784314 rgBT /Overlock Cycles, 2003, 17, n/a-n/a.	1.9	144
12	Oxic/anoxic oscillations and organic carbon mineralization in an estuarine maximum turbidity zone (The Gironde, France). Limnology and Oceanography, 1999, 44, 1304-1315.	1.6	141
13	Particulate organic carbon in the estuarine turbidity maxima of the Gironde, Loire and Seine estuaries: origin and lability. Hydrobiologia, 2007, 588, 245-259.	1.0	122
14	Dynamics of organic and inorganic carbon across contiguous mangrove and seagrass systems (Gazi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.3	113
15	Disentangling the origins of branched tetraether lipids and crenarchaeol in the lower Amazon River: Implications for GDGT&lt;sup&lt;/sup>-based proxies. Limnology and Oceanography, 2013, 58, 343-353.	1.6	109
16	Emission of CO2 and CH4 to the atmosphere by sediments and open waters in two Tanzanian mangrove forests. Marine Ecology - Progress Series, 2008, 370, 53-67.	0.9	109
17	Significance of pelagic aerobic methane oxidation in the methane and carbon budget of a tropical reservoir. Journal of Geophysical Research, 2007, 112, .	3.3	106
18	Seasonal Variability of Carbon Dioxide in the Rivers and Lagoons of Ivory Coast (West Africa). Estuaries and Coasts, 2009, 32, 246-260.	1.0	99

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19	New insights into the size distribution of fluorescent dissolved organic matter in estuarine waters. <i>Organic Geochemistry</i> , 2010, 41, 595-610.	0.9	96
20	Tracing soil organic carbon in the lower Amazon River and its tributaries using GDGT distributions and bulk organic matter properties. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 90, 163-180.	1.6	90
21	Origin and composition of particulate organic matter in a macrotidal turbid estuary: The Gironde Estuary, France. <i>Estuarine, Coastal and Shelf Science</i> , 2012, 108, 16-28.	0.9	86
22	Divergent biophysical controls of aquatic CO <sub>2</sub> and CH <sub>4</sub> in the World's two largest rivers. <i>Scientific Reports</i> , 2015, 5, 15614.	1.6	85
23	Seasonal variability of methane in the rivers and lagoons of Ivory Coast (West Africa). <i>Biogeochemistry</i> , 2010, 100, 21-37.	1.7	81
24	Biogeochemical modelling of anaerobic vs. aerobic methane oxidation in a meromictic crater lake (Lake Pavin, France). <i>Applied Geochemistry</i> , 2011, 26, 1919-1932.	1.4	75
25	Enhanced methane oxidation in an estuarine turbidity maximum. <i>Limnology and Oceanography</i> , 2007, 52, 470-475.	1.6	74
26	A strong CO <sub>2</sub> sink enhanced by eutrophication in a tropical coastal embayment (Guanabara Bay, Rio de Janeiro, Brazil). <i>Biogeosciences</i> , 2015, 12, 6125-6146.	1.3	74
27	Metal mobilization in the Gironde Estuary (France): the role of the soft mud layer in the maximum turbidity zone. <i>Marine Chemistry</i> , 2004, 87, 1-13.	0.9	72
28	Modelling CO <sub>2</sub> degassing from small acidic rivers using water pCO <sub>2</sub> , DIC and $\delta^{13}\text{C}$ -DIC data. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 91, 220-239.	1.6	69
29	Turbidity limits gas exchange in a large macrotidal estuary. <i>Estuarine, Coastal and Shelf Science</i> , 2009, 83, 342-348.	0.9	67
30	Contribution of small mountainous rivers to particulate organic carbon input in the Bay of Biscay. <i>Biogeochemistry</i> , 2005, 74, 151-171.	1.7	65
31	The dynamics of phosphorus in turbid estuarine systems: Example of the Gironde estuary (France). <i>Limnology and Oceanography</i> , 2007, 52, 862-872.	1.6	65
32	Nitrous oxide emissions from tropical hydroelectric reservoirs. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	65
33	Diffusive methane emissions to the atmosphere from Lake Kivu (Eastern Africa). <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	65
34	Fatty acid and stable isotope ( $\delta^{13}\text{C}$ , $\delta^{15}\text{N}$ ) signatures of particulate organic matter in the lower Amazon River: Seasonal contrasts and connectivity between floodplain lakes and the mainstem. <i>Organic Geochemistry</i> , 2011, 42, 1159-1168.	0.9	64
35	Ideas and perspectives: Carbon leaks from flooded land: do we need to replumb the inland water active pipe?. <i>Biogeosciences</i> , 2019, 16, 769-784.	1.3	63
36	Role of tidal pumping on nutrient cycling in a temperate lagoon (Arcachon Bay, France). <i>Marine Chemistry</i> , 2008, 109, 98-114.	0.9	61

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37	Speciation of Mercury in a Fluid Mud Profile of a Highly Turbid Macrotidal Estuary (Gironde, France). <i>Environmental Science &amp; Technology</i> , 2001, 35, 2627-2633.	4.6	60
38	Carbon dioxide degassing at the groundwater-stream-atmosphere interface: isotopic equilibration and hydrological mass balance in a sandy watershed. <i>Journal of Hydrology</i> , 2018, 558, 129-143.	2.3	58
39	The effects of river inflow and retention time on the spatial heterogeneity of chlorophyll and water-air CO <sub>2</sub> fluxes in a tropical hydropower reservoir. <i>Biogeosciences</i> , 2015, 12, 147-162.	1.3	57
40	Anaerobic decomposition of tropical soils and plant material: Implication for the CO <sub>2</sub> and CH <sub>4</sub> budget of the Petit Saut Reservoir. <i>Applied Geochemistry</i> , 2008, 23, 2272-2283.	1.4	56
41	Methane sources, sinks and fluxes in a temperate tidal Lagoon: The Arcachon lagoon (SW France). <i>Estuarine, Coastal and Shelf Science</i> , 2010, 89, 256-266.	0.9	56
42	Title is missing!. <i>Biogeochemistry</i> , 2002, 59, 5-23.	1.7	55
43	In situ measurements of dissolved gases (CO <sub>2</sub> and CH <sub>4</sub> ) in a wide range of concentrations in a tropical reservoir using an equilibrator. <i>Science of the Total Environment</i> , 2006, 354, 246-251.	3.9	54
44	The European land and inland water CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O balance between 2001 and 2005. <i>Biogeosciences</i> , 2012, 9, 3357-3380.	1.3	53
45	Carbon dynamics and CO <sub>2</sub> and CH <sub>4</sub> outgassing in the Mekong delta. <i>Biogeosciences</i> , 2018, 15, 1093-1114.	1.3	53
46	Nitrogen-alkalinity interactions in the highly polluted scheldt basin (belgium). <i>Water Research</i> , 2001, 35, 844-850.	5.3	52
47	Factors contributing to hypoxia in a highly turbid, macrotidal estuary (the Gironde, France). <i>Environmental Sciences: Processes and Impacts</i> , 2013, 15, 585.	1.7	52
48	Spatio-temporal variability of methane (CH <sub>4</sub> ) concentrations and diffusive fluxes from a tropical coastal embayment surrounded by a large urban area (Guanabara Bay, Rio de Janeiro, Brazil). <i>Limnology and Oceanography</i> , 2016, 61, S238.	1.6	48
49	Trophic opportunism of central Amazon floodplain fish. <i>Freshwater Biology</i> , 2015, 60, 1659-1670.	1.2	44
50	Effects of seasonal dynamics in a <i>Zostera noltii</i> meadow on phosphorus and iron cycles in a tidal mudflat (Arcachon Bay, France). <i>Marine Ecology - Progress Series</i> , 2008, 355, 59-71.	0.9	43
51	Impact of seasonal hydrological variation on the distributions of tetraether lipids along the Amazon River in the central Amazon basin: implications for the MBT/CBT paleothermometer and the BIT index. <i>Frontiers in Microbiology</i> , 2013, 4, 228.	1.5	40
52	Spatial and temporal CO <sub>2</sub> exchanges measured by Eddy Covariance over a temperate intertidal flat and their relationships to net ecosystem production. <i>Biogeosciences</i> , 2012, 9, 249-268.	1.3	39
53	Thermal enhancement of gas transfer velocity of CO <sub>2</sub> in an Amazon floodplain lake revealed by eddy covariance measurements. <i>Geophysical Research Letters</i> , 2013, 40, 1734-1740.	1.5	36
54	Excess atmospheric carbon dioxide transported by rivers into the Scheldt estuary. <i>Comptes Rendus De L'Académie Des Sciences Earth &amp; Planetary Sciences Série II, Sciences De La Terre Et Des Planètes</i> , 2000, 330, 761-768.	0.2	34

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55	A massive dissolved inorganic carbon release at spring tide in a highly turbid estuary. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	34
56	Budget of methane emissions from soils, livestock and the river network at the regional scale of the Seine basin (France). <i>Biogeochemistry</i> , 2013, 116, 199-214.	1.7	34
57	Formation and volatilisation of alkyl-iodides and -selenides in macrotidal estuaries. <i>Biogeochemistry</i> , 2002, 59, 183-206.	1.7	33
58	In vitro simulation of oxic/suboxic diagenesis in an estuarine fluid mud subjected to redox oscillations. <i>Estuarine, Coastal and Shelf Science</i> , 2010, 88, 279-291.	0.9	33
59	The transformation of macrophyte-derived organic matter to methane relates to plant water and nutrient contents. <i>Limnology and Oceanography</i> , 2019, 64, 1737-1749.	1.6	31
60	Invasive Aquatic Plants as Ecosystem Engineers in an Oligo-Mesotrophic Shallow Lake. <i>Frontiers in Plant Science</i> , 2018, 9, 1781.	1.7	27
61	An experimental approach to investigate mercury species transformations under redox oscillations in coastal sediments. <i>Marine Environmental Research</i> , 2011, 71, 1-9.	1.1	24
62	Export and degassing of terrestrial carbon through watercourses draining a temperate podzolized catchment. <i>Aquatic Sciences</i> , 2013, 75, 299-319.	0.6	24
63	Wood decomposition in Amazonian hydropower reservoirs: An additional source of greenhouse gases. <i>Journal of South American Earth Sciences</i> , 2013, 44, 104-107.	0.6	24
64	Sources and sinks of dissolved inorganic carbon in an urban tropical coastal bay revealed by $\delta^{13}\text{C}$ -DIC signals. <i>Estuarine, Coastal and Shelf Science</i> , 2019, 220, 185-195.	0.9	24
65	Hydro-ecological controls on dissolved carbon dynamics in groundwater and export to streams in a temperate pine forest. <i>Biogeosciences</i> , 2018, 15, 669-691.	1.3	23
66	Carbon emission along a eutrophication gradient in temperate riverine wetlands: effect of primary productivity and plant community composition. <i>Freshwater Biology</i> , 2016, 61, 1405-1420.	1.2	22
67	Impact of urban effluents on summer hypoxia in the highly turbid Gironde Estuary, applying a 3D model coupling hydrodynamics, sediment transport and biogeochemical processes. <i>Journal of Marine Systems</i> , 2017, 174, 89-105.	0.9	22
68	A multi-tracers analysis of sources and transfers of particulate organic matter in a tropical reservoir (Petit Saut, French Guiana). <i>River Research and Applications</i> , 2009, 25, 253-271.	0.7	21
69	Particulate Organic Matter Distribution along the Lower Amazon River: Addressing Aquatic Ecology Concepts Using Fatty Acids. <i>PLoS ONE</i> , 2012, 7, e46141.	1.1	20
70	Carbon Dioxide and Methane Emissions from Estuaries. , 0, , 187-207.		20
71	Benthic production, respiration and methane oxidation in <i>Lobelia dortmanna</i> lawns. <i>Hydrobiologia</i> , 2017, 784, 21-34.	1.0	18
72	Predominance of phytoplankton-derived dissolved and particulate organic carbon in a highly eutrophic tropical coastal embayment (Guanabara Bay, Rio de Janeiro, Brazil). <i>Biogeochemistry</i> , 2018, 137, 1-14.	1.7	17

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73	Greenhouse gas emissions (CO <sub>2</sub> and CH <sub>4</sub> ) and inorganic carbon behavior in an urban highly polluted tropical coastal lagoon (SE, Brazil). <i>Environmental Science and Pollution Research</i> , 2021, 28, 38173-38192.	2.7	17
74	Carbon dioxide sources and sinks in the delta of the Paraíba do Sul River (Southeastern Brazil) modulated by carbonate thermodynamics, gas exchange and ecosystem metabolism during estuarine mixing. <i>Marine Chemistry</i> , 2020, 226, 103869.	0.9	15
75	The fate of C <sub>4</sub> and C <sub>3</sub> macrophyte carbon in central Amazon floodplain waters: Insights from a batch experiment. <i>Limnologica</i> , 2016, 59, 90-98.	0.7	14
76	Importance of the vegetation-groundwater-stream continuum to understand transformation of biogenic carbon in aquatic systems – A case study based on a pine-maize comparison in a lowland sandy watershed (Landes de Gascogne, SW France). <i>Science of the Total Environment</i> , 2019, 661, 613-629.	3.9	14
77	Eutrophication overcoming carbonate precipitation in a tropical hypersaline coastal lagoon acting as a CO <sub>2</sub> sink (Araruama Lagoon, SE Brazil). <i>Biogeochemistry</i> , 2021, 156, 231-254.	1.7	13
78	Export of <sup>13</sup> C-depleted dissolved inorganic carbon from a tidal forest bordering the Amazon estuary. <i>Estuarine, Coastal and Shelf Science</i> , 2013, 129, 23-27.	0.9	12
79	Variation of the isotopic composition of dissolved organic carbon during the runoff cycle in the Amazon River and the floodplains. <i>Comptes Rendus - Geoscience</i> , 2018, 350, 65-75.	0.4	12
80	Aragonite saturation state in a tropical coastal embayment dominated by phytoplankton blooms (Guanabara Bay – Brazil). <i>Marine Pollution Bulletin</i> , 2018, 129, 729-739.	2.3	12
81	In vitro simulation of oscillatory redox conditions in intertidal sediments: N, Mn, Fe, and P coupling. <i>Continental Shelf Research</i> , 2019, 177, 33-41.	0.9	11
82	Thermodynamic uptake of atmospheric CO <sub>2</sub> in the oligotrophic and semiarid São Francisco estuary (NE Brazil). <i>Estuarine, Coastal and Shelf Science</i> , 2019, 177, 33-41.	0.9	11
83	Effet de la turbidité sur la dégradation des pigments phytoplanctoniques dans l'estuaire de la Gironde. <i>Comptes Rendus - Geoscience</i> , 2002, 334, 251-258.	0.4	10
84	Hydrological pulse regulating the bacterial heterotrophic metabolism between Amazonian mainstems and floodplain lakes. <i>Frontiers in Microbiology</i> , 2015, 6, 1054.	1.5	10
85	Spatial and seasonal contrasts of sedimentary organic matter in floodplain lakes of the central Amazon basin. <i>Biogeosciences</i> , 2016, 13, 467-482.	1.3	10
86	Future intensification of summer hypoxia in the tidal Garonne River (SW France) simulated by a coupled hydro sedimentary-biogeochemical model. <i>Environmental Science and Pollution Research</i> , 2018, 25, 31957-31970.	2.7	10
87	Denitrification and associated nitrous oxide and carbon dioxide emissions from the Amazonian wetlands. <i>Biogeosciences</i> , 2020, 17, 4297-4311.	1.3	9
88	Carbon dynamics driven by seawater recirculation and groundwater discharge along a forest-dune-beach continuum of a high-energy meso-macro-tidal sandy coast. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 317, 18-38.	1.6	9
89	Comments on: "Underwater measurements of carbon dioxide evolution in marine plant communities: A new method" by J. Silva and R. Santos [ <i>Estuarine, Coastal and Shelf Science</i> 78(2008) 827-830]. <i>Estuarine, Coastal and Shelf Science</i> , 2009, 82, 357-360.	0.9	8
90	Dynamics of coarse particulate matter in the turbidity maximum zone of the Gironde Estuary. <i>Comptes Rendus - Geoscience</i> , 2014, 346, 28-36.	0.4	5

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91	Comparing the efficiency of hypoxia mitigation strategies in an urban, turbid tidal river via a coupled hydro-sedimentary biogeochemical model. <i>Natural Hazards and Earth System Sciences</i> , 2019, 19, 2551-2564.	1.5	5
92	The Lateral Carbon Pump, and the European Carbon Balance. <i>Ecological Studies</i> , 2008, , 341-360.	0.4	5
93	A CO <sub>2</sub> sink in a tropical coastal lagoon impacted by cultural eutrophication and upwelling. <i>Estuarine, Coastal and Shelf Science</i> , 2021, 263, 107633.	0.9	5
94	Comparações entre medições em tempo real da pCO <sub>2</sub> aquática com estimativas indiretas em dois estuários tropicais contrastantes: o estuário eutrofizado da Baía de Guanabara (RJ) e o estuário oligotrófico do rio São Francisco (AL). <i>Quimica Nova</i> , 0, , .	0.3	4
95	ESTABLISHING WATER SAMPLE PROTOCOLS FOR RADIOCARBON ANALYSIS AT LAC-UFF, BRAZIL. <i>Radiocarbon</i> , 2021, 63, 1225-1232.	0.8	2
96	Long Term Greenhouse Gas Emissions from the Hydroelectric Reservoir of Petit Saut (French Guiana) and Potential Impacts. , 0, , 293-312.		1