Marta Carballa

List of Publications by Year in Descending Order

87 papers	6,844 citations	41 h-index	82 g-index
92 ext. papers	7,622 ext. citations	8 avg, IF	5.95 L-index

#	Paper	IF	Citations
87	Enzymatic cometabolic biotransformation of organic micropollutants in wastewater treatment plants: A review. *Bioresource Technology*, **2022**, 344, 126291	11	3
86	Fate of Emerging Pollutants During Anaerobic Digestion of Sewage Sludge. *Handbook of Environmental Chemistry*, **2022**, 1	0.8	
85	Feeding composition and sludge retention time both affect (co-)metabolic biotransformation of pharmaceutical compounds in activated sludge systems. *Journal of Environmental Chemical Engineering*, **2021**, 9, 105123	6.8	3
84	Microbial invasions in sludge anaerobic digesters. *Applied Microbiology and Biotechnology*, **2021**, 105, 21-33	5.7	3
83	The organic loading rate affects organic micropollutants' cometabolic biotransformation kinetics under heterotrophic conditions in activated sludge. *Water Research*, **2021**, 189, 116587	12.5	14
82	Heterotrophic enzymatic biotransformations of organic micropollutants in activated sludge. *Science of the Total Environment*, **2021**, 780, 146564	10.2	4
81	Protein composition determines the preferential consumption of amino acids during anaerobic mixed-culture fermentation. *Water Research*, **2020**, 183, 115958	12.5	15
80	Assessment of the fate of organic micropollutants in novel wastewater treatment plant configurations through an empirical mechanistic model. *Science of the Total Environment*, **2020**, 716, 137079	10.2	3
79	Comprehensive comparison of chemically enhanced primary treatment and high-rate activated sludge in novel wastewater treatment plant configurations. *Water Research*, **2020**, 169, 115258	12.5	30
78	Metabolic modeling for predicting VFA production from protein-rich substrates by mixed-culture fermentation. *Biotechnology and Bioengineering*, **2020**, 117, 73-84	4.9	17
77	A metabolic model for targeted volatile fatty acids production by cofermentation of carbohydrates and proteins. *Bioresource Technology*, **2020**, 298, 122535	11	16
76	Acidogenesis is a key step in the anaerobic biotransformation of organic micropollutants. *Journal of Hazardous Materials*, **2020**, 389, 121888	12.8	25
75	Removal of organic micro-pollutants by anaerobic microbes and enzymes **2020**, 397-426		3
74	Organic overloading affects the microbial interactions during anaerobic digestion in sewage sludge reactors. *Chemosphere*, **2019**, 222, 323-332	8.4	39
73	Energetic and economic assessment of sludge thermal hydrolysis in novel wastewater treatment plant configurations. *Waste Management*, **2019**, 92, 30-38	8.6	15
72	An optimised control system to steer the transition from anaerobic mono- to co-digestion in full-scale plants. *Environmental Science: Water Research and Technology*, **2019**, 5, 1004-1011	4.2	4
71	Opportunities for rotating belt filters in novel wastewater treatment plant configurations. *Environmental Science: Water Research and Technology*, **2019**, 5, 704-712	4.2	5

70	Application of immobilized TiO2 on PVDF dual layer hollow fibre membrane to improve the photocatalytic removal of pharmaceuticals in different water matrices. *Applied Catalysis B: Environmental*, **2019**, 240, 9-18	21.8	62
69	Thermal hydrolysis of sewage sludge partially removes organic micropollutants but does not enhance their anaerobic biotransformation. *Science of the Total Environment*, **2019**, 690, 534-542	10.2	23
68	Reversibility of enzymatic reactions might limit biotransformation of organic micropollutants. *Science of the Total Environment*, **2019**, 665, 574-578	10.2	22
67	Air-side ammonia stripping coupled to anaerobic digestion indirectly impacts anaerobic microbiome. *Microbial Biotechnology*, **2019**, 12, 1403-1416	6.3	11
66	Biotransformation of organic micropollutants by anaerobic sludge enzymes. *Water Research*, **2019**, 152, 202-214	12.5	49
65	Resource recovery from pig manure via an integrated approach: A technical and economic assessment for full-scale applications. *Bioresource Technology*, **2019**, 272, 582-593	11	30
64	Role of methanogenesis on the biotransformation of organic micropollutants during anaerobic digestion. *Science of the Total Environment*, **2018**, 622-623, 459-466	10.2	53
63	Integrating granular activated carbon in the post-treatment of membrane and settler effluents to improve organic micropollutants removal. *Chemical Engineering Journal*, **2018**, 345, 79-86	14.7	28
62	A combination of ammonia stripping and low temperature thermal pre-treatment improves anaerobic post-digestion of the supernatant from organic fraction of municipal solid waste treatment. *Waste Management*, **2018**, 78, 271-278	8.6	13
61	Blending based optimisation and pretreatment strategies to enhance anaerobic digestion of poultry manure. *Waste Management*, **2018**, 71, 521-531	8.6	30
60	Why are organic micropollutants not fully biotransformed? A mechanistic modelling approach to anaerobic systems. *Water Research*, **2018**, 142, 115-128	12.5	40
59	Cometabolic Enzymatic Transformation of Organic Micropollutants under Methanogenic Conditions. *Environmental Science & Technology*, **2017**, 51, 2963-2971	10.3	48
58	Enhancing thermophilic co-digestion of nitrogen-rich substrates by air side-stream stripping. *Bioresource Technology*, **2017**, 241, 397-405	11	17
57	The ManureEcoMine pilot installation: advanced integration of technologies for the management of organics and nutrients in livestock waste. *Water Science and Technology*, **2017**, 75, 1281-1293	2.2	16
56	Towards a standardization of biomethane potential tests. *Water Science and Technology*, **2016**, 74, 2515-2522	2.2	379
55	Influence of hydraulic retention time on the psychrophilic hydrolysis/acidogenesis of proteins. *Water Science and Technology*, **2016**, 74, 2399-2406	2.2	
54	Presence does not imply activity: DNA and RNA patterns differ in response to salt perturbation in anaerobic digestion. *Biotechnology for Biofuels*, **2016**, 9, 244	7.8	43
53	Microbiome response to controlled shifts in ammonium and LCFA levels in co-digestion systems. *Journal of Biotechnology*, **2016**, 220, 35-44	3.7	26

52	Key microbial communities steering the functioning of anaerobic digesters during hydraulic and organic overloading shocks. *Bioresource Technology*, **2015**, 197, 208-16	11	92
51	Microbial management of anaerobic digestion: exploiting the microbiome-functionality nexus. *Current Opinion in Biotechnology*, **2015**, 33, 103-11	11.4	210
50	Influence of transitional states on the microbial ecology of anaerobic digesters treating solid wastes. *Applied Microbiology and Biotechnology*, **2014**, 98, 2015-27	5.7	29
49	Outlining microbial community dynamics during temperature drop and subsequent recovery period in anaerobic co-digestion systems. *Journal of Biotechnology*, **2014**, 192 Pt A, 179-86	3.7	48
48	Assessing anaerobic co-digestion of pig manure with agroindustrial wastes: the link between environmental impacts and operational parameters. *Science of the Total Environment*, **2014**, 497-498, 475-483	10.2	33
47	Modelling cometabolic biotransformation of organic micropollutants in nitrifying reactors. *Water Research*, **2014**, 65, 371-83	12.5	57
46	Feasibility of spent metalworking fluids as co-substrate for anaerobic co-digestion. *Bioresource Technology*, **2014**, 155, 281-8	11	14
45	Relationship between phenol degradation efficiency and microbial community structure in an anaerobic SBR. *Water Research*, **2013**, 47, 6739-49	12.5	114
44	Biodegradation kinetic constants and sorption coefficients of micropollutants in membrane bioreactors. *Biodegradation*, **2013**, 24, 165-77	4.1	72
43	Successful hydraulic strategies to start up OLAND sequencing batch reactors at lab scale. *Microbial Biotechnology*, **2012**, 5, 403-14	6.3	18
42	Influence of nitrifying conditions on the biodegradation and sorption of emerging micropollutants. *Water Research*, **2012**, 46, 5434-44	12.5	188
41	Relationship between microbial activity and microbial community structure in six full-scale anaerobic digesters. *Microbiological Research*, **2012**, 167, 581-9	5.3	157
40	Enhanced methane production from pig manure anaerobic digestion using fish and biodiesel wastes as co-substrates. *Bioresource Technology*, **2012**, 123, 507-13	11	44
39	Biogenic metals for the oxidative and reductive removal of pharmaceuticals, biocides and iodinated contrast media in a polishing membrane bioreactor. *Water Research*, **2011**, 45, 1763-73	12.5	83
38	Correlations between molecular and operational parameters in continuous lab-scale anaerobic reactors. *Applied Microbiology and Biotechnology*, **2011**, 89, 303-14	5.7	85
37	Long-chain acylhomoserine lactones increase the anoxic ammonium oxidation rate in an OLAND biofilm. *Applied Microbiology and Biotechnology*, **2011**, 90, 1511-9	5.7	69
36	Should we pretreat solid waste prior to anaerobic digestion? An assessment of its environmental cost. *Environmental Science & Technology*, **2011**, 45, 10306-14	10.3	86
35	Enhanced biomethanation of kitchen waste by different pre-treatments. *Bioresource Technology*, **2011**, 102, 592-9	11	182

34	Criteria for Designing Sewage Treatment Plants for Enhanced Removal of Organic Micropollutants. *Environmental Pollution*, **2010**, 283-306	0	8
33	Environmental assessment of anaerobically digested sludge reuse in agriculture: potential impacts of emerging micropollutants. *Water Research*, **2010**, 44, 3225-33	12.5	107
32	Diclofenac oxidation by biogenic manganese oxides. *Environmental Science & Technology*, **2010**, 44, 3449-54	10.3	112
31	Aggregate size and architecture determine microbial activity balance for one-stage partial nitritation and anammox. *Applied and Environmental Microbiology*, **2010**, 76, 900-9	4.8	255
30	Treatment of sanitary landfill leachates in a lab-scale gradual concentric chamber (GCC) reactor. *Applied Biochemistry and Biotechnology*, **2010**, 160, 1822-32	3.2	1
29	Prediction of Heavy Metals Mobility and Bioavailability in Contaminated Soil Using Sequential Extraction and Biosensors. *Journal of Environmental Engineering, ASCE*, **2009**, 135, 839-844	2	7
28	Technical and economic feasibility of gradual concentric chambers reactor for sewage treatment in developing countries. *Electronic Journal of Biotechnology*, **2009**, 12, 0-0	3.1	6
27	Ureolytic phosphate precipitation from anaerobic effluents. *Water Science and Technology*, **2009**, 59, 1983-8	2.2	7
26	Treatment of low strength sewage with high suspended organic matter content in an anaerobic sequencing batch reactor and modeling application. *Electronic Journal of Biotechnology*, **2009**, 12,	3.1	1
25	Strategies to optimize phosphate removal from industrial anaerobic effluents by magnesium ammonium phosphate (MAP) production. *Journal of Chemical Technology and Biotechnology*, **2009**, 84, 63-68	3.5	33
24	Biological removal of 17□ethinylestradiol (EE2) in an aerated nitrifying fixed bed reactor during ammonium starvation. *Journal of Chemical Technology and Biotechnology*, **2009**, 84, 119-125	3.5	46
23	Influence of Different Pretreatments on Anaerobically Digested Sludge Characteristics: Suitability for Final Disposal. *Water, Air, and Soil Pollution*, **2009**, 199, 311-321	2.6	38
22	Maximum removal rate of propionic acid as a sole carbon source in UASB reactors and the importance of the macro- and micro-nutrients stimulation. *Bioresource Technology*, **2009**, 100, 3477-82	11	44
21	A low volumetric exchange ratio allows high autotrophic nitrogen removal in a sequencing batch reactor. *Bioresource Technology*, **2009**, 100, 5010-5	11	30
20	Nitrogen removal from digested black water by one-stage partial nitritation and anammox. *Environmental Science & Technology*, **2009**, 43, 5035-41	10.3	135
19	Influence of temperature on the hydrolysis, acidogenesis and methanogenesis in mesophilic anaerobic digestion: parameter identification and modeling application. *Water Science and Technology*, **2009**, 60, 9-17	2.2	65
18	Influence of manganese and ammonium oxidation on the removal of 17 alpha-ethinylestradiol (EE2). *Water Research*, **2009**, 43, 77-86	12.5	48
17	Phosphate removal in agro-industry: pilot- and full-scale operational considerations of struvite crystallization. *Water Research*, **2009**, 43, 1887-92	12.5	114

16	Enhanced propionic acid degradation (EPAD) system: proof of principle and feasibility. *Water Research*, **2009**, 43, 3239-48	12.5	40
15	Determination of the solid-water distribution coefficient (Kd) for pharmaceuticals, estrogens and musk fragrances in digested sludge. *Water Research*, **2008**, 42, 287-95	12.5	232
14	Comparison of predicted and measured concentrations of selected pharmaceuticals, fragrances and hormones in Spanish sewage. *Chemosphere*, **2008**, 72, 1118-23	8.4	142
13	Granular biomass capable of partial nitritation and anammox. *Water Science and Technology*, **2008**, 58, 1113-20	2.2	38
12	Treatment of low and medium strength sewage in a lab-scale gradual concentric chambers (GCC) reactor. *Water Science and Technology*, **2008**, 57, 1155-60	2.2	5
11	How are pharmaceutical and personal care products (PPCPs) removed from urban wastewaters?. *Reviews in Environmental Science and Biotechnology*, **2008**, 7, 125-138	13.9	313
10	Minimizing losses in bio-electrochemical systems: the road to applications. *Applied Microbiology and Biotechnology*, **2008**, 79, 901-13	5.7	335
9	Improvement of the anaerobic treatment of potato processing wastewater in a UASB reactor by co-digestion with glycerol. *Biotechnology Letters*, **2008**, 30, 861-7	3	57
8	Calculation methods to perform mass balances of micropollutants in sewage treatment plants. application to pharmaceutical and personal care products (PPCPs). *Environmental Science & Technology*, **2007**, 41, 884-90	10.3	80
7	Assessing the degradation of ochratoxin a using a bioassay: the case of contaminated winery wastewater. *Water Science and Technology*, **2007**, 56, 55-61	2.2	46
6	Treatment of winery wastewaters in a membrane submerged bioreactor. *Water Science and Technology*, **2007**, 56, 63-9	2.2	21
5	Fate of pharmaceutical and personal care products (PPCPs) during anaerobic digestion of sewage sludge. *Water Research*, **2007**, 41, 2139-50	12.5	278
4	Influence of ozone pre-treatment on sludge anaerobic digestion: removal of pharmaceutical and personal care products. *Chemosphere*, **2007**, 67, 1444-52	8.4	102
3	Comparison between the conventional anaerobic digestion of sewage sludge and its combination with a chemical or thermal pre-treatment concerning the removal of pharmaceuticals and personal care products. *Water Science and Technology*, **2006**, 53, 109-17	2.2	82
2	Removal of cosmetic ingredients and pharmaceuticals in sewage primary treatment. *Water Research*, **2005**, 39, 4790-6	12.5	200
1	Behavior of pharmaceuticals, cosmetics and hormones in a sewage treatment plant. *Water Research* , **2004**, 38, 2918-26	12.5	1142