Marta Carballa

List of Publications by Year
in descending order

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90 papers	8,429 citations	53794 45 h-index	49909 87 g-index
92 all docs	92 docs citations	92 times ranked	8441 citing authors

#	Article	IF	Citations
1	Enzymatic cometabolic biotransformation of organic micropollutants in wastewater treatment plants: A review. Bioresource Technology, 2022, 344, 126291.	9.6	25
2	Principles, Advances, and Perspectives of Anaerobic Digestion of Lipids. Environmental Science & Technology, 2022, 56, 4749-4775.	10.0	27
3	Fate of Emerging Pollutants During Anaerobic Digestion of Sewage Sludge. Handbook of Environmental Chemistry, 2022, , 1.	0.4	0
4	Engineering the outcome of cofermentation processes by altering the feedstock sugar-to-protein ratio. Environmental Science: Water Research and Technology, 2022, 8, 1478-1488.	2.4	1
5	Microbial invasions in sludge anaerobic digesters. Applied Microbiology and Biotechnology, 2021, 105, 21-33.	3.6	6
6	The organic loading rate affects organic micropollutantsâ€™ cometabolic biotransformation kinetics under heterotrophic conditions in activated sludge. Water Research, 2021, 189, 116587.	11.3	28
7	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.	6.7	13
8	Heterotrophic enzymatic biotransformations of organic micropollutants in activated sludge. Science of the Total Environment, 2021, 780, 146564.	8.0	18
9	Comprehensive comparison of chemically enhanced primary treatment and high-rate activated sludge in novel wastewater treatment plant configurations. Water Research, 2020, 169, 115258.	11.3	67
10	Metabolic modeling for predicting VFA production from proteinâ€rich substrates by mixedâ€culture fermentation. Biotechnology and Bioengineering, 2020, 117, 73-84.	3.3	31
11	A metabolic model for targeted volatile fatty acids production by cofermentation of carbohydrates and proteins. Bioresource Technology, 2020, 298, 122535.	9.6	25
12	Acidogenesis is a key step in the anaerobic biotransformation of organic micropollutants. Journal of Hazardous Materials, 2020, 389, 121888.	12.4	42
13	Protein composition determines the preferential consumption of amino acids during anaerobic mixed-culture fermentation. Water Research, 2020, 183, 115958.	11.3	36
14	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.	8.0	4
15	Removal of organic micro-pollutants by anaerobic microbes and enzymes. , 2020, , 397-426.		6
16	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.	20.2	91
17	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.	8.0	35
18	Organic overloading affects the microbial interactions during anaerobic digestion in sewage sludge reactors. Chemosphere, 2019, 222, 323-332.	8.2	66

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19	Energetic and economic assessment of sludge thermal hydrolysis in novel wastewater treatment plant configurations. Waste Management, 2019, 92, 30-38.	7.4	26
20	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.	2.4	7
21	Opportunities for rotating belt filters in novel wastewater treatment plant configurations. Environmental Science: Water Research and Technology, 2019, 5, 704-712.	2.4	6
22	Reversibility of enzymatic reactions might limit biotransformation of organic micropollutants. Science of the Total Environment, 2019, 665, 574-578.	8.0	25
23	Airâ€side ammonia stripping coupled to anaerobic digestion indirectly impacts anaerobic microbiome. Microbial Biotechnology, 2019, 12, 1403-1416.	4.2	19
24	Biotransformation of organic micropollutants by anaerobic sludge enzymes. Water Research, 2019, 152, 202-214.	11.3	71
25	Resource recovery from pig manure via an integrated approach: A technical and economic assessment for full-scale applications. Bioresource Technology, 2019, 272, 582-593.	9.6	52
26	Role of methanogenesis on the biotransformation of organic micropollutants during anaerobic digestion. Science of the Total Environment, 2018, 622-623, 459-466.	8.0	75
27	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.	12.7	36
28	Blending based optimisation and pretreatment strategies to enhance anaerobic digestion of poultry manure. Waste Management, 2018, 71, 521-531.	7.4	44
29	Why are organic micropollutants not fully biotransformed? A mechanistic modelling approach to anaerobic systems. Water Research, 2018, 142, 115-128.	11.3	50
30	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.	7.4	13
31	Cometabolic Enzymatic Transformation of Organic Micropollutants under Methanogenic Conditions. Environmental Science & Technology, 2017, 51, 2963-2971.	10.0	63
32	Enhancing thermophilic co-digestion of nitrogen-rich substrates by air side-stream stripping. Bioresource Technology, 2017, 241, 397-405.	9.6	27
33	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.	2.5	21
34	Towards a standardization of biomethane potential tests. Water Science and Technology, 2016, 74, 2515-2522.	2.5	592
35	Influence of hydraulic retention time on the psychrophilic hydrolysis/acidogenesis of proteins. Water Science and Technology, 2016, 74, 2399-2406.	2.5	0
36	Presence does not imply activity: DNA and RNA patterns differ in response to salt perturbation in anaerobic digestion. Biotechnology for Biofuels, 2016, 9, 244.	6.2	81

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37	Microbiome response to controlled shifts in ammonium and LCFA levels in co-digestion systems. Journal of Biotechnology, 2016, 220, 35-44.	3.8	32
38	Microbial management of anaerobic digestion: exploiting the microbiome-functionality nexus. Current Opinion in Biotechnology, 2015, 33, 103-111.	6.6	268
39	Key microbial communities steering the functioning of anaerobic digesters during hydraulic and organic overloading shocks. Bioresource Technology, 2015, 197, 208-216.	9.6	114
40	Feasibility of spent metalworking fluids as co-substrate for anaerobic co-digestion. Bioresource Technology, 2014, 155, 281-288.	9.6	16
41	Influence of transitional states on the microbial ecology of anaerobic digesters treating solid wastes. Applied Microbiology and Biotechnology, 2014, 98, 2015-2027.	3.6	32
42	Outlining microbial community dynamics during temperature drop and subsequent recovery period in anaerobic co-digestion systems. Journal of Biotechnology, 2014, 192, 179-186.	3.8	50
43	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.	8.0	46
44	Modelling cometabolic biotransformation of organic micropollutants in nitrifying reactors. Water Research, 2014, 65, 371-383.	11.3	68
45	Relationship between phenol degradation efficiency and microbial community structure in an anaerobic SBR. Water Research, 2013, 47, 6739-6749.	11.3	133
46	Biodegradation kinetic constants and sorption coefficients of micropollutants in membrane bioreactors. Biodegradation, 2013, 24, 165-177.	3.0	82
47	Influence of nitrifying conditions on the biodegradation andÂsorption of emerging micropollutants. Water Research, 2012, 46, 5434-5444.	11.3	225
48	Relationship between microbial activity and microbial community structure in six full-scale anaerobic digesters. Microbiological Research, 2012, 167, 581-589.	5.3	186
49	Enhanced methane production from pig manure anaerobic digestion using fish and biodiesel wastes as co-substrates. Bioresource Technology, 2012, 123, 507-513.	9.6	51
50	Successful hydraulic strategies to start up OLAND sequencing batch reactors at lab scale. Microbial Biotechnology, 2012, 5, 403-414.	4.2	18
51	Should We Pretreat Solid Waste Prior to Anaerobic Digestion? An Assessment of Its Environmental Cost. Environmental Science & Technology, 2011, 45, 10306-10314.	10.0	100
52	Biogenic metals for the oxidative and reductive removal ofÂpharmaceuticals, biocides and iodinated contrast media inÂaÂpolishing membrane bioreactor. Water Research, 2011, 45, 1763-1773.	11.3	99
53	Correlations between molecular and operational parameters in continuous lab-scale anaerobic reactors. Applied Microbiology and Biotechnology, 2011, 89, 303-314.	3.6	91
54	Long-chain acylhomoserine lactones increase the anoxic ammonium oxidation rate in an OLAND biofilm. Applied Microbiology and Biotechnology, 2011, 90, 1511-1519.	3.6	80

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55	Enhanced biomethanation of kitchen waste by different pre-treatments. Bioresource Technology, 2011, 102, 592-599.	9.6	206
56	Treatment of Sanitary Landfill Leachates in a Lab-Scale Gradual Concentric Chamber (GCC) Reactor. Applied Biochemistry and Biotechnology, 2010, 160, 1822-1832.	2.9	2
57	Criteria for Designing Sewage Treatment Plants for Enhanced Removal of Organic Micropollutants. Environmental Pollution, 2010, , 283-306.	0.4	9
58	Environmental assessment of anaerobically digested sludge reuse in agriculture: Potential impacts of emerging micropollutants. Water Research, 2010, 44, 3225-3233.	11.3	121
59	Diclofenac Oxidation by Biogenic Manganese Oxides. Environmental Science & Technology, 2010, 44, 3449-3454.	10.0	141
60	Aggregate Size and Architecture Determine Microbial Activity Balance for One-Stage Partial Nitritation and Anammox. Applied and Environmental Microbiology, 2010, 76, 900-909.	3.1	318
61	Prediction of Heavy Metals Mobility and Bioavailability in Contaminated Soil Using Sequential Extraction and Biosensors. Journal of Environmental Engineering, ASCE, 2009, 135, 839-844.	1.4	8
62	Technical and economic feasibility of gradual concentric chambers reactor for sewage treatment in developing countries. Electronic Journal of Biotechnology, 2009, 12, 0-0.	2.2	11
63	Ureolytic phosphate precipitation from anaerobic effluents. Water Science and Technology, 2009, 59, 1983-1988.	2.5	8
64	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, .	2.2	1
65	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.	3.2	38
66	Biological removal of 17Î±â€ethinylestradiol (EE2) in an aerated nitrifying fixed bed reactor during ammonium starvation. Journal of Chemical Technology and Biotechnology, 2009, 84, 119-125.	3.2	53
67	Influence of Different Pretreatments on Anaerobically Digested Sludge Characteristics: Suitability for Final Disposal. Water, Air, and Soil Pollution, 2009, 199, 311-321.	2.4	41
68	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, 3477-3482.	9.6	49
69	A low volumetric exchange ratio allows high autotrophic nitrogen removal in a sequencing batch reactor. Bioresource Technology, 2009, 100, 5010-5015.	9.6	31
70	Nitrogen Removal from Digested Black Water by One-Stage Partial Nitritation and Anammox. Environmental Science & Technology, 2009, 43, 5035-5041.	10.0	160
71	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.	2.5	78
72	Influence of manganese and ammonium oxidation on the removal of 17Î±-ethinylestradiol (EE2). Water Research, 2009, 43, 77-86.	11.3	58

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73	Phosphate removal in agro-industry: Pilot- and full-scale operational considerations of struvite crystallization. Water Research, 2009, 43, 1887-1892.	11.3	132
74	Enhanced propionic acid degradation (EPAD) system: Proof of principle and feasibility. Water Research, 2009, 43, 3239-3248.	11.3	45
75	How are pharmaceutical and personal care products (PPCPs) removed from urban wastewaters?. Reviews in Environmental Science and Biotechnology, 2008, 7, 125-138.	8.1	365
76	Minimizing losses in bio-electrochemical systems: the road to applications. Applied Microbiology and Biotechnology, 2008, 79, 901-913.	3.6	382
77	Improvement of the anaerobic treatment of potato processing wastewater in a UASB reactor by co-digestion with glycerol. Biotechnology Letters, 2008, 30, 861-867.	2.2	69
78	Determination of the solidâ€“water distribution coefficient (Kd) for pharmaceuticals, estrogens and musk fragrances in digested sludge. Water Research, 2008, 42, 287-295.	11.3	265
79	Comparison of predicted and measured concentrations of selected pharmaceuticals, fragrances and hormones in Spanish sewage. Chemosphere, 2008, 72, 1118-1123.	8.2	154
80	Granular biomass capable of partial nitritation and anammox. Water Science and Technology, 2008, 58, 1113-1120.	2.5	44
81	Treatment of low and medium strength sewage in a lab-scale gradual concentric chambers (GCC) reactor. Water Science and Technology, 2008, 57, 1155-1160.	2.5	6
82	Treatment of winery wastewaters in a membrane submerged bioreactor. Water Science and Technology, 2007, 56, 63-69.	2.5	23
83	Fate of pharmaceutical and personal care products (PPCPs) during anaerobic digestion of sewage sludge. Water Research, 2007, 41, 2139-2150.	11.3	332
84	Influence of ozone pre-treatment on sludge anaerobic digestion: Removal of pharmaceutical and personal care products. Chemosphere, 2007, 67, 1444-1452.	8.2	117
85	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, 884-890.	10.0	88
86	Assessing the degradation of ochratoxin a using a bioassay: the case of contaminated winery wastewater. Water Science and Technology, 2007, 56, 55-61.	2.5	47
87	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, 109-117.	2.5	98
88	Removal of cosmetic ingredients and pharmaceuticals in sewage primary treatment. Water Research, 2005, 39, 4790-4796.	11.3	229
89	Behavior of pharmaceuticals, cosmetics and hormones in a sewage treatment plant. Water Research, 2004, 38, 2918-2926.	11.3	1,277
90	How should ecohazard of micropollutants in wastewater be gauged? Using bioassays to profile alternative tertiary treatments. Environmental Engineering Research, 0, , .	2.5	1