

# Joaquim Comas

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127  
papers

3,554  
citations

33  
h-index

54  
g-index

130  
ext. papers

4,012  
ext. citations

6.4  
avg, IF

5.43  
L-index

#	Paper	IF	Citations
127	Nature-based solutions coupled with advanced technologies: An opportunity for decentralized water reuse in cities. <i>Journal of Cleaner Production</i> , <b>2022</b> , 340, 130660	10.3	4
126	Management of Urban Waters with Nature-Based Solutions in Circular Cities Exemplified through Seven Urban Circularity Challenges. <i>Water (Switzerland)</i> , <b>2021</b> , 13, 3334	3	16
125	Exploring the limitations of forward osmosis for direct hydroponic fertigation: Impact of ion transfer and fertilizer composition on effective dilution.. <i>Journal of Environmental Management</i> , <b>2021</b> , 305, 114339	7.9	2
124	Integrated membrane bioreactors modelling: A review on new comprehensive modelling framework. <i>Bioresource Technology</i> , <b>2021</b> , 329, 124828	11	4
123	Nature-based solutions in the urban context: terminology, classification and scoring for urban challenges and ecosystem services. <i>Science of the Total Environment</i> , <b>2021</b> , 779, 146237	10.2	29
122	Can source control of pharmaceuticals decrease the investment needs in urban wastewater infrastructure?. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 407, 124375	12.8	2
121	Feasibility of vertical ecosystem for sustainable water treatment and reuse in touristic resorts. <i>Journal of Environmental Management</i> , <b>2021</b> , 294, 112968	7.9	3
120	Advanced control system for reverse osmosis optimization in water reuse systems. <i>Desalination</i> , <b>2021</b> , 518, 115284	10.3	7
119	Integrated assessment of sulfate-based AOPs for pharmaceutical active compound removal from wastewater. <i>Journal of Cleaner Production</i> , <b>2020</b> , 260, 121014	10.3	24
118	Position paper - progress towards standards in integrated (aerobic) MBR modelling. <i>Water Science and Technology</i> , <b>2020</b> , 81, 1-9	2.2	5
117	Biogas purification through membrane bioreactors: Experimental study on siloxane separation and biodegradation. <i>Separation and Purification Technology</i> , <b>2020</b> , 238, 116440	8.3	5
116	Influence of microalgae wastewater treatment culturing conditions on forward osmosis concentration process. <i>Environmental Science and Pollution Research</i> , <b>2020</b> , 27, 1234-1245	5.1	10
115	Evaluation of different practices to estimate construction inventories for life cycle assessment of small to medium wastewater treatment plants. <i>Journal of Cleaner Production</i> , <b>2020</b> , 245, 118768	10.3	13
114	Assessing stormwater control measures using modelling and a multi-criteria approach. <i>Journal of Environmental Management</i> , <b>2019</b> , 243, 257-268	7.9	25
113	The impact of wastewater matrix on the degradation of pharmaceutically active compounds by oxidation processes including ultraviolet radiation and sulfate radicals. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 380, 120869	12.8	25
112	Multi-criteria Evaluation of Sustainable Urban Drainage Systems. <i>Green Energy and Technology</i> , <b>2019</b> , 269-274	0.6	1
111	Volatile fatty acids concentration in real wastewater by forward osmosis. <i>Journal of Membrane Science</i> , <b>2019</b> , 575, 60-70	9.6	21

110	Retrofitting membrane bioreactor (MBR) into osmotic membrane bioreactor (OMBR): A pilot scale study. <i>Chemical Engineering Journal</i> , <b>2018</b> , 339, 268-277	14.7	45
109	Advanced biological activated carbon filter for removing pharmaceutically active compounds from treated wastewater. <i>Science of the Total Environment</i> , <b>2018</b> , 636, 519-529	10.2	65
108	Fate of pharmaceuticals and their transformation products in integrated membrane systems for wastewater reclamation. <i>Chemical Engineering Journal</i> , <b>2018</b> , 331, 450-461	14.7	43
107	Building an integrated AI and mathematical modeling framework for online supervision and control of water resource recovery facilities. <i>Proceedings of the Water Environment Federation</i> , <b>2018</b> , 2018, 4025-4028	2	
106	Submerged Osmotic Processes: Design and Operation to Mitigate Mass Transfer Limitations. <i>Membranes</i> , <b>2018</b> , 8,	3.8	9
105	Can osmotic membrane bioreactor be a realistic solution for water reuse?. <i>Npj Clean Water</i> , <b>2018</b> , 1,	11.2	17
104	Balancing environmental quality standards and infrastructure upgrade costs for the reduction of microcontaminant loads in rivers. <i>Water Research</i> , <b>2018</b> , 143, 632-641	12.5	10
103	Model-based methodology for the design of optimal control strategies in MBR plants. <i>Water Science and Technology</i> , <b>2017</b> , 75, 2546-2553	2.2	3
102	Resilience theory incorporated into urban wastewater systems management. State of the art. <i>Water Research</i> , <b>2017</b> , 115, 149-161	12.5	68
101	Optimized MBR for greywater reuse systems in hotel facilities. <i>Journal of Environmental Management</i> , <b>2017</b> , 193, 503-511	7.9	49
100	Crossing the Death Valley to Transfer Environmental Decision Support Systems to the Water Market. <i>Global Challenges</i> , <b>2017</b> , 1, 1700009	4.3	5
99	Selection of industrial (food, drink and milk sector) wastewater treatment technologies: A multi-criteria assessment. <i>Journal of Cleaner Production</i> , <b>2017</b> , 143, 180-190	10.3	33
98	Incorporating model uncertainty into the evaluation of interventions to reduce microcontaminant loads in rivers. <i>Water Research</i> , <b>2017</b> , 124, 415-424	12.5	12
97	Using a detailed inventory of a large wastewater treatment plant to estimate the relative importance of construction to the overall environmental impacts. <i>Water Research</i> , <b>2017</b> , 122, 614-623	12.5	33
96	Developing an artificial intelligence-based WRRF nitrous oxide mitigation road map: The Eindhoven N2O mitigation case study. <i>Proceedings of the Water Environment Federation</i> , <b>2017</b> , 2017, 1703-1715		2
95	Potential and Challenges of Osmotic Membrane Bioreactor (OMBR) for (Potable) Water Reuse: A Pilot Scale Study. <i>Lecture Notes in Civil Engineering</i> , <b>2017</b> , 188-192	0.3	1
94	Reshaping the Activated Sludge Model ASM2d for Better Manageability and Higher Integration Potential. <i>Lecture Notes in Civil Engineering</i> , <b>2017</b> , 583-587	0.3	
93	Removal of Pharmaceuticals from WWTP Secondary Effluent with Biofilters. <i>Lecture Notes in Civil Engineering</i> , <b>2017</b> , 281-286	0.3	

92	Water footprint assessment in wastewater treatment plants. <i>Journal of Cleaner Production</i> , <b>2016</b> , 112, 4741-4748	10.3	68
91	An integrated knowledge-based and optimization tool for the sustainable selection of wastewater treatment process concepts. <i>Environmental Modelling and Software</i> , <b>2016</b> , 84, 177-192	5.2	21
90	Validation of a decision support tool for wastewater treatment selection. <i>Journal of Environmental Management</i> , <b>2016</b> , 184, 409-418	7.9	24
89	Life cycle assessment of construction and renovation of sewer systems using a detailed inventory tool. <i>International Journal of Life Cycle Assessment</i> , <b>2016</b> , 21, 1121-1133	4.6	15
88	Advanced oxidation of the antibiotic sulfapyridine by UV/H <sub>2</sub> O <sub>2</sub> : Characterization of its transformation products and ecotoxicological implications. <i>Chemosphere</i> , <b>2016</b> , 147, 451-9	8.4	29
87	UV/H <sub>2</sub> O <sub>2</sub> degradation of the antidepressants venlafaxine and O-desmethylvenlafaxine: Elucidation of their transformation pathway and environmental fate. <i>Journal of Hazardous Materials</i> , <b>2016</b> , 311, 70-80	12.8	32
86	Efficiently Combining Water Reuse and Desalination through Forward Osmosis-Reverse Osmosis (FO-RO) Hybrids: A Critical Review. <i>Membranes</i> , <b>2016</b> , 6,	3.8	76
85	Fate of NDMA precursors through an MBR-NF pilot plant for urban wastewater reclamation and the effect of changing aeration conditions. <i>Water Research</i> , <b>2016</b> , 102, 383-393	12.5	19
84	Do machine learning methods used in data mining enhance the potential of decision support systems? A review for the urban water sector. <i>AI Communications</i> , <b>2016</b> , 29, 747-756	0.8	22
83	Placing ecosystem services at the heart of urban water systems management. <i>Science of the Total Environment</i> , <b>2016</b> , 563-564, 1078-85	10.2	32
82	Assessing Urban Wastewater System Upgrades Using Integrated Modeling, Life Cycle Analysis, and Shadow Pricing. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 12548-12556	10.3	11
81	Validation of a Simple Fouling Model for a Submerged Membrane Bioreactor. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 737-742	0.7	7
80	Full-scale validation of an air scour control system for energy savings in membrane bioreactors. <i>Water Research</i> , <b>2015</b> , 79, 1-9	12.5	24
79	Comparison of a deterministic and a data driven model to describe MBR fouling. <i>Chemical Engineering Journal</i> , <b>2015</b> , 260, 300-308	14.7	37
78	Proteomics reliability for micropollutants degradation insight into activated sludge systems. <i>Water Science and Technology</i> , <b>2015</b> , 72, 882-8	2.2	
77	Optimization of full-scale membrane bioreactors for wastewater treatment through a model-based approach. <i>Chemical Engineering Journal</i> , <b>2015</b> , 267, 34-42	14.7	31
76	Connection of neighboring wastewater treatment plants: economic and environmental assessment. <i>Journal of Cleaner Production</i> , <b>2015</b> , 90, 34-42	10.3	14
75	A new perforated core buckling restrained brace. <i>Engineering Structures</i> , <b>2015</b> , 85, 118-126	4.7	47

74	Instrumentation, control and automation in wastewater--from London 1973 to Narbonne 2013. <i>Water Science and Technology</i> , <b>2014</b> , 69, 1373-85	2.2	52
73	Flexural response of reinforced concrete (RC) beams strengthened with near surface mounted (NSM) fibre reinforced polymer (FRP) bars. <i>Composite Structures</i> , <b>2014</b> , 109, 8-22	5.3	116
72	Assessment of energy-saving strategies and operational costs in full-scale membrane bioreactors. <i>Journal of Environmental Management</i> , <b>2014</b> , 134, 8-14	7.9	34
71	Including the environmental criteria when selecting a wastewater treatment plant. <i>Environmental Modelling and Software</i> , <b>2014</b> , 56, 74-82	5.2	50
70	Towards integrated operation of membrane bioreactors: effects of aeration on biological and filtration performance. <i>Bioresource Technology</i> , <b>2014</b> , 171, 103-12	11	33
69	Ragging in MBR: Effects of Operational Conditions, Chemical Cleaning, and Pre-Treatment Improvements. <i>Separation Science and Technology</i> , <b>2014</b> , 49, 2115-2123	2.5	7
68	Pharmaceuticals occurrence in a WWTP with significant industrial contribution and its input into the river system. <i>Environmental Pollution</i> , <b>2014</b> , 185, 202-12	9.3	143
67	Exploring the potential of applying proteomics for tracking bisphenol A and nonylphenol degradation in activated sludge. <i>Chemosphere</i> , <b>2013</b> , 90, 2309-14	8.4	14
66	A new modular buckling restrained brace for seismic resistant buildings. <i>Engineering Structures</i> , <b>2013</b> , 56, 1967-1975	4.7	26
65	Effects on activated sludge bacterial community exposed to sulfamethoxazole. <i>Chemosphere</i> , <b>2013</b> , 93, 99-106	8.4	101
64	Development of a decision tree for the integrated operation of nutrient removal MBRs based on simulation studies and expert knowledge. <i>Chemical Engineering Journal</i> , <b>2013</b> , 217, 174-184	14.7	17
63	Cracking and deflections in GFRP RC beams: An experimental study. <i>Composites Part B: Engineering</i> , <b>2013</b> , 55, 580-590	10	48
62	Characterisation of RO fouling in an integrated MBR/RO system for wastewater reuse. <i>Water Science and Technology</i> , <b>2013</b> , 67, 780-8	2.2	11
61	Benchmark simulation models, quo vadis?. <i>Water Science and Technology</i> , <b>2013</b> , 68, 1-15	2.2	44
60	Ragging phenomenon characterisation and impact in a full-scale MBR. <i>Water Science and Technology</i> , <b>2013</b> , 67, 810-6	2.2	17
59	Knowledge-based control module for start-up of flat sheet MBRs. <i>Bioresource Technology</i> , <b>2012</b> , 106, 50-4	11	13
58	Removal of emerging contaminants from municipal wastewater with an integrated membrane system, MBR-RO. <i>Journal of Hazardous Materials</i> , <b>2012</b> , 239-240, 64-9	12.8	191
57	Removal of ibuprofen and its transformation products: experimental and simulation studies. <i>Science of the Total Environment</i> , <b>2012</b> , 433, 296-301	10.2	54

56	Automatic control systems for submerged membrane bioreactors: a state-of-the-art review. <i>Water Research</i> , <b>2012</b> , 46, 3421-33	12.5	53
55	Multi-criteria selection of optimum WWTP control setpoints based on microbiology-related failures, effluent quality and operating costs. <i>Chemical Engineering Journal</i> , <b>2012</b> , 188, 23-29	14.7	41
54	Model-based knowledge acquisition in environmental decision support system for wastewater integrated management. <i>Water Science and Technology</i> , <b>2012</b> , 65, 1123-9	2.2	11
53	Development of an algorithm for air-scour optimization in membrane bioreactors. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2011</b> , 44, 3795-3799		
52	Development of a control algorithm for air-scour reduction in membrane bioreactors for wastewater treatment. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2011</b> , 86, 784-789	3.5	10
51	Removal of microbial indicators from municipal wastewater by a membrane bioreactor (MBR). <i>Bioresource Technology</i> , <b>2011</b> , 102, 5004-9	11	72
50	Automatic control system for energy optimization in membrane bioreactors. <i>Desalination</i> , <b>2011</b> , 268, 276-280	10.3	31
49	Online monitoring of membrane fouling in submerged MBRs. <i>Desalination</i> , <b>2011</b> , 277, 414-419	10.3	29
48	The Use of a Sewers-WWTPs-River Integrated Model Allows the Efficient Minimization of Ammonia Peaks and Oxygen Dips in a River. <i>Proceedings of the Water Environment Federation</i> , <b>2011</b> , 2011, 279-288		
47	A knowledge-based control system for air-scour optimisation in membrane bioreactors. <i>Water Science and Technology</i> , <b>2011</b> , 63, 2025-31	2.2	14
46	Knowledge-based system for automatic MBR control. <i>Water Science and Technology</i> , <b>2010</b> , 62, 2829-36	2.2	11
45	Selecting the most relevant variables for anaerobic digestion imbalances: two case studies. <i>Water Environment Research</i> , <b>2010</b> , 82, 492-8	2.8	2
44	Model development and simulation for predicting risk of foaming in anaerobic digestion systems. <i>Bioresource Technology</i> , <b>2010</b> , 101, 4306-14	11	25
43	Biological nutrient removal in an MBR treating municipal wastewater with special focus on biological phosphorus removal. <i>Bioresource Technology</i> , <b>2010</b> , 101, 3984-91	11	113
42	Comparison of removal of pharmaceuticals in MBR and activated sludge systems. <i>Desalination</i> , <b>2010</b> , 250, 653-659	10.3	249
41	Optimization of biological nutrient removal in a pilot plant UCT-MBR treating municipal wastewater during start-up. <i>Desalination</i> , <b>2010</b> , 250, 592-597	10.3	42
40	ENVIRONMENTAL DECISION SUPPORT SYSTEMS BASED ON MODELS AND MODEL-BASED REASONING. <i>Environmental Engineering and Management Journal</i> , <b>2010</b> , 9, 189-195	0.6	6
39	VALIDATION OF A KNOWLEDGE-BASED RISK MODEL FOR BIOLOGICAL FOAMING IN ANAEROBIC DIGESTION SIMULATION. <i>Environmental Engineering and Management Journal</i> , <b>2010</b> , 9, 223-229	0.6	

38	Decision Support Systems for Integrated Water Resources Management Under Water Scarcity. <i>Handbook of Environmental Chemistry</i> , <b>2009</b> , 129-146	0.8	1
37	A new rule generation method to develop a decision support system for integrated management at river basin scale. <i>Water Science and Technology</i> , <b>2009</b> , 60, 2035-40	2.2	16
36	Role playing games: a methodology to acquire knowledge for integrated wastewater infrastructures management in a river basin scale. <i>Water Science and Technology</i> , <b>2009</b> , 59, 1809-16	2.2	6
35	Evaluation of plant-wide WWTP control strategies including the effects of filamentous bulking sludge. <i>Water Science and Technology</i> , <b>2009</b> , 60, 2093-103	2.2	10
34	Integrating empirical and heuristic knowledge in a KBS to approach stream eutrophication. <i>Ecological Modelling</i> , <b>2009</b> , 220, 2162-2172	3	5
33	Scenario analysis for the role of sanitation infrastructures in integrated urban wastewater management. <i>Environmental Modelling and Software</i> , <b>2009</b> , 24, 371-380	5.2	30
32	Constructed wetland clogging: A proposal for the integration and reuse of existing knowledge. <i>Ecological Engineering</i> , <b>2009</b> , 35, 1710-1718	3.9	20
31	Including the effects of filamentous bulking sludge during the simulation of wastewater treatment plants using a risk assessment model. <i>Water Research</i> , <b>2009</b> , 43, 4527-38	12.5	23
30	Chapter Eight Intelligent Environmental Decision Support Systems. <i>Developments in Integrated Environmental Assessment</i> , <b>2008</b> , 3, 119-144		5
29	Chapter Twelve Data Mining for Environmental Systems. <i>Developments in Integrated Environmental Assessment</i> , <b>2008</b> , 205-228		9
28	Development and implementation of an expert system to improve the control of nitrification and denitrification in the Vic wastewater treatment plant. <i>Environmental Technology (United Kingdom)</i> , <b>2008</b> , 29, 583-90	2.6	3
27	Improvement of sand filter and constructed wetland design using an environmental decision support system. <i>Journal of Environmental Quality</i> , <b>2008</b> , 37, 1644-7	3.4	3
26	Risk assessment modelling of microbiology-related solids separation problems in activated sludge systems. <i>Environmental Modelling and Software</i> , <b>2008</b> , 23, 1250-1261	5.2	58
25	Environmental decision support systems: A new approach to support the operation and maintenance of horizontal subsurface flow constructed wetlands. <i>Ecological Engineering</i> , <b>2007</b> , 30, 362-372	3.9	16
24	Exploring the ecological status of human altered streams through Generative Topographic Mapping. <i>Environmental Modelling and Software</i> , <b>2007</b> , 22, 1053-1065	5.2	7
23	Application of multivariable statistical techniques in plant-wide WWTP control strategies analysis. <i>Water Science and Technology</i> , <b>2007</b> , 56, 75-83	2.2	22
22	Improving the efficiency of case-based reasoning to deal with activated sludge solids separation problems. <i>Environmental Technology (United Kingdom)</i> , <b>2006</b> , 27, 585-96	2.6	1
21	Case-based reasoning, a promising tool to face solids separation problems in the activated sludge process. <i>Water Science and Technology</i> , <b>2006</b> , 53, 209-16	2.2	6

20	Dynamic reasoning to solve complex problems in activated sludge processes: a step further in decision support systems. <i>Water Science and Technology</i> , <b>2006</b> , 53, 191-8	2.2	3
19	Demonstration of a tool for automatic learning and re-use of knowledge in the activated sludge process. <i>Water Science and Technology</i> , <b>2006</b> , 53, 303-11	2.2	15
18	Extension of the IWA/COST simulation benchmark to include expert reasoning for system performance evaluation. <i>Water Science and Technology</i> , <b>2006</b> , 53, 331-9	2.2	6
17	Energy saving in a wastewater treatment process: an application of fuzzy logic control. <i>Environmental Technology (United Kingdom)</i> , <b>2005</b> , 26, 1263-70	2.6	30
16	Evaluating the application of a decision support system in identifying adequate wastewater treatment for small communities. A case study: the Fluvia River Basin. <i>Water Science and Technology</i> , <b>2005</b> , 51, 179-186	2.2	16
15	Optimal maintenance of constructed wetlands using an environmental decision support system. <i>Water Science and Technology</i> , <b>2005</b> , 51, 109-117	2.2	25
14	An Approach for Temporal Case-Based Reasoning: Episode-Based Reasoning. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 465-476	0.9	13
13	Development of a knowledge-based decision support system for identifying adequate wastewater treatment for small communities. <i>Water Science and Technology</i> , <b>2004</b> , 48, 393-400	2.2	20
12	A comparative study on the use of similarity measures in case-based reasoning to improve the classification of environmental system situations. <i>Environmental Modelling and Software</i> , <b>2004</b> , 19, 809-819	5.2	42
11	Designing and building real environmental decision support systems. <i>Environmental Modelling and Software</i> , <b>2004</b> , 19, 857-873	5.2	152
10	Environmental sciences and artificial intelligence. <i>Environmental Modelling and Software</i> , <b>2004</b> , 19, 761-762	1	1
9	A knowledge-based approach to the deflocculation problem: integrating on-line, off-line, and heuristic information. <i>Water Research</i> , <b>2003</b> , 37, 2377-87	12.5	34
8	Development of a knowledge-based decision support system for identifying adequate wastewater treatment for small communities. <i>Water Science and Technology</i> , <b>2003</b> , 48, 393-400	2.2	5
7	A hybrid supervisory system to support WWTP operation: implementation and validation. <i>Water Science and Technology</i> , <b>2002</b> , 45, 289-297	2.2	54
6	A hybrid supervisory system to support WWTP operation: implementation and validation. <i>Water Science and Technology</i> , <b>2002</b> , 45, 289-97	2.2	4
5	Development of a case-based system for the supervision of an activated sludge process. <i>Environmental Technology (United Kingdom)</i> , <b>2001</b> , 22, 477-86	2.6	10
4	Automatic Knowledge Acquisition from Complex Processes for the Development of Knowledge-Based Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 3353-3360	3.9	9
3	Prediction of the bulking phenomenon in wastewater treatment plants. <i>Advanced Engineering Informatics</i> , <b>2000</b> , 14, 307-317		55



2	Pilot Plant Evaluation for Hydrogen Sulphide Biological Treatment: Determination of Optimal Conditions Linking Experimental and Mathematical Modelling. <i>Environmental Technology (United Kingdom)</i> , <b>1999</b> , 20, 53-59	2.6	8
1	Towards a model of input/output behaviour of wastewater treatment plants using soft computing techniques. <i>Environmental Modelling and Software</i> , <b>1999</b> , 14, 409-419	5.2	27