Ignasi RodrÃ-guez-Roda

List of Publications by Year
in descending order

109 papers	4,672 citations	87888 38 h-index	102487 66 g-index
109 all docs	109 docs citations	109 times ranked	5254 citing authors

#	Article	IF	Citations
1	Comparison of removal of pharmaceuticals in MBR and activated sludge systems. Desalination, 2010, 250, 653-659.	8.2	289
2	Environmental decision support systems (EDSS) development â€“ Challenges and best practices. Environmental Modelling and Software, 2011, 26, 1389-1402.	4.5	251
3	Removal of emerging contaminants from municipal wastewater with an integrated membrane system, MBRâ€“RO. Journal of Hazardous Materials, 2012, 239-240, 64-69.	12.4	222
4	Enhanced sulfamethoxazole degradation through ammonia oxidizing bacteria co-metabolism and fate of transformation products. Water Research, 2016, 94, 111-119.	11.3	206
5	Pharmaceuticals occurrence in a WWTP with significant industrial contribution and its input into the river system. Environmental Pollution, 2014, 185, 202-212.	7.5	187
6	Designing and building real environmental decision support systems. Environmental Modelling and Software, 2004, 19, 857-873.	4.5	185
7	Comprehensive study of ibuprofen and its metabolites in activated sludge batch experiments and aquatic environment. Science of the Total Environment, 2012, 438, 404-413.	8.0	161
8	Artificial Intelligence and Environmental Decision Support Systems. Applied Intelligence, 2000, 13, 77-91.	5.3	131
9	Biological nutrient removal in an MBR treating municipal wastewater with special focus on biological phosphorus removal. Bioresource Technology, 2010, 101, 3984-3991.	9.6	129
10	Effects on activated sludge bacterial community exposed to sulfamethoxazole. Chemosphere, 2013, 93, 99-106.	8.2	111
11	Advanced biological activated carbon filter for removing pharmaceutically active compounds from treated wastewater. Science of the Total Environment, 2018, 636, 519-529.	8.0	109
12	Characterization of metoprolol biodegradation and its transformation products generated in activated sludge batch experiments and in full scale WWTPs. Water Research, 2014, 63, 21-32.	11.3	98
13	Multi-criteria evaluation of wastewater treatment plant control strategies under uncertainty. Water Research, 2008, 42, 4485-4497.	11.3	97
14	Efficiently Combining Water Reuse and Desalination through Forward Osmosisâ€”Reverse Osmosis (FO-RO) Hybrids: A Critical Review. Membranes, 2016, 6, 37.	3.0	93
15	Removal of microbial indicators from municipal wastewater by a membrane bioreactor (MBR). Bioresource Technology, 2011, 102, 5004-5009.	9.6	80
16	Evaluation of emerging contaminants in a drinking water treatment plant using electrodialysis reversal technology. Journal of Hazardous Materials, 2016, 309, 192-201.	12.4	76
17	Prediction of the bulking phenomenon in wastewater treatment plants. Advanced Engineering Informatics, 2000, 14, 307-317.	0.5	71
18	Risk assessment modelling of microbiology-related solids separation problems in activated sludge systems. Environmental Modelling and Software, 2008, 23, 1250-1261.	4.5	71

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19	Optimized MBR for greywater reuse systems in hotel facilities. Journal of Environmental Management, 2017, 193, 503-511.	7.8	69
20	Instrumentation, control and automation in wastewater â€“ from London 1973 to Narbonne 2013. Water Science and Technology, 2014, 69, 1373-1385.	2.5	68
21	Multiple-objective evaluation of wastewater treatment plant control alternatives. Journal of Environmental Management, 2010, 91, 1193-1201.	7.8	67
22	Automatic control systems for submerged membrane bioreactors: A state-of-the-art review. Water Research, 2012, 46, 3421-3433.	11.3	62
23	Removal of ibuprofen and its transformation products: Experimental and simulation studies. Science of the Total Environment, 2012, 433, 296-301.	8.0	60
24	Integrated assessment of sulfate-based AOPs for pharmaceutical active compound removal from wastewater. Journal of Cleaner Production, 2020, 260, 121014.	9.3	58
25	A comparative study on the use of similarity measures in case-based reasoning to improve the classification of environmental system situations. Environmental Modelling and Software, 2004, 19, 809-819.	4.5	57
26	Retrofitting membrane bioreactor (MBR) into osmotic membrane bioreactor (OMBR): A pilot scale study. Chemical Engineering Journal, 2018, 339, 268-277.	12.7	57
27	Multi-criteria selection of optimum WWTP control setpoints based on microbiology-related failures, effluent quality and operating costs. Chemical Engineering Journal, 2012, 188, 23-29.	12.7	51
28	Optimization of biological nutrient removal in a pilot plant UCT-MBR treating municipal wastewater during start-up. Desalination, 2010, 250, 592-597.	8.2	49
29	Benchmark simulation models, quo vadis?. Water Science and Technology, 2013, 68, 1-15.	2.5	49
30	Comparison of a deterministic and a data driven model to describe MBR fouling. Chemical Engineering Journal, 2015, 260, 300-308.	12.7	49
31	Which method to use? An assessment of data mining methods in Environmental Data Science. Environmental Modelling and Software, 2018, 110, 3-27.	4.5	48
32	Occurrence of pharmaceuticals and UV filters in swimming pools and spas. Environmental Science and Pollution Research, 2016, 23, 14431-14441.	5.3	46
33	Cost comparison of full-scale water reclamation technologies with an emphasis on membrane bioreactors. Water Science and Technology, 2017, 75, 2562-2570.	2.5	46
34	The impact of wastewater matrix on the degradation of pharmaceutically active compounds by oxidation processes including ultraviolet radiation and sulfate radicals. Journal of Hazardous Materials, 2019, 380, 120869.	12.4	45
35	DAI-DEPUR: an integrated and distributed architecture for wastewater treatment plants supervision. Advanced Engineering Informatics, 1996, 10, 275-285.	0.5	44
36	Energy Saving in a Wastewater Treatment Process: an Application of Fuzzy Logic Control. Environmental Technology (United Kingdom), 2005, 26, 1263-1270.	2.2	43

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37	The application of microfiltration-reverse osmosis/nanofiltration to trace organics removal for municipal wastewater reuse. Environmental Technology (United Kingdom), 2013, 34, 3183-3189.	2.2	42
38	Assessment of energy-saving strategies and operational costs in full-scale membrane bioreactors. Journal of Environmental Management, 2014, 134, 8-14.	7.8	40
39	Towards a model of inputâ€“output behaviour of wastewater treatment plants using soft computing techniques. Environmental Modelling and Software, 1999, 14, 409-419.	4.5	38
40	Evaluation of the environmental implications to include structural changes in a wastewater treatment plant. Journal of Chemical Technology and Biotechnology, 2002, 77, 1206-1211.	3.2	38
41	A knowledge-based approach to the deflocculation problem: integrating on-line, off-line, and heuristic information. Water Research, 2003, 37, 2377-2387.	11.3	37
42	Online monitoring of membrane fouling in submerged MBRs. Desalination, 2011, 277, 414-419.	8.2	36
43	Automatic control system for energy optimization in membrane bioreactors. Desalination, 2011, 268, 276-280.	8.2	35
44	Knowledge discovery with clustering based on rules by states: A water treatment application. Environmental Modelling and Software, 2010, 25, 712-723.	4.5	34
45	Model development and simulation for predicting risk of foaming in anaerobic digestion systems. Bioresource Technology, 2010, 101, 4306-4314.	9.6	32
46	Holistic life cycle assessment of water reuse in a tourist-based community. Journal of Cleaner Production, 2019, 233, 743-752.	9.3	32
47	Including the effects of filamentous bulking sludge during the simulation of wastewater treatment plants using a risk assessment model. Water Research, 2009, 43, 4527-4538.	11.3	31
48	GESCONDA: An intelligent data analysis system for knowledge discovery and management in environmental databases. Environmental Modelling and Software, 2006, 21, 115-120.	4.5	30
49	Transport of trace organic compounds through novel forward osmosis membranes: Role of membrane properties and the draw solution. Water Research, 2018, 141, 65-73.	11.3	30
50	Full-scale validation of an air scour control system for energy savings in membrane bioreactors. Water Research, 2015, 79, 1-9.	11.3	28
51	Climate change impact on EU rivers' dilution capacity and ecological status. Water Research, 2021, 199, 117166.	11.3	28
52	Fate of NDMA precursors through an MBR-NF pilot plant for urban wastewater reclamation and the effect of changing aeration conditions. Water Research, 2016, 102, 383-393.	11.3	26
53	Anaerobic membrane bioreactor for biogas production from concentrated sewage produced during sewer mining. Science of the Total Environment, 2019, 670, 993-1000.	8.0	26
54	Development of a decision tree for the integrated operation of nutrient removal MBRs based on simulation studies and expert knowledge. Chemical Engineering Journal, 2013, 217, 174-184.	12.7	25

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55	Unraveling the potential of a combined nitritation-anammox biomass towards the biodegradation of pharmaceutically active compounds. Science of the Total Environment, 2018, 624, 722-731.	8.0	25
56	Application of multivariable statistical techniques in plant-wide WWTP control strategies analysis. Water Science and Technology, 2007, 56, 75-83.	2.5	24
57	Exploring Submerged Forward Osmosis for Water Recovery and Pre-Concentration of Wastewater before Anaerobic Digestion: A Pilot Scale Study. Membranes, 2019, 9, 97.	3.0	24
58	Design of Wastewater Treatment Plants Using a Conceptual Design Methodology. Industrial & Engineering Chemistry Research, 2002, 41, 4993-5005.	3.7	23
59	The cost and performance of an MF-RO/NF plant for trace metal removal. Desalination, 2013, 309, 181-186.	8.2	23
60	Uncertainty and sensitivity analysis of control strategies using the benchmark simulation model No1 (BSM1). Water Science and Technology, 2009, 59, 491-499.	2.5	22
61	Modelling cometabolic biotransformation of sulfamethoxazole by an enriched ammonia oxidizing bacteria culture. Chemical Engineering Science, 2017, 173, 465-473.	3.8	21
62	Comparative assessment of endocrine disrupting compounds removal in heterotrophic and enriched nitrifying biomass. Chemosphere, 2019, 217, 659-668.	8.2	21
63	Systematic Procedure to Handle Critical Decisions during the Conceptual Design of Activated Sludge Plants. Industrial & Engineering Chemistry Research, 2007, 46, 5600-5613.	3.7	20
64	Can osmotic membrane bioreactor be a realistic solution for water reuse?. Npj Clean Water, 2018, 1, .	8.0	19
65	Conceptual design of wastewater treatment plants using a design support system. Journal of Chemical Technology and Biotechnology, 2000, 75, 73-81.	3.2	18
66	Ragging phenomenon characterisation and impact in a full-scale MBR. Water Science and Technology, 2013, 67, 810-816.	2.5	17
67	An Approach for Temporal Case-Based Reasoning: Episode-Based Reasoning. Lecture Notes in Computer Science, 2005, , 465-476.	1.3	15
68	Demonstration of a tool for automatic learning and re-use of knowledge in the activated sludge process. Water Science and Technology, 2006, 53, 303-311.	2.5	15
69	A knowledge-based control system for air-scour optimisation in membrane bioreactors. Water Science and Technology, 2011, 63, 2025-2031.	2.5	15
70	Exploring the potential of applying proteomics for tracking bisphenol A and nonylphenol degradation in activated sludge. Chemosphere, 2013, 90, 2309-2314.	8.2	15
71	Evaluation of plant-wide WWTP control strategies including the effects of filamentous bulking sludge. Water Science and Technology, 2009, 60, 2093-2103.	2.5	14
72	Knowledge-based control module for start-up of flat sheet MBRs. Bioresource Technology, 2012, 106, 50-54.	9.6	14

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73	Sustainable case learning for continuous domains. Environmental Modelling and Software, 1999, 14, 349-357.	4.5	13
74	Knowledge-based system for automatic MBR control. Water Science and Technology, 2010, 62, 2829-2836.	2.5	13
75	Improving urban wastewater management through an auction-based management of discharges. Environmental Modelling and Software, 2011, 26, 689-696.	4.5	12
76	Advanced control system for reverse osmosis optimization in water reuse systems. Desalination, 2021, 518, 115284.	8.2	12
77	Exploring the ecological status of human altered streams through Generative Topographic Mapping. Environmental Modelling and Software, 2007, 22, 1053-1065.	4.5	11
78	Development of a control algorithm for airâ€scour reduction in membrane bioreactors for wastewater treatment. Journal of Chemical Technology and Biotechnology, 2011, 86, 784-789.	3.2	11
79	Extension of the IWA/COST simulation benchmark to include expert reasoning for system performance evaluation. Water Science and Technology, 2006, 53, 331-339.	2.5	10
80	A knowledge management methodology for the integrated assessment of WWTP configurations during conceptual design. Water Science and Technology, 2012, 66, 165-172.	2.5	10
81	Submerged Osmotic Processes: Design and Operation to Mitigate Mass Transfer Limitations. Membranes, 2018, 8, 72.	3.0	10
82	Integrated membrane bioreactors modelling: A review on new comprehensive modelling framework. Bioresource Technology, 2021, 329, 124828.	9.6	10
83	Case-based reasoning, a promising tool to face solids separation problems in the activated sludge process. Water Science and Technology, 2006, 53, 209-216.	2.5	9
84	ENVIRONMENTAL DECISION SUPPORT SYSTEMS BASED ON MODELS AND MODEL-BASED REASONING. Environmental Engineering and Management Journal, 2010, 9, 189-195.	0.6	9
85	Selection of the Activated Sludge Configuration during the Conceptual Design of Activated Sludge Plants Using Multicriteria Analysis. Industrial & Engineering Chemistry Research, 2005, 44, 3556-3566.	3.7	8
86	Multicriteria evaluation tools to support the conceptual design of activated sludge systems. Water Science and Technology, 2007, 56, 85-94.	2.5	7
87	Chapter Eight Intelligent Environmental Decision Support Systems. Developments in Integrated Environmental Assessment, 2008, 3, 119-144.	0.0	6
88	Selecting the Most Relevant Variables for Anaerobic Digestion Imbalances: Two Case Studies. Water Environment Research, 2010, 82, 492-498.	2.7	6
89	Fouling propensity of novel TFC membranes with different osmotic and hydraulic pressure driving forces. Water Research, 2020, 175, 115657.	11.3	6
90	Application of a support system to the design of wastewater treatment plants. Advanced Engineering Informatics, 2000, 14, 45-61.	0.5	5

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91	On-line estimation of suspended solids in biological reactors of WWTPs using a Kalman observer. Water Science and Technology, 2009, 60, 567-574.	2.5	5
92	Crossing the Death Valley to Transfer Environmental Decision Support Systems to the Water Market. Global Challenges, 2017, 1, 1700009.	3.6	5
93	Survey of Heavy Metal Contamination in Water Sources in the Municipality of Torola, El Salvador, through In Situ Sorbent Extraction. Water (Switzerland), 2017, 9, 877.	2.7	5
94	DEVELOPMENT AND IMPLEMENTATION OF AN EXPERT SYSTEM TO IMPROVE THE CONTROL OF NITRIFICATION AND DENITRIFICATION IN THE VIC WASTEWATER TREATMENT PLANT. Environmental Technology (United) Tj ETQq0 0 0 rgBT /Overlock 1	2.2	4
95	Dynamic reasoning to solve complex problems in activated sludge processes: a step further in decision support systems. Water Science and Technology, 2006, 53, 191-198.	2.5	3
96	Model-based methodology for the design of optimal control strategies in MBR plants. Water Science and Technology, 2017, 75, 2546-2553.	2.5	3
97	IMPROVEMENTS OF THE DECISION SUPPORT SYSTEM AT THE GRANOLLERS WWTP. Proceedings of the Water Environment Federation, 2002, 2002, 416-424.	0.0	2
98	Developing an artificial intelligence-based WRRF nitrous oxide mitigation road map: The Eindhoven N2O mitigation case study. Proceedings of the Water Environment Federation, 2017, 2017, 1703-1715.	0.0	2
99	Building an integrated AI and mathmatical modeling framework for online supervision and control of water resource recovery facilities. Proceedings of the Water Environment Federation, 2018, 2018, 4025-4028.	0.0	2
100	Knowledge extraction during the design of activated sludge systems. Computer Aided Chemical Engineering, 2006, 21, 1083-1088.	0.5	1
101	Improving the Efficiency of Case-Based Reasoning to deal with Activated Sludge Solids Separation Problems. Environmental Technology (United Kingdom), 2006, 27, 585-596.	2.2	1
102	Bridging academia and water-related business through competence development: Evidence from a pan-European project. Journal of Cleaner Production, 2018, 171, S20-S33.	9.3	1
103	A Norm-Aware Multi-agent System for Social Simulations in a River Basin. Intelligent Systems Reference Library, 2017, , 67-90.	1.2	1
104	Potential and Challenges of Osmotic Membrane Bioreactor (OMBR) for (Potable) Water Reuse: A Pilot Scale Study. Lecture Notes in Civil Engineering, 2017, , 188-192.	0.4	1
105	Hierarchical decision approach: Key to activated sludge process redesign. Computer Aided Chemical Engineering, 2005, , 787-792.	0.5	0
106	Development of an algorithm for air-scour optimization in membrane bioreactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 3795-3799.	0.4	0
107	Proteomics reliability for micropollutants degradation insight into activated sludge systems. Water Science and Technology, 2015, 72, 882-888.	2.5	0
108	VALIDATION OF A KNOWLEDGE-BASED RISK MODEL FOR BIOLOGICAL FOAMING IN ANAEROBIC DIGESTION SIMULATION. Environmental Engineering and Management Journal, 2010, 9, 223-229.	0.6	0

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109	INNOVATIVE EDUCATION FOR NEW LEADING PROFESSIONALS REQUIRED IN THE WATER SECTOR. , 0, , .		0