

Ignasi RodrÃ-iguez-Roda

List of Publications by Year in descending order

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109
papers

4,672
citations

100601

38
h-index

116156

66
g-index

109
all docs

109
docs citations

109
times ranked

5848
citing authors

#	ARTICLE	IF	CITATIONS
1	Integrated membrane bioreactors modelling: A review on new comprehensive modelling framework. <i>Bioresource Technology</i> , 2021, 329, 124828.	4.8	10
2	Climate change impact on EU rivers' dilution capacity and ecological status. <i>Water Research</i> , 2021, 199, 117166.	5.3	28
3	Advanced control system for reverse osmosis optimization in water reuse systems. <i>Desalination</i> , 2021, 518, 115284.	4.0	12
4	Integrated assessment of sulfate-based AOPs for pharmaceutical active compound removal from wastewater. <i>Journal of Cleaner Production</i> , 2020, 260, 121014.	4.6	58
5	Fouling propensity of novel TFC membranes with different osmotic and hydraulic pressure driving forces. <i>Water Research</i> , 2020, 175, 115657.	5.3	6
6	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> , 2019, 380, 120869.	6.5	45
7	Exploring Submerged Forward Osmosis for Water Recovery and Pre-Concentration of Wastewater before Anaerobic Digestion: A Pilot Scale Study. <i>Membranes</i> , 2019, 9, 97.	1.4	24
8	Holistic life cycle assessment of water reuse in a tourist-based community. <i>Journal of Cleaner Production</i> , 2019, 233, 743-752.	4.6	32
9	Anaerobic membrane bioreactor for biogas production from concentrated sewage produced during sewer mining. <i>Science of the Total Environment</i> , 2019, 670, 993-1000.	3.9	26
10	Comparative assessment of endocrine disrupting compounds removal in heterotrophic and enriched nitrifying biomass. <i>Chemosphere</i> , 2019, 217, 659-668.	4.2	21
11	Retrofitting membrane bioreactor (MBR) into osmotic membrane bioreactor (OMBR): A pilot scale study. <i>Chemical Engineering Journal</i> , 2018, 339, 268-277.	6.6	57
12	Unraveling the potential of a combined nitrification-anammox biomass towards the biodegradation of pharmaceutically active compounds. <i>Science of the Total Environment</i> , 2018, 624, 722-731.	3.9	25
13	Advanced biological activated carbon filter for removing pharmaceutically active compounds from treated wastewater. <i>Science of the Total Environment</i> , 2018, 636, 519-529.	3.9	109
14	Bridging academia and water-related business through competence development: Evidence from a pan-European project. <i>Journal of Cleaner Production</i> , 2018, 171, S20-S33.	4.6	1
15	Submerged Osmotic Processes: Design and Operation to Mitigate Mass Transfer Limitations. <i>Membranes</i> , 2018, 8, 72.	1.4	10
16	Which method to use? An assessment of data mining methods in Environmental Data Science. <i>Environmental Modelling and Software</i> , 2018, 110, 3-27.	1.9	48
17	Can osmotic membrane bioreactor be a realistic solution for water reuse?. <i>Npj Clean Water</i> , 2018, 1, .	3.1	19
18	Transport of trace organic compounds through novel forward osmosis membranes: Role of membrane properties and the draw solution. <i>Water Research</i> , 2018, 141, 65-73.	5.3	30

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19	Building an integrated AI and mathematical 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
20	Model-based methodology for the design of optimal control strategies in MBR plants. Water Science and Technology, 2017, 75, 2546-2553.	1.2	3
21	Optimized MBR for greywater reuse systems in hotel facilities. Journal of Environmental Management, 2017, 193, 503-511.	3.8	69
22	Crossing the Death Valley to Transfer Environmental Decision Support Systems to the Water Market. Global Challenges, 2017, 1, 1700009.	1.8	5
23	Cost comparison of full-scale water reclamation technologies with an emphasis on membrane bioreactors. Water Science and Technology, 2017, 75, 2562-2570.	1.2	46
24	Modelling cometabolic biotransformation of sulfamethoxazole by an enriched ammonia oxidizing bacteria culture. Chemical Engineering Science, 2017, 173, 465-473.	1.9	21
25	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.	1.2	5
26	A Norm-Aware Multi-agent System for Social Simulations in a River Basin. Intelligent Systems Reference Library, 2017, , 67-90.	1.0	1
27	Potential and Challenges of Osmotic Membrane Bioreactor (OMBR) for (Potable) Water Reuse: A Pilot Scale Study. Lecture Notes in Civil Engineering, 2017, , 188-192.	0.3	1
28	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
29	Efficiently Combining Water Reuse and Desalination through Forward Osmosis and Reverse Osmosis (FO-RO) Hybrids: A Critical Review. Membranes, 2016, 6, 37.	1.4	93
30	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.	5.3	26
31	Occurrence of pharmaceuticals and UV filters in swimming pools and spas. Environmental Science and Pollution Research, 2016, 23, 14431-14441.	2.7	46
32	Evaluation of emerging contaminants in a drinking water treatment plant using electrodialysis reversal technology. Journal of Hazardous Materials, 2016, 309, 192-201.	6.5	76
33	Enhanced sulfamethoxazole degradation through ammonia oxidizing bacteria co-metabolism and fate of transformation products. Water Research, 2016, 94, 111-119.	5.3	206
34	Proteomics reliability for micropollutants degradation insight into activated sludge systems. Water Science and Technology, 2015, 72, 882-888.	1.2	0
35	Full-scale validation of an air scour control system for energy savings in membrane bioreactors. Water Research, 2015, 79, 1-9.	5.3	28
36	Comparison of a deterministic and a data driven model to describe MBR fouling. Chemical Engineering Journal, 2015, 260, 300-308.	6.6	49

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37	Instrumentation, control and automation in wastewater “ from London 1973 to Narbonne 2013. <i>Water Science and Technology</i> , 2014, 69, 1373-1385.	1.2	68
38	Assessment of energy-saving strategies and operational costs in full-scale membrane bioreactors. <i>Journal of Environmental Management</i> , 2014, 134, 8-14.	3.8	40
39	Characterization of metoprolol biodegradation and its transformation products generated in activated sludge batch experiments and in full scale WWTPs. <i>Water Research</i> , 2014, 63, 21-32.	5.3	98
40	Pharmaceuticals occurrence in a WWTP with significant industrial contribution and its input into the river system. <i>Environmental Pollution</i> , 2014, 185, 202-212.	3.7	187
41	Exploring the potential of applying proteomics for tracking bisphenol A and nonylphenol degradation in activated sludge. <i>Chemosphere</i> , 2013, 90, 2309-2314.	4.2	15
42	Effects on activated sludge bacterial community exposed to sulfamethoxazole. <i>Chemosphere</i> , 2013, 93, 99-106.	4.2	111
43	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> , 2013, 217, 174-184.	6.6	25
44	The cost and performance of an MF-RO/NF plant for trace metal removal. <i>Desalination</i> , 2013, 309, 181-186.	4.0	23
45	The application of microfiltration-reverse osmosis/nanofiltration to trace organics removal for municipal wastewater reuse. <i>Environmental Technology (United Kingdom)</i> , 2013, 34, 3183-3189.	1.2	42
46	Benchmark simulation models, quo vadis?. <i>Water Science and Technology</i> , 2013, 68, 1-15.	1.2	49
47	Ragging phenomenon characterisation and impact in a full-scale MBR. <i>Water Science and Technology</i> , 2013, 67, 810-816.	1.2	17
48	A knowledge management methodology for the integrated assessment of WWTP configurations during conceptual design. <i>Water Science and Technology</i> , 2012, 66, 165-172.	1.2	10
49	Removal of emerging contaminants from municipal wastewater with an integrated membrane system, MBR+RO. <i>Journal of Hazardous Materials</i> , 2012, 239-240, 64-69.	6.5	222
50	Comprehensive study of ibuprofen and its metabolites in activated sludge batch experiments and aquatic environment. <i>Science of the Total Environment</i> , 2012, 438, 404-413.	3.9	161
51	Removal of ibuprofen and its transformation products: Experimental and simulation studies. <i>Science of the Total Environment</i> , 2012, 433, 296-301.	3.9	60
52	Automatic control systems for submerged membrane bioreactors: A state-of-the-art review. <i>Water Research</i> , 2012, 46, 3421-3433.	5.3	62
53	Multi-criteria selection of optimum WWTP control setpoints based on microbiology-related failures, effluent quality and operating costs. <i>Chemical Engineering Journal</i> , 2012, 188, 23-29.	6.6	51
54	Knowledge-based control module for start-up of flat sheet MBRs. <i>Bioresource Technology</i> , 2012, 106, 50-54.	4.8	14

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55	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
56	Environmental decision support systems (EDSS) development – Challenges and best practices. Environmental Modelling and Software, 2011, 26, 1389-1402.	1.9	251
57	Development of a control algorithm for air-scour reduction in membrane bioreactors for wastewater treatment. Journal of Chemical Technology and Biotechnology, 2011, 86, 784-789.	1.6	11
58	Improving urban wastewater management through an auction-based management of discharges. Environmental Modelling and Software, 2011, 26, 689-696.	1.9	12
59	Removal of microbial indicators from municipal wastewater by a membrane bioreactor (MBR). Bioresource Technology, 2011, 102, 5004-5009.	4.8	80
60	Automatic control system for energy optimization in membrane bioreactors. Desalination, 2011, 268, 276-280.	4.0	35
61	Online monitoring of membrane fouling in submerged MBRs. Desalination, 2011, 277, 414-419.	4.0	36
62	A knowledge-based control system for air-scour optimisation in membrane bioreactors. Water Science and Technology, 2011, 63, 2025-2031.	1.2	15
63	Knowledge-based system for automatic MBR control. Water Science and Technology, 2010, 62, 2829-2836.	1.2	13
64	Selecting the Most Relevant Variables for Anaerobic Digestion Imbalances: Two Case Studies. Water Environment Research, 2010, 82, 492-498.	1.3	6
65	Multiple-objective evaluation of wastewater treatment plant control alternatives. Journal of Environmental Management, 2010, 91, 1193-1201.	3.8	67
66	Model development and simulation for predicting risk of foaming in anaerobic digestion systems. Bioresource Technology, 2010, 101, 4306-4314.	4.8	32
67	Biological nutrient removal in an MBR treating municipal wastewater with special focus on biological phosphorus removal. Bioresource Technology, 2010, 101, 3984-3991.	4.8	129
68	Comparison of removal of pharmaceuticals in MBR and activated sludge systems. Desalination, 2010, 250, 653-659.	4.0	289
69	Optimization of biological nutrient removal in a pilot plant UCT-MBR treating municipal wastewater during start-up. Desalination, 2010, 250, 592-597.	4.0	49
70	Knowledge discovery with clustering based on rules by states: A water treatment application. Environmental Modelling and Software, 2010, 25, 712-723.	1.9	34
71	ENVIRONMENTAL DECISION SUPPORT SYSTEMS BASED ON MODELS AND MODEL-BASED REASONING. Environmental Engineering and Management Journal, 2010, 9, 189-195.	0.2	9
72	VALIDATION OF A KNOWLEDGE-BASED RISK MODEL FOR BIOLOGICAL FOAMING IN ANAEROBIC DIGESTION SIMULATION. Environmental Engineering and Management Journal, 2010, 9, 223-229.	0.2	0

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73	On-line estimation of suspended solids in biological reactors of WWTPs using a Kalman observer. <i>Water Science and Technology</i> , 2009, 60, 567-574.	1.2	5
74	Uncertainty and sensitivity analysis of control strategies using the benchmark simulation model No1 (BSM1). <i>Water Science and Technology</i> , 2009, 59, 491-499.	1.2	22
75	Evaluation of plant-wide WWTP control strategies including the effects of filamentous bulking sludge. <i>Water Science and Technology</i> , 2009, 60, 2093-2103.	1.2	14
76	Including the effects of filamentous bulking sludge during the simulation of wastewater treatment plants using a risk assessment model. <i>Water Research</i> , 2009, 43, 4527-4538.	5.3	31
77	Risk assessment modelling of microbiology-related solids separation problems in activated sludge systems. <i>Environmental Modelling and Software</i> , 2008, 23, 1250-1261.	1.9	71
78	Chapter Eight Intelligent Environmental Decision Support Systems. <i>Developments in Integrated Environmental Assessment</i> , 2008, 3, 119-144.	0.0	6
79	Multi-criteria evaluation of wastewater treatment plant control strategies under uncertainty. <i>Water Research</i> , 2008, 42, 4485-4497.	5.3	97
80	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> , 2008, 29, 1071-1084.	0.0	4
81	Multicriteria evaluation tools to support the conceptual design of activated sludge systems. <i>Water Science and Technology</i> , 2007, 56, 85-94.	1.2	7
82	Application of multivariable statistical techniques in plant-wide WWTP control strategies analysis. <i>Water Science and Technology</i> , 2007, 56, 75-83.	1.2	24
83	Systematic Procedure to Handle Critical Decisions during the Conceptual Design of Activated Sludge Plants. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 5600-5613.	1.8	20
84	Exploring the ecological status of human altered streams through Generative Topographic Mapping. <i>Environmental Modelling and Software</i> , 2007, 22, 1053-1065.	1.9	11
85	Case-based reasoning, a promising tool to face solids separation problems in the activated sludge process. <i>Water Science and Technology</i> , 2006, 53, 209-216.	1.2	9
86	Dynamic reasoning to solve complex problems in activated sludge processes: a step further in decision support systems. <i>Water Science and Technology</i> , 2006, 53, 191-198.	1.2	3
87	Demonstration of a tool for automatic learning and re-use of knowledge in the activated sludge process. <i>Water Science and Technology</i> , 2006, 53, 303-311.	1.2	15
88	Extension of the IWA/COST simulation benchmark to include expert reasoning for system performance evaluation. <i>Water Science and Technology</i> , 2006, 53, 331-339.	1.2	10
89	GESCONDA: An intelligent data analysis system for knowledge discovery and management in environmental databases. <i>Environmental Modelling and Software</i> , 2006, 21, 115-120.	1.9	30
90	Knowledge extraction during the design of activated sludge systems. <i>Computer Aided Chemical Engineering</i> , 2006, 21, 1083-1088.	0.3	1

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91	Improving the Efficiency of Case-Based Reasoning to deal with Activated Sludge Solids Separation Problems. Environmental Technology (United Kingdom), 2006, 27, 585-596.	1.2	1
92	Hierarchical decision approach: Key to activated sludge process redesign. Computer Aided Chemical Engineering, 2005, , 787-792.	0.3	0
93	An Approach for Temporal Case-Based Reasoning: Episode-Based Reasoning. Lecture Notes in Computer Science, 2005, , 465-476.	1.0	15
94	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.	1.8	8
95	Energy Saving in a Wastewater Treatment Process: an Application of Fuzzy Logic Control. Environmental Technology (United Kingdom), 2005, 26, 1263-1270.	1.2	43
96	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.	1.9	57
97	Designing and building real environmental decision support systems. Environmental Modelling and Software, 2004, 19, 857-873.	1.9	185
98	A knowledge-based approach to the deflocculation problem: integrating on-line, off-line, and heuristic information. Water Research, 2003, 37, 2377-2387.	5.3	37
99	IMPROVEMENTS OF THE DECISION SUPPORT SYSTEM AT THE GRANOLLERS WWTP. Proceedings of the Water Environment Federation, 2002, 2002, 416-424.	0.0	2
100	Design of Wastewater Treatment Plants Using a Conceptual Design Methodology. Industrial & Engineering Chemistry Research, 2002, 41, 4993-5005.	1.8	23
101	Evaluation of the environmental implications to include structural changes in a wastewater treatment plant. Journal of Chemical Technology and Biotechnology, 2002, 77, 1206-1211.	1.6	38
102	Conceptual design of wastewater treatment plants using a design support system. Journal of Chemical Technology and Biotechnology, 2000, 75, 73-81.	1.6	18
103	Prediction of the bulking phenomenon in wastewater treatment plants. Advanced Engineering Informatics, 2000, 14, 307-317.	0.5	71
104	Application of a support system to the design of wastewater treatment plants. Advanced Engineering Informatics, 2000, 14, 45-61.	0.5	5
105	Artificial Intelligence and Environmental Decision Support Systems. Applied Intelligence, 2000, 13, 77-91.	3.3	131
106	Sustainable case learning for continuous domains. Environmental Modelling and Software, 1999, 14, 349-357.	1.9	13
107	Towards a model of input-output behaviour of wastewater treatment plants using soft computing techniques. Environmental Modelling and Software, 1999, 14, 409-419.	1.9	38
108	DAI-DEPUR: an integrated and distributed architecture for wastewater treatment plants supervision. Advanced Engineering Informatics, 1996, 10, 275-285.	0.5	44

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