Leiv Rieger

List of Publications by Year
in descending order

54 papers	1,774 citations	257357 24 h-index	276775 41 g-index
54 all docs	54 docs citations	54 times ranked	1520 citing authors

#	Article	IF	Citations
1	The eawag bio-p module for activated sludge model no. 3. Water Research, 2001, 35, 3887-3903.	5.3	163
2	Extension of ASM3 for two-step nitrification and denitrification and its calibration and validation with batch tests and pilot scale data. Water Research, 2009, 43, 1680-1692.	5.3	146
3	Modelling nitrite in wastewater treatment systems: a discussion of different modelling concepts. Water Science and Technology, 2008, 58, 1155-1171.	1.2	123
4	Uncertainties of spectral in situ measurements in wastewater using different calibration approaches. Water Science and Technology, 2006, 53, 187-197.	1.2	103
5	Critical review of activated sludge modeling: State of process knowledge, modeling concepts, and limitations. Biotechnology and Bioengineering, 2013, 110, 24-46.	1.7	97
6	Wastewater treatment modelling: dealing with uncertainties. Water Science and Technology, 2009, 60, 1929-1941.	1.2	74
7	New framework for standardized notation in wastewater treatment modelling. Water Science and Technology, 2010, 61, 841-857.	1.2	73
8	The difference between energy consumption and energy cost: Modelling energy tariff structures for water resource recovery facilities. Water Research, 2015, 81, 113-123.	5.3	71
9	A systematic approach for model verification: application on seven published activated sludge models. Water Science and Technology, 2010, 61, 825-839.	1.2	70
10	Instrumentation, control and automation in wastewater â€“ from London 1973 to Narbonne 2013. Water Science and Technology, 2014, 69, 1373-1385.	1.2	68
11	Ammoniaâ€Based Feedforward and Feedback Aeration Control in Activated Sludge Processes. Water Environment Research, 2014, 86, 63-73.	1.3	61
12	Activated sludge modelling in practice: an international survey. Water Science and Technology, 2009, 60, 1943-1951.	1.2	54
13	Data Reconciliation for Wastewater Treatment Plant Simulation Studiesâ€”Planning for Highâ€Quality Data and Typical Sources of Errors. Water Environment Research, 2010, 82, 426-433.	1.3	46
14	Activated sludge modelling: development and potential use of a practical applications database. Water Science and Technology, 2011, 63, 2164-2182.	1.2	43
15	Improving Nutrient Removal While Reducing Energy Use at Three Swiss WWTPs Using Advanced Control. Water Environment Research, 2012, 84, 170-188.	1.3	42
16	Performance evaluation of fault detection methods for wastewater treatment processes. Biotechnology and Bioengineering, 2011, 108, 333-344.	1.7	40
17	Modelling of aeration systems at wastewater treatment plants. Water Science and Technology, 2006, 53, 439-447.	1.2	39
18	Adding realism to simulated sensors and actuators. Water Science and Technology, 2008, 57, 337-344.	1.2	38

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19	Quantifying the uncertainty of on-line sensors at WWTPs during field operation. Water Research, 2005, 39, 5162-5174.	5.3	32
20	Modelling gasâ€“liquid mass transfer in wastewater treatment: when current knowledge needs to encounter engineering practice and vice versa. Water Science and Technology, 2019, 80, 607-619.	1.2	32
21	The future of WRRF modelling â€“ outlook and challenges. Water Science and Technology, 2019, 79, 3-14.	1.2	31
22	A novel metabolic-ASM model for full-scale biological nutrient removal systems. Water Research, 2020, 171, 115373.	5.3	28
23	Development of a model for activated sludge aeration systems: linking air supply, distribution, and demand. Water Science and Technology, 2017, 75, 552-560.	1.2	27
24	Towards advanced aeration modelling: from blower to bubbles to bulk. Water Science and Technology, 2017, 75, 507-517.	1.2	26
25	Ammonia-based aeration control with optimal SRT control: improved performance and lower energy consumption. Water Science and Technology, 2019, 79, 63-72.	1.2	26
26	Potential of in-situ sensors with ion-selective electrodes for aeration control at wastewater treatment plants. Water Science and Technology, 2008, 58, 629-637.	1.2	25
27	Integrated shortcut nitrogen and biological phosphorus removal from mainstream wastewater: process operation and modeling. Environmental Science: Water Research and Technology, 2020, 6, 566-580.	1.2	24
28	Guidelines for Using Activated Sludge Models. Water Intelligence Online, 0, 11, .	0.3	23
29	Long-term evaluation of a spectral sensor for nitrite and nitrate. Water Science and Technology, 2008, 57, 1563-1569.	1.2	21
30	Rethinking wastewater characterisation methods for activated sludge systems â€“ a position paper. Water Science and Technology, 2013, 67, 2363-2373.	1.2	21
31	monEAU: a platform for water quality monitoring networks. Water Science and Technology, 2008, 57, 1079-1086.	1.2	19
32	Wastewater treatment models in teaching and training: the mismatch between education and requirements for jobs. Water Science and Technology, 2009, 59, 745-753.	1.2	18
33	Calibration and validation of an ASM3-based steady-state model for activated sludge systemsâ€”part II:. Water Research, 2001, 35, 2246-2255.	5.3	15
34	Long-term simulation of a full-scale EBPR plant with a novel metabolic-ASM model and its use as a diagnostic tool. Water Research, 2020, 187, 116398.	5.3	11
35	Assessment of aeration control strategies for biofilm-based partial nitritation/anammox systems. Water Science and Technology, 2020, 81, 1757-1765.	1.2	7
36	Inhibition of biological phosphorus removal in a sequencing moving bed biofilm reactor in seawater. Water Science and Technology, 2009, 59, 1101-1110.	1.2	6

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37	Dynamic air supply models add realism to the evaluation of control strategies in water resource recovery facilities. Water Science and Technology, 2018, 78, 1104-1114.	1.2	6
38	Probabilistic qualitative analysis for fault detection and identification of an on-line phosphate analyzer. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2012, 4, 67-77.	0.7	5
39	Towards the automation of water quality monitoring networks. , 2010, , .		4
40	A framework for model-based assessment of resilience in water resource recovery facilities against power outage. Water Research, 2021, 202, 117459.	5.3	4
41	Why Many Control Systems Fail. Proceedings of the Water Environment Federation, 2011, 2011, 3906-3918.	0.0	3
42	Editorial: Status and future of wastewater treatment modelling. Water Science and Technology, 2010, 61, 821-823.	1.2	2
43	Editorial: Water Resource Recovery Modelling. Water Science and Technology, 2019, 79, 1-2.	1.2	2
44	Using Whey as a Supplemental Carbon Source under Real Time Control Conditions â€¦ or a story ofâ€¦ Turds and Whey. Proceedings of the Water Environment Federation, 2010, 2010, 2354-2371.	0.0	1
45	Improving Nutrient Removal While Reducing Carbon Footprint at Three Swiss WWTPs Thanks to Advanced Control. Proceedings of the Water Environment Federation, 2010, 2010, 1979-2005.	0.0	1
46	New Framework for Standardized Notation in Wastewater Treatment Modelling. Proceedings of the Water Environment Federation, 2010, 2010, 1099-1100.	0.0	1
47	A Comprehensive Aeration System Model for WRRF Design and Control. Proceedings of the Water Environment Federation, 2015, 2015, 5091-5120.	0.0	1
48	Dynamic Modeling of Membrane-Aerated Biofilm Reactors. Proceedings of the Water Environment Federation, 2018, 2018, 1297-1312.	0.0	1
49	Using modeling to optimize a full-scale WWTP for energy reduction and increased biological nitrogen removal. Proceedings of the Water Environment Federation, 2009, 2009, 1282-1285.	0.0	0
50	Improved Design of Aeration Systems by Using Dynamic Simulation. Proceedings of the Water Environment Federation, 2011, 2011, 354-356.	0.0	0
51	Coupling SRT Control with Aeration Control Strategies. Proceedings of the Water Environment Federation, 2016, 2016, 4824-4839.	0.0	0
52	Comparison of Advanced Fine-Bubble Aeration Control Concepts with Respect to Energy Efficiency and Robustness. Proceedings of the Water Environment Federation, 2016, 2016, 136-147.	0.0	0
53	An Innovative Approach for Modeling Aerobic Granular Sludge Processes. Proceedings of the Water Environment Federation, 2017, 2017, 129-140.	0.0	0
54	Automated Performance Tracking of Sensors and Control Loops. Proceedings of the Water Environment Federation, 2018, 2018, 3486-3495.	0.0	0