Adrian M Oehmen

List of Publications by Year
in descending order

125 papers	8,296 citations	46918 47 h-index	48187 88 g-index
125 all docs	125 docs citations	125 times ranked	5910 citing authors

#	Article	IF	Citations
1	Advances in enhanced biological phosphorus removal: From micro to macro scale. Water Research, 2007, 41, 2271-2300.	5.3	998
2	The role of nitrite and free nitrous acid (FNA) in wastewater treatment plants. Water Research, 2011, 45, 4672-4682.	5.3	352
3	Modeling the PAOâ€"GAO competition: Effects of carbon source, pH and temperature. Water Research, 2009, 43, 450-462.	5.3	309
4	Denitrifying phosphorus removal: Linking the process performance with the microbial community structure. Water Research, 2007, 41, 4383-4396.	5.3	302
5	Optimisation of poly-Î²-hydroxyalkanoate analysis using gas chromatography for enhanced biological phosphorus removal systems. Journal of Chromatography A, 2005, 1070, 131-136.	1.8	244
6	Comparison of acetate and propionate uptake by polyphosphate accumulating organisms and glycogen accumulating organisms. Biotechnology and Bioengineering, 2005, 91, 162-168.	1.7	233
7	Obtaining highly enriched cultures of Candidatus Accumulibacter phosphates through alternating carbon sources. Water Research, 2006, 40, 3838-3848.	5.3	207
8	Anaerobic metabolism of propionate by polyphosphate-accumulating organisms in enhanced biological phosphorus removal systems. Biotechnology and Bioengineering, 2005, 91, 43-53.	1.7	179
9	Competition between polyphosphate and glycogen accumulating organisms in enhanced biological phosphorus removal systems with acetate and propionate as carbon sources. Journal of Biotechnology, 2006, 123, 22-32.	1.9	174
10	The effect of pH on the competition between polyphosphate-accumulating organisms and glycogen-accumulating organisms. Water Research, 2005, 39, 3727-3737.	5.3	167
11	Photodegradation kinetics and transformation products of ketoprofen, diclofenac and atenolol in pure water and treated wastewater. Journal of Hazardous Materials, 2013, 244-245, 516-527.	6.5	157
12	Metabolic shift of polyphosphate-accumulating organisms with different levels of polyphosphate storage. Water Research, 2012, 46, 1889-1900.	5.3	148
13	Status of hormones and painkillers in wastewater effluents across several European statesâ€"considerations for the EU watch list concerning estradiols and diclofenac. Environmental Science and Pollution Research, 2016, 23, 12835-12866.	2.7	141
14	The effect of GAOs (glycogen accumulating organisms) on anaerobic carbon requirements in full-scale Australian EBPR (enhanced biological phosphorus removal) plants. Water Science and Technology, 2003, 47, 37-43.	1.2	136
15	Assessing the removal of pharmaceuticals and personal care products in a full-scale activated sludge plant. Environmental Science and Pollution Research, 2012, 19, 1818-1827.	2.7	132
16	Removal of heavy metals from drinking water supplies through the ion exchange membrane bioreactor. Desalination, 2006, 199, 405-407.	4.0	131
17	A review of the biotransformations of priority pharmaceuticals in biological wastewater treatment processes. Water Research, 2021, 188, 116446.	5.3	131
18	Incorporating microbial ecology into the metabolic modelling of polyphosphate accumulating organisms and glycogen accumulating organisms. Water Research, 2010, 44, 4992-5004.	5.3	130

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19	Metabolism and ecological niche of Tetrasphaera and Ca. Accumulibacter in enhanced biological phosphorus removal. Water Research, 2017, 122, 159-171.	5.3	124
20	Photosynthetic mixed culture polyhydroxyalkanoate (PHA) production from individual and mixed volatile fatty acids (VFAs): Substrate preferences and co-substrate uptake. Journal of Biotechnology, 2014, 185, 19-27.	1.9	119
21	Mercury removal from water streams through the ion exchange membrane bioreactor concept. Journal of Hazardous Materials, 2014, 264, 65-70.	6.5	115
22	Analysis of 65 pharmaceuticals and personal care products in 5 wastewater treatment plants in Portugal using a simplified analytical methodology. Water Science and Technology, 2010, 62, 2862-2871.	1.2	114
23	Anaerobic and aerobic metabolism of glycogen-accumulating organisms selected with propionate as the sole carbon source. Microbiology (United Kingdom), 2006, 152, 2767-2778.	0.7	108
24	The impact of aeration on the competition between polyphosphate accumulating organisms and glycogen accumulating organisms. Water Research, 2014, 66, 296-307.	5.3	107
25	Ecotoxicity of ketoprofen, diclofenac, atenolol and their photolysis byproducts in zebrafish (Danio) Tj ETQq1 1 0.784314 rgBT /Overlock	3.9	103
26	Purple phototrophic bacteria for resource recovery: Challenges and opportunities. Biotechnology Advances, 2020, 43, 107567.	6.0	103
27	Critical review of activated sludge modeling: State of process knowledge, modeling concepts, and limitations. Biotechnology and Bioengineering, 2013, 110, 24-46.	1.7	97
28	The relationship between mixed microbial culture composition and PHA production performance from fermented molasses. New Biotechnology, 2014, 31, 257-263.	2.4	90
29	Modelling the population dynamics and metabolic diversity of organisms relevant in anaerobic/anoxic/aerobic enhanced biological phosphorus removal processes. Water Research, 2010, 44, 4473-4486.	5.3	89
30	The link of feast-phase dissolved oxygen (DO) with substrate competition and microbial selection in PHA production. Water Research, 2017, 112, 269-278.	5.3	88
31	Metabolic versatility in full-scale wastewater treatment plants performing enhanced biological phosphorus removal. Water Research, 2013, 47, 7032-7041.	5.3	84
32	Polyhydroxyalkanoates production by a mixed photosynthetic consortium of bacteria and algae. Bioresource Technology, 2013, 132, 146-153.	4.8	83
33	Control of nitrate recirculation flow in predenitrification systems. Water Science and Technology, 2002, 45, 29-36.	1.2	80
34	Assessing the diurnal variability of pharmaceutical and personal care products in a full-scale activated sludge plant. Environmental Pollution, 2011, 159, 2359-2367.	3.7	79
35	Anaerobic metabolism of Defluviicoccus vanus related glycogen accumulating organisms (GAOs) with acetate and propionate as carbon sources. Water Research, 2007, 41, 1885-1896.	5.3	75
36	Short-term effects of carbon source on the competition of polyphosphate accumulating organisms and glycogen accumulating organisms. Water Science and Technology, 2004, 50, 139-144.	1.2	73

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37	New framework for standardized notation in wastewater treatment modelling. Water Science and Technology, 2010, 61, 841-857.	1.2	73
38	The effect of substrate competition on the metabolism of polyphosphate accumulating organisms (PAOs). Water Research, 2014, 64, 149-159.	5.3	71
39	Denitrifying capabilities of Tetrasphaera and their contribution towards nitrous oxide production in enhanced biological phosphorus removal processes. Water Research, 2018, 137, 262-272.	5.3	67
40	Arsenic removal from drinking water through a hybrid ion exchange membrane â€“ Coagulation process. Separation and Purification Technology, 2011, 83, 137-143.	3.9	66
41	Development of a Novel Process Integrating the Treatment of Sludge Reject Water and the Production of Polyhydroxyalkanoates (PHAs). Environmental Science & Technology, 2015, 49, 10877-10885.	4.6	66
42	Optimisation of glycogen quantification in mixed microbial cultures. Bioresource Technology, 2012, 118, 518-525.	4.8	61
43	Determination of the extraction kinetics for the quantification of polyhydroxyalkanoate monomers in mixed microbial systems. Process Biochemistry, 2013, 48, 1626-1634.	1.8	61
44	Metabolic modelling of polyhydroxyalkanoate copolymers production by mixed microbial cultures. BMC Systems Biology, 2008, 2, 59.	3.0	59
45	Elucidating functional microorganisms and metabolic mechanisms in a novel engineered ecosystem integrating C, N, P and S biotransformation by metagenomics. Water Research, 2019, 148, 219-230.	5.3	54
46	Improving polyhydroxyalkanoates production in phototrophic mixed cultures by optimizing accumulator reactor operating conditions. International Journal of Biological Macromolecules, 2019, 126, 1085-1092.	3.6	53
47	Assessing the abundance and activity of denitrifying polyphosphate accumulating organisms through molecular and chemical techniques. Water Science and Technology, 2010, 61, 2061-2068.	1.2	49
48	Microbial population analysis of nutrient removal-related organisms in membrane bioreactors. Applied Microbiology and Biotechnology, 2012, 93, 2171-2180.	1.7	49
49	Distinctive denitrifying capabilities lead to differences in N2O production by denitrifying polyphosphate accumulating organisms and denitrifying glycogen accumulating organisms. Bioresource Technology, 2016, 219, 106-113.	4.8	49
50	Beyond feast and famine: Selecting a PHA accumulating photosynthetic mixed culture in a permanent feast regime. Water Research, 2016, 105, 421-428.	5.3	47
51	Oerskovia paurometabola can efficiently decolorize azo dye Acid Red 14 and remove its recalcitrant metabolite. Ecotoxicology and Environmental Safety, 2020, 191, 110007.	2.9	45
52	Modelling the biodegradation of non-steroidal anti-inflammatory drugs (NSAIDs) by activated sludge and a pure culture. Bioresource Technology, 2013, 133, 31-37.	4.8	43
53	Survival strategies of polyphosphate accumulating organisms and glycogen accumulating organisms under conditions of low organic loading. Bioresource Technology, 2014, 172, 290-296.	4.8	43
54	The source of reducing power in the anaerobic metabolism of polyphosphate accumulating organisms (PAOs) â€“ a mini-review. Water Science and Technology, 2010, 61, 1653-1662.	1.2	42

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55	Biodegradation of clofibric acid and identification of its metabolites. Journal of Hazardous Materials, 2012, 241-242, 182-189.	6.5	42
56	Characterizing the biochemical activity of full-scale enhanced biological phosphorus removal systems: A comparison with metabolic models. Biotechnology and Bioengineering, 2008, 99, 170-179.	1.7	41
57	Metabolic modelling of full-scale enhanced biological phosphorus removal sludge. Water Research, 2014, 66, 283-295.	5.3	41
58	Assessment of online monitoring strategies for measuring N2O emissions from full-scale wastewater treatment systems. Water Research, 2016, 99, 171-179.	5.3	41
59	The link between nitrous oxide emissions, microbial community profile and function from three full-scale WWTPs. Science of the Total Environment, 2019, 651, 2460-2472.	3.9	40
60	The impact of pH control on the volumetric productivity of mixed culture PHA production from fermented molasses. Engineering in Life Sciences, 2014, 14, 143-152.	2.0	38
61	Denitrifiers in Mainstream Anammox Processes: Competitors or Supporters?. Environmental Science & Technology, 2019, 53, 11063-11065.	4.6	38
62	Impact of biogenic substrates on sulfamethoxazole biodegradation kinetics by Achromobacter denitrificans strain PR1. Biodegradation, 2017, 28, 205-217.	1.5	37
63	Robustness of sludge enriched with short SBR cycles for biological nutrient removal. Bioresource Technology, 2009, 100, 1969-1976.	4.8	36
64	Bioaugmentation of membrane bioreactor with Achromobacter denitrificans strain PR1 for enhanced sulfamethoxazole removal in wastewater. Science of the Total Environment, 2019, 648, 44-55.	3.9	36
65	Metabolic modeling of the substrate competition among multiple VFAs for PHA production by mixed microbial cultures. Journal of Biotechnology, 2018, 280, 62-69.	1.9	34
66	Metabolite identification of ibuprofen biodegradation by <i>Patulibacter medicamentivorans</i> under aerobic conditions. Environmental Technology (United Kingdom), 2020, 41, 450-465.	1.2	34
67	Effect of dark/light periods on the polyhydroxyalkanoate production of a photosynthetic mixed culture. Bioresource Technology, 2013, 148, 474-479.	4.8	32
68	The storage compounds associated with TetrasphaeraÂPAO metabolism and the relationship between diversity and P removal. Water Research, 2021, 204, 117621.	5.3	32
69	Biological treatment of propanil and 3,4-dichloroaniline: Kinetic and microbiological characterisation. Water Research, 2010, 44, 4980-4991.	5.3	30
70	Sludge population optimisation in biological nutrient removal wastewater treatment systems through on-line process control: a re/view. Reviews in Environmental Science and Biotechnology, 2008, 7, 243-254.	3.9	29
71	The effect of carbon source on the biological reduction of ionic mercury. Journal of Hazardous Materials, 2009, 165, 1040-1048.	6.5	28
72	A novel metabolic-ASM model for full-scale biological nutrient removal systems. Water Research, 2020, 171, 115373.	5.3	28

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73	Polymer accumulation in mixed cyanobacterial cultures selected under the feast and famine strategy. Algal Research, 2018, 33, 99-108.	2.4	27
74	Accumulibacter diversity at the sub-clade level impacts enhanced biological phosphorus removal performance. Water Research, 2021, 199, 117210.	5.3	27
75	Modeling the Aerobic Metabolism of Polyphosphateâ€Accumulating Organisms Enriched with Propionate as a Carbon Source. Water Environment Research, 2007, 79, 2477-2486.	1.3	24
76	The impact of operational strategies on the performance of a photo-EBPR system. Water Research, 2018, 129, 190-198.	5.3	24
77	Modified Poly(acrylic acid)-Based Hydrogels for Enhanced Mainstream Removal of Ammonium from Domestic Wastewater. Environmental Science & Technology, 2020, 54, 9573-9583.	4.6	24
78	Performance of a two-stage anaerobic digestion system treating fruit pulp waste: The impact of substrate shift and operational conditions. Waste Management, 2018, 78, 434-445.	3.7	23
79	Two-stage anaerobic digestion system treating different seasonal fruit pulp wastes: Impact on biogas and hydrogen production and total energy recovery potential. Biomass and Bioenergy, 2020, 141, 105694.	2.9	22
80	Achieving combined biological short-cut nitrogen and phosphorus removal in a one sludge system with side-stream sludge treatment. Water Research, 2021, 203, 117563.	5.3	22
81	Modelling the metabolic shift of polyphosphate-accumulating organisms. Water Research, 2014, 65, 235-244.	5.3	21
82	Application of dissolved oxygen (DO) level control for polyhydroxyalkanoate (PHA) accumulation with concurrent nitrification in surplus municipal activated sludge. New Biotechnology, 2019, 50, 37-43.	2.4	21
83	Polyhydroxyalkanoates production from fermented domestic wastewater using phototrophic mixed cultures. Water Research, 2021, 197, 117101.	5.3	21
84	The impact of temperature on the metabolism of volatile fatty acids by polyphosphate accumulating organisms (PAOs). Environmental Research, 2020, 188, 109729.	3.7	20
85	Application of a Loss Causation Model to the Westray Mine Explosion. Chemical Engineering Research and Design, 2002, 80, 55-59.	2.7	19
86	Intracellular polyphosphate length characterization in polyphosphate accumulating microorganisms (PAOs): Implications in PAO phenotypic diversity and enhanced biological phosphorus removal performance. Water Research, 2021, 206, 117726.	5.3	19
87	Removal of inorganic charged micropollutants from drinking water supplies by hybrid ion exchange membrane processes. Desalination, 2008, 223, 85-90.	4.0	18
88	Novel Microelectrode-Based Online System for Monitoring N₂O Gas Emissions during Wastewater Treatment. Environmental Science & Technology, 2014, 48, 12816-12823.	4.6	18
89	Nutrient removal via nitrite from reject water and polyhydroxyalkanoate (<scp>PHA</scp>) storage during nitrifying conditions. Journal of Chemical Technology and Biotechnology, 2015, 90, 1802-1810.	1.6	17
90	Denitrification activity of polyphosphate accumulating organisms (PAOs) in full-scale wastewater treatment plants. Water Science and Technology, 2018, 78, 2449-2458.	1.2	17

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91	Community profile governs substrate competition in polyhydroxyalkanoate (PHA)-producing mixed cultures. New Biotechnology, 2020, 58, 32-37.	2.4	17
92	Butyrate can support PAOs but not GAOs in tropical climates. Water Research, 2021, 193, 116884.	5.3	17
93	Disinfectant efficacy in distribution systems: a pilot-scale assessment. Journal of Water Supply: Research and Technology - AQUA, 2008, 57, 507-518.	0.6	16
94	Polyhydroxyalkanoate granules quantification in mixed microbial cultures using image analysis: Sudan Black B versus Nile Blue A staining. Analytica Chimica Acta, 2015, 865, 8-15.	2.6	16
95	Modelling the biodegradation kinetics of the herbicide propanil and its metabolite 3,4-dichloroaniline. Environmental Science and Pollution Research, 2015, 22, 6687-6695.	2.7	16
96	Modelling energy costs for different operational strategies of a large water resource recovery facility. Water Science and Technology, 2017, 75, 2139-2148.	1.2	16
97	The link between the microbial ecology, gene expression, and biokinetics of denitrifying polyphosphate-accumulating systems under different electron acceptor combinations. Applied Microbiology and Biotechnology, 2018, 102, 6725-6737.	1.7	16
98	Bioaugmentation of activated sludge with Achromobacter denitrificans PR1 for enhancing the biotransformation of sulfamethoxazole and its human conjugates in real wastewater: Kinetic tests and modelling. Chemical Engineering Journal, 2018, 352, 79-89.	6.6	16
99	The impact of biomass withdrawal strategy on the biomass selection and polyhydroxyalkanoates accumulation of mixed microbial cultures. New Biotechnology, 2022, 66, 8-15.	2.4	16
100	Prediction of intracellular storage polymers using quantitative image analysis in enhanced biological phosphorus removal systems. Analytica Chimica Acta, 2013, 770, 36-44.	2.6	15
101	Propionate addition enhances the biodegradation of the xenobiotic herbicide propanil and its metabolite. Bioresource Technology, 2013, 127, 195-201.	4.8	11
102	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
103	<i>Defluviicoccus vanus</i> Glycogen-Accumulating Organisms (<i>Dv</i>GAOs) Are Less Competitive Than Polyphosphate-Accumulating Organisms (PAOs) at High Temperature. ACS ES&T Water, 2021, 1, 319-327.	2.3	11
104	Nitrous oxide emissions from a full-scale biological aerated filter (BAF) subject to seawater infiltration. Environmental Science and Pollution Research, 2019, 26, 20939-20948.	2.7	10
105	The effect of seed sludge on the selection of a photo-EBPR system. New Biotechnology, 2019, 49, 112-119.	2.4	8
106	The impact of a seasonal change in loading rate on the nitrous oxide emissions at the WWTP of a tourist region. Science of the Total Environment, 2022, 804, 149987.	3.9	8
107	The impact of the art-ICA control technology on the performance, energy consumption and greenhouse gas emissions of full-scale wastewater treatment plants. Journal of Cleaner Production, 2019, 213, 680-687.	4.6	7
108	Diclofenac biotransformation in the enhanced biological phosphorus removal process. Science of the Total Environment, 2022, 806, 151232.	3.9	7

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109	Can sample treatments based on advanced oxidation processes assisted by high-intensity focused ultrasound be used for toxic arsenic determination in human urine by flow-injection hydride-generation atomic absorption spectrometry?. Talanta, 2007, 72, 968-975.	2.9	6
110	Implications of Urineâ€toâ€Feces Ratio in the Thermophilic Anaerobic Digestion of Swine Waste. Water Environment Research, 2008, 80, 267-275.	1.3	6
111	Dynamics of Microbial Communities in Phototrophic Polyhydroxyalkanoate Accumulating Cultures. Microorganisms, 2022, 10, 351.	1.6	6
112	Development and implementation of a non-parametric/metabolic model in the process optimisation of PHA production by mixed microbial cultures. Computer Aided Chemical Engineering, 2007, 24, 995-1000.	0.3	4
113	Phosphorus and ammonium removal characteristics from aqueous solutions by a newly isolated plant growth-promoting bacterium. Environmental Technology (United Kingdom), 2020, 41, 2603-2617.	1.2	4
114	Modeling the aerobic metabolism of polyphosphate-accumulating organisms enriched with propionate as a carbon source. Water Environment Research, 2007, 79, 2477-86.	1.3	4
115	Response to the comment on â€œModelling the PAO-GAO competition: Effects of carbon source, pH and temperatureâ€• by Dwight Houweling etÂ al.. Water Research, 2009, 43, 2950-2951.	5.3	3
116	Microbial Characterization of Mercury-Reducing Mixed Cultures Enriched with Different Carbon Sources. Microbes and Environments, 2011, 26, 293-300.	0.7	3
117	Expanding ASM models towards integrated processes for short-cut nitrogen removal and bioplastic recovery. Science of the Total Environment, 2022, 821, 153492.	3.9	3
118	Romania needs overseas reviewers. Nature, 2012, 492, 186-186.	13.7	1
119	Monitoring intracellular polyphosphate accumulation in enhanced biological phosphorus removal systems by quantitative image analysis. Water Science and Technology, 2014, 69, 2315-2323.	1.2	1
120	ON-LINE METABOLIC FLUX ANALYSIS IN A PHB PRODUCTION PROCESS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 237-242.	0.4	0
121	COMPARISON OF ACETATE AND PROPIONATE AS CARBON SOURCE IN DENITRIFYING PHOSPHORUS REMOVAL SYSTEMS. Proceedings of the Water Environment Federation, 2007, 2007, 127-135.	0.0	0
122	METABOLIC MODEL OF THE AEROBIC METABOLISM OF POLYPHOSPHATE ACCUMULATING ORGANISMS WITH A PROPIONATE CARBON SOURCE. Proceedings of the Water Environment Federation, 2007, 2007, 1243-1255.	0.0	0
123	Modelling operational costs of a large water resource recovery facility receiving stormwater contributions. Urban Water Journal, 2018, 15, 23-31.	1.0	0
124	Upscaled and validated technologies for the production of bio-based materials from wastewater. , 2022, , 197-222.		0
125	Resource recovery from municipal wastewater: what and how much is there?. , 2022, , 1-19.		0