Stijn W H Van Hulle

List of Publications by Year
in descending order

130 papers	4,428 citations	81839 39 h-index	123376 61 g-index
130 all docs	130 docs citations	130 times ranked	4709 citing authors

#	Article	IF	Citations
1	Engineering aspects and practical application of autotrophic nitrogen removal from nitrogen rich streams. Chemical Engineering Journal, 2010, 162, 1-20.	6.6	432
2	Influence of temperature and pH on the kinetics of the Sharon nitritation process. Journal of Chemical Technology and Biotechnology, 2007, 82, 471-480.	1.6	174
3	Enrichment of Anammox biomass from municipal activated sludge: experimental and modelling results. Journal of Chemical Technology and Biotechnology, 2004, 79, 1421-1428.	1.6	149
4	The present status of landfill leachate treatment and its development trend from a technological point of view. Reviews in Environmental Science and Biotechnology, 2015, 14, 93-122.	3.9	149
5	Performance assessment of electrospun nanofibers for filter applications. Desalination, 2009, 249, 942-948.	4.0	133
6	Comparison of ozone and HO induced conversion of effluent organic matter (EfOM) using ozonation and UV/H2O2 treatment. Water Research, 2013, 47, 2387-2398.	5.3	115
7	A critical comparison of systematic calibration protocols for activated sludge models: A SWOT analysis. Water Research, 2005, 39, 2459-2474.	5.3	108
8	Modeling and simulation of oxygen-limited partial nitritation in a membrane-assisted bioreactor (MBR). Biotechnology and Bioengineering, 2004, 86, 531-542.	1.7	105
9	Potential of a functionalised nanofibre microfiltration membrane as an antibacterial water filter. Desalination, 2011, 275, 285-290.	4.0	88
10	Impact of enzymatic pretreatment on corn stover degradation and biogas production. Bioresource Technology, 2014, 173, 59-66.	4.8	85
11	Micropollutant elimination by O3, UV and plasma-based AOPs: An evaluation of treatment and energy costs. Chemosphere, 2019, 234, 715-724.	4.2	84
12	Horizontal subsurface flow constructed wetlands as tertiary treatment: Can they be an efficient barrier for microplastics pollution?. Science of the Total Environment, 2020, 721, 137785.	3.9	82
13	A comparative study on the efficiency of ozonation and coagulationâ€“flocculation as pretreatment to activated carbon adsorption of biologically stabilized landfill leachate. Waste Management, 2015, 43, 335-342.	3.7	77
14	Coupling a hydrological water quality model and an economic optimization model to set up a cost-effective emission reduction scenario for nitrogen. Environmental Modelling and Software, 2011, 26, 44-51.	1.9	72
15	Removal of several pesticides in a falling water film DBD reactor with activated carbon textile: Energy efficiency. Water Research, 2017, 116, 1-12.	5.3	72
16	Characterisation of landfill leachate by EEM-PARAFAC-SOM during physical-chemical treatment by coagulation-flocculation, activated carbon adsorption and ion exchange. Chemosphere, 2017, 186, 873-883.	4.2	72
17	Ozonation of biologically treated landfill leachate: efficiency and insights in organic conversions. Chemical Engineering Journal, 2015, 277, 104-111.	6.6	66
18	Removal of atrazine in water by combination of activated carbon and dielectric barrier discharge. Journal of Hazardous Materials, 2015, 299, 647-655.	6.5	63

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19	Wastewater reclamation and reuse potentials in agriculture: towards environmental sustainability. Environment, Development and Sustainability, 2021, 23, 2949-2972.	2.7	60
20	Advanced oxidation of pharmaceuticals by the ozone-activated peroxymonosulfate process: the role of different oxidative species. Journal of Hazardous Materials, 2018, 360, 204-213.	6.5	59
21	Functionalisation of electrospun polymer nanofibre membranes with TiO2 nanoparticles in view of dissolved organic matter photodegradation. Separation and Purification Technology, 2014, 133, 282-290.	3.9	58
22	Removal of micropollutants from water in a continuous-flow electrical discharge reactor. Journal of Hazardous Materials, 2019, 362, 238-245.	6.5	58
23	Full-scale modelling of an ozone reactor for drinking water treatment. Chemical Engineering Journal, 2010, 157, 551-557.	6.6	57
24	Decomposition of atrazine traces in water by combination of non-thermal electrical discharge and adsorption on nanofiber membrane. Water Research, 2015, 72, 361-371.	5.3	53
25	Combining ozone with UV and H₂O₂ for the degradation of micropollutants from different origins: lab-scale analysis and optimization. Environmental Technology (United) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.2	53
26	Physicochemical Properties of the Sugar Industry and Ethanol Distillery Wastewater and Their Impact on the Environment. Sugar Tech, 2019, 21, 265-277.	0.9	52
27	Natural Pigments and Biogas Recovery from Microalgae Grown in Wastewater. ACS Sustainable Chemistry and Engineering, 2020, 8, 10691-10701.	3.2	51
28	A combined respirometerâ€“titrimeter for the determination of microalgae kinetics: Experimental data collection and modelling. Chemical Engineering Journal, 2013, 222, 85-93.	6.6	48
29	Closed hydroponic systems: operational parameters, root exudates occurrence and related water treatment. Reviews in Environmental Science and Biotechnology, 2017, 16, 59-79.	3.9	46
30	Comparison and performance assessment of ozone-based AOPs in view of trace organic contaminants abatement in water and wastewater: A review. Journal of Environmental Chemical Engineering, 2021, 9, 105599.	3.3	46
31	Application of a mechanistic UV/hydrogen peroxide model at full-scale: Sensitivity analysis, calibration and performance evaluation. Chemical Engineering Journal, 2011, 171, 113-126.	6.6	44
32	Surrogate-Based Correlation Models in View of Real-Time Control of Ozonation of Secondary Treated Municipal Wastewaterâ€”Model Development and Dynamic Validation. Environmental Science & Technology, 2017, 51, 14233-14243.	4.6	44
33	Fate and removal of microplastics in unplanted lab-scale vertical flow constructed wetlands. Science of the Total Environment, 2021, 778, 146152.	3.9	44
34	Validation of a microalgal growth model accounting with inorganic carbon and nutrient kinetics for wastewater treatment. Chemical Engineering Journal, 2016, 285, 189-197.	6.6	43
35	Towards a benchmarking tool for minimizing wastewater utility greenhouse gas footprints. Water Science and Technology, 2012, 66, 2483-2495.	1.2	42
36	MODELING DISSOLVED OXYGEN CONCENTRATION FOR OPTIMIZING AERATION SYSTEMS AND REDUCING OXYGEN CONSUMPTION IN ACTIVATED SLUDGE PROCESSES: A REVIEW. Chemical Engineering Communications, 2014, 201, 983-1002.	1.5	42

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37	Investigation of plasmaâ€induced chemistry in organic solutions for enhanced electrospun PLA nanofibers. Plasma Processes and Polymers, 2018, 15, 1700226.	1.6	42
38	Oxygen transfer model development based on activated sludge and clean water in diffused aerated cylindrical tanks. Chemical Engineering Journal, 2014, 243, 51-59.	6.6	41
39	Removal of alachlor in water by non-thermal plasma: Reactive species and pathways in batch and continuous process. Water Research, 2019, 161, 549-559.	5.3	41
40	Enhanced process monitoring for wastewater treatment systems. Environmetrics, 2008, 19, 602-617.	0.6	40
41	The use of electrospun flat sheet nanofibre membranes in MBR applications. Desalination, 2010, 257, 170-176.	4.0	40
42	Chemical and economic optimization of the coagulation-flocculation process for silver removal and recovery from industrial wastewater. Separation and Purification Technology, 2017, 179, 145-151.	3.9	40
43	TiO2 functionalized nanofibrous membranes for removal of organic (micro)pollutants from water. Separation and Purification Technology, 2017, 179, 533-541.	3.9	39
44	A semi-mechanistic model describing the influence of light and temperature on the respiration and photosynthetic growth of Chlorella vulgaris. Bioresource Technology, 2019, 274, 361-370.	4.8	37
45	<scp>UV</scp>/<scp>H₂O₂</scp>, <scp>O₃</scp> and (photoâ€) Fenton as treatment prior to granular activated carbon filtration of biologically stabilized landfill leachate. Journal of Chemical Technology and Biotechnology, 2015, 90, 525-533.	1.6	34
46	Enrichment of anaerobic ammonium oxidizing (Anammox) bacteria from OLAND and conventional sludge: Features and limitations. Separation and Purification Technology, 2013, 104, 130-137.	3.9	33
47	Importance of scale and hydrodynamics for modeling anaerobic digester performance. Chemical Engineering Journal, 2014, 255, 71-77.	6.6	33
48	Full-scale modelling of a food industry wastewater treatment plant in view of process upgrade. Chemical Engineering Journal, 2008, 135, 185-194.	6.6	31
49	Ozonation of trace organic compounds in different municipal and industrial wastewaters: Kinetic-based prediction of removal efficiency and ozone dose requirements. Chemical Engineering Journal, 2020, 387, 123405.	6.6	30
50	Removal of organic matter and ammonium from landfill leachate through different scenarios: Operational cost evaluation in a full-scale case study of a Flemish landfill. Journal of Environmental Management, 2017, 203, 774-781.	3.8	28
51	Municipal wastewater effluent characterization and variability analysis in view of an ozone dose control strategy during tertiary treatment: The status in Belgium. Science of the Total Environment, 2018, 625, 1198-1207.	3.9	28
52	Roof runoff contamination: a review on pollutant nature, material leaching and deposition. Reviews in Environmental Science and Biotechnology, 2021, 20, 549-606.	3.9	27
53	Ozonation in view of micropollutant removal from biologically treated landfill leachate: Removal efficiency, OH exposure, and surrogate-based monitoring. Chemical Engineering Journal, 2021, 410, 128413.	6.6	27
54	Performance analysis and optimization of autotrophic nitrogen removal in different reactor configurations: a modelling study. Environmental Technology (United Kingdom), 2010, 31, 1311-1324.	1.2	25

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55	N₂O and NO emissions during autotrophic nitrogen removal in a granular sludge reactor â€“ a simulation study. Environmental Technology (United Kingdom), 2012, 33, 2281-2290.	1.2	25
56	Kinetic exploration of nitrate-accumulating microalgae for nutrient recovery. Applied Microbiology and Biotechnology, 2014, 98, 8377-8387.	1.7	25
57	Anaerobic treatment of blended sugar industry and ethanol distillery wastewater through biphasic high rate reactor. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2018, 53, 676-685.	0.9	24
58	Filtration performance of electrospun polyamide nanofibres loaded with bactericides. Textile Reseach Journal, 2012, 82, 37-44.	1.1	23
59	Decentralized grey and black water reuse by combining a vertical flow constructed wetland and membrane based potable water system: Full scale demonstration. Journal of Environmental Chemical Engineering, 2021, 9, 104688.	3.3	23
60	Generation of environmental persistent free radicals (EPFRs) enhances ecotoxicological effects of the disposable face mask waste with the COVID-19 pandemic. Environmental Pollution, 2022, 301, 119019.	3.7	23
61	Sensor validation and reconciliation for a partial nitrification process. Water Science and Technology, 2006, 53, 513-521.	1.2	22
62	Removal of alachlor, diuron and isoproturon in water in a falling film dielectric barrier discharge (DBD) reactor combined with adsorption on activated carbon textile: Reaction mechanisms and oxidation by-products. Journal of Hazardous Materials, 2018, 354, 180-190.	6.5	22
63	Nitrite effect on the phosphorus uptake activity of phosphate accumulating organisms (PAOs) in pilot-scale SBR and MBR reactors. Water S A, 2019, 34, 249.	0.2	22
64	Oxidation of Trace Organic Contaminants (TrOCs) in Wastewater Effluent with Different Ozone-Based AOPs: Comparison of Ozone Exposure and ^{â€¢}OH Formation. Industrial & Engineering Chemistry Research, 2019, 58, 8896-8902.	1.8	20
65	The ozone-activated peroxymonosulfate process (O3/PMS) for removal of trace organic contaminants in natural and wastewater: Effect of the (in)organic matrix composition. Chemical Engineering Journal, 2022, 430, 133000.	6.6	20
66	Enhanced removal of refractory humic- and fulvic-like organics from biotreated landfill leachate by ozonation in packed bubble columns. Science of the Total Environment, 2022, 807, 150762.	3.9	20
67	Modelling and simulation of anaerobic digestion of various lignocellulosic substrates in batch reactors: Influence of lignin content and phenolic compounds II. Biochemical Engineering Journal, 2018, 134, 80-87.	1.8	19
68	Water treatment and re-use at temporary events using a mobile constructed wetland and drinking water production system. Science of the Total Environment, 2020, 737, 139630.	3.9	19
69	Enhanced treatment of secondary municipal wastewater effluent: comparing (biological) filtration and ozonation in view of micropollutant removal, unselective effluent toxicity, and the potential for real-time control. Water Science and Technology, 2017, 76, 236-246.	1.2	18
70	Water reuse in closed hydroponic systems: Comparison of GAC adsorption, ion exchange and ozonation processes to treat recycled nutrient solution. Aquacultural Engineering, 2017, 78, 190-195.	1.4	18
71	Degradation of bisphenol A by combining ozone with UV and H2O2 in aqueous solutions: mechanism and optimization. Clean Technologies and Environmental Policy, 2018, 20, 2109-2118.	2.1	18
72	Effect of oxidation and catalytic reduction of trace organic contaminants on their activated carbon adsorption. Chemosphere, 2016, 165, 191-201.	4.2	17

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73	Degradation kinetics of isoproturon and its subsequent products in contact with TiO2 functionalized silica nanofibers. Chemical Engineering Journal, 2020, 387, 124143.	6.6	17
74	Intensified ozonation in packed bubble columns for water treatment: Focus on mass transfer and humic acids removal. Chemosphere, 2021, 283, 131217.	4.2	16
75	Techno-economic assessment of surrogate-based real-time control and monitoring of secondary effluent ozonation at pilot scale. Chemical Engineering Journal, 2018, 352, 431-440.	6.6	15
76	Pretreatment of Secondary Effluents in View of Optimal Ozone-Based AOP Removal of Trace Organic Contaminants: Bench-Scale Comparison of Efficiency and Energy Consumption. Industrial & Engineering Chemistry Research, 2020, 59, 8112-8120.	1.8	15
77	Dynamic validation of online applied and surrogate-based models for tertiary ozonation on pilot-scale. Chemosphere, 2018, 196, 494-501.	4.2	14
78	Assessing the impact of environmental activities on natural organic matter in South Africa and Belgium. Environmental Technology (United Kingdom), 2019, 40, 1756-1768.	1.2	14
79	Removal of heavy metals occurring in the washing water of flue gas purification. Chemical Engineering Journal, 2009, 150, 196-203.	6.6	13
80	Polyamide nanofiber membranes functionalized with zinc phthalocyanines. Journal of Applied Polymer Science, 2014, 131, .	1.3	13
81	Using Boxâ€“Behnken experimental design to optimize the degradation of Basic Blue 41 dye by Fenton reaction. International Journal of Industrial Chemistry, 2020, 11, 43-53.	3.1	13
82	Advanced treatment of landfill leachate through combined Anammox-based biotreatment, O3/H2O2 oxidation, and activated carbon adsorption: technical performance, surrogate-based control strategy, and operational cost analysis. Journal of Hazardous Materials, 2022, 430, 128481.	6.5	13
83	An Integrated Treatment Technology for Blended Wastewater of the Sugar Industry and Ethanol Distillery. Environmental Processes, 2019, 6, 475-491.	1.7	12
84	Total value wall: Full scale demonstration of a green wall for grey water treatment and recycling. Journal of Environmental Management, 2021, 298, 113489.	3.8	12
85	Treatment of rainwater runoff in recovery and recycling companies: Lab and pilot-scale testing. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2013, 48, 446-452.	0.9	11
86	Discussion of â€œAssessing Parameter Identifiability of Activated Sludge Model Number 1â€•by Pedro Afonso and Maria da ConceiÃ§Ã£o Cunha. Journal of Environmental Engineering, ASCE, 2004, 130, 110-112.	0.7	10
87	Modelling and optimisation of a chemical industry wastewater treatment plant subjected to varying production schedules. Journal of Chemical Technology and Biotechnology, 2004, 79, 1084-1091.	1.6	10
88	Recirculating Water Treatment in Closed Hydroponic Systems: Assessment of Granular Activated Carbon and Soft Templated Mesoporous Carbon for Adsorptive Removal of Root Exudates. Environmental Processes, 2019, 6, 1-23.	1.7	10
89	Degradation of root exudates in closed hydroponic systems using UV/H2O2: Kinetic investigation, reaction pathways and cost analysis. Science of the Total Environment, 2019, 687, 479-487.	3.9	10
90	Roof runoff contamination: Establishing material-pollutant relationships and material benchmarking based on laboratory leaching tests. Chemosphere, 2021, 283, 131112.	4.2	10

#	Article	IF	Citations
91	Leaching behaviour of different scrap materials at recovery and recycling companies: Full-, pilot- and lab-scale investigation. Waste Management, 2014, 34, 2674-2686.	3.7	9
92	Performance and kinetic process analysis of an Anammox reactor in view of application for landfill leachate treatment. Environmental Technology (United Kingdom), 2014, 35, 1226-1233.	1.2	9
93	Enhanced Ozonation of Trace Organic Contaminants in Municipal Wastewater Plant Effluent by Adding a Preceding Filtration Step: Comparison and Prediction of Removal Efficiency. ACS Sustainable Chemistry and Engineering, 2019, 7, 14661-14668.	3.2	9
94	Insights into a packed bubble column for removal of several ozone-persistent TrOCs by ozonation: removal kinetics, energy efficiency and elimination prediction. Separation and Purification Technology, 2021, 275, 119170.	3.9	9
95	Modelling bioaccumulation of semi-volatile organic compounds (SOCs) from air in plants based on allometric principles. Chemosphere, 2009, 77, 727-732.	4.2	8
96	Calibration and statistical analysis of a simplified model for the anaerobic digestion of solid waste. Environmental Technology (United Kingdom), 2009, 30, 1575-1584.	1.2	8
97	Autotrophic nitrogen removal of landfill leachate at lab-scale and pilot- scale: feasibility and cost evaluation. Journal of Chemical Technology and Biotechnology, 2015, 90, 2152-2160.	1.6	7
98	The use of a combined respirometricâ€“titrimetric setup to assess the effect of environmental conditions on microâ€algal growth rate. Journal of Chemical Technology and Biotechnology, 2016, 91, 248-256.	1.6	7
99	Integration of sequencing batch reactor and homo-catalytic advanced oxidation processes for the treatment of textile wastewater. Nanotechnology for Environmental Engineering, 2020, 5, 1.	2.0	7
100	Ozone-based advanced oxidation of biologically treated landfill leachate: Oxidation efficiency, mechanisms, and surrogate-based monitoring for bulk organics. Journal of Environmental Chemical Engineering, 2021, 9, 106459.	3.3	7
101	Life cycle assessment of two decentralized water treatment systems combining a constructed wetland and a membrane based drinking water production system. Resources, Conservation and Recycling, 2022, 178, 106104.	5.3	7
102	Surrogate-based follow-up of activated carbon adsorption preceded by ozonation for removal of bulk organics and micropollutants from landfill leachate. Science of the Total Environment, 2022, 820, 153349.	3.9	7
103	Sustainable wastewater treatment of temporary events: the Dranouter Music Festival case study. Water Science and Technology, 2008, 58, 1653-1657.	1.2	6
104	Model based analysis of carbon fluxes within microalgae-bacteria flocs using respirometric-titrimetric data. Science of the Total Environment, 2021, 784, 147048.	3.9	6
105	Removal of nitrogen components, bulk organics, and fluorophores during one-stage partial nitrification-Anammox treatment of landfill leachate. Journal of Environmental Chemical Engineering, 2021, 9, 106181.	3.3	6
106	Practical Assessment of Electronic Water Treatment for the Prevention of Fouling. Chemical Engineering and Technology, 2007, 30, 659-662.	0.9	5
107	Individual treatment of hotel and restaurant waste water in rural areas. Environmental Technology (United Kingdom), 2012, 33, 653-661.	1.2	5
108	Statistical evaluation and comparison of the chemical quality of bottled water and flemish tap water. Desalination and Water Treatment, 2012, 40, 183-193.	1.0	5

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109	Scenario analysis and statistical analysis of simulation results of operation of activated sludge waste water treatment plants. Desalination and Water Treatment, 2014, 52, 4154-4164.	1.0	5
110	Kinetic investigation and optimization of a sequencing batch reactor for the treatment of textile wastewater. Nanotechnology for Environmental Engineering, 2019, 4, 1.	2.0	5
111	Titrimetric monitoring of a completely autotrophic nitrogen removal process. Water Science and Technology, 2006, 53, 533-540.	1.2	4
112	Small-scale modelling of river subcatchments: the Kleine Ronsebeek brook case study. Desalination, 2009, 237, 92-98.	4.0	4
113	Methane oxidation in a biofilter (Part 2): A lab-scale experiment for model calibration. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2015, 50, 1404-1409.	0.9	4
114	Effect of pre-coagulation on catalytic ozonation in the tertiary treatment of coking wastewater: Kinetic and ozone consumption analysis. Journal of Water Process Engineering, 2022, 48, 102856.	2.6	4
115	Phosphate adsorption capacity testing of natural and industrial substrates in view of application in swimming and fish pond water treatment systems. Desalination and Water Treatment, 2015, 54, 2461-2467.	1.0	3
116	Removal of natural organic matter (NOM) by ion exchange from surface water for drinking water production: a pilot-scale study. Desalination and Water Treatment, 2016, 57, 13897-13908.	1.0	3
117	Characterization of landfill leachate by spectral-based surrogate measurements during a combination of different biological processes and activated carbon adsorption. Water Science and Technology, 2020, 81, 2606-2616.	1.2	3
118	PARAFAC model as an innovative tool for monitoring natural organic matter removal in water treatment plants. Water Science and Technology, 2020, 81, 1786-1796.	1.2	3
119	Model based analysis of the growth kinetics of microalgal species residing in a waste stabilization pond. Journal of Chemical Technology and Biotechnology, 2017, 92, 1362-1369.	1.6	2
120	Full-scale modelling of food industry WWTP: Model evaluation and reuse. Water S A, 2018, 34, 127.	0.2	2
121	Status and needs for online control of tertiary ozone-based water treatment: use of surrogate correlation models for removal of trace organic contaminants. Reviews in Environmental Science and Biotechnology, 2021, 20, 297.	3.9	2
122	Validation of a simple and robust multi-residue gas chromatography-mass spectrometry method for the analysis of polycyclic aromatic hydrocarbons, phthalates and biocides in roofing material leachate and roof runoff. Journal of Chromatography Open, 2021, 1, 100007.	0.8	2
123	Synthesis, characterization, and methylene blue adsorption isotherms of hydrochars derived from forestry waste and agro-residues. Biomass Conversion and Biorefinery, 2024, 14, 1809-1824.	2.9	2
124	Enhanced Production and Recovery of Orthophosphate from Wastewater Containing Phosphonate 1-Hydroxyethane-1,1-diphosphonic Acid through Combined Packed-Bed Ozonation and Adsorption. ACS Sustainable Chemistry and Engineering, 2021, 9, 16946-16955.	3.2	2
125	DOES RHEOLOGY RESTRICT THE SECONDARY SETTLER CAPACITY?. Proceedings of the Water Environment Federation, 2004, 2004, 772-775.	0.0	1
126	Reply to: Comment on â€œA critical comparison of systematic calibration protocols for activated sludge models: A SWOT analysisâ€• Water Research, 2006, 40, 2994-2996.	5.3	1

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127	Statistical evaluation and comparison of the chemical quality of bottled water and Flemish tap water. , 0, 40, 183-193.		1
128	Kinetic exploration of intracellular nitrate storage in marine microalgae. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2017, 52, 1303-1311.	0.9	0
129	Towards a general kinetic microalgae model: Extending a semi-deterministic green microalgae model for the cyanobacterium Arthrospira platensis and red alga Porphyridium purpureum. Bioresource Technology, 2021, 342, 125993.	4.8	0
130	The effect of temperature and pH on the kinetics of a partial nitritation process. Communications in Agricultural and Applied Biological Sciences, 2004, 69, 11-4.	0.0	0