

Paul A Lant

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

132
papers

7,450⁰
citations

47
h-index

84
g-index

135
ext. papers

8,257
ext. citations

6.9
avg, IF

6.14
L-index

#	Paper	IF	Citations
132	The influence of key chemical constituents in activated sludge on surface and flocculating properties. <i>Water Research</i> , 2003 , 37, 2127-39	12.5	440
131	Impacts of morphological, physical and chemical properties of sludge flocs on dewaterability of activated sludge. <i>Chemical Engineering Journal</i> , 2004 , 98, 115-126	14.7	303
130	Simultaneous nitrification and denitrification in bench-scale sequencing batch reactors. <i>Water Research</i> , 1996 , 30, 277-284	12.5	301
129	Nitrous oxide generation in full-scale biological nutrient removal wastewater treatment plants. <i>Water Research</i> , 2010 , 44, 831-44	12.5	292
128	A comprehensive insight into floc characteristics and their impact on compressibility and settleability of activated sludge. <i>Chemical Engineering Journal</i> , 2003 , 95, 221-234	14.7	270
127	The chemomechanical properties of microbial polyhydroxyalkanoates. <i>Progress in Polymer Science</i> , 2013 , 38, 536-583	29.6	269
126	Comprehensive life cycle inventories of alternative wastewater treatment systems. <i>Water Research</i> , 2010 , 44, 1654-66	12.5	268
125	Activated sludge flocculation: on-line determination of floc size and the effect of shear. <i>Water Research</i> , 2000 , 34, 2542-2550	12.5	266
124	Life cycle assessment of high-rate anaerobic treatment, microbial fuel cells, and microbial electrolysis cells. <i>Environmental Science & Technology</i> , 2010 , 44, 3629-37	10.3	211
123	Decreasing activated sludge thermal hydrolysis temperature reduces product colour, without decreasing degradability. <i>Water Research</i> , 2008 , 42, 4699-709	12.5	182
122	Enrichment of denitrifying anaerobic methane oxidizing microorganisms. <i>Environmental Microbiology Reports</i> , 2009 , 1, 377-84	3.7	163
121	N ₂ O production rate of an enriched ammonia-oxidising bacteria culture exponentially correlates to its ammonia oxidation rate. <i>Water Research</i> , 2012 , 46, 3409-19	12.5	150
120	The chemomechanical properties of microbial polyhydroxyalkanoates. <i>Progress in Polymer Science</i> , 2014 , 39, 397-442	29.6	135
119	The effect of pH on N ₂ O production under aerobic conditions in a partial nitrification system. <i>Water Research</i> , 2011 , 45, 5934-44	12.5	133
118	The connection between water and energy in cities: a review. <i>Water Science and Technology</i> , 2011 , 63, 1983-90	2.2	126
117	Comparative life cycle assessment and financial analysis of mixed culture polyhydroxyalkanoate production. <i>Bioresource Technology</i> , 2007 , 98, 3393-403	11	123
116	Production of volatile fatty acids by fermentation of waste activated sludge pre-treated in full-scale thermal hydrolysis plants. <i>Bioresource Technology</i> , 2011 , 102, 3089-97	11	122

115	High pressure thermal hydrolysis as pre-treatment to increase the methane yield during anaerobic digestion of microalgae. <i>Bioresource Technology</i> , 2013 , 131, 128-33	11	121
114	Weak Links in the Chain: A Diagnosis of Health Policy in Poor Countries. <i>World Bank Research Observer</i> , 2000 , 15, 199-224	3.1	117
113	Production of polyhydroxyalkanoates in open, mixed cultures from a waste sludge stream containing high levels of soluble organics, nitrogen and phosphorus. <i>Water Research</i> , 2010 , 44, 5196-211	12.5	115
112	Soft-sensors for process estimation and inferential control. <i>Journal of Process Control</i> , 1991 , 1, 3-14	3.9	110
111	Environmental impact of biodegradable food packaging when considering food waste. <i>Journal of Cleaner Production</i> , 2018 , 180, 325-334	10.3	97
110	Simultaneous saccharification and fermentation of potato starch wastewater to lactic acid by <i>Rhizopus oryzae</i> and <i>Rhizopus arrhizus</i> . <i>Biochemical Engineering Journal</i> , 2005 , 23, 265-276	4.2	97
109	Impacts of structural characteristics on activated sludge floc stability. <i>Water Research</i> , 2003 , 37, 3632-45	12.5	92
108	Thiocyanate degradation during activated sludge treatment of coke-ovens wastewater. <i>Biochemical Engineering Journal</i> , 2007 , 34, 122-130	4.2	91
107	Effect of nitrate and nitrite on the selection of microorganisms in the denitrifying anaerobic methane oxidation process. <i>Environmental Microbiology Reports</i> , 2011 , 3, 315-9	3.7	85
106	Environmental Benefits and Burdens of Phosphorus Recovery from Municipal Wastewater. <i>Environmental Science & Technology</i> , 2015 , 49, 8611-22	10.3	75
105	Eliminating non-renewable CO ₂ emissions from sewage treatment: an anaerobic migrating bed reactor pilot plant study. <i>Biotechnology and Bioengineering</i> , 2006 , 95, 384-98	4.9	75
104	Energy use for water provision in cities. <i>Journal of Cleaner Production</i> , 2017 , 143, 699-709	10.3	72
103	Modelling the activated sludge flocculation process combining laser light diffraction particle sizing and population balance modelling (PBM). <i>Water Science and Technology</i> , 2002 , 45, 41-49	2.2	72
102	The Opportunity for High-Performance Biomaterials from Methane. <i>Microorganisms</i> , 2016 , 4,	4.9	71
101	Physicochemical and mechanical properties of mixed culture polyhydroxyalkanoate (PHBV). <i>European Polymer Journal</i> , 2013 , 49, 904-913	5.2	70
100	The confounding effect of nitrite on N ₂ O production by an enriched ammonia-oxidizing culture. <i>Environmental Science & Technology</i> , 2013 , 47, 7186-94	10.3	65
99	Fossil organic carbon in wastewater and its fate in treatment plants. <i>Water Research</i> , 2013 , 47, 5270-81	12.5	64
98	Public attitudes towards bioplastics [knowledge, perception and end-of-life management. <i>Resources, Conservation and Recycling</i> , 2019 , 151, 104479	11.9	63

97	Dissolved methane in rising main sewer systems: field measurements and simple model development for estimating greenhouse gas emissions. <i>Water Science and Technology</i> , 2009 , 60, 2963-71 ^{2.2}		63
96	Techno-economic assessment of poly-3-hydroxybutyrate (PHB) production from methane—the case for thermophilic bioprocessing. <i>Journal of Environmental Chemical Engineering</i> , 2016 , 4, 3724-3733	6.8	62
95	A laboratory investigation of interactions between denitrifying anaerobic methane oxidation (DAMO) and anammox processes in anoxic environments. <i>Scientific Reports</i> , 2015 , 5, 8706	4.9	58
94	Biodegradation in a soil environment of activated sludge derived polyhydroxyalkanoate (PHBV). <i>Polymer Degradation and Stability</i> , 2012 , 97, 2301-2312	4.7	58
93	Rapid quantification of intracellular PHA using infrared spectroscopy: an application in mixed cultures. <i>Journal of Biotechnology</i> , 2010 , 150, 372-9	3.7	54
92	Modelling activated sludge flocculation using population balances. <i>Powder Technology</i> , 2002 , 124, 201-211	3.1	54
91	Water-related energy in households: A model designed to understand the current state and simulate possible measures. <i>Energy and Buildings</i> , 2013 , 58, 378-389	7	53
90	Food waste consequences: Environmentally extended input-output as a framework for analysis. <i>Journal of Cleaner Production</i> , 2017 , 153, 506-514	10.3	52
89	Enhanced lipid extraction from algae using free nitrous acid pretreatment. <i>Bioresource Technology</i> , 2014 , 159, 36-40	11	51
88	Imagining an interdisciplinary doctoral pedagogy. <i>Teaching in Higher Education</i> , 2006 , 11, 365-379	1.4	51
87	Biotechnological production of lactic acid integrated with potato wastewater treatment by <i>Rhizopus arrhizus</i> . <i>Journal of Chemical Technology and Biotechnology</i> , 2003 , 78, 899-906	3.5	48
86	A systemic framework and analysis of urban water energy. <i>Environmental Modelling and Software</i> , 2015 , 73, 272-285	5.2	47
85	The degradation of dissolved organic nitrogen associated with melanoidin using a UV/H ₂ O ₂ AOP. <i>Chemosphere</i> , 2008 , 71, 1745-53	8.4	47
84	The diverse environmental burden of city-scale urban water systems. <i>Water Research</i> , 2015 , 81, 398-415	12.5	45
83	Inhibition by fatty acids during fermentation of pre-treated waste activated sludge. <i>Journal of Biotechnology</i> , 2012 , 159, 38-43	3.7	44
82	Simultaneous colour and DON removal from sewage treatment plant effluent: alum coagulation of melanoidin. <i>Water Research</i> , 2009 , 43, 553-61	12.5	44
81	Mathematical modelling of prefermenters—Model development and verification. <i>Water Research</i> , 1999 , 33, 2757-2768	12.5	43
80	In situ respirometry in an SBR treating wastewater with high phenol concentrations. <i>Water Research</i> , 2000 , 34, 239-245	12.5	42

79	Multivariable control of nutrient-removing activated sludge systems. <i>Water Research</i> , 1999 , 33, 2864-2878.	2.5	42
78	Quantifying water-energy links and related carbon emissions in cities. <i>Journal of Water and Climate Change</i> , 2011 , 2, 247-259	2.3	40
77	Flow regime, hydrodynamics, floc size distribution and sludge properties in activated sludge bubble column, air-lift and aerated stirred reactors. <i>Chemical Engineering Science</i> , 2004 , 59, 2379-2388	4.4	40
76	Understanding Australian household water-related energy use and identifying physical and human characteristics of major end uses. <i>Journal of Cleaner Production</i> , 2016 , 135, 892-906	10.3	38
75	Relationship between flocculation of activated sludge and composition of extracellular polymeric substances. <i>Water Science and Technology</i> , 2003 , 47, 95-103	2.2	38
74	Hydrodynamics and mass transfer coefficient in three-phase air-lift reactors containing activated sludge. <i>Chemical Engineering and Processing: Process Intensification</i> , 2006 , 45, 608-617	3.7	37
73	Rhizopus arrhizus--a producer for simultaneous saccharification and fermentation of starch waste materials to L(+)-lactic acid. <i>Biotechnology Letters</i> , 2003 , 25, 1983-7	3	37
72	Direct fermentation of potato starch wastewater to lactic acid by <i>Rhizopus oryzae</i> and <i>Rhizopus arrhizus</i> . <i>Bioprocess and Biosystems Engineering</i> , 2005 , 27, 229-38	3.7	36
71	The contribution of bacteria to algal growth by carbon cycling. <i>Biotechnology and Bioengineering</i> , 2015 , 112, 688-95	4.9	35
70	Rural energy planning remains out-of-step with contemporary paradigms of energy access and development. <i>Renewable and Sustainable Energy Reviews</i> , 2017 , 67, 1412-1419	16.2	34
69	A systematic approach for reducing complex biological wastewater treatment models. <i>Water Research</i> , 1997 , 31, 590-606	12.5	34
68	Crystallisation and fractionation of selected polyhydroxyalkanoates produced from mixed cultures. <i>New Biotechnology</i> , 2014 , 31, 345-56	6.4	33
67	Phosphorus recovery from centralised municipal water recycling plants. <i>Chemical Engineering Research and Design</i> , 2012 , 90, 78-85	5.5	33
66	Model development for simultaneous nitrification and denitrification. <i>Water Science and Technology</i> , 1999 , 39, 235	2.2	31
65	Biodegradability of DOC and DON for UV/H ₂ O ₂ pre-treated melanoidin based wastewater. <i>Biochemical Engineering Journal</i> , 2008 , 42, 47-54	4.2	30
64	Modelling the effect of shear history on activated sludge flocculation. <i>Water Science and Technology</i> , 2003 , 47, 251-257	2.2	29
63	Activated sludge flocculation: direct determination of the effect of calcium ions. <i>Water Science and Technology</i> , 2001 , 43, 75-82	2.2	29
62	Focused beam reflectance technique for in situ particle sizing in wastewater treatment settling tanks. <i>Journal of Chemical Technology and Biotechnology</i> , 2004 , 79, 610-618	3.5	27

61	Enhanced methane production from algal digestion using free nitrous acid pre-treatment. <i>Renewable Energy</i> , 2016 , 88, 383-390	8.1	26
60	Bioprocess applications of model-based estimation techniques. <i>Journal of Chemical Technology and Biotechnology</i> , 2007 , 53, 265-277	3.5	26
59	Balancing Curriculum Processes and Content in a Project Centred Curriculum. <i>Education for Chemical Engineers</i> , 2006 , 1, 39-48	2.4	26
58	Evaluating industry-based doctoral research programs: perspectives and outcomes of Australian Cooperative Research Centre graduates. <i>Studies in Higher Education</i> , 2012 , 37, 843-858	2.6	25
57	Developing professional researchers: research students' graduate attributes. <i>Studies in Continuing Education</i> , 2007 , 29, 19-36	1.7	25
56	Waste Activated Sludge as Biomass for Production of Commercial-Grade Polyhydroxyalkanoate (PHA). <i>Waste and Biomass Valorization</i> , 2013 , 4, 117-127	3.2	22
55	Comparison of water-energy trajectories of two major regions experiencing water shortage. <i>Journal of Environmental Management</i> , 2016 , 181, 403-412	7.9	22
54	In-line monitoring of thermal degradation of PHA during melt-processing by Near-Infrared spectroscopy. <i>New Biotechnology</i> , 2014 , 31, 357-63	6.4	20
53	Bacterial growth dynamics in activated sludge batch assays. <i>Water Research</i> , 1998 , 32, 587-596	12.5	20
52	Defection, recruitment and social change in cooking practices: Energy poverty through a social practice lens. <i>Energy Research and Social Science</i> , 2017 , 34, 272-280	7.7	19
51	Microaerophilic conditions support elevated mixed culture polyhydroxyalkanoate (PHA) yields, but result in decreased PHA production rates. <i>Water Science and Technology</i> , 2012 , 65, 243-6	2.2	19
50	Thermal properties and crystallization behavior of fractionated blocky and random polyhydroxyalkanoate copolymers from mixed microbial cultures. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a	2.9	18
49	Value-added bioplastics from services of wastewater treatment. <i>Water Practice and Technology</i> , 2015 , 10, 546-555	0.9	18
48	City-scale analysis of water-related energy identifies more cost-effective solutions. <i>Water Research</i> , 2017 , 109, 287-298	12.5	16
47	Including N2O in ozone depletion models for LCA. <i>International Journal of Life Cycle Assessment</i> , 2012 , 17, 252-257	4.6	16
46	How Do We Ensure Good PhD Student Outcomes?. <i>Education for Chemical Engineers</i> , 2006 , 1, 72-81	2.4	16
45	The challenge of characterising food waste at a national level—An Australian example. <i>Environmental Science and Policy</i> , 2017 , 78, 157-166	6.2	15
44	Household analysis identifies water-related energy efficiency opportunities. <i>Energy and Buildings</i> , 2016 , 131, 21-34	7	15

43	Polyhydroxyalkanoate coatings restrict moisture uptake and associated loss of barrier properties of thermoplastic starch films. <i>Journal of Applied Polymer Science</i> , 2018 , 135, 46379	2.9	13
42	Thermophilic production of poly(3-hydroxybutyrate-co-3-hydrovalerate) by a mixed methane-utilizing culture. <i>New Biotechnology</i> , 2019 , 53, 49-56	6.4	13
41	Solids characterisation in an anaerobic migrating bed reactor (AMBR) sewage treatment system. <i>Water Research</i> , 2007 , 41, 2437-48	12.5	13
40	Biodegradation of high strength phenolic wastewater using SBR. <i>Water Science and Technology</i> , 2001 , 43, 299-306	2.2	13
39	The effect of water demand management in showers on household energy use. <i>Journal of Cleaner Production</i> , 2017 , 157, 177-189	10.3	12
38	Regional normalisation figures for Australia 2005/2006 inventory and characterisation data from a production perspective. <i>International Journal of Life Cycle Assessment</i> , 2009 , 14, 215-224	4.6	10
37	Output structural controllability: a tool for integrated process design and control. <i>Journal of Process Control</i> , 1998 , 8, 57-68	3.9	9
36	Direct fermentation of potato starch in wastewater to lactic acid by <i>Rhizopus oryzae</i> . <i>Biotechnology and Bioprocess Engineering</i> , 2004 , 9, 245-251	3.1	9
35	Sequencing batch reactor technology: the key to a BP refinery (Bulwer Island) upgraded environmental protection system - a low cost lagoon based retro-fit. <i>Water Science and Technology</i> , 2001 , 43, 339-346	2.2	9
34	Life-cycle energy impacts for adapting an urban water supply system to droughts. <i>Water Research</i> , 2017 , 127, 139-149	12.5	8
33	Modelling microalgal activity as a function of inorganic carbon concentration: accounting for the impact of pH on the bicarbonate system. <i>Journal of Applied Phycology</i> , 2014 , 26, 1343-1350	3.2	8
32	Development of a novel electrochemical system for oxygen control (ESOC) to examine dissolved oxygen inhibition on algal activity. <i>Biotechnology and Bioengineering</i> , 2013 , 110, 2405-11	4.9	8
31	Microbial community analysis during continuous fermentation of thermally hydrolysed waste activated sludge. <i>Water Science and Technology</i> , 2012 , 65, 7-14	2.2	8
30	Characterising bioreactor mixing with residence time distribution (RTD) tests. <i>Water Science and Technology</i> , 1998 , 37, 43	2.2	8
29	Balancing Curriculum Processes and Content in a Project Centred Curriculum. <i>Chemical Engineering Research and Design</i> , 2006 , 84, 619-628	5.5	8
28	Using the flexibility index to compare batch and continuous activated sludge processes. <i>Water Science and Technology</i> , 2001 , 43, 35-43	2.2	8
27	On the applicability of adaptive bioprocess state estimators. <i>Biotechnology and Bioengineering</i> , 1993 , 42, 1311-21	4.9	8
26	Enhanced triacylglyceride extraction from microalgae using free nitrous acid pre-treatment. <i>Applied Energy</i> , 2015 , 154, 183-189	10.7	7

25	The influence of high phenol concentration on microbial growth. <i>Water Science and Technology</i> , 1997 , 36, 75	2.2	7
24	Producing a CO ₂ -neutral clean cooking fuel in India – Where and at what cost?. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 19067-19078	6.7	6
23	Control relevant model reduction: a reduced order model for fluid catalytic cracking units. <i>Journal of Process Control</i> , 1994 , 4, 3-14	3.9	5
22	Can coal-derived DME reduce the dependence on solid cooking fuels in India?. <i>Energy for Sustainable Development</i> , 2017 , 37, 51-59	5.4	4
21	Mathematical modelling of fermenters II. Model applications. <i>Water Research</i> , 1999 , 33, 2844-2854	12.5	4
20	Optimization and Control of Nitrogen Removal Activated Sludge Processes: A Review of Recent Developments. <i>Focus on Biotechnology</i> , 2003 , 187-227		4
19	Energy implications of the millennium drought on urban water cycles in Southeast Australian cities. <i>Water Science and Technology: Water Supply</i> , 2018 , 18, 214-221	1.4	3
18	Benchmarking for process control: Should I invest in improved process control? <i>Water Science and Technology</i> , 1998 , 37, 49	2.2	3
17	Introduction to Chemical Product Design. <i>Education for Chemical Engineers</i> , 2006 , 1, 66-71	2.4	3
16	Hydrodynamics and mass transfer coefficient in activated sludge aerated stirred column reactor: experimental analysis and modeling. <i>Biotechnology and Bioengineering</i> , 2005 , 91, 406-17	4.9	3
15	Increasing Flexibility in the Design of Wastewater Treatment Processes. <i>Water Environment Research</i> , 2001 , 73, 486-493	2.8	3
14	Direct and indirect water use within the Australian economy. <i>Water Policy</i> , 2018 , 20, 1227-1239	1.6	3
13	Regional-scale variability of cold water temperature: Implications for household water-related energy demand. <i>Resources, Conservation and Recycling</i> , 2017 , 124, 107-115	11.9	2
12	Is MSW derived DME a viable clean cooking fuel in Kolkata, India?. <i>Renewable Energy</i> , 2018 , 124, 50-60	8.1	2
11	How Does Energy Efficiency Affect Urban Water Systems?. <i>Global Issues in Water Policy</i> , 2015 , 615-631	0.9	2
10	Life Cycle Assessment Of An Urban Water System On the East Coast Of Australia. <i>Proceedings of the Water Environment Federation</i> , 2012 , 2012, 5278-5307		2
9	Operating space diagrams: a tool for designers of wastewater treatment plants. <i>Water Science and Technology</i> , 2001 , 44, 69-76	2.2	2
8	Advanced process control for biological nutrient removal. <i>Water Science and Technology</i> , 1999 , 39, 97-103	2.2	2

7	Estimating the immeasurable without mechanistic models. <i>Trends in Biotechnology</i> , 1990 , 8, 82-83	15.1	2
6	The Transition to Improved Water-Related Energy Management: Enabling Contexts for Policy Innovation. <i>Water (Switzerland)</i> , 2020 , 12, 557	3	1
5	Learning from experience in the water sector to improve access to energy services. <i>Utilities Policy</i> , 2018 , 51, 41-50	3.3	1
4	The impact of microbiological tools on mathematical modelling of biological wastewater treatment. <i>Water Science and Technology</i> , 1997 , 36, 97	2.2	1
3	Reply to comment by Denny S. Parker on "Impact of structural characteristics on activated sludge floc stability" by Britt-Marie Wilf, Bo Jin and Paul Lant, published in <i>Water Research</i> (2003) 37, p. 3632-3645. <i>Water Research</i> , 2005 , 39, 738-740	12.5	1
2	A lumped parameter model for Model IV fluid catalytic cracking units. <i>Computers and Chemical Engineering</i> , 1994 , 18, S177-S181	4	1
1	Using the World Wide Web to revolutionise technology transfer and training in the water and wastewater industries. <i>Water Science and Technology</i> , 2001 , 44, 127-134	2.2	