Alan Werker

List of Publications by Year
in descending order

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47 papers	3,191 citations	172457 29 h-index	223800 46 g-index
47 all docs	47 docs citations	47 times ranked	2857 citing authors

#	Article	IF	Citations
1	The chemomechanical properties of microbial polyhydroxyalkanoates. Progress in Polymer Science, 2013, 38, 536-583.	24.7	372
2	Production of polyhydroxyalkanoates by activated sludge treating a paper mill wastewater. Bioresource Technology, 2008, 99, 509-516.	9.6	316
3	Acidogenic fermentation of industrial wastewaters: Effects of chemostat retention time and pH on volatile fatty acids production. Biochemical Engineering Journal, 2008, 40, 492-499.	3.6	230
4	Carbon recovery from wastewater through bioconversion into biodegradable polymers. New Biotechnology, 2017, 37, 9-23.	4.4	182
5	The chemomechanical properties of microbial polyhydroxyalkanoates. Progress in Polymer Science, 2014, 39, 397-442.	24.7	166
6	Carbon-Rich Wastes as Feedstocks for Biodegradable Polymer (Polyhydroxyalkanoate) Production Using Bacteria. Advances in Applied Microbiology, 2013, 84, 139-200.	2.4	147
7	Production of polyhydroxyalkanoates in open, mixed cultures from a waste sludge stream containing high levels of soluble organics, nitrogen and phosphorus. Water Research, 2010, 44, 5196-5211.	11.3	138
8	Composites of Wood and Biodegradable Thermoplastics: A Review. Polymer Reviews, 2018, 58, 444-494.	10.9	134
9	A process for polyhydroxyalkanoate (PHA) production from municipal wastewater treatment with biological carbon and nitrogen removal demonstrated at pilot-scale. New Biotechnology, 2017, 35, 42-53.	4.4	118
10	Polyhydroxyalkanoate (PHA) storage within a mixed-culture biomass with simultaneous growth as a function of accumulation substrate nitrogen and phosphorus levels. Water Research, 2015, 77, 49-63.	11.3	100
11	Physicochemical and mechanical properties of mixed culture polyhydroxyalkanoate (PHBV). European Polymer Journal, 2013, 49, 904-913.	5.4	90
12	Biodegradation in a soil environment of activated sludge derived polyhydroxyalkanoate (PHBV). Polymer Degradation and Stability, 2012, 97, 2301-2312.	5.8	80
13	Rapid quantification of intracellular PHA using infrared spectroscopy: An application in mixed cultures. Journal of Biotechnology, 2010, 150, 372-379.	3.8	69
14	Scaling-up microbial community-based polyhydroxyalkanoate production: status and challenges. Bioresource Technology, 2021, 327, 124790.	9.6	60
15	Wood-PHA Composites: Mapping Opportunities. Polymers, 2018, 10, 751.	4.5	59
16	Techno-environmental assessment of integrating polyhydroxyalkanoate (PHA) production with services of municipal wastewater treatment. Journal of Cleaner Production, 2016, 137, 1368-1381.	9.3	58
17	Production of polyhydroxyalkanoates by glycogen accumulating organisms treating a paper mill wastewater. Water Science and Technology, 2008, 58, 323-330.	2.5	55
18	Integration of biopolymer production with process water treatment at a sugar factory. New Biotechnology, 2014, 31, 308-323.	4.4	55

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19	Community Structure Evolution and Enrichment of Glycogen-Accumulating Organisms Producing Polyhydroxyalkanoates from Fermented Molasses. Applied and Environmental Microbiology, 2009, 75, 4676-4686.	3.1	52
20	Chlorinated-solvent-free gas chromatographic analysis of biomass containing polyhydroxyalkanoates. Water Research, 2008, 42, 2517-2526.	11.3	48
21	Crystallisation and fractionation of selected polyhydroxyalkanoates produced from mixed cultures. New Biotechnology, 2014, 31, 345-356.	4.4	45
22	Sludge minimization in municipal wastewater treatment by polyhydroxyalkanoate (PHA) production. Environmental Science and Pollution Research, 2015, 22, 7281-7294.	5.3	45
23	Consistent production of high quality PHA using activated sludge harvested from full scale municipal wastewater treatment â€“ PHARIO. Water Science and Technology, 2018, 78, 2256-2269.	2.5	40
24	Methodological issues in life cycle assessment of mixed-culture polyhydroxyalkanoate production utilising waste as feedstock. New Biotechnology, 2014, 31, 383-393.	4.4	39
25	Fluxes in PHA-storing microbial communities during enrichment and biopolymer accumulation processes. New Biotechnology, 2016, 33, 61-72.	4.4	37
26	Mechanical and physical stability of polyhydroxyalkanoate (PHA)-based wood plastic composites (WPCs) under natural weathering. Polymer Testing, 2019, 73, 214-221.	4.8	36
27	Mixed culture polyhydroxyalkanoate-rich biomass assessment and quality control using thermogravimetric measurement methods. Polymer Degradation and Stability, 2017, 144, 110-120.	5.8	35
28	Extrusion of wood fibre reinforced poly(hydroxybutyrate-co-hydroxyvalerate) (PHBV) biocomposites: Statistical analysis of the effect of processing conditions on mechanical performance. Polymer Degradation and Stability, 2019, 159, 1-14.	5.8	34
29	Mixed-culture polyhydroxyalkanoate (PHA) production integrated into a food-industry effluent biological treatment: A pilot-scale evaluation. Journal of Environmental Chemical Engineering, 2020, 8, 104469.	6.7	33
30	In-line monitoring of thermal degradation of PHA during melt-processing by Near-Infrared spectroscopy. New Biotechnology, 2014, 31, 357-363.	4.4	31
31	Thermal properties and crystallization behavior of fractionated blocky and random polyhydroxyalkanoate copolymers from mixed microbial cultures. Journal of Applied Polymer Science, 2014, 131, .	2.6	29
32	Influence of temperature on mixed microbial culture polyhydroxyalkanoate production while treating a starch industry wastewater. Journal of Environmental Chemical Engineering, 2017, 5, 5067-5075.	6.7	29
33	Understanding the effect of copolymer content on the processability and mechanical properties of polyhydroxyalkanoate (PHA)/wood composites. Composites Part A: Applied Science and Manufacturing, 2019, 124, 105437.	7.6	28
34	Mechanical performance and long-term indoor stability of polyhydroxyalkanoate (PHA)-based wood plastic composites (WPCs) modified by non-reactive additives. European Polymer Journal, 2018, 98, 337-346.	5.4	27
35	Effect of additives on the melt rheology and thermal degradation of poly[(R)â€3â€hydroxybutyric acid]. Journal of Applied Polymer Science, 2015, 132, .	2.6	25
36	Insights into the biodegradation of PHA / wood composites: Micro- and macroscopic changes. Sustainable Materials and Technologies, 2019, 21, e00099.	3.3	22

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37	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.	4.4	21
38	Mechanical properties of poly(3â€hydroxybutyrateâ€coâ€3â€hydroxyvalerate)/wood flour composites: Effect of interface modifiers. Journal of Applied Polymer Science, 2018, 135, 46828.	2.6	18
39	Quantification of polyhydroxyalkanoate accumulated in waste activated sludge. Water Research, 2022, 221, 118795.	11.3	14
40	The Evolution of Polymer Composition during PHA Accumulation: The Significance of Reducing Equivalents. Bioengineering, 2017, 4, 20.	3.5	13
41	Polyhydroxyalkanoate (PHA) Bioplastics from Organic Waste. , 2019, , 615-638.		12
42	Mechanical Stability of Polyhydroxyalkanoate (PHA)-Based Wood Plastic Composites (WPCs). Journal of Polymers and the Environment, 2020, 28, 1571-1577.	5.0	10
43	Fractionation of microbial populations in a PHA accumulating mixed culture and associated PHA content and composition. International Journal of Biological Macromolecules, 2014, 71, 53-58.	7.5	9
44	Experimental data for extrusion processing and tensile properties of poly(hydroxybutyrate-co-hydroxyvalerate) (PHBV) polymer and wood fibre reinforced PHBV biocomposites. Data in Brief, 2019, 22, 687-692.	1.0	9
45	Acclimation Process for Enhancing Polyhydroxyalkanoate Accumulation in Activated-Sludge Biomass. Waste and Biomass Valorization, 2019, 10, 1065-1082.	3.4	9
46	Simultaneous nitrification and denitrification in microbial community-based polyhydroxyalkanoate production. Bioresource Technology, 2021, 337, 125420.	9.6	8
47	Modelling Mixed Microbial Culture Polyhydroxyalkanoate Accumulation Bioprocess towards Novel Methods for Polymer Production Using Dilute Volatile Fatty Acid Rich Feedstocks. Bioengineering, 2022, 9, 125.	3.5	4