

# Wayne R Curtis

## List of Publications by Year in descending order

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75  
papers

2,375  
citations

201575

27  
h-index

233338

45  
g-index

79  
all docs

79  
docs citations

79  
times ranked

2699  
citing authors

#	ARTICLE	IF	CITATIONS
1	CO <sub>2</sub> supplementation eliminates sugar-rich media requirement for plant propagation using a simple inexpensive temporary immersion photobioreactor. <i>Plant Cell, Tissue and Organ Culture</i> , 2022, 150, 57-71.	1.2	3
2	Preserved and variable spatial chemical changes of lipids across tomato leaves in response to central vein wounding reveals potential origin of linolenic acid in signal transduction cascade. <i>Plant-Environment Interactions</i> , 2021, 2, 28-35.	0.7	4
3	Genome analysis of alginate synthesizing <i>Pseudomonas aeruginosa</i> strain SW1 isolated from degraded seaweeds. <i>Antonie Van Leeuwenhoek</i> , 2021, 114, 2205-2217.	0.7	3
4	Characterization of Local and Systemic Impact of Whitefly ( <i>Bemisia tabaci</i> ) Feeding and Whitefly-Transmitted Tomato Mottle Virus Infection on Tomato Leaves by Comprehensive Proteomics. <i>International Journal of Molecular Sciences</i> , 2020, 21, 7241.	1.8	6
5	Phloem Exudate Protein Profiles during Drought and Recovery Reveal Abiotic Stress Responses in Tomato Vasculature. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4461.	1.8	13
6	Metabolic Engineering Strategies of Industrial Hemp ( <i>Cannabis sativa</i> L.): A Brief Review of the Advances and Challenges. <i>Frontiers in Plant Science</i> , 2020, 11, 580621.	1.7	24
7	Effect of Root Morphology on Reactor Design and Operation for Production of Chemicals. , 2020, , 151-168.		3
8	Inducible somatic embryogenesis in <i>Theobroma cacao</i> achieved using the DEX-activatable transcription factor-glucocorticoid receptor fusion. <i>Biotechnology Letters</i> , 2017, 39, 1747-1755.	1.1	19
9	A preliminary implementation of metabolic-based pH control to reduce CO <sub>2</sub> usage in outdoor flat-panel photobioreactor cultivation of <i>Nannochloropsis oceanica</i> microalgae. <i>Algal Research</i> , 2016, 18, 288-295.	2.4	10
10	A temporary immersion plant propagation bioreactor with decoupled gas and liquid flows for enhanced control of gas phase. <i>Biotechnology Progress</i> , 2016, 32, 337-345.	1.3	9
11	Expression and characterization of alkaline protease from the metagenomic library of tannery activated sludge. <i>Journal of Bioscience and Bioengineering</i> , 2016, 122, 694-700.	1.1	31
12	Proton stoichiometric imbalance during algae photosynthetic growth on various nitrogen sources: toward metabolic pH control. <i>Journal of Applied Phycology</i> , 2016, 28, 43-52.	1.5	37
13	Production of Biofuel-Related Isoprenoids Derived from <i>Botryococcus braunii</i> Algae. <i>Springer Protocols</i> , 2015, , 141-152.	0.1	1
14	Triterpene hydrocarbon production engineered into a metabolically versatile host <i>Rhodobacter capsulatus</i> . <i>Biotechnology and Bioengineering</i> , 2015, 112, 1523-1532.	1.7	42
15	A Rapid and Economical Method for Efficient DNA Extraction from Diverse Soils Suitable for Metagenomic Applications. <i>PLoS ONE</i> , 2015, 10, e0132441.	1.1	44
16	Physiology, Genomics, and Pathway Engineering of an Ethanol-Tolerant Strain of <i>Clostridium phytofermentans</i> . <i>Applied and Environmental Microbiology</i> , 2015, 81, 5440-5448.	1.4	20
17	Advancing <i>Rhodobacter sphaeroides</i> as a platform for expression of functional membrane proteins. <i>Protein Expression and Purification</i> , 2015, 115, 109-117.	0.6	10
18	Scale-up of transgenic tobacco cells that express intimin of enterohemorrhagic <i>Escherichia coli</i> O157:H7 for use as a transitional platform for an oral cattle vaccine. <i>In Vitro Cellular and Developmental Biology - Plant</i> , 2015, 51, 315-323.	0.9	3

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19	Metabolic engineering in chemolithoautotrophic hosts for the production of fuels and chemicals. <i>Metabolic Engineering</i> , 2015, 30, 105-120.	3.6	80
20	Enhanced somatic embryogenesis in <i>Theobroma cacao</i> using the homologous BABY BOOM transcription factor. <i>BMC Plant Biology</i> , 2015, 15, 121.	1.6	123
21	Molecular Cloning, Overexpression and Characterization of a Novel Water Channel Protein from <i>Rhodobacter sphaeroides</i> . <i>PLoS ONE</i> , 2014, 9, e86830.	1.1	30
22	Genome-wide analysis reveals divergent patterns of gene expression during zygotic and somatic embryo maturation of <i>Theobroma cacao</i> L., the chocolate tree. <i>BMC Plant Biology</i> , 2014, 14, 185.	1.6	27
23	Materials Fabrication from Native and Recombinant Thermoplastic Squid Proteins. <i>Advanced Functional Materials</i> , 2014, 24, 7401-7409.	7.8	44
24	Hydrocarbon production in high density <i>Botryococcus braunii</i> race B continuous culture. <i>Biotechnology and Bioengineering</i> , 2014, 111, 493-503.	1.7	40
25	A process economic assessment of hydrocarbon biofuels production using chemoautotrophic organisms. <i>Bioresource Technology</i> , 2014, 172, 201-211.	4.8	25
26	Insights into <i>Clostridium phytofermentans</i> biofilm formation: aggregation, microcolony development and the role of extracellular DNA. <i>Microbiology (United Kingdom)</i> , 2014, 160, 1134-1143.	0.7	8
27	Consortia-mediated bioprocessing of cellulose to ethanol with a symbiotic <i>Clostridium phytofermentans</i> /yeast co-culture. <i>Biotechnology for Biofuels</i> , 2013, 6, 59.	6.2	141
28	Achieving pH control in microalgal cultures through fed-batch addition of stoichiometrically-balanced growth media. <i>BMC Biotechnology</i> , 2013, 13, 39.	1.7	95
29	Improving accuracy of cell and chromophore concentration measurements using optical density. <i>BMC Biophysics</i> , 2013, 6, 4.	4.4	226
30	RNA viral vectors for improved <i>Agrobacterium</i> -mediated transient expression of heterologous proteins in <i>Nicotiana benthamiana</i> cell suspensions and hairy roots. <i>BMC Biotechnology</i> , 2012, 12, 21.	1.7	34
31	Developing symbiotic consortia for lignocellulosic biofuel production. <i>Applied Microbiology and Biotechnology</i> , 2012, 93, 1423-1435.	1.7	136
32	Long-Distance Translocation of Protein during Morphogenesis of the Fruiting Body in the Filamentous Fungus, <i>Agaricus bisporus</i> . <i>PLoS ONE</i> , 2011, 6, e28412.	1.1	12
33	Oxygen Transport In Plant Tissue Culture Systems. , 2008, , 173-186.		6
34	Comparison of Transient Protein Expression in Tobacco Leaves and Plant Suspension Culture. <i>Biotechnology Progress</i> , 2008, 21, 946-952.	1.3	35
35	<i>Agrobacterium</i> -Mediated Viral Vector-Amplified Transient Gene Expression in <i>Nicotiana glutinosa</i> Plant Tissue Culture. <i>Biotechnology Progress</i> , 2008, 23, 570-576.	1.3	17
36	Scale-Up of <i>Agrobacterium</i> -Mediated Transient Protein Expression in Bioreactor-Grown <i>Nicotiana glutinosa</i> Plant Cell Suspension Culture. <i>Biotechnology Progress</i> , 2008, 24, 372-376.	1.3	25

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37	The Cumulative and Sublethal Effects of Turbulence on Erythrocytes in a Stirred-Tank Model. <i>Annals of Biomedical Engineering</i> , 2007, 35, 2108-2120.	1.3	12
38	Application of bioreactor design principles to plant micropropagation. <i>Plant Cell, Tissue and Organ Culture</i> , 2005, 81, 255-264.	1.2	11
39	Laterally aligned, multiwalled carbon nanotube growth using <i>Magnetospirillum magnetotacticum</i> . <i>Applied Physics Letters</i> , 2005, 86, 173101.	1.5	16
40	Application of bioreactor design principles to plant micropropagation. , 2005, , 21-40.		4
41	Resid Conversion. , 2005, , 2655-2662.		0
42	Development of Auxotrophic <i>Agrobacterium tumefaciens</i> for Gene Transfer in Plant Tissue Culture. <i>Biotechnology Progress</i> , 2004, 20, 890-896.	1.3	18
43	Trickle-bed root culture bioreactor design and scale-up: Growth, fluid-dynamics, and oxygen mass transfer. <i>Biotechnology and Bioengineering</i> , 2004, 88, 248-260.	1.7	56
44	Effect of Elicitation on Growth, Respiration, and Nutrient Uptake of Root and Cell Suspension Cultures of <i>Hyoscyamus muticus</i> . <i>Biotechnology Progress</i> , 2002, 18, 282-289.	1.3	4
45	Integrated Recovery of Pigments Released from Red Beet Hairy Roots Exposed to Acidic Medium. <i>Journal of Plant Biochemistry and Biotechnology</i> , 2001, 10, 67-69.	0.9	3
46	Intrinsic Oxygen Use Kinetics of Transformed Plant Root Culture. <i>Biotechnology Progress</i> , 2001, 17, 481-489.	1.3	32
47	Inhibitory role of root hairs on transport within root culture bioreactors. <i>Biotechnology and Bioengineering</i> , 2000, 70, 176-186.	1.7	38
48	Achieving Economic Feasibility for Moderate-Value Food and Flavor Additives. , 1999, , 225-236.		17
49	Direct <i>Agrobacterium tumefaciens</i> -Mediated Transformation of <i>Hyoscyamus muticus</i> Hairy Roots Using Green Fluorescent Protein. <i>Biotechnology Progress</i> , 1999, 15, 278-282.	1.3	7
50	The effect of inoculum size on the growth of cell and root cultures of <i>Hyoscyamus muticus</i> : Implications for reactor inoculation. <i>Biotechnology and Bioprocess Engineering</i> , 1999, 4, 287-293.	1.4	15
51	Monitoring biomass in root culture systems. , 1999, 62, 711-721.		26
52	Reactor Design for Root Culture. , 1999, , 139-156.		5
53	Characterization of fluid-flow resistance in root cultures with a convective flow tubular bioreactor. , 1998, 60, 375-384.		50
54	Effects of abiotic inducers on sesquiterpene synthesis in hairy root and cell-suspension cultures of <i>hyoscyomus muticus</i> . <i>Applied Biochemistry and Biotechnology</i> , 1997, 67, 71-77.	1.4	22

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55	The role of liquid mixing and gas-phase dispersion in a submerged, sparged root reactor. <i>Enzyme and Microbial Technology</i> , 1997, 20, 207-213.	1.6	35
56	Elevated meristematic respiration in plant root cultures: implications to reactor design.. <i>Journal of Chemical Engineering of Japan</i> , 1995, 28, 491-493.	0.3	25
57	Role of calcium and differentiation in enhanced sesquiterpene elicitation from calcium alginate-immobilized plant tissue. <i>Enzyme and Microbial Technology</i> , 1995, 17, 554-557.	1.6	17
58	Fluid Dynamic Studies on Plant Root Cultures for Application to Bioreactor Design. , 1994, , 281-305.		22
59	Inoculation and tissue distribution in pilot-scale plant root culture bioreactors. <i>Biotechnology Letters</i> , 1994, 8, 639.	0.5	39
60	Use of Binding Measurements To Predict Elicitor Dosage Requirements for Secondary Metabolite Production from Root Cultures. <i>Biotechnology Progress</i> , 1994, 10, 365-371.	1.3	15
61	Enhanced recovery of solavetivone from <i>Agrobacterium</i> transformed root cultures of <i>Hyoscyamus muticus</i> using integrated product extraction. <i>Biotechnology and Bioengineering</i> , 1993, 42, 503-508.	1.7	45
62	Plant cell suspension culture rheology. <i>Biotechnology and Bioengineering</i> , 1993, 42, 520-526.	1.7	68
63	Cultivation of roots in bioreactors. <i>Current Opinion in Biotechnology</i> , 1993, 4, 205-210.	3.3	31
64	Interpreting the role of phosphorus and growth rate in enhanced fungal induction of sesquiterpenes from <i>Hyoscyamus muticus</i> root cultures. <i>Applied Microbiology and Biotechnology</i> , 1993, 38, 550.	1.7	12
65	Production of solavetivone by immobilized cells of <i>Hyoscyamus muticus</i> . <i>Biotechnology Letters</i> , 1993, 15, 301-306.	1.1	11
66	Growth of plant root cultures in liquid- and gas dispersed reactor environments. <i>Biotechnology Progress</i> , 1993, 9, 317-322.	1.3	55
67	Approaches to Understanding and Manipulating the Biosynthetic Potential of Plant Roots. <i>Annals of the New York Academy of Sciences</i> , 1992, 665, 188-209.	1.8	102
68	11-Hydroperoxyeicosatetraenoic acid is the major dioxygenation product of lipoxygenase isolated from hairy root cultures of <i>Solanum tuberosum</i> . <i>Biochemical and Biophysical Research Communications</i> , 1992, 189, 1349-1352.	1.0	16
69	Synergistic response of plant hairy-root cultures to phosphate limitation and fungal elicitation. <i>Biotechnology Progress</i> , 1991, 7, 434-438.	1.3	55
70	Approximation of continuous growth of <i>Cephalotaxus harringtonia</i> plant cell cultures using fed-batch operation. <i>Biotechnology and Bioengineering</i> , 1991, 38, 241-246.	1.7	18
71	Modeling linear and variable growth in phosphate limited suspension cultures of Opium poppy. <i>Biotechnology and Bioengineering</i> , 1991, 38, 371-379.	1.7	42
72	Estimation of Growth Yield and Maintenance Coefficient of Plant Cell Suspensions. <i>Biotechnology and Bioengineering</i> , 1991, 38, 1131-1136.	1.7	25

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73	Growth Yields and Maintenance Coefficients of Unadapted and NaCl-Adapted Tobacco Cells Grown in Semicontinuous Culture. <i>Plant Physiology</i> , 1991, 96, 1289-1293.	2.3	13
74	Interference of intracellular inorganic phosphate analysis by phosphatase in <i>Papaver somniferum</i> cell suspensions. <i>Phytochemical Analysis</i> , 1990, 1, 70-73.	1.2	1
75	Establishing an inexpensive, space efficient colony of <i>Bemisia tabaci</i> MEAM1 utilizing modelling and feedback control principles. <i>Journal of Applied Entomology</i> , 0, , .	0.8	1