

Jean S Vandergheynst

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3092366/publications.pdf>

Version: 2024-02-01

116
papers

6,013
citations

101384

36
h-index

79541

73
g-index

116
all docs

116
docs citations

116
times ranked

8294
citing authors

#	ARTICLE	IF	CITATIONS
1	MS-DIAL: data-independent MS/MS deconvolution for comprehensive metabolome analysis. <i>Nature Methods</i> , 2015, 12, 523-526.	9.0	1,955
2	Evaluation of High Solids Alkaline Pretreatment of Rice Straw. <i>Applied Biochemistry and Biotechnology</i> , 2010, 162, 1768-1784.	1.4	210
3	Rapid Quantitative Analysis of Lipids Using a Colorimetric Method in a Microplate Format. <i>Lipids</i> , 2011, 46, 95-103.	0.7	189
4	Targeted Discovery of Glycoside Hydrolases from a Switchgrass-Adapted Compost Community. <i>PLoS ONE</i> , 2010, 5, e8812.	1.1	170
5	Design and Evaluation of PCR Primers for Analysis of Bacterial Populations in Wine by Denaturing Gradient Gel Electrophoresis. <i>Applied and Environmental Microbiology</i> , 2003, 69, 6801-6807.	1.4	168
6	Distribution of antibiotic resistance genes in the environment. <i>Environmental Pollution</i> , 2021, 285, 117402.	3.7	126
7	Dilute acid pretreatment and fermentation of sugar beet pulp to ethanol. <i>Applied Energy</i> , 2013, 105, 1-7.	5.1	118
8	The impact of cell wall carbohydrate composition on the chitosan flocculation of <i>Chlorella</i> . <i>Process Biochemistry</i> , 2011, 46, 1927-1933.	1.8	108
9	Food Loss and Waste: Measurement, Drivers, and Solutions. <i>Annual Review of Environment and Resources</i> , 2019, 44, 117-156.	5.6	104
10	Influence of leaching pretreatment on fuel properties of biomass. <i>Fuel Processing Technology</i> , 2014, 128, 43-53.	3.7	103
11	Glycoside Hydrolase Activities of Thermophilic Bacterial Consortia Adapted to Switchgrass. <i>Applied and Environmental Microbiology</i> , 2011, 77, 5804-5812.	1.4	99
12	Integrating sugar beet pulp storage, hydrolysis and fermentation for fuel ethanol production. <i>Applied Energy</i> , 2012, 93, 168-175.	5.1	81
13	Algal-bacterial synergy in treatment of winery wastewater. <i>Npj Clean Water</i> , 2018, 1, .	3.1	75
14	Qualitative analysis of algal secretions with multiple mass spectrometric platforms. <i>Journal of Chromatography A</i> , 2012, 1244, 139-147.	1.8	65
15	Elevated CO ₂ concentration impacts cell wall polysaccharide composition of green microalgae of the genus <i>Chlorella</i> . <i>Letters in Applied Microbiology</i> , 2015, 60, 1-7.	1.0	65
16	Effects of <i>Escherichia coli</i> on Mixotrophic Growth of <i>Chlorella minutissima</i> and Production of Biofuel Precursors. <i>PLoS ONE</i> , 2014, 9, e96807.	1.1	58
17	High-level transient expression of recombinant protein in lettuce. <i>Biotechnology and Bioengineering</i> , 2005, 91, 861-871.	1.7	57
18	Ensilage and Bioconversion of Grape Pomace into Fuel Ethanol. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 11128-11134.	2.4	56

#	ARTICLE	IF	CITATIONS
19	Assessment of tomato and wine processing solid wastes as soil amendments for biosolarization. <i>Waste Management</i> , 2016, 48, 156-164.	3.7	56
20	The impact of elevated CO ₂ concentration on the quality of algal starch as a potential biofuel feedstock. <i>Biotechnology and Bioengineering</i> , 2014, 111, 1323-1331.	1.7	55
21	Effects of ensilage on storage and enzymatic degradability of sugar beet pulp. <i>Bioresource Technology</i> , 2011, 102, 1489-1495.	4.8	54
22	Virus infection of <i>Chlorella variabilis</i> and enzymatic saccharification of algal biomass for bioethanol production. <i>Bioresource Technology</i> , 2013, 137, 326-331.	4.8	54
23	Cofactor symbiosis for enhanced algal growth, biofuel production, and wastewater treatment. <i>Algal Research</i> , 2016, 17, 308-315.	2.4	53
24	A model of <i>Agrobacterium tumefaciens</i> vacuum infiltration into harvested leaf tissue and subsequent in planta transgene transient expression. <i>Biotechnology and Bioengineering</i> , 2009, 102, 965-970.	1.7	52
25	Water-in-oil emulsions that improve the storage and delivery of the biolarvacide <i>Lagenidium giganteum</i> . <i>BioControl</i> , 2007, 52, 207-229.	0.9	51
26	Discovery of Microorganisms and Enzymes Involved in High-Solids Decomposition of Rice Straw Using Metagenomic Analyses. <i>PLoS ONE</i> , 2013, 8, e77985.	1.1	50
27	Managing compost stability and amendment to soil to enhance soil heating during soil solarization. <i>Waste Management</i> , 2013, 33, 1090-1096.	3.7	49
28	The role of organic matter amendment level on soil heating, organic acid accumulation, and development of bacterial communities in solarized soil. <i>Applied Soil Ecology</i> , 2016, 106, 37-46.	2.1	48
29	Cultivation of black soldier fly larvae on almond byproducts: impacts of aeration and moisture on larvae growth and composition. <i>Journal of the Science of Food and Agriculture</i> , 2018, 98, 5893-5900.	1.7	48
30	The antioxidant hydroxytyrosol: biotechnological production challenges and opportunities. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 1119-1130.	1.7	46
31	Assessment of Two Solid Anaerobic Digestate Soil Amendments for Effects on Soil Quality and Biosolarization Efficacy. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 3434-3442.	2.4	46
32	Evaluation of PCR primers for denaturing gradient gel electrophoresis analysis of fungal communities in compost. <i>Journal of Applied Microbiology</i> , 2003, 95, 934-948.	1.4	44
33	Managing high fiber food waste for the cultivation of black soldier fly larvae. <i>Npj Science of Food</i> , 2019, 3, 15.	2.5	44
34	Weed seed inactivation in soil mesocosms via biosolarization with mature compost and tomato processing waste amendments. <i>Pest Management Science</i> , 2017, 73, 862-873.	1.7	42
35	Ionic liquid-tolerant microorganisms and microbial communities for lignocellulose conversion to bioproducts. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 10237-10249.	1.7	41
36	The effect of the microalgae-bacteria microbiome on wastewater treatment and biomass production. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 893-905.	1.7	41

#	ARTICLE	IF	CITATIONS
37	Energy Transport in a High-Solids Aerobic Degradation Process: Mathematical Modeling and Analysis. <i>Biotechnology Progress</i> , 1997, 13, 238-248.	1.3	40
38	Metatranscriptomic analysis of lignocellulolytic microbial communities involved in high-solids decomposition of rice straw. <i>Biotechnology for Biofuels</i> , 2014, 7, 495.	6.2	40
39	Characterization of bacterial communities in solarized soil amended with lignocellulosic organic matter. <i>Applied Soil Ecology</i> , 2014, 73, 97-104.	2.1	37
40	Cloning Rosa hybrid phenylacetaldehyde synthase for the production of 2-phenylethanol in a whole cell <i>Escherichia coli</i> system. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 3603-3611.	1.7	35
41	Effect of Process Management on the Emission of Organosulfur Compounds and Gaseous Antecedents from Composting Processes. <i>Environmental Science & Technology</i> , 1998, 32, 3713-3718.	4.6	34
42	Critical moisture content for microbial growth in dried food-processing residues. <i>Journal of the Science of Food and Agriculture</i> , 2010, 90, 2000-2005.	1.7	34
43	Enrichment, isolation and characterization of fungi tolerant to 1-ethyl-3-methylimidazolium acetate. <i>Journal of Applied Microbiology</i> , 2011, 110, 1023-1031.	1.4	34
44	Co-culturing <i>Chlorella minutissima</i> with <i>Escherichia coli</i> can increase neutral lipid production and improve biodiesel quality. <i>Biotechnology and Bioengineering</i> , 2015, 112, 1801-1809.	1.7	33
45	Comparison of several maturity indicators for estimating phytotoxicity in compost-amended soil. <i>Waste Management</i> , 2008, 28, 2070-2076.	3.7	32
46	Microplate assay for quantitation of neutral lipids in extracts from microalgae. <i>Analytical Biochemistry</i> , 2014, 465, 81-89.	1.1	32
47	Almond processing residues as a source of organic acid biopesticides during biosolarization. <i>Waste Management</i> , 2020, 101, 74-82.	3.7	32
48	Algal photosynthetic aeration increases the capacity of bacteria to degrade organics in wastewater. <i>Biotechnology and Bioengineering</i> , 2020, 117, 62-72.	1.7	31
49	Development and characterization of a thermophilic, lignin degrading microbiota. <i>Process Biochemistry</i> , 2017, 63, 193-203.	1.8	29
50	Effects of pretreatment conditions and post-pretreatment washing on ethanol production from dilute acid pretreated rice straw. <i>Biosystems Engineering</i> , 2015, 137, 36-42.	1.9	28
51	Thermophilic enrichment of microbial communities in the presence of the ionic liquid 1-ethyl-3-methylimidazolium acetate. <i>Journal of Applied Microbiology</i> , 2012, 113, 1362-1370.	1.4	27
52	A life cycle assessment of biosolarization as a valorization pathway for tomato pomace utilization in California. <i>Journal of Cleaner Production</i> , 2017, 141, 146-156.	4.6	27
53	Design of formulations for improved biological control agent viability and sequestration during storage. <i>Industrial Biotechnology</i> , 2006, 2, 213-219.	0.5	26
54	Predicting Phytotoxicity of Compost-Amended Soil from Compost Stability Measurements. <i>Environmental Engineering Science</i> , 2008, 25, 72-81.	0.8	25

#	ARTICLE	IF	CITATIONS
55	Organic and Inorganic Nitrogen Impact <i>Chlorella variabilis</i> Productivity and Host Quality for Viral Production and Cell Lysis. <i>Applied Biochemistry and Biotechnology</i> , 2015, 176, 467-479.	1.4	25
56	Effect of management of organic wastes on inactivation of <i>Brassica nigra</i> and <i>Fusarium oxysporum</i> f.sp. <i>lactucae</i> using soil biosolarization. <i>Pest Management Science</i> , 2018, 74, 1892-1902.	1.7	25
57	Comparison of thermophilic anaerobic and aerobic treatment processes for stabilization of green and food wastes and production of soil amendments. <i>Waste Management</i> , 2018, 77, 555-564.	3.7	25
58	Assessment of biogas production and microbial ecology in a high solid anaerobic digestion of major California food processing residues. <i>Bioresource Technology Reports</i> , 2019, 5, 1-11.	1.5	24
59	Dynamic volume-averaged model of heat and mass transport within a compost biofilter: I. Model development. <i>Biotechnology and Bioengineering</i> , 2001, 73, 282-294.	1.7	23
60	Bioenergy feedstock-specific enrichment of microbial populations during high-solids thermophilic deconstruction. <i>Biotechnology and Bioengineering</i> , 2011, 108, 2088-2098.	1.7	23
61	Compost induces the accumulation of biopesticidal organic acids during soil biosolarization. <i>Resources, Conservation and Recycling</i> , 2019, 143, 27-35.	5.3	23
62	Changes of <i>Fusarium oxysporum</i> f.sp. <i>lactucae</i> levels and soil microbial community during soil biosolarization using chitin as soil amendment. <i>PLoS ONE</i> , 2020, 15, e0232662.	1.1	23
63	Development of models for predicting carbon mineralization and associated phytotoxicity in compost-amended soil. <i>Bioresource Technology</i> , 2008, 99, 8735-8741.	4.8	22
64	Preservation of microbial communities enriched on lignocellulose under thermophilic and high-solid conditions. <i>Biotechnology for Biofuels</i> , 2015, 8, 206.	6.2	22
65	Impact of organic waste composition on life cycle energy production, global warming and Water use for treatment by anaerobic digestion followed by composting. <i>Resources, Conservation and Recycling</i> , 2018, 137, 126-135.	5.3	22
66	Informatics for improved algal taxonomic classification and research: A case study of UTEX 2341. <i>Algal Research</i> , 2015, 12, 545-549.	2.4	20
67	Nitrogen amendment of green waste impacts microbial community, enzyme secretion and potential for lignocellulose decomposition. <i>Process Biochemistry</i> , 2017, 52, 214-222.	1.8	20
68	The initial soil microbiota impacts the potential for lignocellulose degradation during soil solarization. <i>Journal of Applied Microbiology</i> , 2019, 126, 1729-1741.	1.4	20
69	Almond by-product composition impacts the rearing of black soldier fly larvae and quality of the spent substrate as a soil amendment. <i>Journal of the Science of Food and Agriculture</i> , 2020, 100, 4618-4626.	1.7	20
70	Selection of Conditions for Cellulase and Xylanase Extraction from Switchgrass Colonized by <i>Acidothermus cellulolyticus</i> . <i>Applied Biochemistry and Biotechnology</i> , 2011, 164, 793-803.	1.4	19
71	<i>Bacillus coagulans</i> tolerance to 1-ethyl-3-methylimidazolium-based ionic liquids in aqueous and solid-state thermophilic culture. <i>Biotechnology Progress</i> , 2014, 30, 311-316.	1.3	19
72	Estimating Electrical Conductivity of Compost Extracts At Different Extraction Ratios. <i>Compost Science and Utilization</i> , 2004, 12, 202-207.	1.2	18

#	ARTICLE	IF	CITATIONS
73	Comparison of soil biosolarization with mesophilic and thermophilic solid digestates on soil microbial quantity and diversity. <i>Applied Soil Ecology</i> , 2017, 119, 183-191.	2.1	18
74	Characterization of digestate microbial community structure following thermophilic anaerobic digestion with varying levels of green and food wastes. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2020, 47, 1031-1044.	1.4	18
75	Performance of green waste biocovers for enhancing methane oxidation. <i>Waste Management</i> , 2015, 39, 205-215.	3.7	17
76	Hydrophobic microspheres for <i>in situ</i> removal of 2-phenylethanol from yeast fermentation. <i>Journal of Microencapsulation</i> , 2011, 28, 628-638.	1.2	16
77	Ionic Liquids Impact the Bioenergy Feedstock-Degrading Microbiome and Transcription of Enzymes Relevant to Polysaccharide Hydrolysis. <i>MSystems</i> , 2016, 1, .	1.7	15
78	Effects of Short-Term Biosolarization Using Mature Compost and Industrial Tomato Waste Amendments on the Generation and Persistence of Biocidal Soil Conditions and Subsequent Tomato Growth. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 5451-5461.	2.4	15
79	Impact of thiamine metabolites and spent medium from <i>Chlorella sorokiniana</i> on metabolism in the green algae <i>Auxenochlorella protothecoides</i> . <i>Algal Research</i> , 2018, 33, 197-208.	2.4	15
80	Versatile lifestyles of <i>Edwardsiella</i> : Free-living, pathogen, and core bacterium of the aquatic resistome. <i>Virulence</i> , 2022, 13, 5-18.	1.8	14
81	Agroinfiltration of plant tissues for production of high-value recombinant proteins: an alternative to production in transgenic crops. <i>Journal of the Science of Food and Agriculture</i> , 2006, 86, 2002-2004.	1.7	13
82	Improving the efficiency of enzyme utilization for sugar beet pulp hydrolysis. <i>Bioprocess and Biosystems Engineering</i> , 2012, 35, 1531-1539.	1.7	13
83	Effect of inoculum source on the enrichment of microbial communities on two lignocellulosic bioenergy crops under thermophilic and high-solids conditions. <i>Journal of Applied Microbiology</i> , 2014, 117, 1025-1034.	1.4	13
84	Transient co-expression of post-transcriptional gene silencing suppressors and Î²-glucuronidase in harvested lettuce leaf tissue does not improve recombinant protein accumulation in planta. <i>Biotechnology Letters</i> , 2007, 29, 641-645.	1.1	11
85	Solidâ€“liquid extraction of alkali metals and organic compounds by leaching of food industry residues. <i>Bioresource Technology</i> , 2010, 101, 4331-4336.	4.8	11
86	Factorial Experimental Designs for Enhancement of Concurrent Poly(Hydroxyalkanoate) Production and Brewery Wastewater Treatment. <i>Water Environment Research</i> , 2011, 83, 36-43.	1.3	11
87	Quantitative real time measurements of bacteriaâ€“bacteriophages interactions in fresh lettuce leaves. <i>Journal of Food Engineering</i> , 2012, 111, 176-185.	2.7	10
88	Leaf-Encapsulated Vaccines: Agroinfiltration and Transient Expression of the AntigenStaphylococcal EndotoxinB in Radish Leaves. <i>Journal of Immunology Research</i> , 2018, 2018, 1-9.	0.9	10
89	Degradation and bioavailability of dried alginate hydrocolloid capsules in simulated soil system. <i>Journal of Applied Polymer Science</i> , 2019, 136, 48142.	1.3	10
90	Structural changes in bacterial and fungal soil microbiome components during biosolarization as related to volatile fatty acid accumulation. <i>Applied Soil Ecology</i> , 2020, 153, 103602.	2.1	10

#	ARTICLE	IF	CITATIONS
91	Equilibrium Moisture Isotherms for Synthetic Food Waste And Biosolids Composts. <i>Compost Science and Utilization</i> , 1999, 7, 6-13.	1.2	8
92	Design and evaluation of a grapevine pruner for biofungicide application. <i>Bioresource Technology</i> , 2005, 96, 963-968.	4.8	8
93	Microorganism viability influences internal phase droplet size changes during storage in water-in-oil emulsions. <i>Bioprocess and Biosystems Engineering</i> , 2013, 36, 1427-1434.	1.7	8
94	The kinetics of <i>Lagenidium giganteum</i> growth in liquid and solid cultures. <i>Journal of Applied Microbiology</i> , 2006, 101, 807-814.	1.4	7
95	Storage and release of solutes and microalgae from water-in-oil emulsions stabilized by silica nanoparticles. <i>Process Biochemistry</i> , 2010, 45, 1-6.	1.8	7
96	High-throughput analysis of hexosamine using a colorimetric method. <i>Analytical Biochemistry</i> , 2011, 408, 160-162.	1.1	7
97	Xylanase and cellulase production by <i>Acidothermus cellulolyticus</i> grown on switchgrass in solid-state fermentation. <i>Biofuels</i> , 2011, 2, 21-32.	1.4	7
98	Understanding the Anthropocene through the lens of landfill microbiomes. <i>Frontiers in Ecology and the Environment</i> , 2018, 16, 354-360.	1.9	7
99	<i>Burkholderiaceae</i> and Multidrug Resistance Genes Are Key Players in Resistome Development in a Germfree Soil Model. <i>MSystems</i> , 2021, 6, e0098821.	1.7	7
100	Evaluating Extraction and Storage of a Recombinant Protein Produced in Agroinfiltrated Lettuce. <i>Biotechnology Progress</i> , 2006, 22, 723-730.	1.3	6
101	Enrichment of microbial communities tolerant to the ionic liquids tetrabutylphosphonium chloride and tributylethylphosphonium diethylphosphate. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 5639-5652.	1.7	6
102	Switchgrass leaching requirements for solid-state fermentation by <i>Acidothermus cellulolyticus</i> . <i>Biotechnology Progress</i> , 2010, 26, 622-626.	1.3	5
103	Effects of phenolic monomers on growth of <i>Acidothermus cellulolyticus</i> . <i>Biotechnology Progress</i> , 2011, 27, 23-31.	1.3	5
104	Rapid, in situ detection of <i>Agrobacterium tumefaciens</i> attachment to leaf tissue. <i>Biotechnology Progress</i> , 2012, 28, 1321-1328.	1.3	5
105	Production of <i>Botrytis cinerea</i> for potential introduction into a vineyard. <i>Bioresource Technology</i> , 2004, 92, 41-48.	4.8	4
106	Attachment of <i>Agrobacterium tumefaciens</i> to leaf tissue in response to infiltration conditions. <i>Biotechnology Progress</i> , 2014, 30, 1137-1144.	1.3	4
107	Effect of Partially Stabilized Organic Amendments on Volatile Acids Production and Pest Inactivation using Soil Biosolarization. , 2017, , .		4
108	Response surface studies that elucidate the role of infiltration conditions on <i>Agrobacterium tumefaciens</i> -mediated transient transgene expression in harvested switchgrass (<i>Panicum virgatum</i>). <i>Biomass and Bioenergy</i> , 2007, 32, 372-372.	2.9	3

#	ARTICLE	IF	CITATIONS
109	Managing the cultivation and processing of microalgae to prolong storage in water-in-oil emulsions. Applied Microbiology and Biotechnology, 2014, 98, 5427-5433.	1.7	3
110	Predicting black soldier fly larvae biomass and methionine accumulation using a kinetic model for batch cultivation and improving system performance using semi-batch cultivation. Bioprocess and Biosystems Engineering, 2022, 45, 333-344.	1.7	3
111	Assessment of using solid residues of fish for treating soil by the biosolarization technique as an alternative to soil fumigation. Journal of Cleaner Production, 2022, 357, 131886.	4.6	3
112	Room-temperature storage of microalgae in water-in-oil emulsions: influence of solid particle type and concentration in the oil phase. Bioprocess and Biosystems Engineering, 2015, 38, 2451-2460.	1.7	2
113	Soil Application of Almond Residue Biomass Following Black Soldier Fly Larvae Cultivation. Frontiers in Sustainable Food Systems, 2021, 5, .	1.8	2
114	The role of silica nanoparticles on long-term room-temperature stabilization of water-in-oil emulsions containing microalgae. Letters in Applied Microbiology, 2015, 61, 568-572.	1.0	1
115	<i>Modeling of photosynthetic aeration for energy-efficient wastewater treatment and reduced greenhouse gas emissions&/i>. , 2017, , .		1
116	Storage and release of solutes and microalgae from water-in-oil emulsions stabilized by silica nanoparticles. , 2008, , .		0