

# Edward J Wolfrum

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5918534/publications.pdf>

Version: 2024-02-01

60  
papers

5,096  
citations

201385

27  
h-index

168136

53  
g-index

64  
all docs

64  
docs citations

64  
times ranked

6256  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reliability metrics and their management implications for open pond algae cultivation. <i>Algal Research</i> , 2021, 55, 102249.	2.4	24
2	Direct determination of cellulosic glucan content in starch-containing samples. <i>Cellulose</i> , 2021, 28, 1989-2002.	2.4	12
3	Chemical and Structural Changes in Corn Stover After Ensiling: Influence on Bioconversion. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 739.	2.0	8
4	A Performance Comparison of Low-Cost Near-Infrared (NIR) Spectrometers to a Conventional Laboratory Spectrometer for Rapid Biomass Compositional Analysis. <i>Bioenergy Research</i> , 2020, 13, 1121-1129.	2.2	10
5	Multiscale Characterization of Lignocellulosic Biomass Variability and Its Implications to Preprocessing and Conversion: a Case Study for Corn Stover. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3218-3230.	3.2	28
6	Throughput, Reliability, and Yields of a Pilot-Scale Conversion Process for Production of Fermentable Sugars from Lignocellulosic Biomass: A Study on Feedstock Ash and Moisture. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2008-2015.	3.2	16
7	High Throughput Screening Technologies in Biomass Characterization. <i>Frontiers in Energy Research</i> , 2018, 6, .	1.2	28
8	Switchgrass and Giant Miscanthus Biomass and Theoretical Ethanol Production from Reclaimed Mine Lands. <i>Bioenergy Research</i> , 2018, 11, 562-573.	2.2	36
9	Unified field studies of the algae testbed public-private partnership as the benchmark for algae agronomics. <i>Scientific Data</i> , 2018, 5, 180267.	2.4	18
10	The Effect of Biomass Densification on Structural Sugar Release and Yield in Biofuel Feedstock and Feedstock Blends. <i>Bioenergy Research</i> , 2017, 10, 478-487.	2.2	26
11	The Algae Testbed Public-Private Partnership (ATP3) framework; establishment of a national network of testbed sites to support sustainable algae production. <i>Algal Research</i> , 2017, 25, 168-177.	2.4	39
12	The buffering capacity of stems: genetic architecture of nonstructural carbohydrates in cultivated Asian rice, <i>Oryza sativa</i> . <i>New Phytologist</i> , 2017, 215, 658-671.	3.5	31
13	Evaluation of Fifteen Cultivars of Cool-Season Perennial Grasses as Biofuel Feedstocks Using Near-Infrared. <i>Agronomy Journal</i> , 2017, 109, 1923-1934.	0.9	5
14	Assessing pretreatment reactor scaling through empirical analysis. <i>Biotechnology for Biofuels</i> , 2016, 9, 213.	6.2	16
15	Long-term variability in sugarcane bagasse feedstock compositional methods: sources and magnitude of analytical variability. <i>Biotechnology for Biofuels</i> , 2016, 9, 223.	6.2	1
16	Non-targeted Metabolomics in Diverse Sorghum Breeding Lines Indicates Primary and Secondary Metabolite Profiles Are Associated with Plant Biomass Accumulation and Photosynthesis. <i>Frontiers in Plant Science</i> , 2016, 7, 953.	1.7	80
17	Robust phenotyping strategies for evaluation of stem non-structural carbohydrates (NSC) in rice. <i>Journal of Experimental Botany</i> , 2016, 67, 6125-6138.	2.4	31
18	Compositional Analysis of Biomass Reference Materials: Results from an Interlaboratory Study. <i>Bioenergy Research</i> , 2016, 9, 303-314.	2.2	33

#	ARTICLE	IF	CITATIONS
19	Improved methods for the determination of drying conditions and fraction insoluble solids (FIS) in biomass pretreatment slurry. <i>Biomass and Bioenergy</i> , 2016, 91, 234-242.	2.9	4
20	Improved sugar yields from biomass sorghum feedstocks: comparing low-lignin mutants and pretreatment chemistries. <i>Biotechnology for Biofuels</i> , 2016, 9, 251.	6.2	20
21	Online residence time distribution measurement of thermochemical biomass pretreatment reactors. <i>Chemical Engineering Science</i> , 2016, 140, 330-336.	1.9	25
22	Influence of Particle Size on Direct Microbial Conversion of Hot Water-Pretreated Poplar by <i>Clostridium thermocellum</i> . , 2015, , 307-319.		0
23	Rapid analysis of composition and reactivity in cellulosic biomass feedstocks with near-infrared spectroscopy. <i>Biotechnology for Biofuels</i> , 2015, 8, 43.	6.2	58
24	High-Throughput Quantitative Biochemical Characterization of Algal Biomass by NIR Spectroscopy; Multiple Linear Regression and Multivariate Linear Regression Analysis. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 12307-12314.	2.4	38
25	A laboratory-scale pretreatment and hydrolysis assay for determination of reactivity in cellulosic biomass feedstocks. <i>Biotechnology for Biofuels</i> , 2013, 6, 162.	6.2	29
26	Near Infrared Calibration Models for Pretreated Corn Stover Slurry Solids, Isolated and in situ. <i>Journal of Near Infrared Spectroscopy</i> , 2013, 21, 249-257.	0.8	14
27	Variation in Biomass Composition Components among Forage, Biomass, Sorghumâ€¦Sudangrass, and Sweet Sorghum Types. <i>Crop Science</i> , 2012, 52, 1949-1954.	0.8	42
28	Rapid Compositional Analysis of Microalgae by NIR Spectroscopy. <i>NIR News</i> , 2012, 23, 9-11.	1.6	3
29	Uncertainty in techno-economic estimates of cellulosic ethanol production due to experimental measurement uncertainty. <i>Biotechnology for Biofuels</i> , 2012, 5, 23.	6.2	41
30	Algal Biomass Constituent Analysis: Method Uncertainties and Investigation of the Underlying Measuring Chemistries. <i>Analytical Chemistry</i> , 2012, 84, 1879-1887.	3.2	183
31	Accurate and reliable quantification of total microalgal fuel potential as fatty acid methyl esters by in situ transesterification. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 403, 167-178.	1.9	182
32	Feasibility of Spectroscopic Characterization of Algal Lipids: Chemometric Correlation of NIR and FTIR Spectra with Exogenous Lipids in Algal Biomass. <i>Bioenergy Research</i> , 2011, 4, 22-35.	2.2	120
33	Compositional and Agronomic Evaluation of Sorghum Biomass as a Potential Feedstock for Renewable Fuels. <i>Journal of Biobased Materials and Bioenergy</i> , 2011, 5, 507-513.	0.1	20
34	Compositional Analysis of Lignocellulosic Feedstocks. 2. Method Uncertainties. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 9054-9062.	2.4	159
35	Life Cycle Environmental Impacts of Selected U.S. Ethanol Production and Use Pathways in 2022. <i>Environmental Science &amp; Technology</i> , 2010, 44, 5289-5297.	4.6	145
36	Characterization, Genetic Variation, and Combining Ability of Maize Traits Relevant to the Production of Cellulosic Ethanol. <i>Crop Science</i> , 2009, 49, 85-98.	0.8	66

#	ARTICLE	IF	CITATIONS
37	Correlating detergent fiber analysis and dietary fiber analysis data for corn stover collected by NIRS. <i>Cellulose</i> , 2009, 16, 577-585.	2.4	44
38	Improved multivariate calibration models for corn stover feedstock and dilute-acid pretreated corn stover. <i>Cellulose</i> , 2009, 16, 567-576.	2.4	60
39	Selection of Promising Biomass Feedstock Lines Using High-Throughput Spectrometric and Enzymatic Assays. , 2008, , 143-160.		1
40	The Volatile Organic Compound (VOC) Removal Performance of Desiccant-Based Dehumidification Systems: Testing at Sub-ppm VOC Concentrations. <i>HVAC and R Research</i> , 2008, 14, 129-140.	0.9	8
41	Heat Conduction of Inert Gas-Hydrogen Mixtures in Parabolic Trough Receivers. , 2008, , .		18
42	Parabolic Trough Receiver Thermal Testing. , 2007, , 961.		10
43	Calibration Transfer Among Sensor Arrays Designed for Monitoring Volatile Organic Compounds in Indoor Air Quality. <i>IEEE Sensors Journal</i> , 2006, 6, 1638-1643.	2.4	23
44	Metal oxide sensor arrays for the detection, differentiation, and quantification of volatile organic compounds at sub-parts-per-million concentration levels. <i>Sensors and Actuators B: Chemical</i> , 2006, 115, 322-329.	4.0	105
45	A New Method for the Rapid Determination of Volatile Organic Compound Breakthrough Times for a Sorbent at Concentrations Relevant to Indoor Air Quality. <i>Journal of the Air and Waste Management Association</i> , 2004, 54, 105-110.	0.9	25
46	Photocatalytic Oxidation of Bacteria, Bacterial and Fungal Spores, and Model Biofilm Components to Carbon Dioxide on Titanium Dioxide-Coated Surfaces. <i>Environmental Science &amp; Technology</i> , 2002, 36, 3412-3419.	4.6	222
47	Bioreactor Design Studies for a Hydrogen-Producing Bacterium. <i>Applied Biochemistry and Biotechnology</i> , 2002, 98-100, 611-626.	1.4	18
48	Bioreactor Design Studies for a Hydrogen-Producing Bacterium. , 2002, , 611-625.		5
49	Bactericidal mode of titanium dioxide photocatalysis. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2000, 130, 163-170.	2.0	495
50	Heterogeneous Photocatalytic Reduction of Cr(VI) in UV-Irradiated Titania Suspensions:Â Effect of Protons, Ammonium Ions, and Other Interfacial Aspects. <i>Langmuir</i> , 2000, 16, 2715-2721.	1.6	145
51	Bactericidal Activity of Photocatalytic TiO <sub>2</sub> Reaction: toward an Understanding of Its Killing Mechanism. <i>Applied and Environmental Microbiology</i> , 1999, 65, 4094-4098.	1.4	1,295
52	Pilot-Scale Demonstration of an Innovative Treatment for Vapor Emissions. <i>Journal of the Air and Waste Management Association</i> , 1999, 49, 1368-1373.	0.9	10
53	Application of the Photocatalytic Chemistry of Titanium Dioxide to Disinfection and the Killing of Cancer Cells. <i>Separation and Purification Reviews</i> , 1999, 28, 1-50.	0.8	496
54	Mineralization of Bacterial Cell Mass on a Photocatalytic Surface in Air. <i>Environmental Science &amp; Technology</i> , 1998, 32, 2650-2653.	4.6	202

#	ARTICLE	IF	CITATIONS
55	<title>Materials issues in solar detoxification of air and water</title>., 1997, , .		1
56	Gas-Phase Heterogeneous Photocatalytic Oxidation of Ethanol:Â Pathways and Kinetic Modeling. Environmental Science & Technology, 1996, 30, 3102-3110.	4.6	175
57	Solar photocatalytic processes for the purification of water: State of development and barriers to commercialization. Solar Energy, 1996, 56, 429-437.	2.9	80
58	The UVi-H <sub>2</sub> O <sub>2</sub> process: quantitative EPR determination of radical concentrations. Journal of Photochemistry and Photobiology A: Chemistry, 1994, 78, 259-265.	2.0	7
59	Comments on "reactor dynamics in the evaluation of photocatalytic oxidation kinetics" Journal of Catalysis, 1992, 136, 626-628.	3.1	31
60	Comparing Calibration Algorithms for the Rapid Characterization of Pretreated Corn Stover Using Near-Infrared Spectroscopy. Frontiers in Energy Research, 0, 10, .	1.2	1