Shao-Yuan Leu

List of Publications by Year
in descending order

78 papers	2,475 citations	201674 27 h-index	214800 47 g-index
83 all docs	83 docs citations	83 times ranked	3026 citing authors

#	Article	IF	Citations
1	Substrate-Related Factors Affecting Enzymatic Saccharification of Lignocelluloses: Our Recent Understanding. Bioenergy Research, 2013, 6, 405-415.	3.9	287
2	A review on morphology engineering for highly efficient and stable hybrid perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 12842-12875.	10.3	168
3	Optimized material composition to improve the physical and mechanical properties of extruded woodâ€"plastic composites (WPCs). Construction and Building Materials, 2012, 29, 120-127.	7.2	118
4	Toward a fundamental understanding of cellulaseâ€lignin interactions in the whole slurry enzymatic saccharification process. Biofuels, Bioproducts and Biorefining, 2016, 10, 648-663.	3.7	113
5	Diol pretreatment to fractionate a reactive lignin in lignocellulosic biomass biorefineries. Green Chemistry, 2019, 21, 2788-2800.	9.0	109
6	Recent Trends in Sustainable Textile Waste Recycling Methods: Current Situation and Future Prospects. Topics in Current Chemistry, 2017, 375, 76.	5.8	100
7	Sustainability metrics of pretreatment processes in a waste derived lignocellulosic biomass biorefinery. Bioresource Technology, 2020, 298, 122558.	9.6	98
8	Valorisation of textile waste by fungal solid state fermentation: An example of circular waste-based biorefinery. Resources, Conservation and Recycling, 2018, 129, 27-35.	10.8	91
9	Realâ€Time Aeration Efficiency Monitoring in the Activated Sludge Process and Methods to Reduce Energy Consumption and Operating Costs. Water Environment Research, 2009, 81, 2471-2481.	2.7	65
10	Bioconversion of Beetle-Killed Lodgepole Pine Using SPORL: Process Scale-up Design, Lignin Coproduct, and High Solids Fermentation without Detoxification. Industrial & Engineering Chemistry Research, 2013, 52, 16057-16065.	3.7	59
11	Continuous cellulosic bioethanol co-fermentation by immobilized Zymomonas mobilis and suspended Pichia stipitis in a two-stage process. Applied Energy, 2020, 266, 114871.	10.1	55
12	Toward Long Solids Retention Time of Activated Sludge Processes: Benefits in Energy Saving, Effluent Quality, and Stability. Water Environment Research, 2012, 84, 42-53.	2.7	46
13	Characterization of the property changes of extruded woodâ€"plastic composites during year round subtropical weathering. Construction and Building Materials, 2015, 88, 159-168.	7.2	42
14	An innovative wood-chip-framework soil infiltrator for treating anaerobic digested swine wastewater and analysis of the microbial community. Bioresource Technology, 2014, 173, 384-391.	9.6	41
15	The effect of surfactant-assisted ultrasound-ionic liquid pretreatment on the structure and fermentable sugar production of a water hyacinth. Bioresource Technology, 2017, 237, 27-30.	9.6	41
16	Isolation of cellulose nanocrystals from medium density fiberboards. Carbohydrate Polymers, 2017, 167, 70-78.	10.2	40
17	New Generation Urban Biorefinery toward Complete Utilization of Waste Derived Lignocellulosic Biomass for Biofuels and Value-Added Products. Energy Procedia, 2019, 158, 918-925.	1.8	39
18	Robust enzymatic saccharification of a Douglas-fir forest harvest residue by SPORL. Biomass and Bioenergy, 2013, 59, 393-401.	5.7	37

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19	Evaluation of anti-bacterial adhesion performance of polydopamine cross-linked graphene oxide RO membrane via in situ optical coherence tomography. Desalination, 2020, 479, 114339.	8.2	35
20	Biotechnology of Plastic Waste Degradation, Recycling, and Valorization: Current Advances and Future Perspectives. ChemSusChem, 2021, 14, 4103-4114.	6.8	34
21	Bioaugmentation with Clostridium tyrobutyricum to improve butyric acid production through direct rice straw bioconversion. Bioresource Technology, 2018, 263, 562-568.	9.6	33
22	Progress in the development and use of refrigerants and unintended environmental consequences. Science of the Total Environment, 2022, 823, 153670.	8.0	33
23	Ethanol production from non-detoxified whole slurry of sulfite-pretreated empty fruit bunches at a low cellulase loading. Bioresource Technology, 2014, 164, 331-337.	9.6	28
24	High titer and yield ethanol production from undetoxified whole slurry of Douglas-fir forest residue using pH profiling in SPORL. Biotechnology for Biofuels, 2015, 8, 22.	6.2	28
25	Sustainability analysis of pelletized bio-fuel derived from recycled wood product wastes in Hong Kong. Journal of Cleaner Production, 2016, 113, 400-410.	9.3	28
26	Carbon sequestration potential via energy harvesting from agricultural biomass residues in Mekong River basin, Southeast Asia. Renewable and Sustainable Energy Reviews, 2017, 68, 1051-1062.	16.4	28
27	Upgrading lignocellulosic ethanol for caproate production via chain elongation fermentation. International Biodeterioration and Biodegradation, 2018, 135, 103-109.	3.9	28
28	Enhanced primary treatment for net energy production from sewage â€“ The genetic clarification of substrate-acetate-methane pathway in anaerobic digestion. Chemical Engineering Journal, 2022, 431, 133416.	12.7	28
29	Development of a waste-derived lignin-porphyrin bio-polymer with enhanced photoluminescence at high water fraction with wide pH range and heavy metal sensitivity investigations. Green Chemistry, 2019, 21, 1319-1329.	9.0	27
30	Feasibility of high-concentration cellulosic bioethanol production from undetoxified whole Monterey pine slurry. Bioresource Technology, 2018, 250, 102-109.	9.6	25
31	Exploring spatial patterns of carbon dioxide emission abatement via energy service companies in China. Resources, Conservation and Recycling, 2018, 137, 145-155.	10.8	25
32	Biphasic pretreatment for energy and carbon efficient conversion of lignocellulose into bioenergy and reactive lignin. Applied Energy, 2021, 303, 117653.	10.1	25
33	Whole sugar 2,3-butanediol fermentation for oil palm empty fruit bunches biorefinery by a newly isolated Klebsiella pneumoniae PM2. Bioresource Technology, 2021, 333, 125206.	9.6	24
34	Bioaugmentation to Improve Nitrification in Activated Sludge Treatment. Water Environment Research, 2010, 82, 524-535.	2.7	23
35	Fine-pore aeration diffusers: Accelerated membrane ageing studies. Water Research, 2008, 42, 467-475.	11.3	22
36	Substrate-Related Factors Affecting Cellulosome-Induced Hydrolysis for Lignocellulose Valorization. International Journal of Molecular Sciences, 2019, 20, 3354.	4.1	22

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37	Recent advances of lignin valorization techniques toward sustainable aromatics and potential benchmarks to fossil refinery products. Bioresource Technology, 2022, 346, 126419.	9.6	22
38	Enhancing Î±-etherification of lignin in Eucalyptus diol pretreatment to improve lignin monomer production. Industrial Crops and Products, 2022, 185, 115130.	5.2	21
39	Ultra-stable 2D layered methylammonium cadmium trihalide perovskite photoelectrodes. Journal of Materials Chemistry C, 2018, 6, 11552-11560.	5.5	20
40	A Nano-Ink for gel pens based on scalable CNC preparation. Cellulose, 2018, 25, 6465-6478.	4.9	20
41	Monitoring off-gas O2/CO2 to predict nitrification performance in activated sludge processes. Water Research, 2010, 44, 3434-3444.	11.3	18
42	Staged organosolv pretreatment to increase net energy and reactive lignin yield in whole oil palm tree biorefinery. Bioresource Technology, 2021, 326, 124766.	9.6	18
43	Bioconversion of food and lignocellulosic wastes employing sugar platform: A review of enzymatic hydrolysis and kinetics. Bioresource Technology, 2022, 352, 127083.	9.6	18
44	Modeling the dynamic volatile fatty acids profiles with pH and hydraulic retention time in an anaerobic baffled reactor during the startup period. Bioresource Technology, 2016, 222, 49-58.	9.6	16
45	Modeling the performance of an anaerobic baffled reactor with the variation of hydraulic retention time. Bioresource Technology, 2016, 214, 477-486.	9.6	16
46	Features of a Staged Acidogenic/Solventogenic Fermentation Process To Improve Butanol Production from Rice Straw. Energy & Fuels, 2019, 33, 1123-1132.	5.1	16
47	Anaerobic Digestion of Napier Grass (Pennisetum purpureum) in Two-Phase Dry Digestion System Versus Wet Digestion System. Bioenergy Research, 2020, 13, 853-865.	3.9	16
48	Dark fermentation production of volatile fatty acids from glucose with biochar amended biological consortium. Bioresource Technology, 2020, 303, 122921.	9.6	15
49	Efficient saccharification of wheat straw pretreated by solid particle-assisted ball milling with waste washing liquor recycling. Bioresource Technology, 2022, 347, 126721.	9.6	15
50	Economic and environmental analysis of using constructed riparian wetlands to support urbanized municipal wastewater treatment. Ecological Engineering, 2012, 44, 249-258.	3.6	14
51	Temperature profiling to maximize energy yield with reduced water input in a lignocellulosic ethanol biorefinery. Applied Energy, 2018, 214, 63-72.	10.1	14
52	Plant chemistry associated dynamic modelling to enhance urban vegetation carbon sequestration potential via bioenergy harvesting. Journal of Cleaner Production, 2018, 197, 1084-1094.	9.3	14
53	Sustainability index accounting food and carbon benefits on circular 2,3-butanediol biorefinery with oil palm empty fruit bunches. Applied Energy, 2021, 303, 117667.	10.1	14
54	Glucose fermentation with biochar amended consortium: Sequential fermentations. Bioresource Technology, 2020, 303, 122933.	9.6	12

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55	Genomic driven factors enhance biocatalyst-related cellulolysis potential in anaerobic digestion. Bioresource Technology, 2021, 333, 125148.	9.6	10
56	The Relationship Between Mixedâ€Liquor Particle Size and Solids Retention Time in the Activated Sludge Process. Water Environment Research, 2011, 83, 2178-2186.	2.7	9
57	Energy-Efficient Single-Stage Nitrite Shunt Denitrification with Saline Sewage through Concise Dissolved Oxygen (DO) Supply: Process Performance and Microbial Communities. Microorganisms, 2020, 8, 919.	3.6	9
58	Construction of a structural enzyme adsorption/kinetics model to elucidate additives associated ligninâ€"cellulase interactions in complex bioconversion system. Biotechnology and Bioengineering, 2021, 118, 4065-4075.	3.3	9
59	Hydroxyapatite-based catalysts derived from food waste digestate for efficient glucose isomerization to fructose. Green Synthesis and Catalysis, 2021, 2, 356-361.	6.8	9
60	Biotechnology of Plastic Waste Degradation, Recycling, and Valorization: Current Advances and Future Perspectives. ChemSusChem, 2021, 14, 3981-3981.	6.8	8
61	Biorefinery potential of chemically enhanced primary treatment sewage sludge to representative value-added chemicals - A de novo angle for wastewater treatment. Bioresource Technology, 2021, 339, 125583.	9.6	8
62	Comparisons of high titer ethanol production and lignosulfonate properties by SPORL pretreatment of lodgepole pine at two temperatures. RSC Advances, 2014, 4, 27030-27038.	3.6	7
63	Biochemical Methane Potential Assay Using Single Versus Dual Sludge Inocula and Gap in Energy Recovery from Napier Grass Digestion. Bioenergy Research, 2020, 13, 1321-1329.	3.9	7
64	Elucidating the role of graphene oxide layers in enhancing N-Nitrosodimethylamine (NDMA) rejection and antibiofouling property of RO membrane simultaneously. Journal of Membrane Science, 2022, 643, 120043.	8.2	6
65	One-pot synthesis to prepare lignin/photoacid nanohybrids for multifunctional biosensors and photo-triggered singlet oxygen generation. Green Chemistry, 2022, 24, 2904-2918.	9.0	6
66	Pyrolysis of anaerobic digested residues in the presence of catalyst-sorbent bifunctional material: Pyrolysis characteristics, kinetics and evolved gas analysis. Bioresource Technology, 2022, 351, 127022.	9.6	6
67	Biomimetic reusable microfluidic reactors with physically immobilized RuBisCO for glucose precursor production. Catalysis Science and Technology, 2022, 12, 5009-5020.	4.1	6
68	Substrate-related features to maximize bioenergy potential of chemical enhanced primary treatment sludge. Energy Procedia, 2019, 158, 926-933.	1.8	5
69	Genomic insights to facilitate the construction of a high-xylose-utilization Enterococcus faecalis OPS2 for 2,3-BDO production. Chemical Engineering Journal, 2022, 448, 137617.	12.7	5
70	Modeling the Performance of Hazardous Wastes Removal in Bioaugmented Activated Sludge Processes. Water Environment Research, 2009, 81, 2309-2319.	2.7	4
71	Toward Long SRT of Activated Sludge Processes: Benefits in Energy Saving, Effluent Quality, and Stability. Proceedings of the Water Environment Federation, 2010, 2010, 7282-7295.	0.0	4
72	Dynamic simulation of continuous mixed sugar fermentation with increasing cell retention time for lactic acid production using Enterococcus mundtii QU 25. Biotechnology for Biofuels, 2020, 13, 112.	6.2	4

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73	Real-Time Efficiency Monitoring for Wastewater Aeration Systems. Water Practice and Technology, 2008, 3, .	2.0	2
74	N-Methyl-2-pyrrolidone pre-treatment of lignocellulose for high lignin yield and cellulose digestibility. Biomass Conversion and Biorefinery, 2024, 14, 5435-5446.	4.6	2
75	Time-Variations of Transfer Efficiency and Headloss for Fine-Pore Membrane Diffusers in Aeration Systems. Proceedings of the Water Environment Federation, 2007, 2007, 7944-7958.	0.0	1
76	Insights into unexpected photoisomerization from photooxidation of tribromoacetic acid in aqueous environment using ultrafast spectroscopy. Journal of Hazardous Materials, 2021, 418, 126214.	12.4	1
77	Enhancement of Elemental Sulfur Recovery from Wastewater Biogas Using Nickel (II)-(5,10,15,20)-tetrakis-phenylcarboxylporphyrin. KSCE Journal of Civil Engineering, 2020, 24, 1424-1429.	1.9	0
78	Combining Cellulosic Ethanol Fermentation Waste and Municipal Solid Waste-derived Fiber with a Kraft Black Liquor-derived Binder for Recycled Paper Making. BioResources, 2015, 10, .	1.0	0