

Jay J Liu

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9227945/publications.pdf>

Version: 2024-02-01

62
papers

1,619
citations

304602

22
h-index

330025

37
g-index

63
all docs

63
docs citations

63
times ranked

1496
citing authors

#	ARTICLE	IF	CITATIONS
1	Column Characterization and Selection Systems in Reversed-Phase High-Performance Liquid Chromatography. <i>Chemical Reviews</i> , 2019, 119, 3674-3729.	23.0	191
2	Industrial-scale bioethanol production from brown algae: Effects of pretreatment processes on plant economics. <i>Applied Energy</i> , 2015, 139, 175-187.	5.1	89
3	Silver-Lactoferrin Nanocomplexes as a Potent Antimicrobial Agent. <i>Journal of the American Chemical Society</i> , 2016, 138, 7899-7909.	6.6	73
4	Froth-based modeling and control of flotation processes. <i>Minerals Engineering</i> , 2008, 21, 642-651.	1.8	72
5	Sustainable bio-succinic acid production: superstructure optimization, techno-economic, and lifecycle assessment. <i>Energy and Environmental Science</i> , 2021, 14, 3542-3558.	15.6	65
6	Availability, versatility, and viability of feedstocks for hydrogen production: Product space perspective. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 145, 110843.	8.2	57
7	Estimation and monitoring of product aesthetics: application to manufacturing of "engineered stone" countertops. <i>Machine Vision and Applications</i> , 2006, 16, 374-383.	1.7	51
8	On the extraction of spectral and spatial information from images. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2007, 85, 119-130.	1.8	50
9	Molecular Descriptor Subset Selection in Theoretical Peptide Quantitative Structure–Retention Relationship Model Development Using Nature-Inspired Optimization Algorithms. <i>Analytical Chemistry</i> , 2015, 87, 9876-9883.	3.2	40
10	Potential of brown algae for sustainable electricity production through anaerobic digestion. <i>Energy Conversion and Management</i> , 2017, 135, 297-307.	4.4	39
11	Artificial intelligence-based prediction and analysis of the oversupply of wind and solar energy in power systems. <i>Energy Conversion and Management</i> , 2021, 250, 114892.	4.4	35
12	Modeling and Optimization of Product Appearance: Application to Injection-Molded Plastic Panels. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 4687-4696.	1.8	34
13	Economic, energy, and environmental impacts of alcohol dehydration technology on biofuel production from brown algae. <i>Energy</i> , 2015, 93, 2321-2336.	4.5	34
14	Optimal plant design for integrated biorefinery producing bioethanol and protein from <i>Saccharina japonica</i> : A superstructure-based approach. <i>Energy</i> , 2018, 164, 1257-1270.	4.5	33
15	Machine learning-based utilization of renewable power curtailments under uncertainty by planning of hydrogen systems and battery storages. <i>Journal of Energy Storage</i> , 2021, 41, 103010.	3.9	33
16	Optimal risk-constrained stochastic scheduling of microgrids with hydrogen vehicles in real-time and day-ahead markets. <i>Journal of Cleaner Production</i> , 2021, 318, 128452.	4.6	33
17	Understanding the Formation of Indomethacin–Saccharin Cocrystals by Anti-Solvent Crystallization. <i>Crystal Growth and Design</i> , 2013, 13, 2067-2074.	1.4	32
18	Impact of volatile fatty acid recovery on economics of ethanol production from brown algae via mixed alcohol synthesis. <i>Chemical Engineering Research and Design</i> , 2015, 98, 107-122.	2.7	29

#	ARTICLE	IF	CITATIONS
19	Green energy from brown seaweed: Sustainable polygeneration industrial process via fast pyrolysis of <i>S. Japonica</i> combined with the Brayton cycle. <i>Energy Conversion and Management</i> , 2019, 195, 1244-1254.	4.4	28
20	Techno-economic feasibility evaluation of a standalone solar-powered alkaline water electrolyzer considering the influence of battery energy storage system: A Korean case study. <i>Korean Journal of Chemical Engineering</i> , 2021, 38, 1617.	1.2	28
21	Valorization of algal cells for biomass and bioenergy production from wastewater: Sustainable strategies, challenges, and techno-economic limitations. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112024.	8.2	28
22	Quantification of protein mixture in chromatographic separation using multi-wavelength UV spectra. <i>Biotechnology Progress</i> , 2013, 29, 664-671.	1.3	27
23	Can Texas mitigate wind and solar curtailments by leveraging bitcoin mining?. <i>Journal of Cleaner Production</i> , 2022, 364, 132700.	4.6	26
24	Characterization of mammalian cell culture raw materials by combining spectroscopy and chemometrics. <i>Biotechnology Progress</i> , 2017, 33, 1127-1138.	1.3	24
25	Decision support in machine vision system for monitoring of TFT-LCD glass substrates manufacturing. <i>Journal of Process Control</i> , 2014, 24, 1015-1023.	1.7	23
26	Comprehensive feasibility assessment of a poly-generation process integrating fast pyrolysis of <i>S. japonica</i> and the Rankine cycle. <i>Applied Energy</i> , 2019, 254, 113704.	5.1	23
27	Life Cycle Assessment of Inland Green Hydrogen Supply Chain Networks with Current Challenges and Future Prospects. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 17152-17163.	3.2	22
28	Design and economic analysis of a macroalgae-to-butanol process via a thermochemical route. <i>Energy Conversion and Management</i> , 2016, 123, 410-422.	4.4	21
29	Application of MixAlco [®] processes for mixed alcohol production from brown algae: Economic, energy, and carbon footprint assessments. <i>Fuel Processing Technology</i> , 2016, 144, 262-273.	3.7	21
30	Ensemble Learning Approaches to Data Imbalance and Competing Objectives in Design of an Industrial Machine Vision System. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 4636-4645.	1.8	21
31	Maximizing the sustainability of a macroalgae biorefinery: a superstructure optimization of a volatile fatty acid platform. <i>Green Chemistry</i> , 2020, 22, 4174-4186.	4.6	19
32	Seaweeds as a sustainable source of bioenergy: Techno-economic and life cycle analyses of its biochemical conversion pathways. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112011.	8.2	19
33	Non-target analysis of phospholipid and sphingolipid species in egg yolk using liquid chromatography/triple quadrupole tandem mass spectrometry. <i>Journal of Chromatography A</i> , 2017, 1487, 179-186.	1.8	18
34	A strategy for advanced biofuel production and emission utilization from macroalgal biorefinery using superstructure optimization. <i>Energy</i> , 2021, 221, 119883.	4.5	18
35	Exploiting non-linear relationships between retention time and molecular structure of peptides originating from proteomes and comparing three multivariate approaches. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2016, 127, 94-100.	1.4	16
36	Comprehensive Feasibility Assessment of Combined Heat, Hydrogen, and Power Production via Hydrothermal Liquefaction of <i>Saccharina japonica</i> . <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 8305-8317.	3.2	15

#	ARTICLE	IF	CITATIONS
37	Biochar for Climate Change Mitigation: Tracing the in-situ Priming Effect on a Forest Site. <i>Energy Procedia</i> , 2015, 76, 381-387.	1.8	14
38	Target-based drug discovery through inversion of quantitative structure-drug-property relationships and molecular simulation: CA IX-sulphonamide complexes. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2018, 33, 1430-1443.	2.5	14
39	Process design and economics for production of advanced biofuels from genetically modified lipid-producing sorghum. <i>Applied Energy</i> , 2019, 239, 1459-1470.	5.1	14
40	Comparative sustainability assessment of a hydrogen supply network for hydrogen refueling stations in Korea – a techno-economic and lifecycle assessment perspective. <i>Green Chemistry</i> , 2021, 23, 9625-9639.	4.6	14
41	Energy management of hydrogen refueling stations in a distribution system: A bilevel chance-constrained approach. <i>Journal of Power Sources</i> , 2022, 533, 231400.	4.0	14
42	Optimal Wavelet Packets for Characterizing Surface Quality. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 2590-2597.	1.8	12
43	Use of Wavelet Packet Transform in Characterization of Surface Quality. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 5152-5158.	1.8	11
44	Quantitative Structure–Retention Relationships with Non-Linear Programming for Prediction of Chromatographic Elution Order. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3443.	1.8	11
45	Determination of steel quality based on discriminating textural feature selection. <i>Chemical Engineering Science</i> , 2011, 66, 6264-6271.	1.9	10
46	Automatic Grading of TFT–LCD Glass Substrates Using Optimized Support Vector Machines–An abridged version of this paper appears in the Proceedings of the ADCHEM 2012, Singapore, July 2012.. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 10887-10894.	1.8	10
47	Integrated Bio-refinery Utilizing Brown Macroalgae: Process Design, Simulation and Techno-economical Assessment. <i>Computer Aided Chemical Engineering</i> , 2018, , 337-342.	0.3	9
48	Wavelet texture analysis in process industries. <i>Korean Journal of Chemical Engineering</i> , 2011, 28, 1814-1823.	1.2	8
49	Prediction of Chromatographic Elution Order of Analytical Mixtures Based on Quantitative Structure-Retention Relationships and Multi-Objective Optimization. <i>Molecules</i> , 2020, 25, 3085.	1.7	8
50	Life Cycle Assessment of Hydrogen Production from Imported Green Ammonia: A Korea Case Study. <i>Computer Aided Chemical Engineering</i> , 2021, , 147-152.	0.3	8
51	Predictive Capability of QSAR Models Based on the CompTox Zebrafish Embryo Assays: An Imbalanced Classification Problem. <i>Molecules</i> , 2021, 26, 1617.	1.7	8
52	Optimal Design of the Biofuel Supply Chain Utilizing Multiple Feedstocks: A Korean Case Study. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 14690-14703.	3.2	8
53	Quality Characterization and Classification of Engineered Stone Countertops Using a Soft-Sensor Based on Image Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 12337-12345.	1.8	7
54	Assessment of column selection systems using Partial Least Squares. <i>Journal of Chromatography A</i> , 2015, 1420, 74-82.	1.8	7

#	ARTICLE	IF	CITATIONS
55	Process Design and Techno-economic analysis of Hydrogen Production using Green Ammonia Imported from Australia- A Korea Case Study. Computer Aided Chemical Engineering, 2021, , 141-146.	0.3	7
56	Leveraging renewable oversupply using a chance-constrained optimization approach for a sustainable datacenter and hydrogen refueling station: Case study of California. Journal of Power Sources, 2022, 540, 231558.	4.0	7
57	Development of an automated method for modelling of bio-crudes originating from biofuel production processes based on thermochemical conversion. Applied Energy, 2018, 215, 670-678.	5.1	6
58	On feature selection for supervised learning problems involving high-dimensional analytical information. RSC Advances, 2016, 6, 82801-82809.	1.7	5
59	Design and analysis of a diesel processing unit for a molten carbonate fuel cell for auxiliary power unit applications. Korean Journal of Chemical Engineering, 2016, 33, 3381-3387.	1.2	5
60	Optimal Design of Macroalgae-based Integrated Biorefinery: Economic and Environmental Perspective. Computer Aided Chemical Engineering, 2020, 48, 793-798.	0.3	3
61	Bi-level Two-stage Stochastic Operation of Hydrogen-based Microgrids in a Distribution System. , 2021, , .		3
62	Quality Determination of Steel Surfaces Based on Best Feature Selection. Journal of Chemical Engineering of Japan, 2011, 44, 494-501.	0.3	2