Michael T Timko

List of Publications by Year
in descending order

80 papers	2,164 citations	182225 30 h-index	299063 42 g-index
81 all docs	81 docs citations	81 times ranked	2816 citing authors

#	Article	IF	Citations
1	Evaluation of characteristics of raw tea waste-derived adsorbents for removal of metals from aqueous medium. Biomass Conversion and Biorefinery, 2023, 13, 7811-7826.	2.9	9
2	Supercritical water promoted aromatics production using ZSM-5 catalyst. Fuel, 2022, 310, 122360.	3.4	2
3	Subcritical water hydrolysis of poultry feathers for amino acids production. Journal of Supercritical Fluids, 2022, 181, 105492.	1.6	16
4	Rapid Adsorption of Cationic Methylene Blue Dye onto Volcanic Ash-metakaolin Based Geopolymers. Silicon, 2022, 14, 9349-9359.	1.8	11
5	Direct quantification of the degree of polymerization of hydrolyzed cellulose by solid-state NMR spectroscopy. Cellulose, 2022, 29, 2131-2144.	2.4	12
6	Titrating Controlled Defects into Si-LTA Zeolite Crystals Using Multiple Organic Structure-Directing Agents. Chemistry of Materials, 2022, 34, 1789-1799.	3.2	6
7	Elucidating the role of reactive nitrogen intermediates in hetero-cyclization during hydrothermal liquefaction of food waste. Green Chemistry, 2022, 24, 5125-5141.	4.6	9
8	Cellobiose as a Model Carbohydrate for Predicting Solubilities in Nonaqueous Solvents. Industrial & Engineering Chemistry Research, 2021, 60, 1859-1871.	1.8	7
9	Rational design of solid-acid catalysts for cellulose hydrolysis using colloidal theory. Physical Chemistry Chemical Physics, 2021, 23, 10236-10243.	1.3	3
10	Metal oxide supported Ni-impregnated bifunctional catalysts for controlling char formation and maximizing energy recovery during catalytic hydrothermal liquefaction of food waste. Sustainable Energy and Fuels, 2021, 5, 941-955.	2.5	23
11	Valorization of MacaÃºba husks from biodiesel production using subcritical water hydrolysis pretreatment followed by anaerobic digestion. Journal of Environmental Chemical Engineering, 2021, 9, 105656.	3.3	14
12	Identifying Order and Disorder in Double Four-Membered Rings via Raman Spectroscopy during Crystallization of LTA Zeolite. Chemistry of Materials, 2021, 33, 6794-6803.	3.2	8
13	Thermodynamic feasibility of shipboard conversion of marine plastics to blue diesel for self-powered ocean cleanup. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2107250118.	3.3	7
14	A New Method for Solid Acid Catalyst Evaluation for Cellulose Hydrolysis. Sustainable Chemistry, 2021, 2, 645-669.	2.2	4
15	Analysis of coke formed during zeolite-catalyzed supercritical dodecane cracking: Effect of supercritical water. Applied Catalysis A: General, 2020, 590, 117330.	2.2	9
16	Prediction of fast pyrolysis products yields using lignocellulosic compounds and ash contents. Applied Energy, 2020, 257, 113897.	5.1	35
17	Experimental and Computational Evaluation of Heavy Metal Cation Adsorption for Molecular Design of Hydrothermal Char. Energies, 2020, 13, 4203.	1.6	7
18	Strategies for Extending Zeolite Stability in Supercritical Water Using Thermally Stable Coatings. ACS Catalysis, 2020, 10, 6623-6634.	5.5	14

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19	Hydrochar structural determination from artifact-free Raman analysis. Carbon, 2020, 167, 378-387.	5.4	13
20	Sequential subcritical water process applied to orange peel for the recovery flavanones and sugars. Journal of Supercritical Fluids, 2020, 160, 104789.	1.6	38
21	Rapid Depolymerization of Decrystallized Cellulose to Soluble Products via Ethanolysis under Mild Conditions. ChemSusChem, 2020, 13, 2634-2641.	3.6	7
22	Chemicals from heavy oils by <scp>ZSM</scp>â€5 catalysis in supercritical water: Model compound and reaction engineering. AICHE Journal, 2020, 66, aic16237.	1.8	5
23	Hydrothermal carbonization of olive wastes to produce renewable, binder-free pellets for use as metallurgical reducing agents. Renewable Energy, 2020, 155, 347-357.	4.3	39
24	Synergistic Effects of Inexpensive Mixed Metal Oxides for Catalytic Hydrothermal Liquefaction of Food Wastes. ACS Sustainable Chemistry and Engineering, 2020, 8, 6877-6886.	3.2	39
25	The effect of feedstock origin and temperature on the structure and reactivity of char from pyrolysis at 1300â€“2800â€¯Â°C. Fuel, 2019, 235, 306-316.	3.4	26
26	Characterization of the Fine Particle Emissions from the Use of Two Fischerâ€“Tropsch Fuels in a CFM56-2C1 Commercial Aircraft Engine. Energy & Fuels, 2019, 33, 8821-8834.	2.5	11
27	ZSM-5 decrystallization and dealumination in hot liquid water. Physical Chemistry Chemical Physics, 2019, 21, 17880-17892.	1.3	24
28	Binary Liquid Mixture Contact-Angle Measurements for Precise Estimation of Surface Free Energy. Langmuir, 2019, 35, 12317-12325.	1.6	62
29	Production of biofuel precursors and value-added chemicals from hydrolysates resulting from hydrothermal processing of biomass: A review. Biomass and Bioenergy, 2019, 130, 105397.	2.9	62
30	Comparative study of gaseous and high-pressure liquid reactions in industrial chemistry. Chemical Engineering and Processing: Process Intensification, 2019, 145, 107661.	1.8	0
31	Detailed kinetic model for hexyl sulfide pyrolysis and its desulfurization by supercritical water. Physical Chemistry Chemical Physics, 2019, 21, 10311-10324.	1.3	12
32	Flash Distillation of Bio-Oils for Simultaneous Production of Hydrocarbons and Green Coke. Industrial & Engineering Chemistry Research, 2019, 58, 1794-1802.	1.8	12
33	Engineered microbial biofuel production and recovery under supercritical carbon dioxide. Nature Communications, 2019, 10, 587.	5.8	39
34	A World Without Waste. IEEE Engineering Management Review, 2019, 47, 106-109.	1.0	8
35	Mode-specific, semi-volatile chemical composition of particulate matter emissions from a commercial gas turbine aircraft engine. Atmospheric Environment, 2019, 218, 116974.	1.9	17
36	Reaction engineering implications of cellulose crystallinity and water-promoted recrystallization. Green Chemistry, 2019, 21, 5541-5555.	4.6	40

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37	Critical Role of Tricyclic Bridges Including Neighboring Rings for Understanding Raman Spectra of Zeolites. Journal of the American Chemical Society, 2019, 141, 20318-20324.	6.6	32
38	Cellulase-Inspired Solid Acids for Cellulose Hydrolysis: Structural Explanations for High Catalytic Activity. ACS Catalysis, 2018, 8, 1464-1468.	5.5	40
39	Transdisciplinarity and the food energy and water nexus: Ecological modernization and supply chain sustainability perspectives. Resources, Conservation and Recycling, 2018, 133, 309-319.	5.3	75
40	Characterization and reactivity of soot from fast pyrolysis of lignocellulosic compounds and monolignols. Applied Energy, 2018, 212, 1489-1500.	5.1	41
41	Extraction Rate and Energy Efficiency of Supercritical Carbon Dioxide Recovery of Higher Alcohols from Dilute Aqueous Solution. Energy Technology, 2018, 6, 683-693.	1.8	13
42	An experimental and modeling study of vacuum residue upgrading in supercritical water. AICHE Journal, 2018, 64, 1732-1743.	1.8	26
43	Evidence of heterogeneous catalytic activity of ZSM-5 in supercritical water for dodecane cracking. Catalysis Today, 2018, 317, 2-11.	2.2	15
44	Catalytic Hydrothermal Liquefaction of Food Waste Using CeZrOx. Energies, 2018, 11, 564.	1.6	53
45	Inertia-driven jetting regimes in microfluidic coflows. Physical Review Fluids, 2018, 3, .	1.0	7
46	Formation of an external char layer during subcritical water hydrolysis of biomass. Sustainable Energy and Fuels, 2017, 1, 1950-1959.	2.5	13
47	Spectroscopic tracking of mechanochemical reactivity and modification of a hydrothermal char. RSC Advances, 2016, 6, 12021-12031.	1.7	18
48	Development of an aerosol mass spectrometer lens system for PM2.5. Aerosol Science and Technology, 2016, 50, 781-789.	1.5	39
49	Formation and characterization of emulsions consisting of dense carbon dioxide and water: Ultrasound. Journal of Supercritical Fluids, 2016, 109, 51-60.	1.6	16
50	Roles of surface chemistry and structural defects of activated carbons in the oxidative desulfurization of benzothiophenes. Fuel, 2016, 163, 223-231.	3.4	58
51	Upgrading and desulfurization of heavy oils by supercritical water. Journal of Supercritical Fluids, 2015, 96, 114-123.	1.6	109
52	Composition and Sources of the Organic Particle Emissions from Aircraft Engines. Aerosol Science and Technology, 2014, 48, 61-73.	1.5	23
53	Combining experiment and theory to elucidate the role of supercritical water in sulfide decomposition. Physical Chemistry Chemical Physics, 2014, 16, 9220-9228.	1.3	56
54	Response of Different Types of Sulfur Compounds to Oxidative Desulfurization of Jet Fuel. Energy & Fuels, 2014, 28, 2977-2983.	2.5	34

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55	The role of catalyst in supercritical water desulfurization. Applied Catalysis B: Environmental, 2014, 147, 144-155.	10.8	63
56	Supercritical Water Desulfurization of Organic Sulfides Is Consistent with Free-Radical Kinetics. Energy & Fuels, 2013, 27, 6108-6117.	2.5	90
57	Measurement of Volatile Particulate Matter Emissions From Aircraft Engines Using a Simulated Plume Aging System. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	5
58	Oxidative Desulfurization of Middle-Distillate Fuels Using Activated Carbon and Power Ultrasound. Energy & Fuels, 2012, 26, 5164-5176.	2.5	49
59	Determination of the emissions from an aircraft auxiliary power unit (APU) during the Alternative Aviation Fuel Experiment (AAFEX). Journal of the Air and Waste Management Association, 2012, 62, 420-430.	0.9	53
60	Identification of Lubrication Oil in the Particulate Matter Emissions from Engine Exhaust of In-Service Commercial Aircraft. Environmental Science & Technology, 2012, 46, 9630-9637.	4.6	32
61	Power-dependent speciation of volatile organic compounds in aircraft exhaust. Atmospheric Environment, 2012, 61, 275-282.	1.9	16
62	Fractionation of multi-component hydrocarbon droplets in water at supercritical or near-critical conditions. Journal of Supercritical Fluids, 2012, 72, 150-160.	1.6	17
63	Mixing of single-component hydrocarbon droplets and water at supercritical or near-critical conditions. Journal of Supercritical Fluids, 2012, 67, 29-40.	1.6	17
64	Combustion Products of Petroleum Jet Fuel, a Fischerâ€“Tropsch Synthetic Fuel, and a Biomass Fatty Acid Methyl Ester Fuel for a Gas Turbine Engine. Combustion Science and Technology, 2011, 183, 1039-1068.	1.2	45
65	Design Parameters for an Aircraft Engine Exit Plane Particle Sampling System. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	10
66	Measurement of Volatile Particulate Matter Emissions From Aircraft Engines Using a Simulated Plume Aging System. , 2011, , .		0
67	Gas Turbine Engine Emissionsâ€”Part I: Volatile Organic Compounds and Nitrogen Oxides. Journal of Engineering for Gas Turbines and Power, 2010, 132, .	0.5	31
68	Gas Turbine Engine Emissionsâ€”Part II: Chemical Properties of Particulate Matter. Journal of Engineering for Gas Turbines and Power, 2010, 132, .	0.5	87
69	Gaseous and Particulate Emissions Results of the NASA Alternative Aviation Fuel Experiment (AAFEX). , 2010, , .		28
70	Characterization of Lubrication Oil Emissions from Aircraft Engines. Environmental Science & Technology, 2010, 44, 9530-9534.	4.6	27
71	Sampling Artifacts from Conductive Silicone Tubing. Aerosol Science and Technology, 2009, 43, 855-865.	1.5	68
72	Speciation and Chemical Evolution of Nitrogen Oxides in Aircraft Exhaust near Airports. Environmental Science & Technology, 2008, 42, 1884-1891.	4.6	47

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73	Microphysical Modeling of Ground-Level Aircraft-Emitted Aerosol Formation: Roles of Sulfur-Containing Species. Journal of Propulsion and Power, 2008, 24, 590-602.	1.3	38
74	Improved Conversion and Selectivity of a Dielsâ˜Alder Cycloaddition by Use of Emulsions of Carbon Dioxide and Water. Industrial & Engineering Chemistry Research, 2006, 45, 1594-1603.	1.8	10
75	Reaction rates in ultrasonic emulsions of dense carbon dioxide and water. AICHE Journal, 2006, 52, 1127-1141.	1.8	15
76	Solvophobic Acceleration of Dielsâ˜Alder Reactions in Supercritical Carbon Dioxide. Journal of the American Chemical Society, 2004, 126, 5465-5474.	6.6	42
77	Partition Coefficients of Organic Solutes between Supercritical Carbon Dioxide and Water:â€‰ Experimental Measurements and Empirical Correlations. Journal of Chemical & Engineering Data, 2004, 49, 768-778.	1.0	33
78	Ultrasonic Emulsification of Liquid, Near-Critical Carbon Dioxideâ˜Water Biphasic Mixtures for Acceleration of a Hydrolysis Reaction. Journal of Physical Chemistry A, 2003, 107, 5503-5507.	1.1	18
79	Mechanochemical Pretreatment for Wasteâ€Free Conversion of Bamboo to Simple Sugars: Utilization of Available Resources for Developing Economies. Advanced Sustainable Systems, 0, , 2100286.	2.7	4
80	Improving Yields and Catalyst Reuse for Palmitic Acid Aromatization in the Presence of Pressurized Water. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	1