Joshua S Heyne

List of Publications by Year
in descending order

59	1,928	471061 17	344852 36
papers	citations	h-index	g-index

63	63	63	1079
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A jet fuel surrogate formulated by real fuel properties. Combustion and Flame, 2010, 157, 2333-2339.	2.8	484
2	The experimental evaluation of a methodology for surrogate fuel formulation to emulate gas phase combustion kinetic phenomena. Combustion and Flame, 2012, 159, 1444-1466.	2.8	355
3	Overview of the National Jet Fuels Combustion Program. AIAA Journal, 2017, 55, 1087-1104.	1.5	176
4	Ignition characteristics of a bio-derived class of saturated and unsaturated furans for engine applications. Proceedings of the Combustion Institute, 2015, 35, 2957-2965.	2.4	77
5	Emulating the Combustion Behavior of Real Jet Aviation Fuels by Surrogate Mixtures of Hydrocarbon Fluid Blends: Implications for Science and Engineering. Energy & Fuels, 2014, 28, 3474-3485.	2.5	70
6	Toward net-zero sustainable aviation fuel with wet wasteâ€“derived volatile fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	63
7	Sustainable aviation fuel prescreening tools and procedures. Fuel, 2021, 290, 120004.	3.4	56
8	Autoignition Studies oftrans- andcis-Decalin in an Ignition Quality Tester (IQT) and the Development of a High Thermal Stability Unifuel/Single Battlefield Fuel. Energy & Fuels, 2009, 23, 5879-5885.	2.5	46
9	A chemical kinetic study of tertiary-butanol in a flow reactor and a counterflow diffusion flame. Combustion and Flame, 2012, 159, 968-978.	2.8	46
10	Importance of a Cycloalkane Functionality in the Oxidation of a Real Fuel. Energy & Fuels, 2014, 28, 7649-7661.	2.5	44
11	A machine learning framework for drop-in volume swell characteristics of sustainable aviation fuel. Fuel, 2020, 274, 117832.	3.4	39
12	A GCÂÃ—ÂGC Tier <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mi>Î±</mml:mi></mml:math> combustor operability prescreening method for sustainable aviation fuel candidates. Fuel, 2021, 292, 120345.	3.4	35
13	High-performance jet fuel optimization and uncertainty analysis. Fuel, 2020, 281, 118718.	3.4	29
14	Towards fuel composition and properties from Two-dimensional gas chromatography with flame ionization and vacuum ultraviolet spectroscopy. Fuel, 2022, 312, 122709.	3.4	27
15	Realizing â€œnet-zero-carbonâ€•sustainable aviation fuel. Joule, 2022, 6, 16-21.	11.7	24
16	Year 3 of the National Jet Fuels Combustion Program: Practical and Scientific Impacts of Alternative Jet Fuel Research. , 2018, , .		23
17	Perspectives on Fully Synthesized Sustainable Aviation Fuels: Direction and Opportunities. Frontiers in Energy Research, 2022, 9, .	1.2	20
18	Year 2 of the National Jet Fuels Combustion Program: Towards a Streamlined Alternative Jet Fuels Certification Process. , 2017, , .		19

#	Article	IF	Citations
19	Sustainable Aviation Fuels Approval Streamlining: Auxiliary Power Unit Lean Blowout Testing. AIAA Journal, 2019, 57, 4854-4862.	1.5	19
20	Sustainable Aviation Fuel from Hydrothermal Liquefaction of Wet Wastes. Energies, 2022, 15, 1306.	1.6	18
21	Chemical compositions and properties of lignin-based jet fuel range hydrocarbons. Fuel, 2019, 256, 115947.	3.4	15
22	Analyzing the ignition differences between conventional spark discharges and nanosecond-pulsed high-frequency discharges. Proceedings of the Combustion Institute, 2021, 38, 6615-6622.	2.4	14
23	Sustainable alternative fuel effects on energy consumption of jet engines. Fuel, 2021, 304, 121378.	3.4	14
24	Lignin-based jet fuel and its blending effect with conventional jet fuel. Fuel, 2022, 321, 124040.	3.4	13
25	Analyzing the Relative Impact of Spray and Volatile Fuel Properties on Gas Turbine Combustor Ignition in Multiple Rig Geometries. , 2019, , .		12
26	Lower heating value of jet fuel from hydrocarbon class concentration data and thermo-chemical reference data: An uncertainty quantification. Fuel, 2022, 311, 122542.	3.4	12
27	Synthetic aromatic kerosene property prediction improvements with isomer specific characterization via GCxGC and vacuum ultraviolet spectroscopy. Fuel, 2022, 326, 125002.	3.4	12
28	Uncertainty Analysis in the Use of Chemical Thermometry: A Case Study with Cyclohexene. Journal of Physical Chemistry A, 2013, 117, 5401-5406.	1.1	11
29	Investigation of Combustion Emissions from Conventional and Alternative Aviation Fuels in a Well-Stirred Reactor. , 2017, , .		11
30	Improvement in Jet Aircraft Operation with the Use of High-Performance Drop-in Fuels. , 2019, , .		11
31	Properties Calculator and Optimization for Drop-in Alternative Jet Fuel Blends. , 2019, , .		11
32	Decomposition Studies of Isopropanol in aâ€¯â€¯Variable Pressure Flow Reactor. Zeitschrift Fur Physikalische Chemie, 2015, 229, 881-907.	1.4	10
33	On the Development of General Surrogate Composition Calculations for Chemical and Physical Properties. , 2017, , .		9
34	Lean Blowoff in a Toroidal Jet-Stirred Reactor: Implications for Alternative Fuel Approval and Potential Mechanisms for Autoignition and Extinction. Energy & Fuels, 2020, 34, 6306-6316.	2.5	9
35	Threshold Sooting Index of Sustainable Aviation Fuel Candidates from Composition Input Alone: Progress toward Uncertainty Quantification. Energy & Fuels, 2022, 36, 1916-1928.	2.5	9
36	The Impact of Preferential Vaporization on Lean Blowout in a Referee Combustor at Figure of Merit Conditions. , 2018, , .		8

#	Article	IF	Citations
37	The impact of residence time on ignitability and time to ignition in a toroidal jet-stirred reactor. Proceedings of the Combustion Institute, 2019, 37, 5039-5046.	2.4	8
38	Characteristic Timescales for Lean Blowout of Alternative Jet Fuels. , 2018, , .		7
39	Fuel and Operating Condition Effects on Lean Blowout in a Swirl-Stabilized Single-Cup Combustor. , 2020, , .		7
40	Chemical and physical effects on lean blowout in a swirl-stabilized single-cup combustor. Proceedings of the Combustion Institute, 2021, 38, 6309-6316.	2.4	7
41	Comparing Alternative Jet Fuel Dependencies Between Combustors of Different Size and Mixing Approaches. Frontiers in Energy Research, 2021, 9, .	1.2	6
42	Experimental Validation of Viscosity Blending Rules and Extrapolation for Sustainable Aviation Fuel. , 2020, , .		5
43	Simultaneous measurements of refractive index, surface tension, and evaporation rate of Jet A fuel. Applied Optics, 2019, 58, 4326.	0.9	5
44	Dehydration Rate Measurements for tertiary-Butanol in a Variable Pressure Flow Reactor. Journal of Physical Chemistry A, 2013, 117, 8997-9004.	1.1	4
45	Orthogonal Reference Surrogate Fuels for Operability Testing. Energies, 2020, 13, 1948.	1.6	4
46	Prescreening of Sustainable Aviation Jet Fuels. , 2021, , 487-523.		4
47	Combustion Modeling Software Development, Verification and Validation. , 2018, , .		3
48	Maximizing net fuel economy improvement from fusel alcohol blends in gasoline using multivariate optimization. Fuel Communications, 2022, 11, 100059.	2.0	3
49	An Investigation on Kernel Growth Variations between Conventional Spark Discharges and Nanosecond-Pulsed High-Frequency Discharges. , 2020, , .		2
50	The Co-Optimization of Sustainable Aviation Fuel: Cost, Emissions, and Performance. , 2021, , .		2
51	Lean Blowout Studies. , 2021, , 143-196.		2
52	Optical Dilatometry Measurements for the Quantification of Sustainable Aviation Fuel Materials Compatibility. , 2022, , .		2
53	See-through-wall Radar REMPI for Spatially Localized Temperature Measurements in a Well-Stirred Reactor. , 2017, , .		1
54	Analyzing the Impact Discharge Type and Power Loadings have on Ignition Kernel Development in a Reactive Flow. , 2021, , .		1

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55	Optimization of Sustainable Alternative Fuel Composition for Improved Energy Consumption of Jet Engines. , 2022, , .		1
56	Chemical Kinetic Study of the Alternative Transport Fuel, tertiary-Butanol. , 2011, , .		0
57	Correction: Characteristic Timescales for Lean Blowout of Alternative Jet Fuels. , 2018, , .		0
58	Propagation of Gaseous Detonations in 2D Curved Channels. , 2020, , .		0
59	Determination of a Freeze Point Blend Prediction Model for Jet Fuel Range Hydrocarbons. , 2022, , .		0