

# Kareem A Ahmed

## List of Publications by Year in descending order

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Turbulence-Driven Blowout Instabilities of Premixed Bluff-Body Flames. Flow, Turbulence and Combustion, 2022, 108, 213-236.	1.4	9
2	Characteristics of a Single Sensor Fiber-Coupled Three-Dimensional Particle Image Velocimetry for Reacting Flow-Fields. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, .	0.8	1
3	Modal Analysis of Breakup Mechanisms for a Liquid Jet in Crossflow. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	2
4	A Parametric Study of Hydrocarbon Fast Flames. , 2022, , .		0
5	Spontaneous runaway of fast turbulent flames for turbulence-induced deflagration-to-detonation transition. Physics of Fluids, 2022, 34, .	1.6	15
6	C2*/CH* Intensity Ratios of Bluff Body Stabilized Flames Approaching Lean Blowout at Elevated Pressures. , 2022, , .		0
7	Experimental Study of Oblique Detonation Waves with Varied Ramp Geometries. , 2022, , .		1
8	Development of an Automatic-Calibrating Small-Scale Thrust Stand for Rotating Detonation Rocket Engines. , 2022, , .		1
9	Human Research Study of Particulate Propagation Distance From Human Respiratory Function. Journal of Infectious Diseases, 2022, 225, 1321-1329.	1.9	3
10	Flow-Independent Liquid Jet-in-Crossflow Injection Using Physical Obstructions. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	2
11	The role of flow confinement on turbulent kinetic energy transfer across premixed flames. Combustion and Flame, 2022, 241, 112103.	2.8	4
12	Experimental Investigation of Injector Sizing In The Rotating Detonation Rocket Engine. , 2022, , .		2
13	Stability and Extinction of Premixed Flames at High-Altitude Pressures. , 2022, , .		0
14	The effect of relative air humidity on the evaporation timescales of a human sneeze. AIP Advances, 2022, 12, .	0.6	8
15	Numerical investigation of the accuracy of particle image velocimetry technique in gas-phase detonations. Proceedings of the Combustion Institute, 2021, 38, 3671-3681.	2.4	9
16	Optimization of flame kernel ignition and evolution induced by modulated nanosecond-pulsed high-frequency discharge. Proceedings of the Combustion Institute, 2021, 38, 6541-6550.	2.4	9
17	Controlled detonation initiation in hypersonic flow. Proceedings of the Combustion Institute, 2021, 38, 3513-3520.	2.4	7
18	The effects of turbulence on the lean blowout mechanisms of bluff-body flames. Proceedings of the Combustion Institute, 2021, 38, 6317-6325.	2.4	10

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19	Ignition mechanisms of pulse detonator initiated scramjet cavity. Proceedings of the Combustion Institute, 2021, 38, 3853-3860.	2.4	3
20	Turbulent flame-vortex dynamics of bluff-body premixed flames. Combustion and Flame, 2021, 223, 28-41.	2.8	16
21	Efficacy and Viability of Tomographic Imaging in Combustion Applications. , 2021, , .		0
22	Design and Characterization of Mach 5 Flow for Highly Turbulent Hypersonic Test Facility. , 2021, , .		0
23	The Dynamics of Turbulent Hydrocarbon Fast-Flames. , 2021, , .		0
24	The effects of turbulence and pressure gradients on vorticity transport in premixed bluff-body flames. Physics of Fluids, 2021, 33, .	1.6	13
25	Partial Premixing Effects on the Reacting Jet of a High-Pressure Axially Staged Combustor. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	0.5	5
26	Stabilized detonation for hypersonic propulsion. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	42
27	Energy deposition characteristics of a pulsed detonation igniter through geometric manipulation. Combustion and Flame, 2021, 229, 111384.	2.8	2
28	Single-sensor filter-intensified fiber optic 4D tomographic CH* chemiluminescence flame measurements. Applied Optics, 2021, 60, 6337.	0.9	4
29	Validation of Experimental Evidence for H <sub>2</sub> /O <sub>2</sub> Powered Rotating Detonation Rocket Engine. , 2021, , .		1
30	Investigation of Compressible Turbulent Hydrocarbon Fast Flames to DDT. , 2021, , .		0
31	Description and Application of a Software Tool for Simulation of Tomographic PIV Data. , 2021, , .		1
32	Heat Transfer Measurements in an Elevated Pressure RDRE Combustor. , 2021, , .		2
33	Carbon and Hydrocarbon Particle Seeding in Air-breathing Rotating Detonation Engine. Journal of Engineering for Gas Turbines and Power, 2021, , .	0.5	1
34	Effect of saliva fluid properties on pathogen transmissibility. Scientific Reports, 2021, 11, 16051.	1.6	6
35	The effect of premixed stratification on the wave dynamics of a rotating detonation combustor. International Journal of Hydrogen Energy, 2021, 46, 27816-27826.	3.8	20
36	The evolution of pressure gain in turbulent fast flames. Combustion and Flame, 2021, 234, 111641.	2.8	13

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37	Influence of Transverse Slot Jet on Premixed Flame Acceleration. Journal of Propulsion and Power, 2020, 36, 59-67.	1.3	4
38	A study of fluid dynamics and human physiology factors driving droplet dispersion from a human sneeze. Physics of Fluids, 2020, 32, 111904.	1.6	65
39	Investigation of Hydrocarbon Fast-Flame Regimes for Flame Acceleration to Detonation. , 2020, , .		0
40	The Influence of Vorticity on Turbulent Premixed Flames. , 2020, , .		1
41	Insights of Bluff-Body Extinction and Blowout from 4D Measurements. , 2020, , .		0
42	Pressure gradient tailoring effects on the mechanisms of bluff-body flame extinction. Combustion and Flame, 2020, 215, 224-237.	2.8	17
43	Experimental evidence of H <sub>2</sub> /O <sub>2</sub> propellants powered rotating detonation waves. Combustion and Flame, 2020, 214, 136-138.	2.8	32
44	High-Speed 4D Flame-Flow Measurements of a Bluff-Body Stabilized Premixed Flame. , 2020, , .		0
45	Compressible turbulent flame speeds of highly turbulent standing flames. Proceedings of the Combustion Institute, 2019, 37, 3495-3502.	2.4	23
46	Wedge-Stabilized Oblique Detonation Waves in a Hypersonic Hydrogen-Air Premixed Freestream. , 2019, , .		4
47	A unified mechanism for unconfined deflagration-to-detonation transition in terrestrial chemical systems and type Ia supernovae. Science, 2019, 366, .	6.0	82
48	Lagrangian Flame-Vorticity Characterization of Bluff-Body Flame Blowout. , 2019, , .		1
49	Supersonic driven detonation dynamics for rotating detonation engines. International Journal of Hydrogen Energy, 2019, 44, 7596-7606.	3.8	32
50	Mechanisms of flame extinction and lean blowout of bluff body stabilized flames. Combustion and Flame, 2019, 203, 31-45.	2.8	37
51	Single sensor fiber-based high-speed tomographic particle image velocimetry. Optics Letters, 2019, 44, 2748.	1.7	6
52	Dynamic gas flow effects on the ESD of aerospace vehicle surfaces. Journal of Electrostatics, 2018, 91, 21-27.	1.0	2
53	Relationship between the Chemiluminescence Intensity Ratio of C <sub>2</sub> * and CH*, Charge Pressure, and Equivalence Ratio for Gasoline. Energy & Fuels, 2018, 32, 10933-10940.	2.5	9
54	Pressure-gradient tailoring effects on the turbulent flame-vortex dynamics of bluff-body premixed flames. Combustion and Flame, 2018, 197, 227-242.	2.8	30

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55	Design & Development of a Hypersonic Combustor for Oblique Detonation Wave Stabilization. , 2017, , .		8
56	Lagrangian mechanisms of flame extinction for lean turbulent premixed flames. Fuel, 2017, 194, 239-256.	3.4	27
57	On the Flame-generated Vorticity Dynamics of Bluff-body-stabilized Premixed Flames. Flow, Turbulence and Combustion, 2017, 99, 487-509.	1.4	27
58	Turbulent flame augmentation using a fluidic jet for Deflagration-to-Detonation. Fuel, 2017, 199, 616-626.	3.4	37
59	Flame-turbulence interaction of laminar premixed deflagrated flames. Combustion and Flame, 2017, 176, 439-450.	2.8	58
60	Turbulence Induced Deflagration-to-Detonation Transition. , 2017, , .		0
61	Structured light-field focusing for flowfield diagnostics. Experimental Thermal and Fluid Science, 2017, 89, 110-118.	1.5	5