

Ajay K Agrawal

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

977
citations

430874

18
h-index

454955

30
g-index

60
all docs

60
docs citations

60
times ranked

532
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of Inlet Boundary Conditions on Fuel-Air Mixing at Supercritical Conditions. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	2.3	3
2	Effects of Porous versus Solid Inserts Pertaining to Instability Mitigation in Lean Direct Injection Combustion. , 2022, , .		0
3	Transient mixing behavior of a supercritical fluid injected into supercritical and subcritical environments. Physics of Fluids, 2022, 34, .	4.0	7
4	Simultaneous rainbow schlieren deflectometry and OH* chemiluminescence imaging of a diesel spray flame in constant pressure flow rig. Proceedings of the Combustion Institute, 2021, 38, 5557-5565.	3.9	8
5	Quantitative concentration measurements in a turbulent helium jet using rainbow schlieren deflectometry. Experiments in Fluids, 2021, 62, 1.	2.4	5
6	Comparing Global Spray Combustion Characteristics and Local Shot-to-Shot Variations in a Reacting n-Heptane Spray. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	4
7	Implications of real-gas behavior on refractive index calculations for optical diagnostics of fuel-air mixing at high pressures. Combustion and Flame, 2020, 214, 47-56.	5.2	10
8	OH* Chemiluminescence Imaging of the Combustion Products From a Methane-Fueled Rotating Detonation Engine. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	20
9	Effects of Porous versus Solid Inserts Pertaining to Instability Mitigation in Lean Direct Injection Combustion. , 2019, , .		2
10	Phase boundary detection in transient, evaporating high-pressure fuel sprays by rainbow schlieren deflectometry. Applied Optics, 2019, 58, 6791.	1.8	12
11	RAINBOW SCHLIEREN DEFLECTOMETRY FOR SCALAR MEASUREMENTS IN FLUID FLOWS. Journal of Flow Visualization and Image Processing, 2018, 25, 329-357.	0.5	18
12	Twin-Fluid Atomized Spray Combustion of Straight Vegetable Oil at Elevated Pressures. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	1.1	1
13	Computational Analysis of Two-Phase Mixing Inside a Twin-Fluid, Fuel-Flexible Atomizer. , 2017, , .		6
14	Twin-Fluid Atomized Spray Combustion of Straight Vegetable Oil at Elevated Pressures. , 2017, , .		1
15	High-Speed Rainbow Schlieren Deflectometry of n-Heptane Sprays Using a Common Rail Diesel Injector. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	2.3	1
16	Quantifying liquid boundary and vapor distributions in a fuel spray by rainbow schlieren deflectometry. Applied Optics, 2017, 56, 8385.	1.8	14
17	Effect of Preheating on Flame Structure of a Swirl Stabilized Combustor With Porous Insert to Control Thermoacoustics. , 2016, , .		1
18	Passive control of thermoacoustic instabilities in swirl-stabilized combustion at elevated pressures. International Journal of Spray and Combustion Dynamics, 2016, 8, 173-182.	1.0	12

#	ARTICLE	IF	CITATIONS
19	Low-Emission, Liquid Fuel Combustion System for Conventional and Alternative Fuels Developed by the Scaling Analysis. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	1.1	12
20	Effect of Reactant Inlet Temperature on Passive Mitigation of Thermo-acoustic Instabilities by Implementation of 3D Additive Manufactured Metallic Porous Insert. , 2016, , .		0
21	Effect of porous insert on flame dynamics in a lean premixed swirl-stabilized combustor using planar laser-induced fluorescence. , 2016, , .		1
22	Low Emission, Liquid Fuel Combustion System for Conventional and Alternative Fuels Developed by the Scaling Analysis. , 2015, , .		0
23	Porous Inserts for Passive Control of Noise and Thermo-Acoustic Instabilities in LDI Combustion. Combustion Science and Technology, 2015, 187, 1021-1035.	2.3	11
24	Investigation of Glycerol Atomization in the Near-Field of a Flow-Blurring Injector using Time-Resolved PIV and High-Speed Visualization. Flow, Turbulence and Combustion, 2015, 94, 323-338.	2.6	37
25	Time-Resolved Particle Image Velocimetry Measurements of Nonreacting Flow Field in a Swirl-Stabilized Combustor Without and With Porous Inserts for Acoustic Control. Journal of Engineering for Gas Turbines and Power, 2015, 137, .	1.1	4
26	Time-resolved PIV of lean premixed combustion without and with porous inert media for acoustic control. Combustion and Flame, 2015, 162, 1063-1077.	5.2	26
27	Spray features in the near field of a flow-blurring injector investigated by high-speed visualization and time-resolved PIV. Experiments in Fluids, 2015, 56, 1.	2.4	32
28	Combustion of straight glycerol with/without methane using a fuel-flexible, low-emissions burner. Fuel, 2014, 136, 177-184.	6.4	45
29	Clean combustion of different liquid fuels using a novel injector. Experimental Thermal and Fluid Science, 2014, 57, 275-284.	2.7	47
30	Time-Resolved PIV Measurements of Non-Reacting Flow Field in a Swirl-Stabilized Combustor Without and With Porous Inserts for Acoustic Control. , 2014, , .		3
31	High Speed Visualization and PIV Measurements in the Near Field of Spray Produced by Flow-Blurring Atomization. , 2014, , .		8
32	Turbulence Measurements for Numerical Validation Acquired by Ultra High-speed Rainbow Schlieren Deflectometry. , 2014, , .		1
33	Low-Emission, Fuel-Flexible Combustion of Liquid Fuels. , 2014, , 457-481.		0
34	Measurements in a Combustor Operated on Alternative Liquid Fuels. , 2012, , .		3
35	Passive Control of Noise and Instability in a Swirl-Stabilized Combustor With the Use of High-Strength Porous Insert. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	1.1	13
36	Acoustic Effects of Porous Inert Media on Lean Premixed Combustion at Elevated Pressures. , 2012, , .		2

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37	Flow Blurring Atomization for Low-Emission Combustion of Liquid Biofuels. Combustion Science and Technology, 2012, 184, 660-675.	2.3	57
38	Passive Control of Noise and Instability in a Swirl-Stabilized Combustor With the Use of High-Strength Porous Insert. , 2011, , .		0
39	Investigation of the Cross-beam Correlation Algorithm to Reconstruct Local Field Statistics from Line-of-sight Measurements in Turbulent Flows. Flow, Turbulence and Combustion, 2010, 84, 617-638.	2.6	4
40	SPRAY CHARACTERISTICS OF A FLOW-BLURRING ATOMIZER. Atomization and Sprays, 2010, 20, 821-835.	0.8	43
41	Combustion Performance of Biodiesel and Diesel-Vegetable Oil Blends in a Simulated Gas Turbine Burner. Journal of Engineering for Gas Turbines and Power, 2009, 131, .	1.1	44
42	A novel spectral analysis algorithm to obtain local scalar field statistics from line-of-sight measurements in turbulent flows. Measurement Science and Technology, 2009, 20, 115402.	2.6	4
43	A novel meso-scale combustion system for operation with liquid fuels. Proceedings of the Combustion Institute, 2009, 32, 3155-3162.	3.9	57
44	Abel inversion of deflectometric data: comparison of accuracy and noise propagation of existing techniques. Applied Optics, 2009, 48, 3894.	2.1	48
45	A Comparison of Air-Blast and Flow-Blurring Injectors Using Phase Doppler Particle Analyzer Technique. , 2009, , .		20
46	Computational study of buoyancy effects in a laminar starting jet. International Journal of Heat and Fluid Flow, 2008, 29, 527-539.	2.4	12
47	Combustion Performance of Liquid Biofuels in a Swirl-Stabilized Burner. Journal of Engineering for Gas Turbines and Power, 2008, 130, .	1.1	35
48	Liquid Fuel Combustion Using Heat Recirculation Through Annular Porous Media. Journal of Engineering for Gas Turbines and Power, 2007, 129, 914-919.	1.1	6
49	INVESTIGATION OF A MINIATURE COMBUSTOR USING POROUS MEDIA SURFACE STABILIZED FLAME. Combustion Science and Technology, 2007, 179, 1901-1922.	2.3	35
50	Liquid fuel combustion within silicon-carbide coated carbon foam. Experimental Thermal and Fluid Science, 2007, 32, 117-125.	2.7	44
51	Mesoscale, Porous Media Heat Recirculating Combustor. , 2006, , .		3
52	Effect of Porous Media Configuration on Combustion of Kerosene. , 2006, , .		4
53	Flow structure in the near-field of buoyant low-density gas jets. International Journal of Heat and Fluid Flow, 2006, 27, 336-347.	2.4	31
54	Computational Analysis of Gravitational Effects in Low-Density Gas Jets. AIAA Journal, 2006, 44, 1505-1515.	2.6	9

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55	EFFECTS OF BUOYANCY ON TRANSITIONAL HYDROGEN GAS-JET DIFFUSION FLAMES. Combustion Science and Technology, 2005, 177, 305-322.	2.3	9
56	Buoyancy effects on flow transition in low-density inertial gas jets. Experiments in Fluids, 2005, 38, 541-544.	2.4	5
57	Influence of Hydrogen Addition on Flow Structure in Confined Swirling Methane Flame. Journal of Propulsion and Power, 2005, 21, 16-24.	2.2	22
58	Numerical Analysis of Flow Evolution in a Helium Jet Injected Into Ambient Air. , 2004, , 1267.		2
59	Schlieren measurements and analysis of concentration field in self-excited helium jets. Physics of Fluids, 2003, 15, 3683-3692.	4.0	28
60	Schlieren analysis of an oscillating gas-jet diffusion flame. Combustion and Flame, 1999, 119, 84-94.	5.2	85