

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	Schlieren analysis of an oscillating gas-jet diffusion flame. <i>Combustion and Flame</i> , 1999, 119, 84-94.	5.2	85
2	A novel meso-scale combustion system for operation with liquid fuels. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 3155-3162.	3.9	57
3	Flow Blurring Atomization for Low-Emission Combustion of Liquid Biofuels. <i>Combustion Science and Technology</i> , 2012, 184, 660-675.	2.3	57
4	Abel inversion of deflectometric data: comparison of accuracy and noise propagation of existing techniques. <i>Applied Optics</i> , 2009, 48, 3894.	2.1	48
5	Clean combustion of different liquid fuels using a novel injector. <i>Experimental Thermal and Fluid Science</i> , 2014, 57, 275-284.	2.7	47
6	Combustion of straight glycerol with/without methane using a fuel-flexible, low-emissions burner. <i>Fuel</i> , 2014, 136, 177-184.	6.4	45
7	Liquid fuel combustion within silicon-carbide coated carbon foam. <i>Experimental Thermal and Fluid Science</i> , 2007, 32, 117-125.	2.7	44
8	Combustion Performance of Biodiesel and Diesel-Vegetable Oil Blends in a Simulated Gas Turbine Burner. <i>Journal of Engineering for Gas Turbines and Power</i> , 2009, 131, .	1.1	44
9	SPRAY CHARACTERISTICS OF A FLOW-BLURRING ATOMIZER. <i>Atomization and Sprays</i> , 2010, 20, 821-835.	0.8	43
10	Investigation of Glycerol Atomization in the Near-Field of a Flow-Blurring Injector using Time-Resolved PIV and High-Speed Visualization. <i>Flow, Turbulence and Combustion</i> , 2015, 94, 323-338.	2.6	37
11	INVESTIGATION OF A MINIATURE COMBUSTOR USING POROUS MEDIA SURFACE STABILIZED FLAME. <i>Combustion Science and Technology</i> , 2007, 179, 1901-1922.	2.3	35
12	Combustion Performance of Liquid Biofuels in a Swirl-Stabilized Burner. <i>Journal of Engineering for Gas Turbines and Power</i> , 2008, 130, .	1.1	35
13	Spray features in the near field of a flow-blurring injector investigated by high-speed visualization and time-resolved PIV. <i>Experiments in Fluids</i> , 2015, 56, 1.	2.4	32
14	Flow structure in the near-field of buoyant low-density gas jets. <i>International Journal of Heat and Fluid Flow</i> , 2006, 27, 336-347.	2.4	31
15	Schlieren measurements and analysis of concentration field in self-excited helium jets. <i>Physics of Fluids</i> , 2003, 15, 3683-3692.	4.0	28
16	Time-resolved PIV of lean premixed combustion without and with porous inert media for acoustic control. <i>Combustion and Flame</i> , 2015, 162, 1063-1077.	5.2	26
17	Influence of Hydrogen Addition on Flow Structure in Confined Swirling Methane Flame. <i>Journal of Propulsion and Power</i> , 2005, 21, 16-24.	2.2	22
18	A Comparison of Air-Blast and Flow-Blurring Injectors Using Phase Doppler Particle Analyzer Technique. , 2009, , .		20

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19	OH* Chemiluminescence Imaging of the Combustion Products From a Methane-Fueled Rotating Detonation Engine. <i>Journal of Engineering for Gas Turbines and Power</i> , 2019, 141, .	1.1	20
20	RAINBOW SCHLIEREN DEFLECTOMETRY FOR SCALAR MEASUREMENTS IN FLUID FLOWS. <i>Journal of Flow Visualization and Image Processing</i> , 2018, 25, 329-357.	0.5	18
21	Quantifying liquid boundary and vapor distributions in a fuel spray by rainbow schlieren deflectometry. <i>Applied Optics</i> , 2017, 56, 8385.	1.8	14
22	Passive Control of Noise and Instability in a Swirl-Stabilized Combustor With the Use of High-Strength Porous Insert. <i>Journal of Engineering for Gas Turbines and Power</i> , 2012, 134, .	1.1	13
23	Computational study of buoyancy effects in a laminar starting jet. <i>International Journal of Heat and Fluid Flow</i> , 2008, 29, 527-539.	2.4	12
24	Passive control of thermoacoustic instabilities in swirl-stabilized combustion at elevated pressures. <i>International Journal of Spray and Combustion Dynamics</i> , 2016, 8, 173-182.	1.0	12
25	Low-Emission, Liquid Fuel Combustion System for Conventional and Alternative Fuels Developed by the Scaling Analysis. <i>Journal of Engineering for Gas Turbines and Power</i> , 2016, 138, .	1.1	12
26	Phase boundary detection in transient, evaporating high-pressure fuel sprays by rainbow schlieren deflectometry. <i>Applied Optics</i> , 2019, 58, 6791.	1.8	12
27	Porous Inserts for Passive Control of Noise and Thermo-Acoustic Instabilities in LDI Combustion. <i>Combustion Science and Technology</i> , 2015, 187, 1021-1035.	2.3	11
28	Implications of real-gas behavior on refractive index calculations for optical diagnostics of fuel-air mixing at high pressures. <i>Combustion and Flame</i> , 2020, 214, 47-56.	5.2	10
29	EFFECTS OF BUOYANCY ON TRANSITIONAL HYDROGEN GAS-JET DIFFUSION FLAMES. <i>Combustion Science and Technology</i> , 2005, 177, 305-322.	2.3	9
30	Computational Analysis of Gravitational Effects in Low-Density Gas Jets. <i>AIAA Journal</i> , 2006, 44, 1505-1515.	2.6	9
31	High Speed Visualization and PIV Measurements in the Near Field of Spray Produced by Flow-Blurring Atomization. , 2014, , .		8
32	Simultaneous rainbow schlieren deflectometry and OH* chemiluminescence imaging of a diesel spray flame in constant pressure flow rig. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 5557-5565.	3.9	8
33	Transient mixing behavior of a supercritical fluid injected into supercritical and subcritical environments. <i>Physics of Fluids</i> , 2022, 34, .	4.0	7
34	Liquid Fuel Combustion Using Heat Recirculation Through Annular Porous Media. <i>Journal of Engineering for Gas Turbines and Power</i> , 2007, 129, 914-919.	1.1	6
35	Computational Analysis of Two-Phase Mixing Inside a Twin-Fluid, Fuel-Flexible Atomizer. , 2017, , .		6
36	Buoyancy effects on flow transition in low-density inertial gas jets. <i>Experiments in Fluids</i> , 2005, 38, 541-544.	2.4	5

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37	Quantitative concentration measurements in a turbulent helium jet using rainbow schlieren deflectometry. <i>Experiments in Fluids</i> , 2021, 62, 1.	2.4	5
38	Effect of Porous Media Configuration on Combustion of Kerosene. , 2006, , .		4
39	A novel spectral analysis algorithm to obtain local scalar field statistics from line-of-sight measurements in turbulent flows. <i>Measurement Science and Technology</i> , 2009, 20, 115402.	2.6	4
40	Investigation of the Cross-beam Correlation Algorithm to Reconstruct Local Field Statistics from Line-of-sight Measurements in Turbulent Flows. <i>Flow, Turbulence and Combustion</i> , 2010, 84, 617-638.	2.6	4
41	Time-Resolved Particle Image Velocimetry Measurements of Nonreacting Flow Field in a Swirl-Stabilized Combustor Without and With Porous Inserts for Acoustic Control. <i>Journal of Engineering for Gas Turbines and Power</i> , 2015, 137, .	1.1	4
42	Comparing Global Spray Combustion Characteristics and Local Shot-to-Shot Variations in a Reacting n-Heptane Spray. <i>Journal of Engineering for Gas Turbines and Power</i> , 2021, 143, .	1.1	4
43	Mesoscale, Porous Media Heat Recirculating Combustor. , 2006, , .		3
44	Measurements in a Combustor Operated on Alternative Liquid Fuels. , 2012, , .		3
45	Time-Resolved PIV Measurements of Non-Reacting Flow Field in a Swirl-Stabilized Combustor Without and With Porous Inserts for Acoustic Control. , 2014, , .		3
46	Role of Inlet Boundary Conditions on Fuel-Air Mixing at Supercritical Conditions. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2022, 144, .	2.3	3
47	Numerical Analysis of Flow Evolution in a Helium Jet Injected Into Ambient Air. , 2004, , 1267.		2
48	Acoustic Effects of Porous Inert Media on Lean Premixed Combustion at Elevated Pressures. , 2012, , .		2
49	Effects of Porous versus Solid Inserts Pertaining to Instability Mitigation in Lean Direct Injection Combustion. , 2019, , .		2
50	Turbulence Measurements for Numerical Validation Acquired by Ultra High-speed Rainbow Schlieren Deflectometry. , 2014, , .		1
51	Effect of Preheating on Flame Structure of a Swirl Stabilized Combustor With Porous Insert to Control Thermoacoustics. , 2016, , .		1
52	Effect of porous insert on flame dynamics in a lean premixed swirl-stabilized combustor using planar laser-induced fluorescence. , 2016, , .		1
53	Twin-Fluid Atomized Spray Combustion of Straight Vegetable Oil at Elevated Pressures. , 2017, , .		1
54	High-Speed Rainbow Schlieren Deflectometry of n-Heptane Sprays Using a Common Rail Diesel Injector. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2017, 139, .	2.3	1

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55	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
56	Passive Control of Noise and Instability in a Swirl-Stabilized Combustor With the Use of High-Strength Porous Insert. , 2011, , .		0
57	Low Emission, Liquid Fuel Combustion System for Conventional and Alternative Fuels Developed by the Scaling Analysis. , 2015, , .		0
58	Effect of Reactant Inlet Temperature on Passive Mitigation of Thermo-acoustic Instabilities by Implementation of 3D Additive Manufactured Metallic Porous Insert. , 2016, , .		0
59	Low-Emission, Fuel-Flexible Combustion of Liquid Fuels. , 2014, , 457-481.		0
60	Effects of Porous versus Solid Inserts Pertaining to Instability Mitigation in Lean Direct Injection Combustion. , 2022, , .		0