Paul R Medwell

List of Publications by Year
in descending order

102 papers	2,917 citations	159358 30 h-index	197535 49 g-index
102 all docs	102 docs citations	102 times ranked	1531 citing authors

#	Article	IF	Citations
1	A Review of Hydrogen Direct Injection for Internal Combustion Engines: Towards Carbon-Free Combustion. Applied Sciences (Switzerland), 2019, 9, 4842.	1.3	204
2	Simultaneous imaging of OH, formaldehyde, and temperature of turbulent nonpremixed jet flames in a heated and diluted coflow. Combustion and Flame, 2007, 148, 48-61.	2.8	197
3	Imaging of diluted turbulent ethylene flames stabilized on a Jet in Hot Coflow (JHC) burner. Combustion and Flame, 2008, 152, 100-113.	2.8	136
4	An experimental study on MILD combustion of prevaporised liquid fuels. Applied Energy, 2015, 151, 93-101.	5.1	92
5	Modeling Lifted Jet Flames in a Heated Coflow Using an Optimized Eddy Dissipation Concept Model. Combustion Science and Technology, 2015, 187, 1093-1109.	1.2	91
6	Effect of particle size on the MILD combustion characteristics of pulverised brown coal. Fuel Processing Technology, 2017, 155, 74-87.	3.7	83
7	Burning characteristics of Victorian brown coal under MILD combustion conditions. Combustion and Flame, 2016, 172, 252-270.	2.8	82
8	Recent advances in the measurement of strongly radiating, turbulent reacting flows. Progress in Energy and Combustion Science, 2012, 38, 41-61.	15.8	72
9	Kinetic and fluid dynamic modeling of ethylene jet flames in diluted and heated oxidant stream combustion conditions. Applied Thermal Engineering, 2013, 52, 538-554.	3.0	62
10	Effect of fuel composition on jet flames in a heated and diluted oxidant stream. Combustion and Flame, 2012, 159, 3138-3145.	2.8	60
11	Development of temperature imaging using two-line atomic fluorescence. Applied Optics, 2009, 48, 1237.	2.1	57
12	Effects of biochar parent material and microbial pre-loading in biochar-amended high-solids anaerobic digestion. Bioresource Technology, 2020, 298, 122457.	4.8	57
13	Reaction Zone Weakening Effects under Hot and Diluted Oxidant Stream Conditions. Combustion Science and Technology, 2009, 181, 937-953.	1.2	54
14	Moderate or Intense Low Oxygen Dilution (MILD) Combustion Characteristics of Pulverized Coal in a Self-Recuperative Furnace. Energy & Fuels, 2014, 28, 6046-6057.	2.5	53
15	Simultaneous measurements of gas temperature, soot volume fraction and primary particle diameter in a sooting lifted turbulent ethylene/air non-premixed flame. Combustion and Flame, 2017, 179, 33-50.	2.8	51
16	Simultaneous planar measurements of temperature and soot volume fraction in a turbulent non-premixed jet flame. Proceedings of the Combustion Institute, 2015, 35, 1931-1938.	2.4	50
17	Experimental Observation of Lifted Flames in a Heated and Diluted Coflow. Energy & Fuels, 2012, 26, 5519-5527.	2.5	49
18	Effect of total solids content on anaerobic digestion of poultry litter with biochar. Journal of Environmental Management, 2020, 255, 109744.	3.8	47

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19	Generalisation of the eddy-dissipation concept for jet flames with low turbulence and low DamkÃ¶hler number. Proceedings of the Combustion Institute, 2019, 37, 4497-4505.	2.4	46
20	Numerical Study of Pulverized Coal MILD Combustion in a Self-Recuperative Furnace. Energy & Fuels, 2015, 29, 7650-7669.	2.5	44
21	Combustion characterization of waste cooking oil and canola oil based biodiesels under simulated engine conditions. Fuel, 2018, 224, 167-177.	3.4	44
22	The transition of ethanol flames from conventional to MILD combustion. Combustion and Flame, 2016, 171, 173-184.	2.8	43
23	The effect of exit strain rate on soot volume fraction in turbulent non-premixed jet flames. Proceedings of the Combustion Institute, 2017, 36, 889-897.	2.4	42
24	Effect of co-flow oxygen concentration on the MILD combustion of pulverised coal. Fuel Processing Technology, 2019, 193, 7-18.	3.7	42
25	Simultaneous imaging of temperature and soot volume fraction. Proceedings of the Combustion Institute, 2011, 33, 791-798.	2.4	41
26	Characteristics of turbulent n-heptane jet flames in a hot and diluted coflow. Combustion and Flame, 2017, 183, 330-342.	2.8	40
27	Experimental and numerical study of soot formation in counterflow diffusion flames of gasoline surrogate components. Combustion and Flame, 2019, 210, 159-171.	2.8	40
28	Classification and lift-off height prediction of non-premixed MILD and autoignitive flames. Proceedings of the Combustion Institute, 2017, 36, 4297-4304.	2.4	37
29	Natural draft and forced primary air combustion properties of a top-lit up-draft research furnace. Biomass and Bioenergy, 2016, 91, 108-115.	2.9	33
30	Ignition features of methane and ethylene fuel-blends in hot and diluted coflows. Fuel, 2017, 203, 279-289.	3.4	31
31	Experimental investigation of acoustic forcing on temperature, soot volume fraction and primary particle diameter in non-premixed laminar flames. Combustion and Flame, 2017, 181, 270-282.	2.8	31
32	Automated determination of size and morphology information from soot transmission electron microscope (TEM)-generated images. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	30
33	The effect of exit Reynolds number on soot volume fraction in turbulent non-premixed jet flames. Combustion and Flame, 2018, 187, 42-51.	2.8	30
34	The role of precursors on the stabilisation of jet flames issuing into a hot environment. Combustion and Flame, 2014, 161, 465-474.	2.8	28
35	Effects of flame-plane wall impingement on diesel combustion and soot processes. Fuel, 2019, 255, 115726.	3.4	28
36	A Biochar-producing, Dung-burning Cookstove for Humanitarian Purposes. Procedia Engineering, 2014, 78, 243-249.	1.2	26

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37	Structural differences of ethanol and DME jet flames in a hot diluted coflow. Combustion and Flame, 2018, 192, 473-494.	2.8	25
38	The influence on the soot distribution within a laminar flame of radiation at fluxes of relevance to concentrated solar radiation. Combustion and Flame, 2011, 158, 1814-1821.	2.8	24
39	Temperature measurements in turbulent non-premixed flames by two-line atomic fluorescence. Proceedings of the Combustion Institute, 2013, 34, 3619-3627.	2.4	23
40	Improvement of precision and accuracy of temperature imaging in sooting flames using two-line atomic fluorescence (TLAF). Combustion and Flame, 2016, 167, 481-493.	2.8	23
41	Influence of Primary and Secondary Air Supply on Gaseous Emissions from a Small-Scale Staged Solid Biomass Fuel Combustor. Energy & Fuels, 2018, 32, 4212-4220.	2.5	23
42	Influence of nozzle diameter on soot evolution in acoustically forced laminar non-premixed flames. Combustion and Flame, 2018, 194, 376-386.	2.8	23
43	The role of primary and secondary air on wood combustion in cookstoves. International Journal of Sustainable Energy, 2018, 37, 268-277.	1.3	22
44	Instantaneous Temperature Imaging of Diffusion Flames Using Two-Line Atomic Fluorescence. Applied Spectroscopy, 2010, 64, 173-176.	1.2	20
45	A sponge-layer damping technique for aeroacoustic Time-Reversal. Journal of Sound and Vibration, 2015, 342, 124-151.	2.1	20
46	External irradiation effect on the growth and evolution of in-flame soot species. Carbon, 2016, 102, 161-171.	5.4	20
47	Temperature and reaction zone imaging in turbulent swirling dual-fuel flames. Proceedings of the Combustion Institute, 2019, 37, 2159-2166.	2.4	20
48	Effect of wood biochar dosage and re-use on high-solids anaerobic digestion of chicken litter. Biomass and Bioenergy, 2021, 144, 105872.	2.9	20
49	Experimental investigation of soot evolution in a turbulent non-premixed prevaporized toluene flame. Proceedings of the Combustion Institute, 2019, 37, 849-857.	2.4	19
50	Solvent effects on two-line atomic fluorescence of indium. Applied Optics, 2010, 49, 1257.	2.1	18
51	Flow seeding with elemental metal species via an optical method. Applied Physics B: Lasers and Optics, 2012, 107, 665-668.	1.1	18
52	Temperature imaging of turbulent dilute spray flames using two-line atomic fluorescence. Experiments in Fluids, 2014, 55, 1.	1.1	18
53	Algorithm for soot sheet quantification in a piloted turbulent jet non-premixed natural gas flame. Experiments in Fluids, 2014, 55, 1.	1.1	18
54	Effects of oxidant stream composition on non-premixed laminar flames with heated and diluted coflows. Combustion and Flame, 2017, 178, 297-310.	2.8	18

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55	Assessment of interferences to nonlinear two-line atomic fluorescence (NTLAF) in sooty flames. Applied Physics B: Lasers and Optics, 2011, 104, 189-198.	1.1	17
56	Mechanism for laser-induced fluorescence signal generation in a nanoparticle-seeded flow for planar flame thermometry. Applied Physics B: Lasers and Optics, 2015, 118, 209-218.	1.1	17
57	Effects of Oxygen Concentration on Radiation-Aided and Self-sustained Smoldering Combustion of Radiata Pine. Energy & Fuels, 2017, 31, 8619-8630.	2.5	17
58	Downstream evolution of n-heptane/toluene flames in hot and vitiated coflows. Combustion and Flame, 2019, 202, 78-89.	2.8	17
59	Small-scale autothermal thermochemical conversion of multiple solid biomass feedstock. Renewable Energy, 2020, 149, 1261-1270.	4.3	17
60	Laminar Flame Calculations for Analyzing Trends in Autoignitive Jet Flames in a Hot and Vitiated Coflow. Energy & Fuels, 2016, 30, 8680-8690.	2.5	16
61	New Seeding Methodology for Gas Concentration Measurements. Applied Spectroscopy, 2012, 66, 803-809.	1.2	15
62	Multiple line arrays for the characterization of aeroacoustic sources using a time-reversal method. Journal of the Acoustical Society of America, 2013, 134, EL327-EL333.	0.5	15
63	The significance of beam steering on laser-induced incandescence measurements in laminar counterflow flames. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	15
64	Soot evolution and flame response to acoustic forcing of laminar non-premixed jet flames at varying amplitudes. Combustion and Flame, 2018, 198, 249-259.	2.8	15
65	Transient interaction between a reaction control jet and a hypersonic crossflow. Physics of Fluids, 2018, 30, .	1.6	14
66	Numerical investigation of a pulsed reaction control jet in hypersonic crossflow. Physics of Fluids, 2018, 30, .	1.6	14
67	Highly radiating hydrogen flames: Effect of toluene concentration and phase. Proceedings of the Combustion Institute, 2021, 38, 1099-1106.	2.4	14
68	Identification and Quantitative Analysis of Smoldering and Flaming Combustion of Radiata Pine. Energy & Fuels, 2016, 30, 7666-7677.	2.5	13
69	Influences of Fuel Bed Depth and Air Supply on Small-Scale Batch-Fed Reverse Downdraft Biomass Conversion. Energy & Fuels, 2018, 32, 8507-8518.	2.5	13
70	Enhancing the focal-resolution of aeroacoustic time-reversal using a point sponge-layer damping technique. Journal of the Acoustical Society of America, 2014, 136, EL199-EL205.	0.5	11
71	Ignition Characteristics in Spatially Zero-, One- and Two-Dimensional Laminar Ethylene Flames. AIAA Journal, 2016, 54, 3255-3264.	1.5	11
72	Study of Ignition and Combustion Characteristics of Consecutive Injections with <i>iso</i>-Octane and <i>n</i>-Heptane as Fuels. Energy & Fuels, 2020, 34, 14741-14756.	2.5	10

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73	Feedstock Dependence of Emissions from a Reverse-Downdraft Gasifier Cookstove. Energy for Sustainable Development, 2020, 56, 42-50.	2.0	10
74	Co-Combustion Characteristics and Kinetics of Microalgae <i>Chlorella Vulgaris</i> and Coal through TGA. Combustion Science and Technology, 2020, 192, 26-45.	1.2	9
75	Numerical and experimental investigation of turbulent n-heptane jet-in-hot-coflow flames. Fuel, 2021, 283, 118748.	3.4	9
76	Experimental investigation of the flame structure of dilute sprays issuing into a hot and low-oxygen coflow. Combustion and Flame, 2021, 230, 111439.	2.8	9
77	Developing sports engineering education in Australia. Procedia Engineering, 2012, 34, 260-265.	1.2	8
78	Toluene addition to turbulent H2/natural gas flames in bluff-body burners. International Journal of Hydrogen Energy, 2022, 47, 27733-27746.	3.8	8
79	Biochar production and characterisation â€” A field study. , 2017, , .		6
80	A new correlation between soot sheet width and soot volume fraction in turbulent non-premixed jet flames. Proceedings of the Combustion Institute, 2019, 37, 927-934.	2.4	6
81	Understanding and Interpreting Laser Diagnostics in Flames: A Review of Experimental Measurement Techniques. Frontiers in Mechanical Engineering, 2019, 5, .	0.8	6
82	Soot-flowfield interactions in turbulent non-premixed bluff-body flames of ethylene/nitrogen. Proceedings of the Combustion Institute, 2021, 38, 1125-1132.	2.4	6
83	Dilute spray flames of ethanol and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.svg"><mml:mi>n</mml:mi></mml:math>-heptane in the transition to mild combustion. Combustion and Flame, 2022, 238, 111918.	2.8	6
84	Analysis of the Lawn Bowl Trajectory as a teaching tool for Sports Engineering: development of a graphical user-interface. Procedia Engineering, 2011, 13, 531-537.	1.2	5
85	Eulerian and Lagrangian stagnation plane behavior of moderate Reynolds number round opposed-jets flow. Computers and Fluids, 2016, 133, 116-128.	1.3	5
86	Air Permeability of the Litter Layer in Broadleaf Forests. Frontiers in Mechanical Engineering, 2019, 5, .	0.8	5
87	The effect of fuel composition and Reynolds number on soot formation processes in turbulent non-premixed toluene jet flames. Proceedings of the Combustion Institute, 2021, 38, 1395-1402.	2.4	5
88	Smouldering fire and emission characteristics of <i>Eucalyptus</i> litter fuel. Fire and Materials, 2022, 46, 576-586.	0.9	5
89	Laser ignition of iso-octane and n-heptane jets under compression-ignition conditions. Fuel, 2022, 311, 122555.	3.4	5
90	Enhancing the Resolution Characteristics of Aeroacoustic Time-Reversal Using a Point-Time-Reversal-Sponge-Layer. , 2014, , .		4

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91	Calculated concentration distributions and time histories of key species in an acoustically forced laminar flame. Combustion and Flame, 2019, 204, 189-203.	2.8	4
92	Computational Methodology for Investigating the Transient Interaction Between a Reaction Control Jet and a Hypersonic Crossflow. , 2016, , .		3
93	Effect of Multilateral Jet Mixing on Stability and Structure of Turbulent Partially-Premixed Flames. Flow, Turbulence and Combustion, 2018, 100, 225-247.	1.4	3
94	Biochar Addition in High-Solids Anaerobic Digestion of Poultry Litter. , 2018, , .		3
95	Optical thermometry for high temperature multiphase environments under high-flux irradiation. Solar Energy, 2017, 146, 191-198.	2.9	1
96	Recent Advances in Measurement of Turbulent Reacting Flows in Which Heat Transfer is Dominated by Radiation. , 2010, , .		0
97	Humanitarian technology research group: Developments at the University of Adelaide. , 2014, , .		0
98	Ignition Characteristics in Spatially Zero-, One- and Two-Dimensional Laminar Ethylene Flames. , 2015, , .		0
99	Progress in Combustion Diagnostics, Science and Technology. Applied Sciences (Switzerland), 2020, 10, 1586.	1.3	0
100	On the use of oscillating jet flames in a coflow to develop soot models for practical applications. Proceedings of the Combustion Institute, 2021, 38, 1309-1317.	2.4	0
101	Optics and Photonics in Solar Thermal Energy Technologies. , 2014, , .		0
102	A conceptual framework for evaluating cooking systems. Environmental Research Letters, 0, , .	2.2	0