Andreas Dreizler

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/384638/publications.pdf

Version: 2024-02-01

227 papers	7,339 citations	44042 48 h-index	95218 68 g-index
230 all docs	230 docs citations	230 times ranked	2902 citing authors

#	Article	IF	Citations
1	On surface temperature measurements with thermographic phosphors: A review. Progress in Energy and Combustion Science, 2013, 39, 37-60.	15.8	295
2	Flow field measurements of stable and locally extinguishing hydrocarbon-fuelled jet flames. Combustion and Flame, 2003, 135, 185-190.	2.8	216
3	Advanced laser diagnostics for an improved understanding of premixed flame-wall interactions. Proceedings of the Combustion Institute, 2015, 35, 37-64.	2.4	152
4	Assessment of unsteady RANS in predicting swirl flow instability based on LES and experiments. International Journal of Heat and Fluid Flow, 2004, 25, 528-536.	1.1	118
5	On The Validation of LES Applied to Internal Combustion Engine Flows: Part 1: Comprehensive Experimental Database. Flow, Turbulence and Combustion, 2014, 92, 269-297.	1.4	110
6	Fluid Dynamical Analysis of Atmospheric Reacting and Isothermal Swirling Flows. Flow, Turbulence and Combustion, 2005, 74, 103-127.	1.4	101
7	Experimental and numerical analysis of a lean premixed stratified burner using 1D Raman/Rayleigh scattering and large eddy simulation. Combustion and Flame, 2012, 159, 2669-2689.	2.8	101
8	Flow field measurements in an optically accessible, direct-injection spray-guided internal combustion engine using high-speed PIV. Experiments in Fluids, 2010, 48, 281-290.	1.1	96
9	Simultaneous PIV/OH-PLIF, Rayleigh thermometry/OH-PLIF and stereo PIV measurements in a low-swirl flame. Applied Optics, 2007, 46, 3928.	2.1	92
10	Phosphor thermometry: A comparison of the luminescence lifetime and the intensity ratio approach. Proceedings of the Combustion Institute, 2013, 34, 3611-3618.	2.4	91
11	An algorithm for the characterisation of multi-exponential decay curves. Optics and Lasers in Engineering, 2009, 47, 75-79.	2.0	85
12	Gas compositional and pressure effects on thermographic phosphor thermometry. Measurement Science and Technology, 2007, 18, 764-770.	1.4	84
13	Investigation of the 3D flow field in an IC engine using tomographic PIV. Proceedings of the Combustion Institute, 2013, 34, 2903-2910.	2.4	83
14	Flow field studies of a new series of turbulent premixed stratified flames. Combustion and Flame, 2010, 157, 384-396.	2.8	82
15	Turbulent opposed-jet flames: A critical benchmark experiment for combustion LESâˆ†. Combustion and Flame, 2005, 143, 524-548.	2.8	80
16	Scalar dissipation rates in isothermal and reactive turbulent opposed-jets: 1-D-Raman/Rayleigh experiments supported by LES. Proceedings of the Combustion Institute, 2005, 30, 681-689.	2.4	79
17	Spray thermometry using thermographic phosphors. Applied Physics B: Lasers and Optics, 2006, 83, 499-502.	1.1	79
18	Transient flameâ€“wall interactions: Experimental analysis using spectroscopic temperature and CO concentration measurements. Combustion and Flame, 2014, 161, 2371-2386.	2.8	79

#	Article	IF	Citations
19	Challenging modeling strategies for LES of non-adiabatic turbulent stratified combustion. Combustion and Flame, 2015, 162, 4264-4282.	2.8	79
20	Experimental analysis of flashback in lean premixed swirling flames: upstream flame propagation. Experiments in Fluids, 2010, 49, 853-863.	1.1	76
21	Spark ignition of turbulent methane/air mixtures revealed by time-resolved planar laser-induced fluorescence and direct numerical simulations. Proceedings of the Combustion Institute, 2000, 28, 399-405.	2.4	73
22	Characterization of manganese-activated magnesium fluorogermanate with regards to thermographic phosphor thermometry. Measurement Science and Technology, 2008, 19, 025602.	1.4	72
23	Two-dimensional thermographic phosphor thermometry usingÂaÂCMOS high speed camera system. Applied Physics B: Lasers and Optics, 2009, 96, 731-734.	1.1	70
24	Simultaneous three-component PIV/OH-PLIF measurements of a turbulent lifted, C3H8-Argon jet diffusion flame at 1.5kHz repetition rate. Proceedings of the Combustion Institute, 2009, 32, 905-912.	2.4	70
25	Sidewall quenching of atmospheric laminar premixed flames studied by laser-based diagnostics. Combustion and Flame, 2017, 183, 271-282.	2.8	70
26	Raman/Rayleigh scattering and CO-LIF measurements in laminar and turbulent jet flames of dimethyl ether. Combustion and Flame, 2012, 159, 2533-2562.	2.8	69
27	New Perspectives on Turbulent Combustion: Multi-Parameter High-Speed Planar Laser Diagnostics. Flow, Turbulence and Combustion, 2011, 86, 313-341.	1.4	67
28	High-speed PIV and LIF imaging of temperature stratification in an internal combustion engine. Proceedings of the Combustion Institute, 2013, 34, 3653-3660.	2.4	62
29	High-speed micro particle image velocimetry studies of boundary-layer flows in a direct-injection engine. International Journal of Engine Research, 2013, 14, 247-259.	1.4	62
30	Large eddy simulation and experiments of stratified lean premixed methane/air turbulent flames. Proceedings of the Combustion Institute, 2007, 31, 1467-1475.	2.4	61
31	A hybrid method for data evaluation in 1-D Raman spectroscopy. Proceedings of the Combustion Institute, 2011, 33, 815-822.	2.4	59
32	Experimental characterization of onset of acoustic instability in a nonpremixed half-dump combustor. Journal of the Acoustical Society of America, 2007, 122, 120-127.	0.5	58
33	On the importance of temporal context in interpretation of flame discontinuities. Combustion and Flame, 2009, 156, 269-271.	2.8	58
34	High-speed phosphor thermometry. Review of Scientific Instruments, 2011, 82, 104903.	0.6	58
35	Cinematographic imaging of hydroxyl radicals in turbulent flames by planar laser-induced fluorescence up to 5ÂkHz repetition rate. Applied Physics B: Lasers and Optics, 2007, 89, 163-166.	1.1	57
36	Temperature- and species-dependent quenching of CO B probed by two-photon laser-induced fluorescence using a picosecond laser. Journal of Chemical Physics, 2002, 117, 3173-3179.	1.2	56

#	Article	IF	Citations
37	Spark ignited hydrogen/air mixtures: two dimensional detailed modeling and laser based diagnostics. Combustion and Flame, 2002, 128, 74-87.	2.8	56
38	Pixel-based characterisation of CMOS high-speed camera systems. Applied Physics B: Lasers and Optics, 2011, 103, 421-433.	1.1	56
39	In-Cylinder Flow and Fuel Spray Interactions in a Stratified Spray-Guided Gasoline Engine Investigated by High-Speed Laser Imaging Techniques. Flow, Turbulence and Combustion, 2013, 91, 431-450.	1.4	56
40	Characterisation of a spark ignition system by planar laser-induced fluorescence of OH at high repetition rates and comparison with chemical kinetic calculations. Applied Physics B: Lasers and Optics, 2000, 70, 287-294.	1.1	55
41	Wall heat fluxes and CO formation/oxidation during laminar and turbulent side-wall quenching of methane and DME flames. International Journal of Heat and Fluid Flow, 2018, 70, 181-192.	1.1	55
42	A survey of phosphors novel for thermography. Journal of Luminescence, 2011, 131, 559-564.	1.5	54
43	Thermal grating and broadband degenerate four-wave mixing spectroscopy of OH in high-pressure flames. Applied Physics B: Lasers and Optics, 1998, 67, 667-673.	1.1	53
44	Development of two-beam femtosecond/picosecond one-dimensional rotational coherent anti-Stokes Raman spectroscopy: Time-resolved probing of flame wall interactions. Proceedings of the Combustion Institute, 2015, 35, 3723-3730.	2.4	53
45	Experimental investigation of flame surface density and mean reaction rate during flameâ€“wall interaction. Proceedings of the Combustion Institute, 2017, 36, 1827-1834.	2.4	52
46	Influence of three-dimensional in-cylinder flows on cycle-to-cycle variations in a fired stratified DISI engine measured by time-resolved dual-plane PIV. Proceedings of the Combustion Institute, 2017, 36, 3477-3485.	2.4	52
47	Investigation of turbulence modification in a non-reactive two-phase flow. Experiments in Fluids, 2004, 36, 344-354.	1.1	51
48	Multiparameter spatio-thermochemical probing of flameâ€“wall interactions advanced with coherent Raman imaging. Proceedings of the Combustion Institute, 2017, 36, 4557-4564.	2.4	50
49	Investigation of ignition and volatile combustion of single coal particles within oxygen-enriched atmospheres using high-speed OH-PLIF. Proceedings of the Combustion Institute, 2017, 36, 2103-2111.	2.4	50
50	Experimental Study on Stabilization of Lifted Swirl Flames in a Model GT Combustor. Flow, Turbulence and Combustion, 2005, 75, 293-315.	1.4	49
51	Premixed flame propagation in turbulent flow by means of stereoscopic PIV and dual-plane OH-PLIF at sustained kHz repetition rates. Proceedings of the Combustion Institute, 2013, 34, 3565-3572.	2.4	49
52	Numerical analysis of laminar methaneâ€“air side-wall-quenching. Combustion and Flame, 2017, 186, 299-310.	2.8	48
53	Multi-scalar measurements in a premixed swirl burner using 1D Raman/Rayleigh scattering. Proceedings of the Combustion Institute, 2009, 32, 1739-1746.	2.4	47
54	Experimental investigation of flame stabilization inside the quarl of an oxyfuel swirl burner. Fuel, 2017, 201, 124-135.	3.4	47

#	Article	IF	Citations
55	Evaluation of toluene LIF thermometry detection strategies applied in an internal combustion engine. Applied Physics B: Lasers and Optics, 2014, 117, 151-175.	1.1	45
56	Characterization of single coal particle combustion within oxygen-enriched environments using high-speed OH-PLIF. Applied Physics B: Lasers and Optics, 2015, 121, 459-464.	1.1	45
57	Early flame propagation in a spark-ignition engine measured with quasi 4D-diagnostics. Proceedings of the Combustion Institute, 2015, 35, 3829-3837.	2.4	45
58	Determination of surface normal temperature gradients using thermographic phosphors and filtered Rayleigh scattering. Applied Physics B: Lasers and Optics, 2006, 84, 537-541.	1.1	44
59	Experimental analysis of flashback in lean premixed swirling flames: conditions close to flashback. Experiments in Fluids, 2007, 43, 89-100.	1.1	44
60	High-speed mixture fraction imaging. Applied Physics B: Lasers and Optics, 2009, 96, 745-748.	1.1	44
61	Devolatilization and volatiles reaction of individual coal particles in the context of FGM tabulated chemistry. Combustion and Flame, 2016, 169, 72-84.	2.8	43
62	Local flame structure analysis in turbulent CH4/air flames with multi-regime characteristics. Combustion and Flame, 2019, 210, 426-438.	2.8	43
63	Gas-phase toluene LIF temperature imaging near surfaces at 10ÂkHz. Experiments in Fluids, 2011, 51, 1169-1176.	1.1	42
64	Mixing analysis of a swirling recirculating flow using DNS and experimental data. International Journal of Heat and Fluid Flow, 2006, 27, 636-643.	1.1	41
65	Regime identification from Raman/Rayleigh line measurements in partially premixed flames. Combustion and Flame, 2018, 189, 126-141.	2.8	41
66	Influence of intake geometry variations on in-cylinder flow and flowâ€“spray interactions in a stratified direct-injection spark-ignition engine captured by time-resolved particle image velocimetry. International Journal of Engine Research, 2016, 17, 983-997.	1.4	40
67	Temperature and mixing field measurements in stratified lean premixed turbulent flames. Proceedings of the Combustion Institute, 2011, 33, 1583-1590.	2.4	39
68	Thermal grating effects in infrared degenerate four-wave mixing fro trace gas detection. Chemical Physics Letters, 1995, 233, 525-532.	1.2	38
69	Simultaneous PIV/PTV/OH PLIF imaging: Conditional flow field statistics in partially premixed turbulent opposed jet flames. Proceedings of the Combustion Institute, 2007, 31, 709-717.	2.4	38
70	Development and Analysis of Wall Models for Internal Combustion Engine Simulations Using High-speed Micro-PIV Measurements. Flow, Turbulence and Combustion, 2017, 98, 283-309.	1.4	38
71	Gd₃Ga₅O₁₂:Crâ€”a phosphor for two-dimensional thermometry in internal combustion engines. Measurement Science and Technology, 2011, 22, 045301.	1.4	37
72	Two-dimensional cycle-resolved exhaust valve temperature measurements in an optically accessible internal combustion engine using thermographic phosphors. Applied Physics B: Lasers and Optics, 2012, 106, 945-951.	1.1	37

#	Article	IF	Citations
73	Investigation of flame propagation in a partially premixed jet by high-speed-Stereo-PIV and acetone-PLIF. Proceedings of the Combustion Institute, 2015, 35, 3773-3781.	2.4	37
74	Effect of Flame-Wall Interaction on Local Heat Release of Methane and DME Combustion in a Side-Wall Quenching Geometry. Flow, Turbulence and Combustion, 2020, 104, 1029-1046.	1.4	37
75	In situ TDLAS measurement of absolute acetylene concentration profiles in a non-premixed laminar counter-flow flame. Applied Physics B: Lasers and Optics, 2012, 107, 585-589.	1.1	36
76	Multi-parameter diagnostics for high-resolution in-situ measurements of single coal particle combustion. Proceedings of the Combustion Institute, 2019, 37, 2893-2900.	2.4	36
77	Tomographic PIV measurements in a turbulent lifted jet flame. Experiments in Fluids, 2013, 54, 1.	1.1	35
78	On the turbulent flow in piston engines: Coupling of statistical theory quantities and instantaneous turbulence. Physics of Fluids, 2016, 28, 045108.	1.6	35
79	Influence of the in-cylinder flow on cycle-to-cycle variations in lean combustion DISI engines measured by high-speed scanning-PIV. Proceedings of the Combustion Institute, 2019, 37, 4929-4936.	2.4	34
80	Two-dimensional surface temperature diagnostics in a full-metal engine using thermographic phosphors. Measurement Science and Technology, 2013, 24, 095203.	1.4	33
81	Ammonia concentration distribution measurements in the exhaust of a heavy duty diesel engine based on limited data absorption tomography. Optics Express, 2017, 25, 8180.	1.7	33
82	Tomographic imaging of OH laser-induced fluorescence in laminar and turbulent jet flames. Measurement Science and Technology, 2018, 29, 015206.	1.4	33
83	Absolute, spatially resolved, in situ CO profiles in atmospheric laminar counter-flow diffusion flames using 2.3ÂĪ¼m TDLAS. Applied Physics B: Lasers and Optics, 2012, 109, 533-540.	1.1	31
84	Reaction Kinetics of Hydroxyl Radicals with Model Compounds of Fuel Cell Polymer Membranes. Fuel Cells, 2012, 12, 132-140.	1.5	31
85	Solid solution between lithium-rich yttrium and europium molybdate as new efficient red-emitting phosphors. Journal of Materials Chemistry C, 2016, 4, 596-602.	2.7	30
86	Large Eddy Simulation of a Novel Gas-Assisted Coal Combustion Chamber. Flow, Turbulence and Combustion, 2018, 101, 895-926.	1.4	30
87	Evaluation of Flame Area Based on Detailed Chemistry DNS of Premixed Turbulent Hydrogen-Air Flames in Different Regimes of Combustion. Flow, Turbulence and Combustion, 2020, 104, 403-419.	1.4	30
88	Finite-rate chemistry effects in turbulent opposed flows: comparison of Raman/Rayleigh measurements and Monte Carlo PDF simulations. Proceedings of the Combustion Institute, 2005, 30, 711-718.	2.4	29
89	Highly-resolved LES and PIV Analysis of Isothermal Turbulent Opposed Jets for Combustion Applications. Flow, Turbulence and Combustion, 2011, 87, 425-447.	1.4	29
90	Residence time calculations for complex swirling flow in a combustion chamber using large-eddy simulations. Chemical Engineering Science, 2016, 156, 97-114.	1.9	29

#	Article	IF	Citations
91	Multiplex polarization spectroscopy of OH for flame thermometry. Applied Physics B: Lasers and Optics, 1997, 65, 633-637.	1.1	28
92	Simultaneous phosphor and CARS thermometry at the wallâ€“gas interface within a combustor. Proceedings of the Combustion Institute, 2009, 32, 855-861.	2.4	28
93	Time and spatially resolved LIF of OH A 2Î£+(vâ€²=1) in atmospheric-pressure flames using picosecond excitation. Applied Physics B, Photophysics and Laser Chemistry, 1993, 57, 85-87.	1.5	27
94	Analysis of the temporal flame kernel development in an optically accessible IC engine using high-speed OH-PLIF. Applied Physics B: Lasers and Optics, 2010, 100, 447-452.	1.1	27
95	Temperature measurements of the bluff body surface of a Swirl Burner using phosphor thermometry. Combustion and Flame, 2014, 161, 2842-2848.	2.8	27
96	Electrohydrodynamic simulation of electrically controlled droplet generation. International Journal of Heat and Fluid Flow, 2017, 64, 120-128.	1.1	27
97	Experimental comparison of a 2D laminar diffusion flame under oxy-fuel and air atmosphere. Fuel, 2018, 212, 302-308.	3.4	27
98	Experimental characterization of the velocity boundary layer in a motored IC engine. International Journal of Heat and Fluid Flow, 2018, 71, 366-377.	1.1	27
99	Polarization-spectroscopic measurement and spectral simulation of OH (A 2 ??X 2 ?) and NH (A 3 ??X 3 ?) transitions in atmospheric pressure flames. Applied Physics B: Lasers and Optics, 1995, 61, 421-427.	1.1	26
100	Comparison of two-photon excitation schemes for CO detection in flames. Applied Physics B: Lasers and Optics, 2000, 71, 689-696.	1.1	26
101	Laser imaging investigation of transient heat transfer processes in turbulent nitrogen jets impinging on a heated wall. International Journal of Heat and Mass Transfer, 2014, 74, 101-112.	2.5	26
102	The application of a raman-shifted tunable KrF excimer laser for laser-induced fluorescence combustion diagnostics. Applied Physics B, Photophysics and Laser Chemistry, 1992, 55, 381-387.	1.5	25
103	Comparison of OH time-series measurements and large-eddy simulations in hydrogen jet flames. Combustion and Flame, 2004, 139, 142-151.	2.8	25
104	Spray-induced temperature stratification dynamics in a gasoline direct-injection engine. Proceedings of the Combustion Institute, 2015, 35, 2923-2931.	2.4	25
105	Photolytic interference affecting two-photon laser-induced fluorescence detection of atomic oxygen in hydrocarbon flames. Applied Physics B: Lasers and Optics, 2003, 76, 479-482.	1.1	24
106	Combined phosphor and CARS thermometry at the wallâ€“gas interface of impinging flame and jet systems. Experiments in Fluids, 2008, 44, 897-904.	1.1	24
107	In-Nozzle Measurements of a Turbulent Opposed Jet Using PIV. Flow, Turbulence and Combustion, 2010, 85, 73-93.	1.4	24
108	Phosphor thermometry: On the synthesis and characterisation of Y3Al5O12:Eu (YAG:Eu) and YAlO3:Eu (YAP:Eu). Materials Chemistry and Physics, 2013, 140, 435-440.	2.0	24

#	Article	IF	Citations
109	Cylinder head temperature determination using high-speed phosphor thermometry in a fired internal combustion engine. Applied Physics B: Lasers and Optics, 2014, 116, 293-303.	1.1	24
110	Two-Dimensional Temperature Measurements in an SI Engine Using Two-Line Tracer LIF. , 0, , .		23
111	Flame growth and wrinkling in a turbulent flow. Applied Physics B: Lasers and Optics, 2000, 71, 711-716.	1.1	23
112	Observation of Fuel Cell Membrane Degradation by Ex Situ and In Situ Electron Paramagnetic Resonance. Journal of the Electrochemical Society, 2008, 155, B570.	1.3	23
113	Assessment and application of tomographic PIV for the spray-induced flow in an IC engine. Proceedings of the Combustion Institute, 2017, 36, 3467-3475.	2.4	23
114	Investigation of the Influence of Nanostructured LiNi_{0.33}Co_{0.33}Mn_{0.33}O₂Lithium-Ion Battery Electrodes on Performance and Aging. Journal of the Electrochemical Society, 2018, 165, A273-A282.	1.3	23
115	On the importance of non-equilibrium models for describing the coupling of heat and mass transfer at high pressure. International Communications in Heat and Mass Transfer, 2018, 98, 49-58.	2.9	23
116	Lifted Diffusion Flame Stabilisation: Conditional Analysis of Multi-Parameter High-Repetition Rate Diagnostics at the Flame Base. Flow, Turbulence and Combustion, 2012, 88, 503-527.	1.4	22
117	Quenching of Premixed Flames at Cold Walls: Effects on the Local Flow Field. Flow, Turbulence and Combustion, 2018, 100, 177-196.	1.4	22
118	An experimental study of the detailed flame transport in a SI engine using simultaneous dual-plane OH-LIF and stereoscopic PIV. Combustion and Flame, 2019, 202, 16-32.	2.8	22
119	Broadband fitting approach for the application of supercontinuum broadband laser absorption spectroscopy to combustion environments. Measurement Science and Technology, 2016, 27, 015501.	1.4	21
120	Turbulent heat flux measurement in a non-reacting round jet, using BAM:Eu2+ phosphor thermography and particle image velocimetry. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	21
121	Evaluation of a 2.5ÂkWel automotive low temperature PEM fuel cell stack with extended operating temperature range up to 120ÂÂ°C. Journal of Power Sources, 2016, 303, 257-266.	4.0	21
122	An application of tomographic PIV to investigate the spray-induced turbulence in a direct-injection engine. International Journal of Multiphase Flow, 2019, 121, 103116.	1.6	21
123	Measurement of orientational relaxation times of OH in a flame using picosecond time-resolved polarization spectroscopy. Chemical Physics Letters, 1995, 240, 315-323.	1.2	20
124	Time resolved three-dimensional flamebase imaging of a lifted jet flame by laser scanning. Measurement Science and Technology, 2015, 26, 105201.	1.4	20
125	Temporal evolution of auto-ignition of ethylene and methane jets propagating into a turbulent hot air co-flow vitiated with NO x. Combustion and Flame, 2017, 177, 193-206.	2.8	20
126	Flame imaging using planar laser induced fluorescence of sulfur dioxide. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	20

#	Article	IF	Citations
127	Experimental investigation of the flue gas thermochemical composition of an oxy-fuel swirl burner. Fuel, 2018, 231, 61-72.	3.4	20
128	1D high-speed Rayleigh measurements in turbulent flames. Applied Physics B: Lasers and Optics, 2010, 101, 487-491.	1.1	19
129	On the mono-exponential fitting of phosphorescence decays. Applied Physics B: Lasers and Optics, 2014, 116, 359-369.	1.1	19
130	Assessing the relative importance of flame regimes in Raman/Rayleigh line measurements of turbulent lifted flames. Proceedings of the Combustion Institute, 2019, 37, 2297-2305.	2.4	19
131	A study of the spatial and temporal evolution of auto-ignition kernels using time-resolved tomographic OH-LIF. Proceedings of the Combustion Institute, 2019, 37, 1321-1328.	2.4	19
132	Large eddy simulation of combustion processes under gas turbine conditions. Progress in Computational Fluid Dynamics, 2004, 4, 257.	0.1	18
133	Experiments for Combustion-LES Validation. Flow, Turbulence and Combustion, 2008, 80, 507-529.	1.4	18
134	A quasi-adiabatic laminar flat flame burner for high temperature calibration. Measurement Science and Technology, 2009, 20, 065402.	1.4	18
135	Simultaneous Measurements of Temperature and CO Concentration in Stagnation Stabilized Flames. Flow, Turbulence and Combustion, 2013, 90, 723-739.	1.4	18
136	Robust, spatially scanning, open-path TDLAS hygrometer using retro-reflective foils for fast tomographic 2-D water vapor concentration field measurements. Atmospheric Measurement Techniques, 2015, 8, 2061-2068.	1.2	18
137	Flame-Flow Interaction in Premixed Turbulent Flames During Transient Head-On Quenching. Flow, Turbulence and Combustion, 2017, 98, 1025-1038.	1.4	18
138	Flame/flow dynamics at the piston surface of an IC engine measured by high-speed PLIF and PTV. Proceedings of the Combustion Institute, 2019, 37, 4973-4981.	2.4	18
139	Large Eddy Simulation of a laboratory-scale gas-assisted pulverized coal combustion chamber under oxy-fuel atmospheres using tabulated chemistry. Fuel, 2020, 272, 117683.	3.4	18
140	Investigation of cycle-to-cycle variations in a spark-ignition engine based on a machine learning analysis of the early flame kernel. Proceedings of the Combustion Institute, 2021, 38, 5751-5759.	2.4	18
141	Numerical Investigation of Local Heat-Release Rates and Thermo-Chemical States in Side-Wall Quenching of Laminar Methane and Dimethyl Ether Flames. Flow, Turbulence and Combustion, 2021, 106, 681-700.	1.4	18
142	Measurement of species concentration and estimation of temperature in the wake of evaporating n-heptane droplets at trans-critical conditions. Proceedings of the Combustion Institute, 2017, 36, 2433-2440.	2.4	17
143	Particle dynamics in a gas assisted coal combustion chamber using advanced laser diagnostics. Fuel, 2020, 269, 117188.	3.4	17
144	Near-Wall Flame and Flow Measurements in an Optically Accessible SI Engine. Flow, Turbulence and Combustion, 2021, 106, 597-611.	1.4	17

#	Article	IF	Citations
145	Investigation of flame structures in turbulent partially premixed counter-flow flames using planar laser-induced fluorescence. Progress in Computational Fluid Dynamics, 2004, 4, 241.	0.1	16
146	3D Numerical Simulation of a Laminar Experimental SWQ Burner with Tabulated Chemistry. Flow, Turbulence and Combustion, 2018, 100, 535-559.	1.4	16
147	Data analysis and uncertainty estimation in supercontinuum laser absorption spectroscopy. Scientific Reports, 2018, 8, 10312.	1.6	16
148	Experimental Investigation of Global Combustion Characteristics in an Effusion Cooled Single Sector Model Gas Turbine Combustor. Flow, Turbulence and Combustion, 2019, 102, 1025-1052.	1.4	16
149	Experimental investigation of particle-laden flows in an oxy-coal combustion chamber for non-reacting conditions. Fuel, 2019, 235, 753-762.	3.4	16
150	The Effects of Intake Pressure on In-Cylinder Gas Velocities in an Optically Accessible Single-Cylinder Research Engine. , 0, , .		16
151	LES of Premixed Methane Flame Impinging on the Wall Using Non-adiabatic Flamelet Generated Manifold (FGM) Approach. Flow, Turbulence and Combustion, 2014, 92, 805-836.	1.4	15
152	Quasi-4D laser diagnostics using an acousto-optic deflector scanning system. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	15
153	Detailed Analysis of the Velocity Fields from 60 kW Swirl-Stabilized Coal Flames in CO₂/O₂- and N₂/O₂-Atmospheres by Means of Laser Doppler Velocimetry and Particle Image Velocimetry. Combustion Science and Technology, 2017, 189, 1751-1775.	1.2	15
154	Flameâ€“cooling air interaction in an effusion-cooled model gas turbine combustor at elevated pressure. Experiments in Fluids, 2019, 60, 1.	1.1	15
155	Investigation of the transition from single to group coal particle combustion using high-speed scanning OH-LIF and diffuse backlight-illumination. Proceedings of the Combustion Institute, 2021, 38, 4101-4109.	2.4	15
156	Velocimetry of gas flows using degenerate four-wave mixing. Optics Letters, 1994, 19, 1486.	1.7	14
157	Conditional Velocity Measurements by Simultaneously Applied Laser Doppler Velocimetry and Planar Laser-Induced Fluorescence in a Swirling Natural Gas/Air Flame. Zeitschrift Fur Physikalische Chemie, 2005, 219, 635-648.	1.4	14
158	Experimental and Theoretical Investigation of the Flashback of a Swirling, Bluff-Body Stabilised, Premixed Flame. Zeitschrift Fur Physikalische Chemie, 2015, 229, 663-689.	1.4	14
159	Quantitative acetylene measurements in laminar and turbulent flames using 1D Raman/Rayleigh scattering. Combustion and Flame, 2015, 162, 2248-2255.	2.8	14
160	Generation of Adverse Pressure Gradient in the Circumferential Flashback of a Premixed Flame. Flow, Turbulence and Combustion, 2016, 97, 663-687.	1.4	14
161	Comparison of Different Ways for Image Post-Processing: Detection of Flame Fronts. , 0, , .		13
162	EXPERIMENTAL AND NUMERICAL ANALYSIS OF SPRAY DISPERSION AND EVAPORATION IN A COMBUSTION CHAMBER. Small Group Research, 2009, 19, 929-955.	1.8	13

#	Article	IF	Citations
163	Investigations of soot formation in an optically accessible gasoline direct injection engine by means of laser-induced incandescence (LII). Applied Physics B: Lasers and Optics, 2011, 104, 399-407.	1.1	13
164	High-speed volumetric imaging of formaldehyde in a lifted turbulent jet flame using an acousto-optic deflector. Experiments in Fluids, 2020, 61, 1.	1.1	13
165	Flame structure analysis of turbulent premixed/stratified flames with H2 addition considering differential diffusion and stretch effects. Proceedings of the Combustion Institute, 2021, 38, 2993-3001.	2.4	13
166	Experimental Determination of Pdfs of OH Radicals in IC Engines Using Calibrated Laser-Induced Fluorescence as a Basis for Modelling the End-Phase of Engine Combustion. Combustion Science and Technology, 2000, 158, 485-509.	1.2	12
167	Application of femtosecond lasers to the polarization ratio technique for droplet sizing. Measurement Science and Technology, 2013, 24, 025203.	1.4	12
168	Effects of doping concentration and co-doping with cerium on the luminescence properties of Gd3Ga5O12:Cr3+ for thermometry applications. Optical Materials, 2015, 47, 338-344.	1.7	12
169	Cause-and-effect chain from flow and spray to heat release during lean gasoline combustion operation using conditional statistics. International Journal of Engine Research, 2017, 18, 143-154.	1.4	12
170	Application of structured illumination to gas phase thermometry using thermographic phosphor particles: a study for averaged imaging. Experiments in Fluids, 2017, 58, 1.	1.1	12
171	Database of Near-Wall Turbulent Flow Properties of a Jet Impinging on a Solid Surface under Different Inclination Angles. Fluids, 2018, 3, 5.	0.8	12
172	Laser based measurement of water film thickness for the application in exhaust after-treatment processes. International Journal of Heat and Fluid Flow, 2018, 71, 288-294.	1.1	12
173	Multiple scattering reduction in instantaneous gas phase phosphor thermometry: applications with dispersed seeding. Measurement Science and Technology, 2019, 30, 054003.	1.4	12
174	Double-Pulse PLIF Imaging of Self-Ignition Centers in an SI Engine. , 2001, , .		11
175	Measurement of temperature and concentration in oxy-fuel flames by Raman/Rayleigh spectroscopy. Measurement Science and Technology, 2002, 13, 1952-1961.	1.4	11
176	A novel plasma heater for auto-ignition studies of turbulent non-premixed flows. Experiments in Fluids, 2015, 56, 1.	1.1	11
177	Multiple conditioned analysis of the turbulent stratified flame A. Proceedings of the Combustion Institute, 2017, 36, 1947-1955.	2.4	11
178	Structure of a stratified CH4 flame with H2 addition. Proceedings of the Combustion Institute, 2019, 37, 2307-2315.	2.4	11
179	Experimental Investigation of AdBlue Film Formation in a Generic SCR Test Bench and Numerical Analysis Using LES. Applied Sciences (Switzerland), 2021, 11, 6907.	1.3	11
180	A fuel cell that runs on water and air. Energy and Environmental Science, 2010, 3, 761.	15.6	10

#	Article	IF	Citations
181	Analysis of the In-Cylinder Flow Field / Spray Injection Interaction within a DISI IC Engine Using High-Speed PIV. , 0, , .		10
182	In-situ measurement of residence time distributions in a turbulent oxy-fuel gas-flame combustor. Experiments in Fluids, 2017, 58, 1.	1.1	10
183	â€œSimultaneous measurement of flame impingement and piston surface temperatures in an optically accessible spark ignition engineâ€• Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	10
184			

#	Article	IF	Citations
199	Surface thermometry in combustion diagnostics by sputtered thin films of thermographic phosphors. Applied Physics B: Lasers and Optics, 2014, 117, 85-93.	1.1	6
200	A Numerical Study of the Flame Stabilization Mechanism Being Determined by Chemical Reaction Rates Submitted to Heat Transfer Processes. Zeitschrift Fur Physikalische Chemie, 2015, 229, 643-662.	1.4	6
201	Multiscale and luminescent, hollow microspheres for gas phase thermometry. Scientific Reports, 2018, 8, 602.	1.6	6
202	Comparison of two measurement strategies to obtain the residence time distribution in combustion chambers using tunable diode laser absorption spectroscopy. Applied Optics, 2019, 58, C36.	0.9	6
203	Observation of Membrane Degradation by In-Situ and Ex-Situ Electron Paramagnetic Resonance. ECS Transactions, 2007, 11, 1105-1114.	0.3	5
204	Quantitative mixture fraction imaging of a synthetic biogas turbulent jet propagating into a NO-vitiated air co-flow using planar laser-induced fluorescence (PLIF). Experiments in Fluids, 2019, 60, 1.	1.1	5
205	Applied laser spectroscopy in technical combustion systems. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1997, 101, 771-782.	0.9	4
206	Time Resolved Spray Characterisation in a Common Rail Direct-Injection Production Type Diesel Engine Using Combined Mie/LIF Laser Diagnostics. , 2003, , .		3
207	Differential infrared thermography of gasoline direct injection sprays. Quantitative InfraRed Thermography Journal, 2016, 13, 50-69.	2.1	3
208	Fuel Effects in Turbulent Premixed Pre-vaporised Alcohol/Air Jet Flames. Flow, Turbulence and Combustion, 2021, 106, 547-573.	1.4	3
209	Experimental and Numerical Investigation of the Argon Power Cycle. , 2018, , .		3
210	Analysis of Flow Patterns inside an Autothermal Gasoline Reformer. , 2001, , .		2
211	Polarization Spectroscopy Applied to the Detection of Trace Constituents in Sooting Combustion. Applied Spectroscopy, 2004, 58, 238-242.	1.2	2
212	Optical sensing of turbine inlet temperature in a pressurized gas turbine combustor. , 2016, , .		2
213	Laser-Induced Fluorescence Detection of OH in a Flame Near 268 nm. Journal of Molecular Spectroscopy, 1994, 166, 486-488.	0.4	1
214	Numerical and experimental investigations of confined swirling combusting flows. Progress in Computational Fluid Dynamics, 2003, 3, 78.	0.1	1
215	Velocity and Droplet Diameter Distributions of Reacting N-Heptane Sprays at Varied Boundary Conditions in a Generic Gas Turbine Combustor. , 2010, , .		1
216	Self-Exited Oscillation in a Combustion Chamber Driven by Phase Change in the Liquid Fuel Feed System. International Journal of Spray and Combustion Dynamics, 2011, 3, 273-284.	0.4	1

#	Article	IF	Citations
217	Phosphor thermometry at high repetition rates. , 2013, , .		1
218	Technical design note: differential infrared thermography of methane jets. Measurement Science and Technology, 2016, 27, 107001.	1.4	1
219	PolySpec: polynomial spectrum models for fast and light-weight spectroscopic evaluation. Applied Optics, 2018, 57, 9907.	0.9	1
220	Analysis of cyclic Variability in Motored IC-Engines by Means of Detailed Comparison of Highly-Resolved Experimental and Numerical Data. , 2012, , .		1
221	Imaging Studies of Swirl-Stabilized Premixed Flames. , 2006, , MB2.		0
222	Laser Applications to Chemical, Security, and Environmental Analysis: introduction to the feature issue. Applied Optics, 2007, 46, 3909.	2.1	0
223	A quantum cascade laser based mid-infrared sensor for the detection of carbon monoxide and nitrous oxide in the jet of a microwave plasma preheated auto-ignition burner. , 2013, , .		0
224	2D Residual Gas Visualization in an Optical Direct Injection Spark Ignition Engine with IR Laser Absorption. , 0, , .		0
225	NO mole fraction measurement in a plasma-heated auto ignition test rig using a 5.2 Âµm interband cascade laser. , 2016, , .		0
226	Diode Laser Based Film Thickness Measurement of DEF. , 2018, , .		0
227	An improved TDLAS technique to measure residence time distributions in particle loaded combustion chambers. , 2018, , .		0