

Terrence R Meyer

List of Publications by Year in descending order

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117
papers

3,331
citations

101543

36
h-index

155660

55
g-index

118
all docs

118
docs citations

118
times ranked

1089
citing authors

#	ARTICLE	IF	CITATIONS
1	0.1-5 MHz ultrahigh-speed gas density distributions using digital holographic interferometry. Applied Optics, 2022, 61, 28-34.	1.8	1
2	Megahertz-rate Femtosecond Laser Activation and Sensing of Hydroxyl for Velocimetry in a Rotating Detonation Combustor Exhaust. , 2022, , .		0
3	Time-resolved Volumetric (4D) Laser Induced Fluorescence Imaging of Primary Spray Breakup. , 2022, , .		2
4	Detonation wave dynamics of straight and expanding annular injectors using MHz rate OH* chemiluminescence, and URANS simulations. , 2022, , .		0
5	Spectrally filtered ps emission dynamics of atmospheric-pressure nanosecond pulsed plasmas. Applied Physics Letters, 2022, 120, .	3.3	11
6	100 kHz burst-mode picosecond vibrational N2CARS thermometry in energetic combustion environments. , 2022, , .		0
7	Reconstruction of Ligaments and Droplets Via Multiview Digital Inline Holography. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, .	1.5	2
8	Supersonic Exhaust from a Rotating Detonation Engine with Throatless Diverging Channel. AIAA Journal, 2022, 60, 4015-4023.	2.6	3
9	Megahertz-rate background-oriented schlieren tomography in post-detonation blasts. Applied Optics, 2022, 61, 2444.	1.8	10
10	On the effects of reactant stratification and wall curvature in non-premixed rotating detonation combustors. Combustion and Flame, 2022, 240, 112013.	5.2	33
11	Simultaneous 100-kHz acetone planar laser-induced fluorescence and OH* chemiluminescence in a linear non-premixed detonation channel. Combustion and Flame, 2022, 244, 112209.	5.2	15
12	Experimental study of internal flow structures in cylindrical rotating detonation engines. Proceedings of the Combustion Institute, 2021, 38, 3759-3768.	3.9	32
13	Advances in burst-mode laser diagnostics for reacting and nonreacting flows. Proceedings of the Combustion Institute, 2021, 38, 1533-1560.	3.9	36
14	Concentration and pressure scaling of CH2O electronic-resonance-enhanced coherent anti-Stokes Raman scattering signals. Applied Optics, 2021, 60, 1051.	1.8	2
15	Application of 100 kHz Acetone-PLIF for the Investigation of Mixing Dynamics in a Self-Excited Linear Detonation Channel. , 2021, , .		2
16	Megahertz OH-PLIF Imaging in a Rotating Detonation Engine. , 2021, , .		3
17	Femtosecond Laser Electronic Excitation Tagging Velocimetry in a Mach Six Quiet Tunnel. AIAA Journal, 2021, 59, 768-772.	2.6	12
18	Visible emission spectra of thermographic phosphors under x-ray excitation. Measurement Science and Technology, 2021, 32, 094008.	2.6	9

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19	Particle Image Velocimetry in a High-Pressure Turbine Stage at Aerodynamically Engine Representative Conditions. <i>Journal of Engineering for Gas Turbines and Power</i> , 2021, 143, .	1.1	3
20	Evaluation of liquid-phase thermometry in impinging jet sprays using synchrotron x-ray scattering. <i>Applied Optics</i> , 2021, 60, 2967.	1.8	2
21	Flow conditioning system for tri-sonic high pressure aerothermal testing. <i>Flow Measurement and Instrumentation</i> , 2021, 79, 101910.	2.0	3
22	Temperature-dependent x-ray fluorescent response from thermographic phosphors under x-ray excitation. <i>Applied Physics Letters</i> , 2021, 119, 034103.	3.3	0
23	Femtosecond/picosecond rotational coherent anti-Stokes Raman scattering thermometry in the exhaust of a rotating detonation combustor. <i>Combustion and Flame</i> , 2021, 231, 111504.	5.2	21
24	Burst-mode 100â€‰%â€‰kHz N2 ps-CARS flame thermometry with concurrent nonresonant background referencing. <i>Optics Letters</i> , 2021, 46, 5489.	3.3	5
25	CH and NO planar laser-induced fluorescence and Rayleigh-scattering in turbulent flames using a multimode optical parametric oscillator. <i>Applied Optics</i> , 2021, 60, 98.	1.8	7
26	Grid-based femtosecond laser electronic excitation tagging for single-ended 2D velocimetry at kilohertz rates. <i>Applied Optics</i> , 2021, 60, 10714.	1.8	7
27	Detonation Dynamics Visualization From Megahertz Imaging. , 2020, , .		6
28	Application of femtosecond laser electronic excitation tagging (FLEET) velocimetry in a bladeless turbine. <i>Measurement Science and Technology</i> , 2020, 31, 064005.	2.6	15
29	Burst-mode femtosecond laser electronic excitation tagging for kHzâ€‰MHz seedless velocimetry. <i>Optics Letters</i> , 2020, 45, 335.	3.3	31
30	Flexible chirp-free probe pulse amplification for kHz fs/ps rotational CARS. <i>Optics Letters</i> , 2020, 45, 503.	3.3	18
31	High-energy laser pulses for extended duration megahertz-rate flow diagnostics. <i>Optics Letters</i> , 2020, 45, 4583.	3.3	12
32	Megahertz-rate OH planar laser-induced fluorescence imaging in a rotating detonation combustor. <i>Optics Letters</i> , 2020, 45, 5776.	3.3	37
33	Dual-output fs/ps burst-mode laser for megahertz-rate rotational coherent anti-Stokes Raman scattering. <i>Optics Letters</i> , 2020, 45, 5933.	3.3	12
34	High-Energy Flexible Probe Pulse Generation for kHz fs-ps Rotational Coherent Anti-Stokes Raman Scattering. , 2020, , .		0
35	Femtosecond laser activation and sensing of hydroxyl for velocimetry in reacting flows. <i>Applied Optics</i> , 2020, 59, 10853.	1.8	3
36	Purdue Small Turbine Aerothermal Rotating Rig (STARR). , 2019, , .		3

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37	Burst-Mode 100 kHz - 1 MHz Velocimetry in Supersonic and Hypersonic Flows. , 2019, , .		0
38	MASS DISTRIBUTION AND MIXING MEASUREMENTS IN NON-NEWTONIAN IMPINGING JETS. Atomization and Sprays, 2019, 29, 987-1003.	0.8	2
39	MHz-Rate Ultrafast Laser for Nonlinear Spectroscopy in Transient and Nonequilibrium Hypersonic Flows. , 2019, , .		0
40	High Speed Particle Image Velocimetry and Particle Tracking Methods in Reactive and Non-Reactive Flows. , 2019, , .		6
41	Pressure Scaling of Spatiotemporally Resolved Femtosecond Two-photon Laser-Induced Fluorescence of CO. , 2019, , .		1
42	Quantitative femtosecond, two-photon laser-induced fluorescence of atomic oxygen in high-pressure flames. Applied Optics, 2019, 58, 1984.	1.8	10
43	Dynamic imaging of the temperature field within an energetic composite using phosphor thermography. Applied Optics, 2019, 58, 4320.	1.8	8
44	Pressure-scaling characteristics of femtosecond two-photon laser-induced fluorescence of carbon monoxide. Applied Optics, 2019, 58, 7458.	1.8	5
45	Lifetime-filtered laser-induced exciplex fluorescence for crosstalk-free liquid-vapor imaging. Optics Letters, 2019, 44, 1399.	3.3	4
46	Burst-mode laser architecture for the generation of high-peak-power MHz-rate femtosecond pulses. OSA Continuum, 2019, 2, 3490.	1.8	11
47	Tracer-free liquidâ€“vapor imaging using lifetime-filtered planar laser-induced fluorescence. Optics Letters, 2019, 44, 2101.	3.3	4
48	4D spatiotemporal evolution of liquid spray using kilohertz-rate x-ray computed tomography. Optics Letters, 2019, 44, 5013.	3.3	13
49	Development of Two-Color 3D Tomographic VLIF Measurements. , 2018, , .		1
50	Diffuse Interface Eulerian Spray Atomization Modeling of Impinging Jet Sprays. , 2018, , .		0
51	KHzâ€“MHz Rate Laser-Based Tracking of Particles and Product Gases for Multiphase Blast Fields. , 2018, , .		2
52	Burst-mode OH/CH ₂ O planar laser-induced fluorescence imaging of the heat release zone in an unsteady flame. Optics Express, 2018, 26, 18105.	3.4	15
53	Femtosecond, two-photon, laser-induced fluorescence (TP-LIF) measurement of CO in high-pressure flames. Applied Optics, 2018, 57, 5666.	1.8	19
54	Compact burst-mode Nd:YAG laser for kHzâ€“MHz bandwidth velocity and species measurements. Optics Letters, 2018, 43, 735.	3.3	31

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55	Generation of high-energy, kilohertz-rate narrowband tunable ultraviolet pulses using a burst-mode dye laser system. <i>Optics Letters</i> , 2018, 43, 1191.	3.3	22
56	Interference-free hybrid fs/ps vibrational CARS thermometry in high-pressure flames. <i>Optics Letters</i> , 2018, 43, 4911.	3.3	21
57	Investigation of energy distributions behind a microscale gas-phase detonation tube using hybrid fs/ps coherent anti-Stokes Raman scattering. , 2017, , .		5
58	3D OH LIF Measurements in a Lifted Flame. , 2017, , .		3
59	Synchrotron X-Ray Interrogation of Turbulent Gas-Liquid Mixing in Cryogenic Rocket Sprays. <i>AIAA Journal</i> , 2017, 55, 4306-4313.	2.6	7
60	Recent developments in x-ray diagnostics for cryogenic and optically dense coaxial rocket sprays. , 2017, , .		0
61	20-kHz-rate three-dimensional tomographic imaging of the concentration field in a turbulent jet. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 4611-4618.	3.9	36
62	High-speed, two-dimensional synchrotron white-beam x-ray radiography of spray breakup and atomization. <i>Optics Express</i> , 2017, 25, 1605.	3.4	29
63	Single-shot ultrafast coherent anti-Stokes Raman scattering of vibrational/rotational nonequilibrium. <i>Optica</i> , 2017, 4, 563.	9.3	53
64	kHz-rate four-dimensional fluorescence tomography using an ultraviolet-tunable narrowband burst-mode optical parametric oscillator. <i>Optica</i> , 2017, 4, 897.	9.3	69
65	4D spatiotemporal evolution of combustion intermediates in turbulent flames using burst-mode volumetric laser-induced fluorescence. <i>Optics Letters</i> , 2017, 42, 2830.	3.3	56
66	High-speed, three-dimensional tomographic laser-induced incandescence imaging of soot volume fraction in turbulent flames. <i>Optics Express</i> , 2016, 24, 29547.	3.4	68
67	High-speed three-dimensional tomographic measurements for combustion systems. , 2016, , .		4
68	Spatiotemporal analysis of turbulent jets enabled by 100-kHz, 100-ms burst-mode particle image velocimetry. <i>Experiments in Fluids</i> , 2016, 57, 1.	2.4	38
69	Single-shot, volumetrically illuminated, three-dimensional, tomographic laser-induced-fluorescence imaging in a gaseous free jet. <i>Optics Express</i> , 2016, 24, 10040.	3.4	46
70	Evaluation of Hybrid fs/ps coherent anti-Stokes Raman scattering temperature and pressure sensitivity at combustor relevant conditions. , 2016, , .		2
71	100-kHz burst-mode particle image velocimetry: space-time correlations and considerations for spatial and temporal resolution. , 2016, , .		3
72	Hybrid fs/ps coherent anti-Stokes Raman scattering for non-equilibrium environments. , 2016, , .		6

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73	High-speed three-dimensional tomography of soot and combustion intermediates in jet diffusion flames. , 2016, , .		0
74	Vibrational femtosecond/picosecond coherent anti-Stokes Raman scattering with enhanced temperature sensitivity for flame thermometry from 300 to 2400 K. Journal of Raman Spectroscopy, 2015, 46, 702-707.	2.5	38
75	Potential of two-line atomic fluorescence for temperature imaging in turbulent indium-oxide-producing flames. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	4
76	Effects of repetitive pulsing on multi-kHz planar laser-induced incandescence imaging in laminar and turbulent flames. Applied Optics, 2015, 54, 3331.	2.1	26
77	Quantitative measurement of binary liquid distributions using multiple-tracer x-ray fluorescence and radiography. Optics Express, 2015, 23, 1730.	3.4	17
78	Quantitative time-averaged gas and liquid distributions using x-ray fluorescence and radiography in atomizing sprays. Optics Letters, 2015, 40, 2029.	3.3	12
79	Hybrid fs/ps coherent anti-Stokes Raman scattering in a non-equilibrium environment initiated by a ns laser spark. , 2015, , .		2
80	Dual-pump vibrational/rotational femtosecond/picosecond coherent anti-Stokes Raman scattering temperature and species measurements. Optics Letters, 2014, 39, 6608.	3.3	45
81	100-ps-pulse-duration, 100-J burst-mode laser for kHz-MHz flow diagnostics. Optics Letters, 2014, 39, 6462.	3.3	54
82	100-kHz thousand-frame burst-mode planar imaging in turbulent flames. Optics Letters, 2014, 39, 739.	3.3	33
83	Evaluation of X-ray sources for quantitative two- and three-dimensional imaging of liquid mass distribution in atomizing sprays. International Journal of Multiphase Flow, 2014, 59, 113-120.	3.4	29
84	Time- and frequency-dependent model of time-resolved coherent anti-Stokes Raman scattering (CARS) with a picosecond-duration probe pulse. Journal of Chemical Physics, 2014, 140, 024316.	3.0	87
85	100-kHz, 100-ms, 400-J burst-mode laser with dual-wavelength diode-pumped amplifiers. Optics Letters, 2014, 39, 4735.	3.3	71
86	Development of a diode-pumped 100-ms quasi-continuous burst-mode laser for high-speed combustion diagnostics. , 2014, , .		13
87	Spatially and temporally resolved temperature and shock-speed measurements behind a laser-induced blast wave of energetic nanoparticles. Journal of Applied Physics, 2013, 113, 184310.	2.5	27
88	Hybrid femtosecond/picosecond coherent anti-Stokes Raman scattering for high-speed CH ₄ /N ₂ measurements in binary gas mixtures. Journal of Raman Spectroscopy, 2013, 44, 1336-1343.	2.5	26
89	Simultaneous high-speed planar imaging of mixture fraction and velocity using a burst-mode laser. Applied Physics B: Lasers and Optics, 2013, 113, 93-97.	2.2	42
90	Experimental and modeling study of chemical-kinetics mechanisms for H ₂ /NH ₃ air mixtures in laminar premixed jet flames. Fuel, 2013, 108, 166-176.	6.4	188

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91	All-diode-pumped quasi-continuous burst-mode laser for extended high-speed planar imaging. <i>Optics Express</i> , 2013, 21, 681.	3.4	66
92	Communication: Hybrid femtosecond/picosecond rotational coherent anti-Stokes Raman scattering thermometry using a narrowband time-asymmetric probe pulse. <i>Journal of Chemical Physics</i> , 2012, 136, 111101.	3.0	49
93	Interference-free gas-phase thermometry at elevated pressure using hybrid femtosecond/picosecond rotational coherent anti-Stokes Raman scattering. <i>Optics Express</i> , 2012, 20, 5003.	3.4	63
94	Quasi-continuous burst-mode laser for high-speed planar imaging. <i>Optics Letters</i> , 2012, 37, 1346.	3.3	114
95	Characterization of a CH planar laser-induced fluorescence imaging system using a kHz-rate multimode-pumped optical parametric oscillator. <i>Applied Optics</i> , 2012, 51, 2589.	1.8	19
96	Micro-Optical Initiation of Nanoenergetic Materials Using a Temporally Tailored Variable-Pulse-Width Laser. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2012, 3, .	0.8	2
97	MHz-rate nitric oxide planar laser-induced fluorescence imaging in a Mach 10 hypersonic wind tunnel. <i>Applied Optics</i> , 2011, 50, A20.	2.1	110
98	Probe-pulse optimization for nonresonant suppression in hybrid fs/ps coherent anti-Stokes Raman scattering at high temperature. <i>Optics Express</i> , 2011, 19, 13326.	3.4	45
99	Single-shot gas-phase thermometry using pure-rotational hybrid femtosecond/picosecond coherent anti-Stokes Raman scattering. <i>Optics Express</i> , 2011, 19, 15627.	3.4	95
100	High-speed CH planar laser-induced fluorescence imaging using a multimode-pumped optical parametric oscillator. <i>Optics Letters</i> , 2011, 36, 3927.	3.3	22
101	Communication: Time-domain measurement of high-pressure N ₂ and O ₂ self-broadened linewidths using hybrid femtosecond/picosecond coherent anti-Stokes Raman scattering. <i>Journal of Chemical Physics</i> , 2011, 135, 201104.	3.0	61
102	Ballistic imaging in the near-field of an effervescent spray. <i>Experiments in Fluids</i> , 2010, 49, 911-923.	2.4	41
103	Investigation of optical fibers for coherent anti-Stokes Raman scattering (CARS) spectroscopy in reacting flows. <i>Experiments in Fluids</i> , 2010, 49, 969-984.	2.4	27
104	Hybrid femtosecond/picosecond coherent anti-Stokes Raman scattering for high-speed gas-phase thermometry. <i>Optics Letters</i> , 2010, 35, 2430.	3.3	119
105	Ultrahigh-frame-rate OH fluorescence imaging in turbulent flames using a burst-mode optical parametric oscillator. <i>Optics Letters</i> , 2009, 34, 1309.	3.3	90
106	Ultrafast time-gated ballistic-photon imaging and shadowgraphy in optically dense rocket sprays. <i>Applied Optics</i> , 2009, 48, B137.	2.1	50
107	Applications of Ultrafast Lasers for Optical Measurements in Combusting Flows. <i>Annual Review of Analytical Chemistry</i> , 2008, 1, 663-687.	5.4	80
108	Narrow-linewidth megahertz-repetition-rate optical parametric oscillator for high-speed flow and combustion diagnostics. <i>Applied Optics</i> , 2008, 47, 64.	2.1	54

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109	Simultaneous high-speed measurement of temperature and lifetime-corrected OH laser-induced fluorescence in unsteady flames. <i>Optics Letters</i> , 2007, 32, 2221.	3.3	9
110	Improving Signal-To-Interference Ratio in Rich Hydrocarbon-Air Flames Using Picosecond Coherent Anti-Stokes Raman Scattering. <i>Applied Spectroscopy</i> , 2007, 61, 1135-1140.	2.2	55
111	Femtosecond coherent anti-Stokes Raman scattering measurement of gas temperatures from frequency-spread dephasing of the Raman coherence. <i>Applied Physics Letters</i> , 2006, 89, 251112.	3.3	131
112	Time-resolved dynamics of resonant and nonresonant broadband picosecond coherent anti-Stokes Raman scattering signals. <i>Applied Physics Letters</i> , 2005, 87, 264103.	3.3	82
113	Simultaneous planar laser-induced incandescence, OH planar laser-induced fluorescence, and droplet Mie scattering in swirl-stabilized spray flames. <i>Applied Optics</i> , 2005, 44, 445.	2.1	52
114	Ballistic imaging of the liquid core for a steady jet in crossflow. <i>Applied Optics</i> , 2005, 44, 6627.	2.1	55
115	Measurements of OH mole fraction and temperature up to 20 kHz by using a diode-laser-based UV absorption sensor. <i>Applied Optics</i> , 2005, 44, 6729.	2.1	57
116	Broadband coherent anti-Stokes Raman scattering spectroscopy of nitrogen using a picosecond modeless dye laser. <i>Optics Letters</i> , 2005, 30, 3222.	3.3	65
117	Dual-pump dual-broadband coherent anti-Stokes Raman scattering in reacting flows. <i>Optics Letters</i> , 2004, 29, 1843.	3.3	37