

Gaetano Magnotti

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3220591/publications.pdf>

Version: 2024-02-01

79
papers

1,370
citations

361413

20
h-index

434195

31
g-index

79
all docs

79
docs citations

79
times ranked

703
citing authors

#	ARTICLE	IF	CITATIONS
1	The effects of compression ratio and combustion initiation location on knock emergence by using multiple pressure sensing devices. International Journal of Engine Research, 2023, 24, 1121-1139.	2.3	6
2	Optical diagnostics and multi-point pressure sensing on the knocking combustion with multiple spark ignition. Combustion and Flame, 2022, 236, 111802.	5.2	13
3	Raman spectroscopy for quantitative measurements of temperature and major species in high-pressure non-premixed NH ₃ /H ₂ /N ₂ counterflow flames. Combustion and Flame, 2022, 237, 111840.	5.2	28
4	Effects of multiple spark ignition on engine knock under different compression ratio and fuel octane number conditions. Fuel, 2022, 310, 122471.	6.4	10
5	Study on the effects of narrow-throat pre-chamber geometry on the pre-chamber jet velocity using dual formaldehyde PLIF imaging. Combustion and Flame, 2022, 240, 111987.	5.2	21
6	A Pathway to Ultra-Lean IC Engine Combustion: The Narrow Throat Pre-chamber. Energy, Environment, and Sustainability, 2022, , 175-203.	1.0	4
7	Fiber-bundle-based 2D Raman and Rayleigh imaging for major species and temperature measurement in laminar flames. Optics Letters, 2022, 47, 3764.	3.3	2
8	Single-shot imaging of major species and OH mole fractions and temperature in non-premixed H ₂ /N ₂ flames at elevated pressure. Proceedings of the Combustion Institute, 2021, 38, 1647-1655.	3.9	23
9	Picosecond Kerr-gated Raman spectroscopy for measurements in sooty and PAH rich hydrocarbon flames. Proceedings of the Combustion Institute, 2021, 38, 1797-1804.	3.9	6
10	High-speed filtered Rayleigh scattering thermometry in premixed flames through narrow channels. Combustion and Flame, 2021, 225, 329-339.	5.2	11
11	A method to convert stand-alone OH fluorescence images into OH mole fraction. Proceedings of the Combustion Institute, 2021, 38, 1771-1778.	3.9	2
12	50-kHz-rate Rayleigh and filtered Rayleigh scattering thermometry using a pulse-burst laser. , 2021, , .		1
13	Optical diagnostics on the pre-chamber jet and main chamber ignition in the active pre-chamber combustion (PCC). Combustion and Flame, 2021, 228, 218-235.	5.2	50
14	A comparative study of isobaric combustion and conventional diesel combustion in both metal and optical engines. Fuel, 2021, 295, 120638.	6.4	15
15	One-dimensional interferometric Rayleigh scattering velocimetry using a virtually imaged phased array. Optics Letters, 2021, 46, 5252.	3.3	3
16	Temperature dependent Raman spectra of ammonia ranging from 3150 cm ⁻¹ to 3810 cm ⁻¹ for combustion applications. Optics Express, 2021, 29, 33234.	3.4	6
17	Time-resolved thermometric investigation of flame quenching between parallel flat plates. Fuel, 2021, 305, 121511.	6.4	6
18	Assessment of the stabilization mechanisms of turbulent lifted jet flames at elevated pressure using combined 2-D diagnostics. Combustion and Flame, 2020, 214, 323-335.	5.2	17

#	ARTICLE	IF	CITATIONS
19	Numerical Investigation of High Pressure CO ₂ -Diluted Combustion Using a Flamelet-based Approach. Combustion Science and Technology, 2020, 192, 2028-2049.	2.3	10
20	A new OH fluorescence signal-to-OH mole fraction conversion model formulation and calibration. , 2020, , .		0
21	Impact of spray-wall interaction on the in-cylinder spatial unburned hydrocarbon distribution of a gasoline partially premixed combustion engine. Combustion and Flame, 2020, 215, 157-168.	5.2	28
22	Study of spray/wall interaction in transition zones from HCCI via PPC to CI combustion modes. Fuel, 2020, 268, 117341.	6.4	14
23	High-speed 1D Raman analyzer for temperature and major species measurements in a combustion environment. Optics Letters, 2020, 45, 2817.	3.3	10
24	CCD based high-speed 1D Raman scattering for combustion application. , 2020, , .		0
25	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.	3.9	19
26	Combustion stability study of partially premixed combustion by high-pressure multiple injections with low-octane fuel. Applied Energy, 2019, 248, 626-639.	10.1	29
27	Temperature and water measurements in flames using 1064Ånm Laser-Induced Grating Spectroscopy (LIGS). Combustion and Flame, 2019, 205, 336-344.	5.2	18
28	Experimental Study on the Effects of Spray-Wall Interaction on Partially Premixed Combustion and Engine Emissions. Energy & Fuels, 2019, 33, 5673-5681.	5.1	23
29	Structure of a stratified CH ₄ flame with H ₂ addition. Proceedings of the Combustion Institute, 2019, 37, 2307-2315.	3.9	11
30	Coherent Anti-Stokes Raman Spectroscopy of a Hydrogen Diffusion Flame in a Ramjet. AIAA Journal, 2019, 57, 313-326.	2.6	0
31	Structure of turbulent nonpremixed syngas flames at high pressure. Proceedings of the Combustion Institute, 2019, 37, 2207-2214.	3.9	19
32	Combustion stability study of partially premixed combustion with low-octane fuel at low engine load conditions. Applied Energy, 2019, 235, 56-67.	10.1	39
33	Mole fraction measurement through a transparent quartz burner using filtered Rayleigh scattering. Applied Optics, 2019, 58, 5575.	1.8	5
34	Tracer-free laser-induced grating spectroscopy using a pulse burst laser at 100 kHz. Optics Express, 2019, 27, 31217.	3.4	6
35	High-speed Rayleigh-Raman measurements with subframe burst gating. Optics Letters, 2019, 44, 4091.	3.3	13
36	Scalar dissipation rates in a turbulent partially-premixed dimethyl ether/air jet flame. Combustion and Flame, 2018, 188, 41-65.	5.2	14

#	ARTICLE	IF	CITATIONS
37	Regime identification from Raman/Rayleigh line measurements in partially premixed flames. <i>Combustion and Flame</i> , 2018, 189, 126-141.	5.2	41
38	Statistics of scalar dissipation and reaction progress in turbulent flames with compositional inhomogeneities. <i>Combustion and Flame</i> , 2018, 194, 439-451.	5.2	16
39	Quasi-1D High-Speed Raman/Filtered Rayleigh Scattering for Combustion Dynamics Applications. , 2018, , .		1
40	Turbulent flames with compositionally inhomogeneous inlets: Resolved measurements of scalar dissipation rates. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 1737-1745.	3.9	22
41	On defining progress variable for Raman/Rayleigh experiments in partially-premixed methane flames. <i>Combustion and Flame</i> , 2017, 179, 117-129.	5.2	25
42	Multiple conditioned analysis of the turbulent stratified flame A. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 1947-1955.	3.9	11
43	Dual-resolution Raman spectroscopy for measurements of temperature and twelve species in hydrocarbon-air flames. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 4477-4485.	3.9	20
44	Raman spectra of methane, ethylene, ethane, dimethyl ether, formaldehyde and propane for combustion applications. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2015, 163, 80-101.	2.3	54
45	Interference free spontaneous Raman spectroscopy for measurements in rich hydrocarbon flames. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 3765-3772.	3.9	32
46	Stabilization of piloted turbulent flames with inhomogeneous inlets. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1477-1484.	3.9	69
47	Scalar structure of turbulent partially-premixed dimethyl ether/air jet flames. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 1235-1242.	3.9	30
48	Preferential transport effects in premixed bluff-body stabilized CH ₄ /H ₂ flames. <i>Combustion and Flame</i> , 2015, 162, 727-735.	5.2	31
49	Quantitative acetylene measurements in laminar and turbulent flames using 1D Raman/Rayleigh scattering. <i>Combustion and Flame</i> , 2015, 162, 2248-2255.	5.2	14
50	Local extinction and near-field structure in piloted turbulent CH ₄ /air jet flames with inhomogeneous inlets. <i>Combustion and Flame</i> , 2015, 162, 3516-3540.	5.2	94
51	Effects of high shear on the structure and thickness of turbulent premixed methane/air flames stabilized on a bluff-body burner. <i>Combustion and Flame</i> , 2015, 162, 100-114.	5.2	35
52	Dual-Pump Coherent Anti-Stokes Raman Spectroscopy Measurements in a Dual-Mode Scramjet. <i>Journal of Propulsion and Power</i> , 2014, 30, 539-549.	2.2	47
53	OH PLIF visualization of the UVa supersonic combustion experiment: configuration A. <i>Journal of Visualization</i> , 2014, 17, 131-141.	1.8	30
54	Intensity-ratio and color-ratio thin-filament pyrometry: Uncertainties and accuracy. <i>Combustion and Flame</i> , 2014, 161, 908-916.	5.2	46

#	ARTICLE	IF	CITATIONS
55	Radiation intensity imaging measurements of methane and dimethyl ether turbulent nonpremixed and partially premixed jet flames. Combustion and Flame, 2014, 161, 2849-2859.	5.2	19
56	Dual-Pump CARS Measurements in the University of Virginia's Dual-Mode Scramjet: Configuration "C". , 2013, , .		19
57	Development of a dual-pump coherent anti-Stokes Raman spectroscopy system for measurements in supersonic combustion. Applied Optics, 2013, 52, 4779.	1.8	18
58	OH PLIF Visualization of the UVa Supersonic Combustion Experiment: Configuration C. , 2013, , .		17
59	Beam shaping for CARS measurements in turbulent environments. Applied Optics, 2012, 51, 4730.	1.8	14
60	Dual-Pump CARS Measurements in the University of Virginia's Dual-Mode Scramjet: Configuration "A". , 2012, , .		22
61	Development of a Dual-Pump CARS System for Measurements in a Supersonic Combusting Free Jet. , 2012, , .		5
62	Measurement of Vibrational Nonequilibrium in a Supersonic Freestream Using Dual-Pump CARS. , 2012, , .		7
63	Hermanâ€™Wallis corrections in dualâ€™pump CARS intensities for combustion temperature and species. Journal of Raman Spectroscopy, 2012, 43, 595-598.	2.5	8
64	Saturation and Stark broadening effects in dualâ€™pump CARS of N₂, O₂, and H₂. Journal of Raman Spectroscopy, 2012, 43, 611-620.	2.5	19
65	CARS spectral fitting with multiple resonant species using sparse libraries. Journal of Raman Spectroscopy, 2011, 42, 1949-1957.	2.5	27
66	CARS Spectral Fitting of Multiple Resonant Species Using Sparse Libraries. , 2010, , .		2
67	Beam Shaping for CARS Measurements in Turbulent Environments. , 2010, , .		4
68	CARS Temperature Measurements in a Combustion-Heated Supersonic Jet. , 2009, , .		5
69	An Experimental and Numerical Study of a Supersonic Burner for CFD Model Development. , 2008, , .		0
70	Mobile CARS - IRS Instrument for Simultaneous Spectroscopic Measurement of Multiple Properties in Gaseous Flows. , 2007, , .		4
71	Development of Supersonic Combustion Experiments for CFD Modeling. , 2007, , .		7
72	Optical Diagnostics of Pre-Chamber Combustion with Flat and Bowl-In Piston Combustion Chamber. , 0, , .		9

#	ARTICLE	IF	CITATIONS
73	Performance Analysis and In-Cylinder Visualization of Conventional Diesel and Isobaric Combustion in an Optical Diesel Engine. , 0, , .		7
74	Flow-Field Analysis of Isobaric Combustion Using Multiple Injectors in an Optical Accessible Diesel Engine. , 0, , .		7
75	Simultaneous Negative PLIF and OH* Chemiluminescence Imaging of the Gas Exchange and Flame Jet from a Narrow Throat Pre-Chamber. , 0, , .		12
76	High-Speed Imaging of Main-Chamber Combustion of a Narrow Throat Pre-Chamber under Lean Conditions. , 0, , .		10
77	Optical Study on the Fuel Spray Characteristics of the Four-Consecutive-Injections Strategy Used in High-Pressure Isobaric Combustion. , 0, , .		10
78	Study on the Pre-Chamber Fueling Ratio Effect on the Main Chamber Combustion Using Simultaneous PLIF and OH* Chemiluminescence Imaging. SAE International Journal of Advances and Current Practices in Mobility, 0, 3, 137-149.	2.0	12
79	Optical Diagnostics of Isobaric and Conventional Diesel Combustion in a Heavy-Duty Diesel Engine. , 0, , .		6