

Gaël Mouret

List of Publications by Year in descending order

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97
papers

1,533
citations

218381

26
h-index

344852

36
g-index

98
all docs

98
docs citations

98
times ranked

1127
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection and quantification of multiple molecular species in mainstream cigarette smoke by continuous-wave terahertz spectroscopy. <i>Optics Letters</i> , 2006, 31, 2356.	1.7	115
2	Enhancement of sum frequency generation near the photonic band gap edge under the quasiphase matching conditions. <i>Physical Review E</i> , 2001, 63, 046609.	0.8	62
3	Milliwatt-level output power in the sub-terahertz range generated by photomixing in a GaAs photoconductor. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	57
4	Terahertz frequency difference from vertically integrated low-temperature-grown GaAs photodetector. <i>Applied Physics Letters</i> , 2002, 81, 1174-1176.	1.5	54
5	Mid-infrared trace gas detection using continuous-wave difference frequency generation in periodically poled RbTiOAsO ₄ . <i>Applied Physics B: Lasers and Optics</i> , 2001, 72, 873-876.	1.1	52
6	THz photomixing synthesizer based on a fiber frequency comb. <i>Optics Express</i> , 2009, 17, 22031.	1.7	50
7	Continuous-wave terahertz by photomixing: applications to gas phase pollutant detection and quantification. <i>Comptes Rendus Physique</i> , 2008, 9, 262-275.	0.3	44
8	High-efficiency uni-travelling-carrier photomixer at 1.55â€¦[micro sign]m and spectroscopy application up to 1.4â€¦THz. <i>Electronics Letters</i> , 2008, 44, 1320.	0.5	43
9	Gas-Phase Vibrational Spectroscopy and Ab Initio Study of Organophosphorous Compounds: Discrimination between Species and Conformers. <i>Journal of Physical Chemistry B</i> , 2008, 112, 12516-12525.	1.2	43
10	Multiple component analysis of cigarette smoke using THz spectroscopy, comparison with standard chemical analytical methods. <i>Applied Physics B: Lasers and Optics</i> , 2007, 86, 579-586.	1.1	42
11	Far-infrared cw difference-frequency generation using vertically integrated and planar low temperature grown GaAs photomixers: application to H ₂ S rotational spectrum up to 3½THz. <i>Applied Physics B: Lasers and Optics</i> , 2004, 79, 725-729.	1.1	41
12	Theoretical and experimental studies of CH ₃ Xâ€“Y ₂ rotational line shapes for atmospheric spectra modelling: application to room-temperature CH ₃ Clâ€“O ₂ . <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 20326.	1.3	39
13	Continuous terahertz-wave generation using a monolithically integrated horn antenna. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	37
14	Compression of femtosecond laser pulses in thin one-dimensional photonic crystals. <i>Physical Review E</i> , 2000, 63, 016602.	0.8	36
15	Analysis of self-broadened pure rotational and rovibrational lines of methyl chloride at room temperature. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2013, 116, 87-100.	1.1	35
16	Terahertz gas phase spectroscopy using a high-finesse Fabryâ€“PÃ©rot cavity. <i>Optica</i> , 2019, 6, 1449.	4.8	34
17	Difference-frequency laser spectroscopy detection of acetylene trace constituent. <i>Applied Physics B: Lasers and Optics</i> , 1998, 67, 375-378.	1.1	33
18	Widely tunable THz synthesizer. <i>Applied Physics B: Lasers and Optics</i> , 2011, 104, 763-768.	1.1	32

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37	Gas-Phase Synchrotron FTIR Spectroscopy of Weakly Volatile Alkyl Phosphonate and Alkyl Phosphate Compounds: Vibrational and Conformational Analysis in the Terahertz/Far-IR Spectral Domain. <i>Journal of Physical Chemistry B</i> , 2010, 114, 16936-16947.	1.2	14
38	Rotation-vibration interactions in the spectra of polycyclic aromatic hydrocarbons: Quinoline as a test-case species. <i>Journal of Chemical Physics</i> , 2015, 142, 104310.	1.2	14
39	Nonlinear process in photonic crystals under the noncollinear interaction. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002, 19, 2083.	0.9	12
40	Doppler limited rotational transitions of OH and SH radicals measured by continuous-wave terahertz photomixing. <i>Journal of Molecular Structure</i> , 2011, 1006, 13-19.	1.8	12
41	Spectral lines of methane measured up to 2.6 THz at sub-MHz accuracy with a CW-THz photomixing spectrometer: Line positions of rotational transitions induced by centrifugal distortion. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 203, 349-354.	1.1	12
42	Terahertz electromagnetic generation via optical frequency difference. <i>IEE Proceedings: Optoelectronics</i> , 2002, 149, 82-87.	0.8	11
43	Far-infrared high resolution synchrotron FTIR spectroscopy of the $\hat{1}\frac{1}{2}11$ bending vibrational fundamental transition of dimethylsulfoxide. <i>Chemical Physics Letters</i> , 2010, 492, 30-34.	1.2	11
44	Infrared spectroscopy of methoxyphenols involved as atmospheric secondary organic aerosol precursors: Gas-phase vibrational cross-sections. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016, 179, 51-58.	1.1	11
45	Full Conformational Landscape of 3-Methoxyphenol Revealed by Room Temperature mm-Wave Rotational Spectroscopy Supported by Quantum Chemical Calculations. <i>ChemPhysChem</i> , 2018, 19, 1572-1578.	1.0	11
46	Rotational structure of the five lowest frequency fundamental vibrational states of dimethylsulfoxide. <i>Chemical Physics Letters</i> , 2013, 586, 10-15.	1.2	10
47	Synchrotron FT-FIR spectroscopy of nitro-derivatives vapors: New spectroscopic signatures of explosive taggants and degradation products. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 132, 838-845.	2.0	10
48	Rotational spectrum of formaldehyde reinvestigated using a photomixing THz synthesizer. <i>Journal of Molecular Spectroscopy</i> , 2012, 279, 12-15.	0.4	9
49	Chirped Pulse Spectrometer Operating at 200 GHz. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018, 39, 105-119.	1.2	9
50	Optically Pumped Terahertz Molecular Laser: Gain Factor and Validation up to 5.5% THz. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	9
51	High-power terahertz radiation from a high-repetition-rate large-aperture photoconducting antenna. <i>Microwave and Optical Technology Letters</i> , 1998, 17, 23-27.	0.9	8
52	High resolution spectroscopy of six SOCl ₂ isotopologues from the microwave to the far-infrared. <i>Journal of Chemical Physics</i> , 2016, 144, 084305.	1.2	8
53	Broadband terahertz heterodyne spectrometer exploiting synchrotron radiation at megahertz resolution. <i>Optics Letters</i> , 2019, 44, 4985.	1.7	8
54	CH ₃ D photomixing spectroscopy up to 2.5 THz: New set of rotational and dipole parameters, first THz self-broadening measurements. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017, 189, 198-205.	1.1	7

#	ARTICLE	IF	CITATIONS
55	Title is missing!. Journal of Infrared, Millimeter and Terahertz Waves, 1998, 19, 409-417.	0.6	6
56	An ultra-wide bandwidth photomixer with down conversion at terahertz frequency. , 0, , .		6
57	Gas phase THz spectroscopy of toxic agent simulant compounds using the AILES synchrotron beamline. , 2010, , .		6
58	Conformational landscape and inertial defect of methoxyphenol isomers studied by mm-wave spectroscopy and quantum chemistry calculations. Journal of Chemical Physics, 2019, 150, 104303.	1.2	6
59	High-resolution synchrotron far infrared spectroscopy of thionyl chloride: Analysis of the <math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si55.gif" overflow="scroll"><mrow><msub><mrow><mi>1/2</mi></mrow></msub></mrow><mrow><mn>3</mn></mrow></math> and <math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si56.gif" overflow="scroll"><mrow><msub><mrow><mi>1/2</mi></mrow></msub></mrow><mrow><mn>6</mn></mrow></math> Journal of Molecular Spectroscopy, 2015, 315, 20-26	0.4	5
60	Self and N2 broadening coefficients of H2S probed by submillimeter spectroscopy: Comparison with IR measurements and semi-classical calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 247, 106955.	1.1	5
61	Characterization of the Observed Electric Field and Molecular Relaxation Times for Millimeter-Wave Chirped Pulse Instrumentation. Journal of Infrared, Millimeter, and Terahertz Waves, 2020, 41, 1009-1021.	1.2	5
62	Unlocking synchrotron sources for THz spectroscopy at sub-MHz resolution. Optics Express, 2022, 30, 7372.	1.7	4
63	Terahertz photomixing in InP/InGaAs UTC-PD integrated with TEM horn antennas. , 2008, , .		3
64	Fiber-based telecoms components at 1550 nm for the generation of cw THz by photomixing. Microwave and Optical Technology Letters, 2009, 51, 991-994.	0.9	3
65	Continuous Monitoring of Formaldehyde Photolysis Products by THz Spectroscopy. IEEE Sensors Journal, 2015, 15, 6141-6146.	2.4	3
66	A compact CW-THz spectrometer for applications to gas phase identification and quantification of multiple species. , 2007, , .		2
67	Milliwatt level output power generated by photomixing in a GaAs photoconductor. , 2012, , .		2
68	Molecules probed with a slow chirped-pulse excitation: Analytical model of the free-induction-decay signal. Physical Review A, 2019, 100, .	1.0	2
69	Kinetic and mechanistic study of the gas-phase reaction of ozone with $\hat{1}^3$ -terpinene. Atmospheric Environment, 2021, 246, 118073.	1.9	2
70	Optogalvanic Spectrum of the (000)â€“(000) Band of the $\tilde{A}^1A^3\tilde{A}^2$ System of HNO Using a Ti:Sapphire Laser. Journal of Molecular Spectroscopy, 1996, 180, 433-434.	0.4	1
71	THz analysis of mainstream cigarette smoke. , 2006, , .		1
72	Integrated Horn Antenna for THz Photomixing in LTG-GaAs. , 2008, , .		1

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73	Long path length cw-THz spectrometer using a multipass cell. , 2008, , .		1
74	THz photomixing: Comparison between horn and spiral antennas. , 2009, , .		1
75	High efficiency optoelectronic terahertz sources. , 2010, , .		1
76	Pollutants monitoring in the sub - THz frequency domain. , 2012, , .		1
77	Spoilage of Salmon fillets as observed by THz waves. , 2019, , .		1
78	Formation of secondary organic aerosols from the reaction of β -terpinene with ozone: yields and morphology. Atmospheric Environment, 2021, 262, 118600.	1.9	1
79	MULTICHARME: a modified Chernin-type multi-pass cell designed for IR and THz long-path absorption measurements in the CHARME atmospheric simulation chamber. Atmospheric Measurement Techniques, 2022, 15, 1201-1215.	1.2	1
80	Photomixing at 1.55 μm in ion-irradiated $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ on InP. , 2006, , .		0
81	Frequency measurement in THz domain by using femtosecond laser frequency comb. , 2008, , .		0
82	Silicon substrate low-temperature-grown GaAs terahertz photomixers. , 2009, , .		0
83	Frequency metrology of a photomixing source for gas phase spectroscopy. Proceedings of SPIE, 2010, , .	0.8	0
84	Continuous-wave terahertz generation using a vertically integrated horn antenna photomixer. , 2010, , .		0
85	THz synthesizer for high resolution spectroscopy. , 2010, , .		0
86	Frequency metrology of a cw-THz photomixing source. , 2011, , .		0
87	Large tuning range THz synthesizer by means of photomixing. , 2011, , .		0
88	Detection and analysis of OH and SH radicals by using THz photomixing synthesizer. , 2011, , .		0
89	Milliwatt-level power generated in the sub-terahertz range by photomixing in a metal-metal resonant cavity GaAs photoconductor. , 2012, , .		0
90	THz spectroscopy of radicals by means of photomixing experiment. , 2013, , .		0

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91	Frequency comb for THz metrology and spectroscopy. EPJ Web of Conferences, 2018, 195, 02014.	0.1	0
92	Modelisation of a gas phase polarization induced by a 200 GHz chirped pulse. EPJ Web of Conferences, 2018, 195, 06001.	0.1	0
93	Enlarging the Frontiers of Research in the IR/mm Range Using Synchrotron Radiation. , 2019, , .		0
94	Free Induction Decay signals stimulated by photomixing. , 2019, , .		0
95	Cavity based high resolution THz spectrometer. , 2021, , .		0
96	Génération et détection cohérente d'onde THz par photomélange : vers la caractérisation d'échantillons à forte dispersion. European Physical Journal Special Topics, 2004, 119, 231-232.	0.2	0
97	Continuous-wave lines up to 5.5 THz from the ammonia laser pumped by a quantum cascade laser. , 2020, , .		0