Francis Hindle

List of Publications by Year
in descending order

108 papers	1,814 citations	185998 28 h-index	301761 39 g-index
109 all docs	109 docs citations	109 times ranked	1251 citing authors

#	Article	IF	Citations
1	Detection and quantification of multiple molecular species in mainstream cigarette smoke by continuous-wave terahertz spectroscopy. Optics Letters, 2006, 31, 2356.	1.7	115
2	Toward in-cylinder absorption tomography in a production engine. Applied Optics, 2005, 44, 6578.	2.1	77
3	Spectrally interleaved, comb-mode-resolved spectroscopy using swept dual terahertz combs. Scientific Reports, 2014, 4, 3816.	1.6	74
4	Measurement of gaseous hydrocarbon distribution by a near-infrared absorption tomography system. Journal of Electronic Imaging, 2001, 10, 593.	0.5	63
5	Adaptive sampling dual terahertz comb spectroscopy using dual free-running femtosecond lasers. Scientific Reports, 2015, 5, 10786.	1.6	60
6	Milliwatt-level output power in the sub-terahertz range generated by photomixing in a GaAs photoconductor. Applied Physics Letters, 2011, 99, .	1.5	57
7	THz photomixing synthesizer based on a fiber frequency comb. Optics Express, 2009, 17, 22031.	1.7	50
8	Dynamic terahertz spectroscopy of gas molecules mixed with unwanted aerosol under atmospheric pressure using fibre-based asynchronous-optical-sampling terahertz time-domain spectroscopy. Scientific Reports, 2016, 6, 28114.	1.6	49
9	Inscription of Long-Period Gratings in Pure Silica and Germanoâ€“Silicate Fiber Cores by Femtosecond Laser Irradiation. IEEE Photonics Technology Letters, 2004, 16, 1861-1863.	1.3	48
10	Continuous-wave terahertz by photomixing: applications to gas phase pollutant detection and quantification. Comptes Rendus Physique, 2008, 9, 262-275.	0.3	44
11	High-efficiency uni-travelling-carrier photomixer at 1.55â€…[micro sign]m and spectroscopy application up to 1.4â€…THz. Electronics Letters, 2008, 44, 1320.	0.5	43
12	Multiple component analysis of cigarette smoke using THz spectroscopy, comparison with standard chemical analytical methods. Applied Physics B: Lasers and Optics, 2007, 86, 579-586.	1.1	42
13	Far-infrared cw difference-frequency generation using vertically integrated and planar low temperature grown GaAs photomixers: application to H2S rotational spectrum up to 3ï¿½THz. Applied Physics B: Lasers and Optics, 2004, 79, 725-729.	1.1	41
14	Chemical species tomography by near infra-red absorption. Chemical Engineering Journal, 2000, 77, 111-118.	6.6	40
15	Theoretical and experimental studies of CH3Xâ€“Y2 rotational line shapes for atmospheric spectra modelling: application to room-temperature CH3Clâ€“O2. Physical Chemistry Chemical Physics, 2011, 13, 20326.	1.3	39
16	Terahertz Comb Spectroscopy Traceable to Microwave Frequency Standard. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 322-330.	2.0	39
17	Adaptive-sampling near-Doppler-limited terahertz dual-comb spectroscopy with a free-running single-cavity fiber laser. Advanced Photonics, 2020, 2, 1.	6.2	38
18	Continuous terahertz-wave generation using a monolithically integrated horn antenna. Applied Physics Letters, 2008, 93, .	1.5	37

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19	Tomographic measurement of femtosecond-laser induced stress changes in optical fibers. Applied Physics Letters, 2004, 84, 4983-4985.	1.5	35
20	Enhancement of spectral resolution and accuracy in asynchronous-optical-sampling terahertz time-domain spectroscopy for low-pressure gas-phase analysis. Optics Express, 2012, 20, 15071.	1.7	35
21	Analysis of self-broadened pure rotational and rovibrational lines of methyl chloride at room temperature. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 116, 87-100.	1.1	35
22	Terahertz gas phase spectroscopy using a high-finesse Fabryâ€“PÃ©rot cavity. Optica, 2019, 6, 1449.	4.8	34
23	Widely tunable THz synthesizer. Applied Physics B: Lasers and Optics, 2011, 104, 763-768.	1.1	32
24	Monitoring of food spoilage by high resolution THz analysis. Analyst, The, 2018, 143, 5536-5544.	1.7	32
25	Terahertz spectroscopy applied to the measurement of strengths and self-broadening coefficients for high-J lines of OCS. Journal of Molecular Spectroscopy, 2006, 239, 182-189.	0.4	31
26	Oxygen, nitrogen and air broadening of HCN spectral lines at terahertz frequencies. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2857-2868.	1.1	30
27	High density terahertz frequency comb produced by coherent synchrotron radiation. Nature Communications, 2015, 6, 7733.	5.8	30
28	Anomalous dispersion measurement in terahertz frequency region by photomixing. Applied Physics Letters, 2006, 88, 181105.	1.5	29
29	Recent Developments of an Opto-Electronic THz Spectrometer for High-Resolution Spectroscopy. Sensors, 2009, 9, 9039-9057.	2.1	29
30	Versatile Sub-THz Spectrometer for Trace Gas Analysis. IEEE Sensors Journal, 2013, 13, 133-138.	2.4	28
31	Experimental studies by complementary terahertz techniques and semi-classical calculations of N2-broadening coefficients of CH335Cl. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1113-1126.	1.1	27
32	THz media characterization by means of coherent homodyne detection, results and potential applications. Applied Physics B: Lasers and Optics, 2007, 89, 395-399.	1.1	26
33	New investigation on THz spectra of OH and SH radicals (X<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 197 Td (xmlns:m Chemical Physics Letters, 2012, 550, 8-14.	1.2	22
34	Super-resolution discrete Fourier transform spectroscopy beyond time-window size limitation using precisely periodic pulsed radiation. Optica, 2015, 2, 460.	4.8	21
35	Towards the Detection of Explosive Taggants: Microwave and Millimetreâ€Wave Gasâ€Phase Spectroscopies of 3â€Nitrotoluene. ChemPhysChem, 2018, 19, 1056-1067.	1.0	21
36	A COMPLETE SPECTROSCOPIC CHARACTERIZATION OF SO AND ITS ISOTOPOLOGUES UP TO THE TERAHERTZ DOMAIN. Astrophysical Journal, 2015, 799, 115.	1.6	18

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37	Rotational spectroscopy and dynamics of carbonyl sulphide studied by terahertz free induction decays signals. Optics Communications, 2008, 281, 3111-3119.	1.0	17
38	Wide-band continuous-wave terahertz source with a vertically integrated photomixer. Applied Physics Letters, 2009, 95, .	1.5	17
39	Structural analysis of xCsCl(1â^'x)Ga2S3 glasses by means of DFT calculations and Raman spectroscopy. Journal of Raman Spectroscopy, 2010, 41, 1050-1058.	1.2	16
40	Terahertz Frequency-Domain Spectroscopy of Low-Pressure Acetonitrile Gas by a Photomixing Terahertz Synthesizer Referenced to Dual Optical Frequency Combs. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 903-915.	1.2	16
41	Terahertz Rotational Spectroscopy of Greenhouse Gases Using Long Interaction Path-Lengths. Applied Sciences (Switzerland), 2021, 11, 1229.	1.3	16
42	Fiber-Based UV Laser-Diode Fluorescence Sensor for Commercial Gasolines. IEEE Sensors Journal, 2004, 4, 681-690.	2.4	14
43	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. Journal of Physical Chemistry B, 2010, 114, 16936-16947.	1.2	14
44	Rotation-vibration interactions in the spectra of polycyclic aromatic hydrocarbons: Quinoline as a test-case species. Journal of Chemical Physics, 2015, 142, 104310.	1.2	14
45	Doppler limited rotational transitions of OH and SH radicals measured by continuous-wave terahertz photomixing. Journal of Molecular Structure, 2011, 1006, 13-19.	1.8	12
46	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. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 203, 349-354.	1.1	12
47	First demonstration of optical fluorescence auto-projection tomography. Chemical Engineering Journal, 2000, 77, 127-135.	6.6	11
48	Far-infrared high resolution synchrotron FTIR spectroscopy of the Î½11 bending vibrational fundamental transition of dimethylsulfoxyde. Chemical Physics Letters, 2010, 492, 30-34.	1.2	11
49	Full Conformational Landscape of 3â€Methoxyphenol Revealed by Room Temperature mmâ€wave Rotational Spectroscopy Supported by Quantum Chemical Calculations. ChemPhysChem, 2018, 19, 1572-1578.	1.0	11
50	Characteristics of Gasoline Fluorescence Using 404-nm Semi-Conductor Laser Diode Excitation. Applied Spectroscopy, 2002, 56, 846-851.	1.2	10
51	Rotational structure of the five lowest frequency fundamental vibrational states of dimethylsulfoxide. Chemical Physics Letters, 2013, 586, 10-15.	1.2	10
52	Guest Editorial THz Sensing: Materials, Devices, and Systems. IEEE Sensors Journal, 2013, 13, 7-7.	2.4	10
53	Synthesis and properties of new CdSeâ€“Agâ€“As2Se3 chalcogenide glasses. Materials Research Bulletin, 2011, 46, 210-215.	2.7	9
54	Rotational spectrum of formaldehyde reinvestigated using a photomixing THz synthesizer. Journal of Molecular Spectroscopy, 2012, 279, 12-15.	0.4	9

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55	Chirped Pulse Spectrometer Operating at 200 GHz. Journal of Infrared, Millimeter, and Terahertz Waves, 2018, 39, 105-119.	1.2	9
56	Optically Pumped Terahertz Molecular Laser: Gain Factor and Validation up to 5.5â€‰THz. Advanced Photonics Research, 2022, 3, .	1.7	9
57	High resolution spectroscopy of six SOCl2 isotopologues from the microwave to the far-infrared. Journal of Chemical Physics, 2016, 144, 084305.	1.2	8
58	Broadband terahertz heterodyne spectrometer exploiting synchrotron radiation at megahertz resolution. Optics Letters, 2019, 44, 4985.	1.7	8
59	Structural analysis of xCsCl(1â^'x)Ga2S3 glasses. Journal of Non-Crystalline Solids, 2008, 354, 134-137.	1.5	7
60	CH3D photomixing spectroscopy up to 2.5 THz: New set of rotational and dipole parameters, first THz self-broadening measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 198-205.	1.1	7
61	Gas phase THz spectroscopy of toxic agent simulant compounds using the AILES synchrotron beamline. , 2010, , .		6
62	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
63	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
64	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
65	Applicability of blue/uv laser diodes for the measurement of vaporized fuel fluorescence around stoichiometric concentrations. IEEE Sensors Journal, 2003, 3, 766-773.	2.4	4
66	Unlocking synchrotron sources for THz spectroscopy at sub-MHz resolution. Optics Express, 2022, 30, 7372.	1.7	4
67	Near-infrared absorption tomography system for measurement of gaseous hydrocarbon distribution. , 2001, 4188, 141.		3
68	Terahertz photomixing in InP/InGaAs UTC-PD integrated with TEM horn antennas. , 2008, , .		3
69	Fiberâ€based telecoms components at 1550 nm for the generation of cwâ€THz by photomixing. Microwave and Optical Technology Letters, 2009, 51, 991-994.	0.9	3
70	Study of the pseudo-ternary Ag2Sî—¸As2S3î—¸HgI2 vitreous system. Journal of Solid State Chemistry, 2013, 199, 264-270.	1.4	3
71	Continuous Monitoring of Formaldehyde Photolysis Products by THz Spectroscopy. IEEE Sensors Journal, 2015, 15, 6141-6146.	2.4	3
72	Anomalous small-angle X-ray scattering of a femtosecond irradiated germano silicate fibre preform. Journal of Non-Crystalline Solids, 2005, 351, 2200-2204.	1.5	2

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73	A compact CW-THz spectrometer for applications to gas phase identification and quantification of multiple species. , 2007, , .		2
74	TEM-horn antennas for generation and detection of terahertz pulses. , 2007, , .		2
75	Molecules probed with a slow chirped-pulse excitation: Analytical model of the free-induction-decay signal. Physical Review A, 2019, 100, .	1.0	2
76	Broadband Super-Resolution Terahertz Time-Domain Spectroscopy Applied to Gas Analysis. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 75-80.	2.0	2
77	THz analysis of mainstream cigarette smoke. , 2006, , .		1
78	Integrated Horn Antenna for THz Photomixing in LTG-GaAs. , 2008, , .		1
79	Long path length cw-THz spectrometer using a multipass cell. , 2008, , .		1
80	THz photomixing: Comparison between horn and spiral antennas. , 2009, , .		1
81	High efficiency optoelectronic terahertz sources. , 2010, , .		1
82	Pollutants monitoring in the sub - THz frequency domain. , 2012, , .		1
83	Gapless THz comb spectroscopy. , 2013, , .		1
84	Spoilage of Salmon fillets as observed by THz waves. , 2019, , .		1
85	Super resolution of a 400 MHz rotational line doublet with a TDS using a 850 ps long delay line. , 2021, , .		1
86	Super resolution spectroscopy for THz-TDS: Application to Gas spectroscopy. , 2020, , .		1
87	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
88	All-optoelectronic solutions for process tomography. , 0, , .		0
89	UV laser-diode fluorescence fibre-sensor for commercial gasolines. , 0, , .		0
90	Generation and coherent detection of terahertz radiation by photomixing: dielectric media characterization. , 0, , .		0

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91	La corrÃ©lation Ã filtre de gaz dans le domaine submillimÃ©trique. European Physical Journal Special Topics, 2006, 135, 91-92.	0.2	0
92	Frequency measurement in THz domain by using femtosecond laser frequency comb. , 2008, , .		0
93	Silicon substrate low-temperature-grown GaAs terahertz photomixers. , 2009, , .		0
94	Frequency metrology of a photomixing source for gas phase spectroscopy. Proceedings of SPIE, 2010, , .	0.8	0
95	Continuous-wave terahertz generation using a vertically integrated horn antenna photomixer. , 2010, , .		0
96	THz synthesizer for high resolution spectroscopy. , 2010, , .		0
97	Frequency metrology of a cw-THz photomixing source. , 2011, , .		0
98	Large tuning range THz synthesiser by means of photomixing. , 2011, , .		0
99	Detection and analysis of OH and SH radicals by using THz photomixing synthesizer. , 2011, , .		0
100	Milliwatt-level power generated in the sub-terahertz range by photomixing in a metal-metal resonant cavity GaAs photoconductor. , 2012, , .		0
101	THz spectroscopy of radicals by means of photomixing experiment. , 2013, , .		0
102	Spectrally Interleaved, Comb-Mode-Resolved, Dual-Terahertz-Comb Spectroscopy. , 2014, , .		0
103	Frequency comb for THz metrology and spectroscopy. EPJ Web of Conferences, 2018, 195, 02014.	0.1	0
104	Modelisation of a gas phase polarization induced by a 200 GHz chirped pulse. EPJ Web of Conferences, 2018, 195, 06001.	0.1	0
105	Enlarging the Frontiers of Research in the IR/mm Range Using Synchrotron Radiation. , 2019, , .		0
106	Free Induction Decay signals stimulated by photomixing. , 2019, , .		0
107	Cavity based high resolution THz spectrometer. , 2021, , .		0
108	Continuous-wave lines up to 5.5 THz from the ammonia laser pumped by a quantum cascade laser. , 2020, , .		0