

# Francis Hindle

## List of Publications by Year in descending order

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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	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
2	Optically Pumped Terahertz Molecular Laser: Gain Factor and Validation up to 5.5 THz. Advanced Photonics Research, 2022, 3, .	1.7	9
3	Unlocking synchrotron sources for THz spectroscopy at sub-MHz resolution. Optics Express, 2022, 30, 7372.	1.7	4
4	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
5	Terahertz Rotational Spectroscopy of Greenhouse Gases Using Long Interaction Path-Lengths. Applied Sciences (Switzerland), 2021, 11, 1229.	1.3	16
6	Super resolution of a 400 MHz rotational line doublet with a TDS using a 850 ps long delay line. , 2021, , .		1
7	Cavity based high resolution THz spectrometer. , 2021, , .		0
8	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
9	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
10	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
11	Continuous-wave lines up to 5.5 THz from the ammonia laser pumped by a quantum cascade laser. , 2020, , .		0
12	Super resolution spectroscopy for THz-TDS: Application to Gas spectroscopy. , 2020, , .		1
13	Molecules probed with a slow chirped-pulse excitation: Analytical model of the free-induction-decay signal. Physical Review A, 2019, 100, .	1.0	2
14	Enlarging the Frontiers of Research in the IR/mm Range Using Synchrotron Radiation. , 2019, , .		0
15	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
16	Free Induction Decay signals stimulated by photomixing. , 2019, , .		0
17	Spoilage of Salmon fillets as observed by THz waves. , 2019, , .		1
18	Terahertz gas phase spectroscopy using a high-finesse Fabry-Pérot cavity. Optica, 2019, 6, 1449.	4.8	34

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19	Broadband terahertz heterodyne spectrometer exploiting synchrotron radiation at megahertz resolution. <i>Optics Letters</i> , 2019, 44, 4985.	1.7	8
20	Towards the Detection of Explosive Taggants: Microwave and Millimetre-Wave Gas-Phase Spectroscopies of 3-Nitrotoluene. <i>ChemPhysChem</i> , 2018, 19, 1056-1067.	1.0	21
21	Chirped Pulse Spectrometer Operating at 200 GHz. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018, 39, 105-119.	1.2	9
22	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
23	Frequency comb for THz metrology and spectroscopy. <i>EPJ Web of Conferences</i> , 2018, 195, 02014.	0.1	0
24	Modelisation of a gas phase polarization induced by a 200 GHz chirped pulse. <i>EPJ Web of Conferences</i> , 2018, 195, 06001.	0.1	0
25	Monitoring of food spoilage by high resolution THz analysis. <i>Analyst, The</i> , 2018, 143, 5536-5544.	1.7	32
26	CH <sub>3</sub> 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
27	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
28	High resolution spectroscopy of six SOCl <sub>2</sub> isotopologues from the microwave to the far-infrared. <i>Journal of Chemical Physics</i> , 2016, 144, 084305.	1.2	8
29	Dynamic terahertz spectroscopy of gas molecules mixed with unwanted aerosol under atmospheric pressure using fibre-based asynchronous-optical-sampling terahertz time-domain spectroscopy. <i>Scientific Reports</i> , 2016, 6, 28114.	1.6	49
30	Terahertz Frequency-Domain Spectroscopy of Low-Pressure Acetonitrile Gas by a Photomixing Terahertz Synthesizer Referenced to Dual Optical Frequency Combs. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 903-915.	1.2	16
31	Adaptive sampling dual terahertz comb spectroscopy using dual free-running femtosecond lasers. <i>Scientific Reports</i> , 2015, 5, 10786.	1.6	60
32	Continuous Monitoring of Formaldehyde Photolysis Products by THz Spectroscopy. <i>IEEE Sensors Journal</i> , 2015, 15, 6141-6146.	2.4	3
33	A COMPLETE SPECTROSCOPIC CHARACTERIZATION OF SO AND ITS ISOTOPOLOGUES UP TO THE TERAHERTZ DOMAIN. <i>Astrophysical Journal</i> , 2015, 799, 115.	1.6	18
34	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
35	Super-resolution discrete Fourier transform spectroscopy beyond time-window size limitation using precisely periodic pulsed radiation. <i>Optica</i> , 2015, 2, 460.	4.8	21
36	High density terahertz frequency comb produced by coherent synchrotron radiation. <i>Nature Communications</i> , 2015, 6, 7733.	5.8	30

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37	Spectrally Interleaved, Comb-Mode-Resolved, Dual-Terahertz-Comb Spectroscopy. , 2014, , .		0
38	Spectrally interleaved, comb-mode-resolved spectroscopy using swept dual terahertz combs. Scientific Reports, 2014, 4, 3816.	1.6	74
39	Terahertz Comb Spectroscopy Traceable to Microwave Frequency Standard. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 322-330.	2.0	39
40	Rotational structure of the five lowest frequency fundamental vibrational states of dimethylsulfoxide. Chemical Physics Letters, 2013, 586, 10-15.	1.2	10
41	Study of the pseudo-ternary $\text{Ag}_2\text{Si}-\text{As}_2\text{S}_3-\text{HgI}_2$ vitreous system. Journal of Solid State Chemistry, 2013, 199, 264-270.	1.4	3
42	Gapless THz comb spectroscopy. , 2013, , .		1
43	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
44	Versatile Sub-THz Spectrometer for Trace Gas Analysis. IEEE Sensors Journal, 2013, 13, 133-138.	2.4	28
45	Guest Editorial THz Sensing: Materials, Devices, and Systems. IEEE Sensors Journal, 2013, 13, 7-7.	2.4	10
46	THz spectroscopy of radicals by means of photomixing experiment. , 2013, , .		0
47	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
48	Pollutants monitoring in the sub - THz frequency domain. , 2012, , .		1
49	Milliwatt-level power generated in the sub-terahertz range by photomixing in a metal-metal resonant cavity GaAs photoconductor. , 2012, , .		0
50	Rotational spectrum of formaldehyde reinvestigated using a photomixing THz synthesizer. Journal of Molecular Spectroscopy, 2012, 279, 12-15.	0.4	9
51	New investigation on THz spectra of OH and SH radicals ( $X<math>TQ1 T 0.784314 rgBT /Overlock 10 Tf 50 197 Td (xmins:mn$ ) Chemical Physics Letters, 2012, 550, 8-14.	1.2	22
52	Experimental studies by complementary terahertz techniques and semi-classical calculations of N <sub>2</sub> -broadening coefficients of CH <sub>3</sub> Cl. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1113-1126.	1.1	27
53	Theoretical and experimental studies of CH <sub>3</sub> Y <sub>2</sub> rotational line shapes for atmospheric spectra modelling: application to room-temperature CH <sub>3</sub> ClO <sub>2</sub> . Physical Chemistry Chemical Physics, 2011, 13, 20326.	1.3	39
54	Frequency metrology of a cw-THz photomixing source. , 2011, , .		0

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55	Large tuning range THz synthesiser by means of photomixing. , 2011, , .		0
56	Detection and analysis of OH and SH radicals by using THz photomixing synthesizer. , 2011, , .		0
57	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
58	Synthesis and properties of new CdSeâ€“AgIâ€“As <sub>2</sub> Se <sub>3</sub> chalcogenide glasses. Materials Research Bulletin, 2011, 46, 210-215.	2.7	9
59	Widely tunable THz synthesizer. Applied Physics B: Lasers and Optics, 2011, 104, 763-768.	1.1	32
60	Milliwatt-level output power in the sub-terahertz range generated by photomixing in a GaAs photoconductor. Applied Physics Letters, 2011, 99, .	1.5	57
61	High efficiency optoelectronic terahertz sources. , 2010, , .		1
62	Frequency metrology of a photomixing source for gas phase spectroscopy. Proceedings of SPIE, 2010, , .	0.8	0
63	Structural analysis of xCsCl(1- $\hat{x}$ )Ga <sub>2</sub> S <sub>3</sub> glasses by means of DFT calculations and Raman spectroscopy. Journal of Raman Spectroscopy, 2010, 41, 1050-1058.	1.2	16
64	Far-infrared high resolution synchrotron FTIR spectroscopy of the $\hat{1}/211$ bending vibrational fundamental transition of dimethylsulfoxide. Chemical Physics Letters, 2010, 492, 30-34.	1.2	11
65	Continuous-wave terahertz generation using a vertically integrated horn antenna photomixer. , 2010, , .		0
66	THz synthesizer for high resolution spectroscopy. , 2010, , .		0
67	Gas phase THz spectroscopy of toxic agent simulant compounds using the AILES synchrotron beamline. , 2010, , .		6
68	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
69	Wide-band continuous-wave terahertz source with a vertically integrated photomixer. Applied Physics Letters, 2009, 95, .	1.5	17
70	Silicon substrate low-temperature-grown GaAs terahertz photomixers. , 2009, , .		0
71	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
72	Recent Developments of an Opto-Electronic THz Spectrometer for High-Resolution Spectroscopy. Sensors, 2009, 9, 9039-9057.	2.1	29

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73	THz photomixing: Comparison between horn and spiral antennas. , 2009, , .		1
74	THz photomixing synthesizer based on a fiber frequency comb. Optics Express, 2009, 17, 22031.	1.7	50
75	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
76	Continuous-wave terahertz by photomixing: applications to gas phase pollutant detection and quantification. Comptes Rendus Physique, 2008, 9, 262-275.	0.3	44
77	Rotational spectroscopy and dynamics of carbonyl sulphide studied by terahertz free induction decays signals. Optics Communications, 2008, 281, 3111-3119.	1.0	17
78	Structural analysis of xCsCl(1- $\lambda$ )Ga <sub>2</sub> S <sub>3</sub> glasses. Journal of Non-Crystalline Solids, 2008, 354, 134-137.	1.5	7
79	High-efficiency uni-travelling-carrier photomixer at 1.55 $\mu$ m and spectroscopy application up to 1.4 THz. Electronics Letters, 2008, 44, 1320.	0.5	43
80	Integrated Horn Antenna for THz Photomixing in LTG-GaAs. , 2008, , .		1
81	Terahertz photomixing in InP/InGaAs UTC-PD integrated with TEM horn antennas. , 2008, , .		3
82	Continuous terahertz-wave generation using a monolithically integrated horn antenna. Applied Physics Letters, 2008, 93, .	1.5	37
83	Long path length cw-THz spectrometer using a multipass cell. , 2008, , .		1
84	Frequency measurement in THz domain by using femtosecond laser frequency comb. , 2008, , .		0
85	A compact CW-THz spectrometer for applications to gas phase identification and quantification of multiple species. , 2007, , .		2
86	TEM-horn antennas for generation and detection of terahertz pulses. , 2007, , .		2
87	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
88	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
89	THz analysis of mainstream cigarette smoke. , 2006, , .		1
90	Detection and quantification of multiple molecular species in mainstream cigarette smoke by continuous-wave terahertz spectroscopy. Optics Letters, 2006, 31, 2356.	1.7	115

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91	La corr�lation � filtre de gaz dans le domaine submillim�trique. European Physical Journal Special Topics, 2006, 135, 91-92.	0.2	0
92	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
93	Anomalous dispersion measurement in terahertz frequency region by photomixing. Applied Physics Letters, 2006, 88, 181105.	1.5	29
94	Toward in-cylinder absorption tomography in a production engine. Applied Optics, 2005, 44, 6578.	2.1	77
95	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
96	Tomographic measurement of femtosecond-laser induced stress changes in optical fibers. Applied Physics Letters, 2004, 84, 4983-4985.	1.5	35
97	Far-infrared cw difference-frequency generation using vertically integrated and planar low temperature grown GaAs photomixers: application to H <sub>2</sub> S rotational spectrum up to 3i <sub>2</sub> <sup>1</sup> / <sub>2</sub> THz. Applied Physics B: Lasers and Optics, 2004, 79, 725-729.	1.1	41
98	Fiber-Based UV Laser-Diode Fluorescence Sensor for Commercial Gasolines. IEEE Sensors Journal, 2004, 4, 681-690.	2.4	14
99	Inscription of Long-Period Gratings in Pure Silica and Germano�Silicate Fiber Cores by Femtosecond Laser Irradiation. IEEE Photonics Technology Letters, 2004, 16, 1861-1863.	1.3	48
100	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
101	Characteristics of Gasoline Fluorescence Using 404-nm Semi-Conductor Laser Diode Excitation. Applied Spectroscopy, 2002, 56, 846-851.	1.2	10
102	Near-infrared absorption tomography system for measurement of gaseous hydrocarbon distribution. , 2001, 4188, 141.		3
103	Measurement of gaseous hydrocarbon distribution by a near-infrared absorption tomography system. Journal of Electronic Imaging, 2001, 10, 593.	0.5	63
104	Chemical species tomography by near infra-red absorption. Chemical Engineering Journal, 2000, 77, 111-118.	6.6	40
105	First demonstration of optical fluorescence auto-projection tomography. Chemical Engineering Journal, 2000, 77, 127-135.	6.6	11
106	All-optoelectronic solutions for process tomography. , 0, , .		0
107	UV laser-diode fluorescence fibre-sensor for commercial gasolines. , 0, , .		0
108	Generation and coherent detection of terahertz radiation by photomixing: dielectric media characterization. , 0, , .		0