Mira Naftaly

List of Publications by Year
in descending order

134 papers	4,694 citations	185998 28 h-index	102304 66 g-index
135 all docs	135 docs citations	135 times ranked	4752 citing authors

#	Article	IF	Citations
1	The 2017 terahertz science and technology roadmap. Journal Physics D: Applied Physics, 2017, 50, 043001.	1.3	1,160
2	Terahertz Time-Domain Spectroscopy for Material Characterization. Proceedings of the IEEE, 2007, 95, 1658-1665.	16.4	396
3	Structural origin of spectral broadening of 1.5-Î¼m emission inEr3+-doped tellurite glasses. Physical Review B, 2000, 62, 6215-6227.	1.1	262
4	Fundamentals of Measurement in Terahertz Time-Domain Spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 610-637.	1.2	193
5	Industrial Applications of Terahertz Sensing: State of Play. Sensors, 2019, 19, 4203.	2.1	191
6	Terahertz time-domain spectroscopy of silicate glasses and the relationship to material properties. Journal of Applied Physics, 2007, 102, .	1.1	170
7	Methodologies for determining the dynamic ranges and signal-to-noise ratios of terahertz time-domain spectrometers. Optics Letters, 2009, 34, 1213.	1.7	148
8	Tellurite Glasses for Broadband Amplifiers and Integrated Optics. Journal of the American Ceramic Society, 2002, 85, 1391-1395.	1.9	135
9	Tm^3+-doped tellurite glass for a broadband amplifier at 147 Âµm. Applied Optics, 2000, 39, 4979.	2.1	115
10	Nd3+-doped fluoroaluminate glasses for a 1.3 Î¼m amplifier. Journal of Applied Physics, 2000, 87, 2098-2104.	1.1	104
11	Terahertz time-domain spectroscopy: A new tool for the study of glasses in the far infrared. Journal of Non-Crystalline Solids, 2005, 351, 3341-3346.	1.5	103
12	Tungstenâ€“telluriteâ€”a host glass for broadband EDFA. Optics Communications, 2002, 205, 101-105.	1.0	90
13	Terahertz Transmission Spectroscopy of Nonpolar Materials and Relationship with Composition and Properties. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 55-64.	0.6	82
14	Photochromism of spiro-naphthoxazines : molar absorption coefficients and quantum efficiencies. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 1511.	1.7	75
15	Metrology Issues and Solutions in THz Time-Domain Spectroscopy: Noise, Errors, Calibration. IEEE Sensors Journal, 2013, 13, 8-17.	2.4	62
16	Broadband Dielectric Characterization of Aluminum Oxide (Al2O3). Journal of Microelectronics and Electronic Packaging, 2008, 5, 2-7.	0.8	60
17	Electrical and Radiation Characteristics of Semilarge Photoconductive Terahertz Emitters. IEEE Transactions on Microwave Theory and Techniques, 2004, 52, 2420-2429.	2.9	49
18	Covalent Carbene Functionalization of Graphene: Toward Chemical Band-Gap Manipulation. ACS Applied Materials & Interfaces, 2016, 8, 4870-4877.	4.0	49

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19	A method for removing etalon oscillations from THz time-domain spectra. Optics Communications, 2007, 280, 291-295.	1.0	46
20	Sheet Resistance Measurements of Conductive Thin Films: A Comparison of Techniques. Electronics (Switzerland), 2021, 10, 960.	1.8	45
21	Silicon carbideâ€"a high-transparency nonlinear material for THz applications. Optics Express, 2016, 24, 2590.	1.7	43
22	Upconverted luminescence under 800nm laser diode excitation in Nd3+-activated fluoroaluminate glass. Optical Materials, 2006, 28, 129-136.	1.7	42
23	Linearity calibration of amplitude and power measurements in terahertz systems and detectors. Optics Letters, 2009, 34, 674.	1.7	40
24	Electrical characterisation of liquid crystals at millimetre wavelengths using frequency selective surfaces. Electronics Letters, 2012, 48, 611.	0.5	36
25	An interpretation of the Boson peak in rare-earth ion doped glasses. Journal of Non-Crystalline Solids, 1999, 256-257, 89-94.	1.5	35
26	Growth and optical properties of solid solution crystals GaSe1â^'xSx. Materials Chemistry and Physics, 2015, 154, 152-157.	2.0	34
27	Dielectric and structural characterisation of chalcogenide glasses via terahertz time-domain spectroscopy. Optical Materials, 2017, 69, 339-343.	1.7	33
28	Effects of the site symmetry and host polarizability on the hypersensitive transition 3P0â†'3F2 of Pr3+ in fluoride glasses. Journal of Applied Physics, 1999, 86, 351-354.	1.1	31
29	Terahertz and Microwave Optical Properties of Single-Crystal Quartz and Vitreous Silica and the Behavior of the Boson Peak. Applied Sciences (Switzerland), 2021, 11, 6733.	1.3	31
30	Terahertz reflectivities of metal-coated mirrors. Applied Optics, 2011, 50, 3201.	2.1	30
31	Absorption anisotropy in sulfur doped gallium selenide crystals studied by THz-TDS. Optical Materials Express, 2014, 4, 2451.	1.6	26
32	Characterization of Terahertz Beam Profile and Propagation. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8401508-8401508.	1.9	25
33	A simple interferometer for the characterization of sources at terahertz frequencies. Measurement Science and Technology, 2007, 18, 2623-2628.	1.4	24
34	Metrology State-of-the-Art and Challenges in Broadband Phase-Sensitive Terahertz Measurements. Proceedings of the IEEE, 2017, 105, 1151-1165.	16.4	24
35	Terahertz time-domain spectroscopy for textile identification. Applied Optics, 2013, 52, 4433.	0.9	23
36	Material Measurements Using VNA-Based Material Characterization Kits Subject to Thru-Reflect-Line Calibration. IEEE Transactions on Terahertz Science and Technology, 2020, 10, 466-473.	2.0	21

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37	Variability of Terahertz Transmission Measured in Live Plant Leaves. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 636-638.	1.4	20
38	Generation of Submillimeter-Wave Radiation with GaAs Tunnett Diodes and InP Gunn Devices in a Second or Higher Harmonic Mode. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 1-14.	0.6	19
39	Measuring Open Porosity of Porous Materials Using THz-TDS and an Index-Matching Medium. Sensors, 2020, 20, 3120.	2.1	19
40	Pr3+-doped fluoride glass for a 589nm fibre laser. Journal of Luminescence, 2000, 91, 133-138.	1.5	18
41	Frequency calibration of terahertz time-domain spectrometers. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 1357.	0.9	18
42	Intercomparison of Terahertz Dielectric Measurements Using Vector Network Analyzer and Time-Domain Spectrometer. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 691-702.	1.2	17
43	Cadmium mixed halide glass for optical amplification at 1.3 Î¼m. Journal of Non-Crystalline Solids, 1995, 184, 61-67.	1.5	16
44	1.3 Î¼m Fluorescence quenching in Pr-doped glasses. Journal of Applied Physics, 1998, 84, 1800-1804.	1.1	16
45	Spectroscopic properties of Nd3+ in fluoroaluminate glasses for an efficient 1.3 Î¼m optical amplifier. Journal of Non-Crystalline Solids, 1999, 256-257, 248-252.	1.5	16
46	Single Sideband Signals for Phase Noise Mitigation in Wireless THz-Over-Fibre Systems. Journal of Lightwave Technology, 2018, 36, 4527-4534.	2.7	16
47	Generation of continuous-wave terahertz radiation using a two-mode titanium sapphire laser containing an intracavity Fabryâ€“Perot etalon. Journal of Applied Physics, 2005, 97, 103108.	1.1	15
48	An international intercomparison of THz time-domain spectrometers. , 2016, , .		15
49	The investigation of sooty flames using terahertz waves. Flow Measurement and Instrumentation, 2005, 16, 341-345.	1.0	14
50	An etalon-based method for frequency calibration of terahertz time-domain spectrometers (THz TDS). Optics Communications, 2010, 283, 1849-1853.	1.0	14
51	Terahertz time-domain spectroscopy response of amines and amino acids intercalated smectites in far-infrared region. Materials Chemistry and Physics, 2014, 145, 278-287.	2.0	14
52	Dispersion properties of GaS studied by THz-TDS. CrystEngComm, 2014, 16, 1995.	1.3	14
53	LBO: optical properties and potential for THz application. Laser Physics Letters, 2015, 12, 115402.	0.6	14
54	Generation of CW terahertz radiation using two-colour laser with Fabry-Perot etalon. Electronics Letters, 2005, 41, 128.	0.5	14

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55	Design and fabrication of Pr3+-doped fluoride glass optical fibres for efficient 1.3 mu m amplifiers. Journal of Optics, 1995, 4, 417-424.	0.5	13
56	A Simple Interferometer for the Analysis of Terahertz Sources and Detectors. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 443-448.	1.9	13
57	Observation of a different birefringence order at optical and THz frequencies in LBO crystal. Optical Materials, 2017, 66, 94-97.	1.7	13
58	ZnO nanoparticles as photodegradation agent controlled by morphology and boron doping. Catalysis Science and Technology, 2021, 11, 2167-2185.	2.1	13
59	Investigation of ceramic boron nitride by terahertz time-domain spectroscopy. Journal of the European Ceramic Society, 2010, 30, 2691-2697.	2.8	12
60	Line strengths and self-broadening of pure rotational lines of nitrous oxide measured by terahertz time-domain spectroscopy. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1717.	0.9	12
61	On competition between two types of anti-Stokes emission in Ho3+ and Nd3+ ions in glasses. Journal of Non-Crystalline Solids, 2010, 356, 435-440.	1.5	12
62	Observation of mode pulling in a CO_2 laser. Applied Optics, 1984, 23, 661.	2.1	11
63	Terahertz time-domain spectroscopy characterization of vertically aligned carbon nanotube films. Carbon, 2012, 50, 939-942.	5.4	11
64	Coherent superpositions of three states for phosphorous donors in silicon prepared using THz radiation. Nature Communications, 2017, 8, 16038.	5.8	11
65	Building an end user focused THz based ultra high bandwidth wireless access network: The TERAPOD approach. , 2017, , .		11
66	Beam Profile Characterisation of an Optoelectronic Silicon Lens-Integrated PIN-PD Emitter between 100 GHz and 1 THz. Applied Sciences (Switzerland), 2021, 11, 465.	1.3	11
67	Low loss nitride ceramics for terahertz windows. Optical Materials, 2009, 31, 1575-1577.	1.7	10
68	Line strengths and self-broadening of pure rotational lines of carbon monoxide measured by terahertz time-domain spectroscopy. Applied Optics, 2010, 49, 2490.	2.1	10
69	Terahertz time-domain spectroscopy as a novel metrology tool for liquid-phase exfoliated few-layer graphene. Nanotechnology, 2019, 30, 025709.	1.3	10
70	Pilot-Tone Assisted 16-QAM Photonic Wireless Bridge Operating At 250 GHz. Journal of Lightwave Technology, 2021, 39, 2725-2736.	2.7	10
71	Wool textile identification by terahertz spectroscopy. Journal of the Textile Institute, 2014, 105, 794-798.	1.0	9
72	Dispersion properties of sulfur doped gallium selenide crystals studied by THz TDS. Optics Express, 2015, 23, 32820.	1.7	9

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73	An Overview of Terahertz Imaging with Resonant Tunneling Diodes. Applied Sciences (Switzerland), 2022, 12, 3822.	1.3	9
74	Viscosity measurement in halide melts. Journal of Non-Crystalline Solids, 1997, 213-214, 106-112.	1.5	8
75	Spectroscopic evidence for oxide dopant sites in GeS2-based glasses using visible photoluminescence from Pr3+ probe ions. Journal of Luminescence, 2002, 96, 227-238.	1.5	8
76	Influence of the oxygen-affected sites on decay times in Pr3+â€"activated fluoroaluminate glass. Journal of Luminescence, 2006, 116, 94-100.	1.5	8
77	Excited state absorption spectroscopy of Nd3+ activated fluoroaluminate glass â€“ experiment and simulation. Optical Materials, 2009, 31, 541-547.	1.7	8
78	Investigation of optical and structural properties of ceramic boron nitride by terahertz time-domain spectroscopy. Applied Optics, 2013, 52, B20.	0.9	8
79	Spectrally Efficient SSB signals for W-band Links Enabled by Kramers-Kronig Receiver. , 2018, , .		8
80	Polymer Pellet Fabrication for Accurate THz-TDS Measurements. Applied Sciences (Switzerland), 2022, 12, 3475.	1.3	8
81	Determination of renewable energy yield from mixed waste material from the use of novel image analysis methods. Waste Management, 2013, 33, 2449-2456.	3.7	7
82	Dielectric constants of bulk ferroelectric PZT measured by terahertz time-domain spectroscopy. Advances in Applied Ceramics, 2016, 115, 260-263.	0.6	7
83	Comparison of Optical Single Sideband Techniques for THz-Over-Fiber Systems. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 98-105.	2.0	7
84	Effects of impurities in cadmium halide glasses for 1.3 Î¼m amplifier. Journal of Non-Crystalline Solids, 1995, 184, 263-267.	1.5	6
85	A review of optical and thermal properties of cadmium-mixed halide glass host for the 1.3 Î¼m Pr3+-doped amplifier. Journal of Non-Crystalline Solids, 1996, 196, 199-203.	1.5	6
86	Optical spectroscopy and multiple-line gain in Pr3+-activated fluoroaluminate glass. Journal of Physics Condensed Matter, 2002, 14, 6785-6799.	0.7	5
87	Terahertz time domain detection of imidazolium ionic liquid reactivity in nanohybrid materials based on Kaolinite and Halloysite. Applied Clay Science, 2017, 135, 475-484.	2.6	5
88	Metrology of complex refractive index for solids in the terahertz regime using frequency domain spectroscopy. Metrologia, 2018, 55, 771-781.	0.6	5
89	Properties of a matched halide glass pair for the fabrication of large numerical aperture core-cladding preform structures. Journal of Non-Crystalline Solids, 1995, 184, 268-272.	1.5	4
90	Orientational dependence of THz optical constants, birefrigence and dichroism of liquid crystals BL037 and GT3-23001. Optical Materials Express, 2013, 3, 459.	1.6	4

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91	Effect of time-delay errors on THz spectroscopy dynamic range. , 2014, , .		4
92	Comments on â€œOptical properties of borate crystals in the terahertz domainâ€• Optics Communications, 2016, 365, 14-15.	1.0	4
93	Measurement of a phonon resonance in a GaSe crystal using THz free induction decay. Vibrational Spectroscopy, 2017, 92, 169-172.	1.2	4
94	A Sensitive Broadband Detector for Room-Temperature Operation of a Simple Terahertz Fourier-Transform Spectrometer. , 2006, , .		3
95	A simple fluid cell for the study of aqueous solutions using THz time-domain spectroscopy. Measurement Science and Technology, 2011, 22, 037003.	1.4	3
96	Optical properties and structure of pyrolytic boron nitride for THz applications. Optical Materials Express, 2013, 3, 260.	1.6	3
97	Refractive Indices of Ge and Si at Temperatures between 4â€“296 K in the 4â€“8 THz Region. Applied Sciences (Switzerland), 2021, 11, 487.	1.3	3
98	Non-Destructive Porosity Measurements of 3D Printed Polymer by Terahertz Time-Domain Spectroscopy. Applied Sciences (Switzerland), 2022, 12, 927.	1.3	3
99	Characteristics of large-aperture photoconductive terahertz antennas. , 0, , .		2
100	Linearity of terahertz time-domain spectrometers. Electronics Letters, 2008, 44, 854.	0.5	2
101	Terahertz characterization of textiles. , 2013, , .		2
102	THz optical constants of liquid crystals BL037 and GT3–23001. , 2013, , .		2
103	Identification of textile fiber by IR and Raman spectroscopy. , 2014, , .		2
104	Dynamic range improvement of THz spectroscopy. , 2014, , .		2
105	A comparison method for THz measurements using VNA and TDS. , 2015, , .		2
106	A multi-lab intercomparison study of THz time-domain spectrometers. , 2015, , .		2
107	Demonstration of CW THz generation using a two-color Ti-sapphire laser containing a Fabry-Perot etalon. , 0, , .		1
108	Hexagonal boron nitride studied by terahertz time-domain spectroscopy. Journal of Physics: Conference Series, 2011, 310, 012006.	0.3	1

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109	Solid solution GaSe<inf>1−x</inf>S<inf>x</inf> crystals for THz applications. , 2014, , .		1
110	Dielectric properties of CaZrO<inf>3</inf> investigated by THz-TDS. , 2015, , .		1
111	Dispersion equations for the entire transparency range of GaSe. , 2015, , .		1
112	Non-linear coefficients of crystals measured at THz frequencies. , 2016, , .		1
113	Experimental investigation of phase noise tolerance of SSB THz signals. , 2017, , .		1
114	1310- to 1320-nm emission in Nd3+-ion-doped fluoroaluminate glasses. , 1998, , .		0
115	Polymerisation-related changes in THz transmission in SU8 and polystyrene. , 2006, , .		0
116	Terahertz transmission through periodic arrays of dielectric and conducting spheres. , 2007, , .		0
117	Linearity of terahertz time-domain spectrometers.. , 2008, , .		0
118	Frequency calibration of THz time-domain spectrometers using an etalon. , 2009, , .		0
119	Investigation of Hexagonal Boron Nitride by Terahertz Time-Domain Spectroscopy. , 2010, , .		0
120	Dependence of THz optical constants on orientational alignment of liquid crystals. , 2013, , .		0
121	Terahertz time-domain characterization of various fabrics. , 2013, , .		0
122	Investigation of modified GaSe crystal compositions for nonlinear THz applications. , 2013, , .		0
123	THz-TDS of chemically modified natural or synthetic layered clay systems. , 2014, , .		0
124	THz spectroscopy of amines and aminoacids intercalated in clays. , 2014, , .		0
125	Evolution of GaSe<inf>1−x</inf>S<inf>x</inf> phonon absorption peaks with S-doping studied by THz-TDS. , 2015, , .		0
126	Metrology for terahertz time-domain spectrometers. , 2015, , .		0

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127	Dielectric constants of ferroelectric PZT at THz frequencies. , 2015, , .		0
128	Refractivity of water vapor at terahertz frequencies — Comparison of measurements with models. , 2015, , .		0
129	Device characterization for THz wireless links. , 2017, , .		0
130	A Review of Measurement Capabilities at Millimetre and Submillimetre Wavelengths at the UK's National Physical Laboratory. , 2018, , .		0
131	Effect of Gallium and Boron doping on dielectric and conductivity properties of ZnO sintered from nanoparticles of different morphology in THz region. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 611, 125896.	2.3	0
132	THz metrology for active electronic devices: state of the art and challenges. , 2017, , .		0
133	Terahertz response of Er3+/Yb3+ co-doped La2Zr2O7 synthesized using the sol-gel precipitation method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 644, 128836.	2.3	0
134	Effect of Microsphere Concentration and Size in Compacts on Terahertz Scattering. , 2022, , .		0