

# Edward P J Parrott

## List of Publications by Year in descending order

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71  
papers

2,578  
citations

185998

28  
h-index

243296

44  
g-index

71  
all docs

71  
docs citations

71  
times ranked

3590  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning the Acid/Base Properties of Nanocarbons by Functionalization via Amination. <i>Journal of the American Chemical Society</i> , 2010, 132, 9616-9630.	6.6	590
2	Recent advances in terahertz technology for biomedical applications. <i>Quantitative Imaging in Medicine and Surgery</i> , 2017, 7, 345-355.	1.1	186
3	Terahertz Time-Domain and Low-Frequency Raman Spectroscopy of Organic Materials. <i>Applied Spectroscopy</i> , 2015, 69, 1-25.	1.2	153
4	Direct evidence to support the restriction of intramolecular rotation hypothesis for the mechanism of aggregation-induced emission: temperature resolved terahertz spectra of tetraphenylethene. <i>Materials Horizons</i> , 2014, 1, 251-258.	6.4	117
5	Terahertz spectroscopy: Its future role in medical diagnoses. <i>Journal of Molecular Structure</i> , 2011, 1006, 66-76.	1.8	101
6	Testing the Sensitivity of Terahertz Spectroscopy to Changes in Molecular and Supramolecular Structure: A Study of Structurally Similar Cocrystals. <i>Crystal Growth and Design</i> , 2009, 9, 1452-1460.	1.4	99
7	Evaluating liquid crystal properties for use in terahertz devices. <i>Optics Express</i> , 2012, 20, 11899.	1.7	90
8	A study into the effect of subtle structural details and disorder on the terahertz spectrum of crystalline benzoic acid. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5329.	1.3	78
9	Active coke: Carbonaceous materials as catalysts for alkane dehydrogenation. <i>Journal of Catalysis</i> , 2010, 269, 329-339.	3.1	74
10	Solvent Doping of PEDOT/PSS: Effect on Terahertz Optoelectronic Properties and Utilization in Terahertz Devices. <i>Journal of Physical Chemistry C</i> , 2015, 119, 6813-6818.	1.5	63
11	Advances in Polarizer Technology for Terahertz Frequency Applications. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2013, 34, 489-499.	1.2	62
12	<i>In vivo</i> terahertz reflection imaging of human scars during and after the healing process. <i>Journal of Biophotonics</i> , 2017, 10, 1143-1151.	1.1	57
13	High extinction ratio and low transmission loss thin-film terahertz polarizer with a tunable bilayer metal wire-grid structure. <i>Optics Letters</i> , 2014, 39, 793.	1.7	49
14	Robust Thin-Film Wire-Grid THz Polarizer Fabricated Via a Low-Cost Approach. <i>IEEE Photonics Technology Letters</i> , 2013, 25, 81-84.	1.3	48
15	Terahertz pulsed imaging in vivo: measurements and processing methods. <i>Journal of Biomedical Optics</i> , 2011, 16, 106010.	1.4	47
16	Gelatin embedding: a novel way to preserve biological samples for terahertz imaging and spectroscopy. <i>Physics in Medicine and Biology</i> , 2015, 60, 2703-2713.	1.6	46
17	<i>In vivo</i> THz imaging of human skin: Accounting for occlusion effects. <i>Journal of Biophotonics</i> , 2018, 11, e201700111.	1.1	44
18	Calibration method to improve the accuracy of THz imaging and spectroscopy in reflection geometry. <i>Photonics Research</i> , 2016, 4, A29.	3.4	41

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19	Graphene Based Terahertz Light Modulator in Total Internal Reflection Geometry. <i>Advanced Optical Materials</i> , 2017, 5, 1600697.	3.6	41
20	Accurate determination of optical coefficients from chemical samples using terahertz time-domain spectroscopy and effective medium theory. <i>Optics Letters</i> , 2009, 34, 3722.	1.7	36
21	Broadband modulation of terahertz waves through electrically driven hybrid bowtie antenna-VO <sub>2</sub> devices. <i>Scientific Reports</i> , 2017, 7, 12725.	1.6	34
22	Understanding the Dielectric Properties of Heat-Treated Carbon Nanofibers at Terahertz Frequencies: a New Perspective on the Catalytic Activity of Structured Carbonaceous Materials. <i>Journal of Physical Chemistry C</i> , 2009, 113, 10554-10559.	1.5	33
23	The Use of Terahertz Spectroscopy as a Sensitive Probe in Discriminating the Electronic Properties of Structurally Similar Multi-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2009, 21, 3953-3957.	11.1	32
24	Terahertz pulsed spectroscopic imaging using optimized binary masks. <i>Applied Physics Letters</i> , 2009, 95, 231112.	1.5	31
25	Vanadium dioxide devices for terahertz wave modulation: a study of wire grid structures. <i>Nanotechnology</i> , 2016, 27, 205206.	1.3	31
26	A Robust Baseline and Reference Modification and Acquisition Algorithm for Accurate THz Imaging. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2017, 7, 493-501.	2.0	31
27	In vivo estimation of water diffusivity in occluded human skin using terahertz reflection spectroscopy. <i>Journal of Biophotonics</i> , 2019, 12, e201800145.	1.1	31
28	Terahertz spectroscopy of carbon nanotubes embedded in a deformable rubber. <i>Journal of Applied Physics</i> , 2008, 103, .	1.1	30
29	Exploiting total internal reflection geometry for efficient optical modulation of terahertz light. <i>APL Photonics</i> , 2016, 1, .	3.0	29
30	Invited Article: An active terahertz polarization converter employing vanadium dioxide and a metal wire grating in total internal reflection geometry. <i>APL Photonics</i> , 2018, 3, .	3.0	29
31	Towards a Rapid Terahertz Liquid Crystal Phase Shifter: Terahertz In-Plane and Terahertz Out-Plane (TIP-TOP) Switching. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2018, 8, 209-214.	2.0	28
32	Atomic charge distribution in sodosilicate glasses from terahertz time-domain spectroscopy. <i>Physical Review B</i> , 2010, 82, .	1.1	25
33	Freeze-thaw hysteresis effects in terahertz imaging of biomedical tissues. <i>Biomedical Optics Express</i> , 2016, 7, 4711.	1.5	23
34	Highly Sensitive Terahertz Thin-Film Total Internal Reflection Spectroscopy Reveals in Situ Photoinduced Structural Changes in Methylammonium Lead Halide Perovskites. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17552-17558.	1.5	21
35	Extracting accurate optical parameters from glasses using terahertz time-domain spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 2009, 355, 1824-1827.	1.5	20
36	Low-cost and broadband terahertz antireflection coatings based on DMSO-doped PEDOT/PSS. <i>Optics Letters</i> , 2015, 40, 2886.	1.7	20

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37	Robust and accurate terahertz time-domain spectroscopic ellipsometry. <i>Photonics Research</i> , 2018, 6, 768.	3.4	20
38	Tailoring Metamaterial Microstructures to Realize Broadband Polarization Modulation of Terahertz Waves. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 1-6.	1.9	18
39	Determination of terahertz permittivity of dehydrated biological samples. <i>Physics in Medicine and Biology</i> , 2017, 62, 8882-8893.	1.6	17
40	Adaptive Sampling for Terahertz Time-Domain Spectroscopy and Imaging. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2017, 7, 118-123.	2.0	15
41	Exploiting a metal wire grating in total internal reflection geometry to achieve achromatic polarization conversion. <i>Photonics Research</i> , 2017, 5, 299.	3.4	13
42	Accurate photoconductive antenna characterization using a thin film polarizer. <i>Applied Physics Letters</i> , 2012, 101, 121108.	1.5	9
43	Terahertz Spectroscopy of Crystalline and Non-Crystalline Solids. <i>Springer Series in Optical Sciences</i> , 2012, , 191-227.	0.5	5
44	Using terahertz time-domain spectroscopy to identify pharmaceutical cocrystals. , 2007, , .		2
45	Terahertz in plane and terahertz out of plane (TIP-TOP) switching of a liquid crystal spatial light modulator. , 2014, , .		2
46	Switchable terahertz metamaterials: Using the insulator-metal transition of vanadium dioxide to activate metamaterial properties. , 2015, , .		2
47	Terahertz spectroscopy of inorganic glasses and carbon nanotubes. <i>Spectroscopic Properties of Inorganic and Organometallic Compounds</i> , 2011, , 157-183.	0.4	2
48	Understanding the catalytic activity of heat treated carbon nanofibres: Investigation of their dielectric properties at THz frequencies. , 2008, , .		1
49	Untangling the electronic properties in highly similar multi-walled carbon nanotubes by terahertz spectroscopy. , 2009, , .		1
50	Large birefringence liquid crystal in terahertz range with temperature tuning. , 2013, , .		1
51	Modelling the effect of hydrogen positions on the lattice dynamics calculations of terahertz spectra of benzoic acid. , 2008, , .		0
52	Using terahertz time-domain-spectroscopy to follow the kinetics and mechanism of cocrystal formation. , 2008, , .		0
53	Probing solids through THz spectroscopy: Differentiation of chiral and racemic forms of isostructural and non-isostructural cocrystals. , 2008, , .		0
54	Extraction of accurate optical constants in THz-TDS. , 2009, , .		0

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55	Using THz-TDS of ethyl lactate/water mixtures to gain insight into solvent dynamics. , 2011, , .		0
56	Tailoring liquid crystals to become fast and efficient terahertz devices. , 2012, , .		0
57	Compensating for fibre-coupled power drift in THz-TDS systems. , 2012, , .		0
58	Removing the &#x2018;double-pulse&#x2019; problem in polarization maintaining fiber delivery of femtosecond laser in terahertz systems. , 2012, , .		0
59	Novel wire grid polarizer for accurate antenna characterization. , 2012, , .		0
60	Fabrication of a metal wire-grid THz polarizer with a low-cost manufacturing approach. , 2012, , .		0
61	Probing biological systems with terahertz spectroscopy. Proceedings of SPIE, 2012, , .	0.8	0
62	Terahertz time domain spectroscopy of rat skin tissues. , 2013, , .		0
63	Structural evolution of tetraphenylethene with temperature observed using THz-TDS. , 2013, , .		0
64	Probing solid-state reaction mechanisms with THz-TDS. , 2014, , .		0
65	Improved acquisition time via adaptive sampling for THz-TDS. , 2014, , .		0
66	A variable step THz neutral density filter based on PEDOT/PSS doped with dimethylformamide. , 2014, , .		0
67	The effects of the slow freeze and thaw process on the THz properties of biological samples. , 2016, , .		0
68	In vivo THz imaging of human skin: Accounting for occlusion effects. , 2016, , .		0
69	Broadband terahertz plasmonic wave retarders. , 2016, , .		0
70	Terahertz near field imaging of metal hole arrays. , 2016, , .		0
71	Low-Cost Wet-Etching Method to Fabricate a Robust THz Tri-Layer Polarizer With a High Extinction Ratio. , 2021, , .		0