

# Vincent P Wallace

## List of Publications by Year in descending order

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116  
papers

8,477  
citations

81743

39  
h-index

110170

64  
g-index

117  
all docs

117  
docs citations

117  
times ranked

5441  
citing authors

#	ARTICLE	IF	CITATIONS
1	Millimeter waves alter DNA secondary structures and modulate the transcriptome in human fibroblasts. <i>Biomedical Optics Express</i> , 2022, 13, 3131.	1.5	6
2	Extraction of Thickness and Water-Content Gradients in Hydrogel-Based Water-Backed Corneal Phantoms Via Submillimeter-Wave Reflectometry. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2021, 11, 647-659.	2.0	11
3	Reproducibility of Terahertz Peaks in a Frozen Aqueous Solution of 5-Methylcytidine. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2021, 42, 588-606.	1.2	6
4	Submillimeter-Wave Permittivity Measurements of Bound Water in Collagen Hydrogels via Frequency Domain Spectroscopy. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2021, 11, 538-547.	2.0	9
5	Is there a terahertz absorption peak in frozen aqueous solutions of DNA nucleosides?. , 2021, , .		0
6	Ex Vivo Effect of 60 GHz MMW radiation on Leech Neuron Intracellular Calcium Alteration. , 2020, , .		2
7	Convergence of terahertz radiation and nanotechnology. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10942-10955.	2.7	13
8	Non-Contact, Non-Destructive Testing in Various Industrial Sectors with Terahertz Technology. <i>Sensors</i> , 2020, 20, 712.	2.1	132
9	Prediction of the terahertz absorption features with a straightforward molecular dynamics method. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 236, 118330.	2.0	3
10	Terahertz Radiation Stimulates Neurite Growth in PC12 Derived Neurons During Development Phase: Preliminary Study. , 2020, , .		3
11	Cell Culture Confluency as a Potential Factor in Biological Effects of Millimetre Wave Radiation in In Vitro Experiments. , 2020, , .		0
12	Relating Nanoparticle Geometry and Terahertz Reflectivity. , 2019, , .		0
13	Use of Terahertz Waves To Monitor Moisture Content in High-Pressure Natural Gas Pipelines. <i>Energy &amp; Fuels</i> , 2019, 33, 8026-8031.	2.5	13
14	Millimeter Wave Radiation Activates Leech Nociceptors via TRPV1-Like Receptor Sensitization. <i>Biophysical Journal</i> , 2019, 116, 2331-2345.	0.2	17
15	Correlation between saturated fatty acid chain-length and intermolecular forces determined with terahertz spectroscopy. <i>Chemical Communications</i> , 2019, 55, 3670-3673.	2.2	12
16	Differences and Similarities Between Millimetre Wave and Thermal Heating Effect on Action Potential Triggering in Leech Interneuron. , 2019, , .		0
17	An assessment of multimodal imaging of subsurface text in mummy cartonnage using surrogate papyrus phantoms. <i>Heritage Science</i> , 2018, 6, .	1.0	22
18	Modelling Neuronal Activity Alterations Caused by MMW- THz Mediated Melting of Lipid Membrane. , 2018, , .		1

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19	Collagen and Muscle Fibrous Tissue as a Contrast Mechanism in the THz region. , 2018, , .		2
20	Terahertz biophotonics as a tool for studies of dielectric and spectral properties of biological tissues and liquids. Progress in Quantum Electronics, 2018, 62, 1-77.	3.5	204
21	Concentration analysis of breast tissue phantoms with terahertz spectroscopy. Biomedical Optics Express, 2018, 9, 1334.	1.5	27
22	Hydration of gelatin molecules studied with terahertz time-domain spectroscopy. , 2018, , .		0
23	The 2017 terahertz science and technology roadmap. Journal Physics D: Applied Physics, 2017, 50, 043001.	1.3	1,160
24	Ultrathin tunable terahertz absorber based on MEMS-driven metamaterial. Microsystems and Nanoengineering, 2017, 3, 17033.	3.4	84
25	The interaction between electromagnetic fields at megahertz, gigahertz and terahertz frequencies with cells, tissues and organisms: risks and potential. Journal of the Royal Society Interface, 2017, 14, 20170585.	1.5	99
26	<i>In vivo</i> terahertz reflection imaging of human scars during and after the healing process. Journal of Biophotonics, 2017, 10, 1143-1151.	1.1	57
27	The application of effective medium theory in tissue phantoms. , 2017, , .		2
28	Evaluation of a biologically relevant level of MMW radiation absorption in neuronal tissue. , 2017, , .		3
29	Use of a handheld terahertz pulsed imaging device to differentiate benign and malignant breast tissue. Biomedical Optics Express, 2017, 8, 2932.	1.5	63
30	Fast Tunable Terahertz Absorber Based on a MEMS-driven Metamaterial. , 2017, , .		1
31	Preliminary study of different scar types with terahertz imaging. , 2016, , .		2
32	Terahertz characterization of an asphaltene sample and its polarity-based sub-fractions. , 2016, , .		1
33	Optical properties extraction of breast tissue using an intraoperative terahertz probe. , 2016, , .		0
34	Alterations in neuronal action potential shape and spiking rate caused by pulsed 60 GHz millimeter wave radiation. , 2016, , .		7
35	Deciphering Cell-to-Cell Communication in Acquisition of Cancer Traits: Extracellular Membrane Vesicles Are Regulators of Tissue Biomechanics. OMICS A Journal of Integrative Biology, 2016, 20, 462-469.	1.0	19
36	Modulation of the Hydration Water Around Monoclonal Antibodies on Addition of Excipients Detected by Terahertz Time-Domain Spectroscopy. Journal of Pharmaceutical Sciences, 2015, 104, 4025-4033.	1.6	13

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37	Breast Cancer classification using extracted parameters from a terahertz dielectric model of human breast tissue. , 2015, 2015, 2804-7.		3
38	The Potential of the Double Debye Parameters to Discriminate Between Basal Cell Carcinoma and Normal Skin. IEEE Transactions on Terahertz Science and Technology, 2015, 5, 990-998.	2.0	29
39	Modulation of the hydration water around monoclonal antibodies on addition of excipients detected by terahertz-time domain spectroscopy. , 2015, , .		2
40	A Dielectric Model of Human Breast Tissue in Terahertz Regime. IEEE Transactions on Biomedical Engineering, 2015, 62, 699-707.	2.5	59
41	High correlation of double Debye model parameters in skin cancer detection. , 2014, 2014, 718-21.		6
42	Use of Finite Difference Time Domain Simulations and Debye Theory for Modelling the Terahertz Reflection Response of Normal and Tumour Breast Tissue. PLoS ONE, 2014, 9, e99291.	1.1	49
43	Terahertz Time-Domain Spectroscopy of Human Blood. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 363-367.	2.0	29
44	Terahertz Time-Domain Spectroscopy of Human Blood. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 774-778.	3.9	74
45	Optimizing multi-dimensional terahertz imaging analysis for colon cancer diagnosis. Expert Systems With Applications, 2013, 40, 2043-2050.	4.4	154
46	Terahertz waveguide prism. Optics Express, 2013, 21, 19292.	1.7	8
47	Nondestructive determination of defects in firmly joint plastic compounds with portable THz system. , 2013, , .		1
48	Inline monitoring of paper thickness in an industrial setting. , 2013, , .		1
49	Understanding terahertz data for medical applications. , 2012, , .		1
50	Breast cancer tissue diagnosis at terahertz frequencies. , 2012, , .		1
51	Classification of terahertz-pulsed imaging data from excised breast tissue. Journal of Biomedical Optics, 2012, 17, 016005.	1.4	84
52	Terahertz pulsed imaging of freshly excised human colonic tissues. Physics in Medicine and Biology, 2011, 56, 4333-4353.	1.6	231
53	Improved sample characterization in terahertz reflection imaging and spectroscopy: erratum. Optics Express, 2011, 19, 24782.	1.7	1
54	Terahertz pulsed imaging in vivo: measurements and processing methods. Journal of Biomedical Optics, 2011, 16, 106010.	1.4	47

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55	Enhanced skin permeation and hydration by magnetic field array; preliminary in-vitro and in-vivo assessment. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 62, 696-701.	1.2	21
56	The future of medical imaging. , 2010, , .		3
57	Accuracy and resolution of THz reflection spectroscopy for medical imaging. <i>Physics in Medicine and Biology</i> , 2010, 55, 4825-4838.	1.6	87
58	Terahertz pulsed imaging of knee cartilage. <i>Biomedical Optics Express</i> , 2010, 1, 967.	1.5	30
59	Improved sample characterization in terahertz reflection imaging and spectroscopy. <i>Optics Express</i> , 2009, 17, 3848.	1.7	93
60	Terahertz pulsed spectroscopy of freshly excised human breast cancer. <i>Optics Express</i> , 2009, 17, 12444.	1.7	516
61	Terahertz pulsed imagingâ€”A potential medical imaging modality?. <i>Photodiagnosis and Photodynamic Therapy</i> , 2009, 6, 128-134.	1.3	62
62	Terahertz pulsed imaging of liver cirrhosis. , 2009, , .		2
63	Terahertz imaging detects cancerous tissue. <i>SPIE Newsroom</i> , 2008, , .	0.1	3
64	Three-dimensional imaging of optically opaque materials using nonionizing terahertz radiation. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2008, 25, 3120.	0.8	92
65	Application of terahertz imaging to osteoarthritis. , 2008, , .		1
66	An intra-operative THz probe for use during the surgical removal of breast tumors. , 2008, , .		21
67	Characterizing rat tissue samples using Terahertz Pulsed Imaging. , 2008, , .		0
68	Using terahertz pulsed imaging (TPI) to identify colonic pathology.. , 2008, , .		6
69	Application of Finite Difference Time Domain methods to Terahertz Spectroscopy Measurements of Breast Cancer. <i>IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium</i> , 2007, , .	0.0	4
70	Terahertz spectroscopy of breast tumors. , 2007, , .		5
71	A Comparison of Terahertz Pulsed Imaging with Transmission Microradiography for Depth Measurement of Enamel Demineralisation in vitro. <i>Caries Research</i> , 2007, 41, 49-55.	0.9	61
72	An oil and water emulsion phantom for biomedical terahertz spectroscopy. , 2007, , .		4

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73	Photodynamic Therapy of Human Glioma Spheroids Using 5-Aminolevulinic Acid $\hat{A}$ . Photochemistry and Photobiology, 2007, 72, 128-134.	1.3	3
74	Using Terahertz Pulsed Imaging to Measure Enamel Demineralisation in Teeth. , 2006, , .		7
75	Terahertz Pulsed Imaging of Human Breast Tumors. Radiology, 2006, 239, 533-540.	3.6	357
76	Terahertz Pulsed Spectroscopy of Human Basal Cell Carcinoma. Applied Spectroscopy, 2006, 60, 1127-1133.	1.2	294
77	Terahertz pulsed imaging and spectroscopy of breast tumors. , 2006, 6386, 178.		4
78	Biomedical applications of terahertz technology. Journal Physics D: Applied Physics, 2006, 39, R301-R310.	1.3	699
79	Terahertz pulsed imaging and spectroscopy of breast tumours. , 2006, , .		1
80	Terahertz Spectroscopy of Biologically Relevant Liquids at Low Temperatures. , 2006, , .		4
81	Development of a hand-held TPI system for medical applications. , 2005, , .		1
82	Medical applications of broadband terahertz pulsed radiation. , 2005, , .		3
83	Simulating the response of terahertz radiation to basal cell carcinoma using ex vivo spectroscopy measurements. Journal of Biomedical Optics, 2005, 10, 064021.	1.4	103
84	Terahertz pulsed imaging of basal cell carcinoma ex vivo and in vivo. British Journal of Dermatology, 2004, 151, 424-432.	1.4	293
85	Terahertz pulsed imaging and spectroscopy for biomedical and pharmaceutical applications. Faraday Discussions, 2004, 126, 255.	1.6	147
86	Simulation of terahertz pulse propagation in biological systems. Applied Physics Letters, 2004, 84, 2190-2192.	1.5	176
87	In vivostudy of human skin using pulsed terahertz radiation. Physics in Medicine and Biology, 2004, 49, 1595-1607.	1.6	430
88	Tissue classification using terahertz pulsed imaging. , 2004, 5318, 23.		3
89	Terahertz pulsed imaging of skin cancer in the time and frequency domain. Journal of Biological Physics, 2003, 29, 257-259.	0.7	274
90	Terahertz Pulse Imaging of ex vivo Basal Cell Carcinoma. Journal of Investigative Dermatology, 2003, 120, 72-78.	0.3	375

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91	Terahertz-pulsed imaging of cancers. , 2003, , .		8
92	Terahertz Pulse Imaging: A Pilot Study of Potential Applications in Dentistry. Caries Research, 2003, 37, 352-359.	0.9	82
93	Three-dimensional terahertz pulse imaging of dental tissue. Journal of Biomedical Optics, 2003, 8, 303.	1.4	144
94	Terahertz pulsed imaging with 1.06 $\mu$ m laser excitation. Applied Physics Letters, 2003, 83, 4113-4115.	1.5	61
95	Potential uses of terahertz pulse imaging in dentistry: caries and erosion detection. , 2002, , .		4
96	<title>Monitoring pigmented skin lesions</title>. , 2002, , .		1
97	Terahertz pulse imaging in reflection geometry of human skin cancer and skin tissue. Physics in Medicine and Biology, 2002, 47, 3853-3863.	1.6	599
98	<title>Terahertz pulse imaging in reflection geometry of skin tissue using time-domain analysis techniques</title>. , 2002, 4625, 160.		23
99	Three-dimensional terahertz pulse imaging of dental tissue. , 2002, , .		1
100	Chondrocyte Repopulation of Allograft Cartilage: A Preliminary Investigation and Strategy for Developing Cartilage Matrices for Reconstruction. Otolaryngology - Head and Neck Surgery, 2002, 127, 265-270.	1.1	16
101	<title>Terahertz imaging and spectroscopy of human skin in vivo</title>. , 2001, , .		60
102	Two-photon imaging of collagen remodeling in RAFT tissue cultures. , 2001, , .		0
103	Two-Photon Laser Scanning Microscopy of Epithelial Cell-Modulated Collagen Density in Engineered Human Lung Tissue. Tissue Engineering, 2001, 7, 191-202.	4.9	64
104	Two-Photon Excitation Laser Scanning Microscopy of Human, Porcine, and Rabbit Nasal Septal Cartilage. Tissue Engineering, 2001, 7, 599-606.	4.9	23
105	Two-Photon Microscopy in Highly Scattering Tissue. , 2001, , 180-199.		10
106	Two-photon excitation laser scanning microscopy of porcine nasal septal cartilage following Nd:YAG laser-mediated stress relaxation. , 2000, 3907, 380.		0
107	<title>Two-photon excitation laser scanning microscopy of rabbit nasal septal cartilage following Nd:YAG-laser-mediated stress relaxation</title>. , 2000, , .		1
108	Gene inactivation by multiphoton-targeted photochemistry. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 9504-9507.	3.3	32

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109	Classification of reflectance spectra from pigmented skin lesions, a comparison of multivariate discriminant analysis and artificial neural networks. <i>Physics in Medicine and Biology</i> , 2000, 45, 2859-2871.	1.6	48
110	Spectrophotometric assessment of pigmented skin lesions: methods and feature selection for evaluation of diagnostic performance. <i>Physics in Medicine and Biology</i> , 2000, 45, 735-751.	1.6	105
111	Influence of optical properties on two-photon fluorescence imaging in turbid samples. <i>Applied Optics</i> , 2000, 39, 1194.	2.1	165
112	Photodynamic Therapy of Human Glioma Spheroids Using 5-Aminolevulinic Acid. <i>Photochemistry and Photobiology</i> , 2000, 72, 128.	1.3	67
113	<title>Spatial point spread function with depth in two-photon microscopy</title>. , 1999, 3605, 112.		0
114	<title>Two-photon excited imaging of photosensitizers in tissues</title>. , 1999, , .		2
115	<title>Layered Monte Carlo model for the description of diffuse reflectance spectra from pigmented skin lesions</title>. , 1999, , .		2
116	Macrophage Targeted Photodynamic Regulation of Wound Healing. <i>Microscopy and Microanalysis</i> , 1998, 4, 1090-1091.	0.2	0