Brian W-H Ng

List of Publications by Year
in descending order

95 papers	1,703 citations	331670 21 h-index	315739 38 g-index
98 all docs	98 docs citations	98 times ranked	1345 citing authors

#	Article	IF	Citations
1	A Novel Approach for Spectroscopic Chemical Identification Using Photonic Crystal Fiber in the Terahertz Regime. IEEE Sensors Journal, 2018, 18, 575-582.	4.7	220
2	T-Ray Sensing and Imaging. Proceedings of the IEEE, 2007, 95, 1528-1558.	21.3	154
3	Terahertz Sensing in a Hollow Core Photonic Crystal Fiber. IEEE Sensors Journal, 2018, 18, 4073-4080.	4.7	119
4	A Hi-Bi Ultra-Sensitive Surface Plasmon Resonance Fiber Sensor. IEEE Access, 2019, 7, 79085-79094.	4.2	116
5	Highly birefringent elliptical core photonic crystal fiber for terahertz application. Optics Communications, 2018, 407, 92-96.	2.1	76
6	Zeonex-based asymmetrical terahertz photonic crystal fiber for multichannel communication and polarization maintaining applications. Applied Optics, 2018, 57, 666.	1.8	68
7	A novel Zeonex based oligoporous-core photonic crystal fiber for polarization preserving terahertz applications. Optics Communications, 2018, 413, 242-248.	2.1	56
8	Experimental Study on Glass and Polymers: Determining the Optimal Material for Potential Use in Terahertz Technology. IEEE Access, 2020, 8, 97204-97214.	4.2	56
9	Accurate Image Analysis of the Retina Using Hessian Matrix and Binarisation of Thresholded Entropy with Application of Texture Mapping. PLoS ONE, 2014, 9, e95943.	2.5	46
10	Support Vector Machine Applications in Terahertz Pulsed Signals Feature Sets. IEEE Sensors Journal, 2007, 7, 1597-1608.	4.7	43
11	Low loss and low dispersion hybrid core photonic crystal fiber for terahertz propagation. Photonic Network Communications, 2018, 35, 364-373.	2.7	38
12	Terahertz scattering by granular composite materials: An effective medium theory. Applied Physics Letters, 2012, 100, .	3.3	37
13	Target Detection in Sea-Clutter Using Stationary Wavelet Transforms. IEEE Transactions on Aerospace and Electronic Systems, 2017, 53, 1136-1146.	4.7	32
14	Exploring Low Loss and Single Mode in Antiresonant Tube Lattice Terahertz Fibers. IEEE Access, 2020, 8, 113309-113317.	4.2	31
15	DOA Estimation Under Mutual Coupling of Uniform Linear Arrays Using Sparse Reconstruction. IEEE Wireless Communications Letters, 2019, 8, 1004-1007.	5.0	30
16	Wavelet based local tomographic image using terahertz techniques. , 2009, 19, 750-763.		29
17	Terahertz Imaging for Biomedical Applications. , 2012, , .		27
18	APPLICATION OF AUTO REGRESSIVE MODELS OF WAVELET SUB-BANDS FOR CLASSIFYING TERAHERTZ PULSE MEASUREMENTS. Journal of Biological Systems, 2007, 15, 551-571.	1.4	26

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19	DOA Estimation under Unknown Mutual Coupling and Multipath with Improved Effective Array Aperture. Sensors, 2015, 15, 30856-30869.	3.8	26
20	A novel Zeonex based photonic sensor for alcohol detection in beverages. , 2017, , .		26
21	Sparsity-aware DOA estimation of quasi-stationary signals using nested arrays. Signal Processing, 2018, 144, 87-98.	3.7	26
22	Low-cost ultra-thin broadband terahertz beam-splitter. Optics Express, 2012, 20, 4968.	3.4	25
23	2-D Wavelet Segmentation in 3-D T-Ray Tomography. IEEE Sensors Journal, 2007, 7, 342-343.	4.7	24
24	Hollow Core Inhibited Coupled Antiresonant Terahertz Fiber: A Numerical and Experimental Study. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 245-260.	3.1	24
25	Sparsity-Inducing DOA Estimation of Coherent Signals Under the Coexistence of Mutual Coupling and Nonuniform Noise. IEEE Access, 2019, 7, 40271-40278.	4.2	22
26	Automated Authorship Attribution Using Advanced Signal Classification Techniques. PLoS ONE, 2013, 8, e54998.	2.5	21
27	Simulating Time-Series Data for Improved Deep Neural Network Performance. IEEE Access, 2019, 7, 131248-131255.	4.2	20
28	Terahertz Hollow Core Antiresonant Fiber with Metamaterial Cladding. Fibers, 2020, 8, 14.	4.0	18
29	Reduction of Scattering Effects in THz-TDS Signals. IEEE Photonics Technology Letters, 2012, 24, 155-157.	2.5	17
30	5G Terrestrial Networks: Mobility and Coverageâ€"Solution in Three Dimensions. IEEE Access, 2017, 5, 8064-8093.	4.2	15
31	Estimation of the total rotational velocity of a nonâ€cooperative target with a high crossâ€range resolution threeâ€dimensional interferometric inverse synthetic aperture radar system. IET Radar, Sonar and Navigation, 2017, 11, 1020-1029.	1.8	14
32	Bi-orthogonal rational discrete wavelet transform with multiple regularity orders and application experiments. Signal Processing, 2013, 93, 3014-3026.	3.7	13
33	Target detection in sea clutter using resonance based signal decomposition. , 2016, , .		13
34	Terahertz fingerprinting in presence of quasi-ballistic scattering. Applied Physics Letters, 2012, 101, 061108.	3.3	12
35	Local Computed Tomography Using a THz Quantum Cascade Laser. IEEE Sensors Journal, 2010, 10, 1718-1731.	4.7	11
36	A Gold Coated Plasmonic Sensor for Biomedical and Biochemical Analyte Detection. , 2018, , .		11

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37	Detection in Sea Clutter Using Sparse Signal Separation. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 4384-4394.	4.7	11
38	Terahertz Sources and Detectors. , 2012, , 9-26.		11
39	Terahertz scattering by dense media. Applied Physics Letters, 2012, 100, 241110.	3.3	10
40	Terahertz Signal Classification Based on Geometric Algebra. IEEE Transactions on Terahertz Science and Technology, 2016, 6, 793-802.	3.1	10
41	Analysis of millimetre-wave polarization diverse multiple-input multiple-output capacity. Royal Society Open Science, 2015, 2, 150322.	2.4	9
42	Terahertz scattering by two phased media with optically soft scatterers. Journal of Applied Physics, 2012, 112, 113112.	2.5	8
43	Estimation of the total rotational velocity of a non-cooperative target using a 3D InISAR system. , 2015, , .		8
44	Total rotational velocity estimation using 3D interferometrie ISAR with squint geometry. , 2016, , .		8
45	Collaborative Data and Information Processing for Target Tracking In Wireless Sensor Networks. , 2006, , .		7
46	Reduced memory zerotree coding algorithm for hardware implementation. , 0, , .		6
47	Distributive Target Tracking in Wireless Sensor Networks under Measurement Origin Uncertainty. , 2007, , .		6
48	Two-stage DOA estimation of independent and coherent signals in spatially coloured noise. Signal Processing, 2016, 128, 350-359.	3.7	6
49	FPGA Implementation of a Predictive Vector Quantization Image Compression Algorithm for Image Sensor Applications. , 2008, , .		5
50	Mitigating scattering effects in THz-TDS measurements. , 2010, , .		5
51	Collaborative signal processing framework and algorithms for targets tracking in wireless sensor networks. , 2005, , .		4
52	Terahertz spectroscopy of misfolded proteins in bio-tissue. , 2009, , .		4
53	Investigation of multiorientation and multiresolution features for microcalcifications classification in mammograms. , 2011, , .		4
54	Design of Two-Band Critically Sampled Rational Rate Filter Banks With Multiple Regularity Orders and Associated Discrete Wavelet Transforms. IEEE Transactions on Signal Processing, 2012, 60, 3863-3868.	5.3	4

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55	Classification of lactose and mandelic acid THz spectra using subspace and wavelet-packet algorithms. Proceedings of SPIE, 2007, , .	0.8	3
56	The potential of 2D wavelet transforms for target detection in sea-clutter. , 2015, , .		3
57	Kurtosis-based estimation of cross-range scaling factor for high-resolution inverse synthetic aperture radar imaging. Journal of Applied Remote Sensing, 2016, 10, 030502.	1.3	3
58	Efficient Cumulant-Based Methods for Joint Angle and Frequency Estimation Using Spatial-Temporal Smoothing. Electronics (Switzerland), 2019, 8, 82.	3.1	3
59	One-dimensional wavelet transforms and their application to T-ray pulsed signal identification. , 2005, , .		2
60	Distributive JPDAF for Multi-Target Tracking in Wireless Sensor Networks. , 2006, , .		2
61	Feature extraction from terahertz pulses for classification of RNA data via support vector machines. , 2006, , .		2
62	Molecular and structural preservation of dehydrated bio-tissue for THz spectroscopy. , 2006, , .		2
63	Over-the-horizon aircraft detection using skywave AM-radio broadcast signals. , 2015, , .		2
64	Total rotational velocity estimation in a multistatic ISAR system. IET Radar, Sonar and Navigation, 2019, 13, 368-375.	1.8	2
65	On the Slow-Time k-Space and its Augmentation in Doppler Radar Tomography. Sensors, 2020, 20, 513.	3.8	2
66	Singleâ€Step Tabletop Fabrication for Lowâ€Attenuation Terahertz Special Optical Fibers. Advanced Photonics Research, 2021, 2, 2100165.	3.6	2
67	Wavelet transform and terahertz local tomography. Proceedings of SPIE, 2007, , .	0.8	1
68	Performance estimation of oversampled low bit depth, bio-inspired motion detection system. , 2010, , .		1
69	A preliminary study of hydrogenation of oils using terahertz time domain spectroscopy. , 2010, , .		1
70	Critically sampled discrete wavelet transforms with rational dilation factor of 3/2. , 2010, , .		1
71	THz Pattern Recognition Experiments. , 2012, , 133-177.		1
72	Terahertz Imaging Modes. , 2012, , 27-44.		1

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73	Feature Extraction and Selection. , 2012, , 95-118.		1
74	Terahertz local tomography. , 2007, , .		0
75	Using over-sampled single-bit representation for velocity estimation in vision systems. , 2007, , .		0
76	Orientation dependence of THz scattering from cylindrical strands. , 2008, , .		0
77	Subspace and wavelet-packet algorithms for de-noising and classifying broadband THz transients. , 2008, , .		0
78	Using Sigma-Delta conversion for velocity estimation in bio-inspired detection system. , 2010, , .		0
79	Scattering estimation from spectral moments of THz-TDS signals. , 2011, , .		0
80	Scattering robust features for classification of materials usingl terahertz. , 2011, , .		0
81	Is there a smarter way to use 100 billion transistors?. , 2012, , .		0
82	Analysis of millimeter-wave polarization diverse MIMO capacity. , 2014, , .		0
83	Analysis of polarization diversity at terahertz frequencies. , 2014, , .		0
84	Long-baseline 3D interferometric ISAR. , 2017, , .		0
85	Correction to: â€œExperimental Study on Glass and Polymers: Determining the Optimal Material for Potential Use in Terahertz Technologyâ€• IEEE Access, 2021, 9, 2705-2705.	4.2	0
86	Addendum: Sultana, J., et al. Terahertz Hollow Core Antiresonant Fiber with Metamaterial Cladding. Fibers 2020, 8, 14. Fibers, 2021, 9, 20.	4.0	0
87	Linearity and Nonlinearity in Hollow-Core Antiresonant Fiber Sensors in the Terahertz Regime. IEEE Instrumentation and Measurement Magazine, 2021, 24, 5-11.	1.6	0
88	Improved Subaperture Based Aperture-Dependent Motion Compensation Based on Adaptive Blocking and Apodization. , 2021, , .		0
89	Terahertz Computed Tomography. , 2012, , 179-189.		0
90	Introduction and Motivation to Terahertz Radiation. , 2012, , 1-7.		0

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91	Wavelet-Based Terahertz Coherent Local Tomography. , 2012, , 201-220.		0
92	2D Wavelet Segmentation in 3D T-Ray CT. , 2012, , 191-199.		0
93	Wavelet Transforms. , 2012, , 73-94.		0
94	Terahertz Imaging Analysis. , 2012, , 45-63.		0
95	Local CT Using a THz QCL. , 2012, , 221-244.		0