Yaochun Shen

List of Publications by Year in Descending Order

134 papers	4,374 citations	35 h-index	63 g-index
151 ext. papers	5,105 ext. citations	3.4 avg, IF	5.51 L-index

#	Paper	IF	Citations
134	Quasi-perfect vortices generated by Pancharatnam-Berry phase metasurfaces for optical spanners and OAM communication.. *Scientific Reports*, **2022**, 12, 1053	4.9	5
133	Optimising Terahertz Waveform Selection of a Pharmaceutical Film Coating Process Using Recurrent Network. *IEEE Transactions on Terahertz Science and Technology*, **2022**, 1-1	3.4	1
132	Remote radar-camera vital sign monitoring system using a graph-based extraction algorithm **2021**,		2
131	Virtual probe stimulated tip-enhanced Raman spectroscopy: The extreme field enhancement in virtual-real probe dimer. *Journal of Applied Physics*, **2021**, 129, 133104	2.5	2
130	Optical spanner for nanoparticle rotation with focused optical vortex generated through a Pancharatnam-Berry phase metalens. *Applied Optics*, **2021**, 60, 4820-4826	1.7	7
129	Characterization of Electrical□Thermal□Mechanical Deformation of Bonding Wires Under Silicone Gel Using LF-OCT. *IEEE Transactions on Power Electronics*, **2021**, 36, 11045-11054	7.2	2
128	Review of Terahertz Pulsed Imaging for Pharmaceutical Film Coating Analysis. *Sensors*, **2020**, 20,	3.8	13
127	Optical Trapping and Separation of Metal Nanoparticles by Cylindrical Metalenses With Phase Gradients. *IEEE Photonics Journal*, **2020**, 12, 1-10	1.8	2
126	Quasi-tomography by free space line field spectral domain optical coherence reflectometry. *Measurement Science and Technology*, **2020**, 31, 065203	2	1
125	Simultaneous optical coherence tomography and Scheimpflug imaging using the same incident light. *Optics Express*, **2020**, 28, 39660-39676	3.3	3
124	Terahertz plasmonic phase-jump manipulator for liquid sensing. *Nanophotonics*, **2020**, 9, 3011-3021	6.3	8
123	Optically transparent metasurfaces based on ITO: Numerical design and measurements in THz domain. *Applied Physics Express*, **2020**, 13, 102002	2.4	1
122	Fault Location Method in Power Network by Applying Accurate Information of Arrival Time Differences of Modal Traveling Waves. *IEEE Transactions on Industrial Informatics*, **2020**, 16, 3124-3132	11.9	20
121	Vision-based system for simultaneous monitoring of shaft rotational speed and axial vibration using non-projection composite fringe pattern. *Mechanical Systems and Signal Processing*, **2019**, 120, 765-776	7.8	18
120	Differentiating Generic versus Branded Pharmaceutical Tablets Using Ultra-High-Resolution Optical Coherence Tomography. *Coatings*, **2019**, 9, 326	2.9	3
119	Line-Field Optical Coherence Tomography as a tool for In vitro characterization of corneal biomechanics under physiological pressures. *Scientific Reports*, **2019**, 9, 6321	4.9	6
118	Sub-surface imaging of soiled cotton fabric using full-field optical coherence tomography. *Optics Express*, **2019**, 27, 13951-13964	3.3	5

117	Trapping waves with tunable prism-coupling terahertz metasurfaces absorber. *Optics Express*, **2019**, 27, 25647-25655	3.3	6
116	HR-Si prism coupled tightly confined spoof surface plasmon polaritons mode for terahertz sensing. *Optics Express*, **2019**, 27, 34067-34078	3.3	10
115	Fabrication of highly reliable joint based on Cu@Ni@Sn double-layer powder for high temperature application. *Additional Conferences (Device Packaging HiTEC HiTEN & CICMT)*, **2019**, 2019, 000075-000084	0.1	
114	Optical manipulation of Rayleigh particles by metalenses-a numerical study. *Applied Optics*, **2019**, 58, 5794-5799	1.7	1
113	Neural network-based hybrid signal processing approach for resolving thin marine protective coating by terahertz pulsed imaging. *Ocean Engineering*, **2019**, 173, 58-67	3.9	13
112	Steps towards numerical verification of the terahertz in-line measurement of tablet mixing by means of discrete element modelling. *IET Microwaves, Antennas and Propagation*, **2018**, 12, 1775-1779	1.6	3
111	A Review of the Applications of OCT for Analysing Pharmaceutical Film Coatings. *Applied Sciences (Switzerland)*, **2018**, 8, 2700	2.6	17
110	Measurement of the Intertablet Coating Uniformity of a Pharmaceutical Pan Coating Process With Combined Terahertz and Optical Coherence Tomography In-Line Sensing. *Journal of Pharmaceutical Sciences*, **2017**, 106, 1075-1084	3.9	47
109	Smart Parking Guidance, Monitoring and Reservations: A Review. *IEEE Intelligent Transportation Systems Magazine*, **2017**, 9, 6-16	2.6	71
108	Fast Blur Detection and Parametric Deconvolution of Retinal Fundus Images. *Lecture Notes in Computer Science*, **2017**, 194-201	0.9	3
107	Spinning disk as a spatial light modulator for rapid infrared imaging. *IET Microwaves, Antennas and Propagation*, **2017**, 11, 317-323	1.6	
106	Pharmaceutical Film Coating Catalog for Spectral Domain Optical Coherence Tomography. *Journal of Pharmaceutical Sciences*, **2017**, 106, 3171-3176	3.9	19
105	Investigating Intra-Tablet Coating Uniformity With Spectral-Domain Optical Coherence Tomography. *Journal of Pharmaceutical Sciences*, **2017**, 106, 546-553	3.9	17
104	Validating terahertz in-line measurement of tablet mixing with discrete element modelling **2017**,		1
103	Graphene/Insulator Stack Based Ultrasensitive Terahertz Sensor With Surface Plasmon Resonance. *IEEE Photonics Journal*, **2017**, 9, 1-11	1.8	10
102	Deformation velocity imaging using optical coherence tomography and its applications to the cornea. *Biomedical Optics Express*, **2017**, 8, 5579-5593	3.5	10
101	Non-destructive analysis of flake properties in automotive paints with full-field optical coherence tomography and 3D segmentation. *Optics Express*, **2017**, 25, 18614-18628	3.3	19
100	Scan-Less Line Field Optical Coherence Tomography, with Automatic Image Segmentation, as a Measurement Tool for Automotive Coatings. *Applied Sciences (Switzerland)*, **2017**, 7, 351	2.6	10

99	Applications of optical coherence tomography in the non-contact assessment of automotive paints **2017**,		2
98	High resolution corneal and single pulse imaging with line field spectral domain optical coherence tomography. *Optics Express*, **2016**, 24, 12395-405	3.3	20
97	Vertically-oriented nanoparticle dimer based on focused plasmonic trapping. *Optics Express*, **2016**, 24, 16052-65	3.3	6
96	Reply to Comments on Theoretical Modeling of a Photoconductive Antenna in a Terahertz Pulsed System *IEEE Transactions on Antennas and Propagation*, **2016**, 64, 2585-2585	4.9	2
95	iParker A New Smart Car-Parking System Based on Dynamic Resource Allocation and Pricing. *IEEE Transactions on Intelligent Transportation Systems*, **2016**, 17, 2637-2647	6.1	99
94	Nondestructive testing of marine protective coatings using terahertz waves with stationary wavelet transform. *Ocean Engineering*, **2016**, 111, 582-592	3.9	25
93	. *IEEE Transactions on Electromagnetic Compatibility*, **2016**, 58, 686-693	2	11
92	Nondestructive analysis of automotive paints with spectral domain optical coherence tomography. *Applied Optics*, **2016**, 55, 3695-700	0.2	22
91	Studying the pharmaceutical film coating process with terahertz sensing, optical coherence tomography and numerical modelling **2016**,		2
90	Trapping and rotating of a metallic particle trimer with optical vortex. *Applied Physics Letters*, **2016**, 109, 241901	3.4	22
89	Subsampled terahertz data reconstruction based on spatio-temporal dictionary learning **2015**, 43, 1-7		1
88	Further investigation on water antennas. *IET Microwaves, Antennas and Propagation*, **2015**, 9, 735-741	1.6	35
87	Quantifying Pharmaceutical Film Coating with Optical Coherence Tomography and Terahertz Pulsed Imaging: An Evaluation. *Journal of Pharmaceutical Sciences*, **2015**, 104, 3377-85	3.9	42
86	Impact of Processing Conditions on Inter-tablet Coating Thickness Variations Measured by Terahertz In-Line Sensing. *Journal of Pharmaceutical Sciences*, **2015**, 104, 2513-22	3.9	31
85	A Novel Sub-THz Photomixer With Nano-Trapezoidal Electrodes. *IEEE Transactions on Terahertz Science and Technology*, **2014**, 4, 501-508	3.4	12
84	Broadband U-shaped water antenna for DVB-H applications **2014**,		4
83	FDTD-based quantitative analysis of terahertz wave detection for multilayered structures. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2014**, 31, 2285-93	1.8	6
82	Non-destructive evaluation of polymer coating structures on pharmaceutical pellets using full-field optical coherence tomography. *Journal of Pharmaceutical Sciences*, **2014**, 103, 161-6	3.9	31

81	Terahertz Sensor for Non-Contact Thickness and Quality Measurement of Automobile Paints of Varying Complexity. *IEEE Transactions on Terahertz Science and Technology*, **2014**, 4, 432-439	3.4	75
80	Energy Harvesting Using THz Electronics. *Engineering Materials*, **2014**, 241-265	0.4	1
79	. *IEEE Transactions on Antennas and Propagation*, **2013**, 61, 1538-1546	4.9	70
78	Terahertz applications in the pharmaceutical industry **2013**, 579-614		3
77	Hardness and density distributions of pharmaceutical tablets measured by terahertz pulsed imaging. *Journal of Pharmaceutical Sciences*, **2013**, 102, 2179-86	3.9	55
76	Technique for minimising the effects of ground plane on planar ultra-wideband monopole antennas. *IET Microwaves, Antennas and Propagation*, **2012**, 6, 510	1.6	12
75	Fabric Defect Detection Using Wavelet-Enhanced Single-Point Photoelectric Sensing System. *Applied Mechanics and Materials*, **2012**, 162, 497-504	0.3	
74	Spinning disk for compressive imaging. *Optics Letters*, **2012**, 37, 46-8	3	29
73	Terahertz pulsed spectroscopy and imaging for pharmaceutical applications: a review. *International Journal of Pharmaceutics*, **2011**, 417, 48-60	6.5	215
72	Non-destructive quantification of pharmaceutical tablet coatings using terahertz pulsed imaging and optical coherence tomography. *Optics and Lasers in Engineering*, **2011**, 49, 361-365	4.6	102
71	Terahertz in-line sensor for direct coating thickness measurement of individual tablets during film coating in real-time. *Journal of Pharmaceutical Sciences*, **2011**, 100, 1535-44	3.9	99
70	Terahertz photoconductive antenna efficiency **2011**,		24
69	Real-time monitoring of structural vibration using spectral-domain optical coherence tomography. *Optics and Lasers in Engineering*, **2011**, 49, 127-131	4.6	17
68	**2010**,		3
67	In-line monitoring of coating thickness of pharmaceutical tablets during production scale film coating by Terahertz imaging **2010**,		2
66	Terahertz pulsed imaging of surface variations on pharmaceutical tablets **2010**,		5
65	Neural Network-based non-destructive quantification of thin coating by terahertz pulsed imaging in the frequency domain **2010**,		1
64	Measurement of residual stress using laser-generated ultrasound. *International Journal of Pressure Vessels and Piping*, **2010**, 87, 762-765	2.4	29

63	Investigating dissolution performance critical areas on coated tablets: a case study using terahertz pulsed imaging. *Journal of Pharmaceutical Sciences*, **2010**, 99, 392-402	3.9	28
62	FDTD Study of a Novel Terahertz Emitter with Electrical Field Enhancement Using Surface Plasmon Resonance. *Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium*, **2010**, 6, 153-156		6
61	Real-time in situ measurement of particle size in flowing powders by terahertz time-domain spectroscopy **2009**,		2
60	Pharmaceutical tablet hardness measurements with thz pulsed imaging **2009**,		3
59	Monitoring the film coating unit operation and predicting drug dissolution using terahertz pulsed imaging. *Journal of Pharmaceutical Sciences*, **2009**, 98, 4866-76	3.9	36
58	Effects of film coating thickness and drug layer uniformity on in vitro drug release from sustained-release coated pellets: a case study using terahertz pulsed imaging. *International Journal of Pharmaceutics*, **2009**, 382, 151-9	6.5	46
57	Terahertz pulsed imaging as an analytical tool for sustained-release tablet film coating. *European Journal of Pharmaceutics and Biopharmaceutics*, **2009**, 71, 117-23	5.7	56
56	Terahertz pulsed spectroscopic imaging using optimized binary masks. *Applied Physics Letters*, **2009** , 95, 231112	3.4	22
55	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2008**, 14, 407-415	3.8	113
54	Applications of terahertz pulsed imaging to sustained-release tablet film coating quality assessment and dissolution performance. *Journal of Controlled Release*, **2008**, 127, 79-87	11.7	74
53	Elimination of scattering effects in spectral measurement of granulated materials using terahertz pulsed spectroscopy. *Applied Physics Letters*, **2008**, 92, 051103	3.4	82
52	Delayed release tablet dissolution related to coating thickness by terahertz pulsed image mapping. *Journal of Pharmaceutical Sciences*, **2008**, 97, 1543-50	3.9	60
51	Analysis of coating structures and interfaces in solid oral dosage forms by three dimensional terahertz pulsed imaging. *Journal of Pharmaceutical Sciences*, **2007**, 96, 330-40	3.9	146
50	Analysis of sustained-release tablet film coats using terahertz pulsed imaging. *Journal of Controlled Release*, **2007**, 119, 253-61	11.7	127
49	Comparison of Terahertz Pulse Imaging and Near-Infrared Spectroscopy for Rapid, Non-Destructive Analysis of Tablet Coating Thickness and Uniformity. *Journal of Pharmaceutical Innovation*, **2007**, 2, 29-36	1.8	39
48	An efficient method-development strategy for quantitative chemical imaging using terahertz pulse spectroscopy. *Journal of Pharmaceutical Innovation*, **2006**, 1, 63-75	1.8	26
47	Characterization of Crystalline Phase-Transformations in Theophylline by Time-Domain Terahertz Spectroscopy. *Spectroscopy Letters*, **2006**, 39, 215-224	1.1	35
46	3D chemical mapping using terahertz pulsed imaging **2005**,		18

45	Chemical mapping using reflection terahertz pulsed imaging. *Semiconductor Science and Technology* , **2005**, 20, S254-S257	1.8	44
44	Observation of far-infrared emission from excited cytosine molecules. *Applied Physics Letters*, **2005**, 87, 011105	3.4	9
43	Detection and identification of explosives using terahertz pulsed spectroscopic imaging. *Applied Physics Letters*, **2005**, 86, 241116	3.4	458
42	Terahertz generation from coherent optical phonons in a biased GaAs photoconductive emitter. *Physical Review B*, **2004**, 69,	3.3	30
41	Vibrational spectra of nucleosides studied using terahertz time-domain spectroscopy. *Vibrational Spectroscopy*, **2004**, 35, 111-114	2.1	34
40	Far-infrared vibrational modes of polycrystalline saccharides. *Vibrational Spectroscopy*, **2004**, 35, 139-143	2.1	63
39	Generation and detection of ultrabroadband terahertz radiation using photoconductive emitters and receivers. *Applied Physics Letters*, **2004**, 85, 164-166	3.4	122
38	Terahertz spectroscopy of explosive materials **2004**,		25
37	Light-induced Difference Terahertz Spectroscopy. *Journal of Biological Physics*, **2003**, 29, 135-9	1.6	3
36	Terahertz time-domain spectroscopy of glucose and uric Acid. *Journal of Biological Physics*, **2003**, 29, 117-21	1.6	79
35	Determination of Glucose Concentration in Whole Blood using Fourier-Transform Infrared Spectroscopy. *Journal of Biological Physics*, **2003**, 29, 129-33	1.6	28
34	The use of Fourier-transform infrared spectroscopy for the quantitative determination of glucose concentration in whole blood. *Physics in Medicine and Biology*, **2003**, 48, 2023-32	3.8	66
33	Ultrabroadband terahertz radiation from low-temperature-grown GaAs photoconductive emitters. *Applied Physics Letters*, **2003**, 83, 3117-3119	3.4	141
32	Temperature-dependent low-frequency vibrational spectra of purine and adenine. *Applied Physics Letters*, **2003**, 82, 2350-2352	3.4	134
31	Arylaldehydes-pentafluorophenyl Hydrazones as Second-order Nonlinear Optical Chromophores: A Novel Approach for Remarkably Defeating the Nonlinearity-transparency Trade-off. *Chemistry Letters*, **2002**, 31, 232-233	1.7	9
30	New nonlinear optical chromophores exhibiting good transparency and large nonlinearity: synthesis and characterization of chromophores with stilbene and ring-locked triene as a combined conjugation bridge. *Journal of Materials Chemistry*, **2002**, 12, 863-867		23
29	Second-order optical nonlinearity study of CdS nanoparticles via hyper-Rayleigh scattering. *Journal of Physics and Chemistry of Solids*, **2001**, 62, 903-906	3.9	22
28	Synthesis and second-order optical nonlinearity of carbazolyl-substituted furan chromophores with high thermal stability and good transparency. *Journal of Chemical Research*, **2001**, 2001, 418-420	0.6	1

27	The design of second-order nonlinear optical chromophores exhibiting blue-shifted absorption and large nonlinearities: the role of the combined conjugation bridge. *Chemical Communications*, **2001**, 171-172	5.8	50
26	Nonlinear Optical Response of Colloidal Gold Nanoparticles Studied by Hyper-Rayleigh Scattering Technique. *Chemistry Letters*, **2000**, 29, 1140-1141	1.7	11
25	Synthesis and Nonlinear Optical Properties ofp-(Dimethylamino)benzylidene Dyes Containing Different Acceptors. *Chemistry Letters*, **2000**, 29, 1426-1427	1.7	6
24	Self-assembled multilayers of alternating gold nanoparticles and dithiols: approaching to superlattice. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2000**, 175, 217-223	5.1	13
23	Co-sensitization of microporous TiO2 electrodes with dye molecules and quantum-sized semiconductor particles. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2000**, 175, 135-140	5.1	30
22	Hyper-Rayleigh scattering of CdS nanoparticles with different surfaces in solution **2000**, 3937, 123		
21	Nonlinear optical properties of rhodamine aggregates in solution at different pH studied by hyper-Rayleigh scattering technique **2000**, 3939, 260		
20	Measurement of the optical absorption coefficient of a liquid by use of a time-resolved photoacoustic technique. *Applied Optics*, **2000**, 39, 4007-12	1.7	26
19	Preparation, Structure, and Properties of Three-Dimensional Ordered □Fe2O3 Nanoparticulate Film. *Chemistry of Materials*, **2000**, 12, 790-794	9.6	153
18	Advances in Photoacoustic Noninvasive Glucose Testing. *Clinical Chemistry*, **1999**, 45, 1587-1595	5.5	117
17	Blood glucose measurements by photoacoustics **1999**,		2
16	Time-resolved photoacoustics for glucose concentration measurement: theory and experiment **1999**,		3
15	Current-voltage characteristics of complex films. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **1998**, 237, 165-168	2.3	13
14	Photosensitization of TiO2 semiconductor with porphyrin. *Journal of Photochemistry and Photobiology A: Chemistry*, **1998**, 114, 209-212	4.7	26
13	Improvement in photoelectric conversion of a phthalocyanine-sensitized TiO2 electrode by doping with porphyrin. *Chemical Physics*, **1998**, 231, 95-103	2.3	39
12	Intensity distribution of light emitted from a fiber tip mapped by short surface acoustic wave pulses. *Ultramicroscopy*, **1998**, 71, 225-229	3.1	1
11	Cosensitization and photoelectric conversion of a nanostructured TiO 2 electrode with tetrasulfonated porphyrins. *Journal of the Chemical Society, Faraday Transactions*, **1998**, 94, 659		9
10	Excitation of higher harmonics in transient laser gratings by an ablative mechanism. *Applied Physics Letters*, **1998**, 73, 1640-1642	3.4	2

9	Real-time detection of laser-induced transient gratings and surface acoustic wave pulses with a Michelson interferometer. *Journal of Applied Physics*, **1997**, 82, 4758-4762	2.5	24
8	Fabrication, characterization and photovoltaic study of aGaTSPcCdS/TiO2 particulate film. *Journal of Materials Chemistry*, **1997**, 7, 737-740		6
7	Interaction between tetrasulfophthalocyanines and colloidal titanium dioxide and photoelectric behavior on sensitized microporous TiO2 electrodes. *Science Bulletin*, **1997**, 42, 1447-1451		2
6	Sensitization of nanocrystalline TiO2 electrode with quantum sized CdSe and ZnTCPc molecules. *Chemical Physics Letters*, **1997**, 270, 145-151	2.5	74
5	Photoacoustic investigation of resonance absorption on corrugated surfaces. *Applied Physics A: Materials Science and Processing*, **1996**, 62, 263-268	2.6	1
4	Aggregation and the photoelectric behavior of tetrasulfonated phthalocyanine adsorbed on a TiO2 microporous electrode. *Journal of Photochemistry and Photobiology A: Chemistry*, **1996**, 99, 71-74	4.7	21
3	Fabrication, characterization and photovoltaic study of a TiO2 microporous electrode. *Thin Solid Films*, **1995**, 257, 144-146	2.2	40
2	Angular resonance absorption spectra of Langmuir-Blodgett films studied by the photoacoustic technique. *Thin Solid Films*, **1994**, 248, 36-40	2.2	4
1	Recent Advances in the Development of Materials for Terahertz Metamaterial Sensing. *Advanced Optical Materials*,2101008	8.1	12