

Xin-Hua Hu

List of Publications by Year in descending order

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106
papers

3,048
citations

236925

25
h-index

168389

53
g-index

109
all docs

109
docs citations

109
times ranked

3596
citing authors

#	ARTICLE	IF	CITATIONS
1	Photosensitizers in clinical PDT. Photodiagnosis and Photodynamic Therapy, 2004, 1, 27-42.	2.6	862
2	Determination of complex refractive index of polystyrene microspheres from 370 to 1610 nm. Physics in Medicine and Biology, 2003, 48, 4165-4172.	3.0	319
3	Refractive indices of human skin tissues at eight wavelengths and estimated dispersion relations between 300 and 1600 nm. Physics in Medicine and Biology, 2006, 51, 1479-1489.	3.0	228
4	Optical properties of porcine skin dermis between 900 nm and 1500 nm. Physics in Medicine and Biology, 2001, 46, 167-181.	3.0	111
5	Simulations of light scattering from a biconcave red blood cell using the finite-difference time-domain method. Journal of Biomedical Optics, 2005, 10, 024022.	2.6	97
6	Determination of refractive indices of porcine skin tissues and Intralipid at eight wavelengths between 325 and 1557 nm. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 1151.	1.5	84
7	A primary method for determination of optical parameters of turbid samples and application to intralipid between 550 and 1630nm. Optics Express, 2006, 14, 7420.	3.4	78
8	Development of a diffraction imaging flow cytometer. Optics Letters, 2009, 34, 2985.	3.3	65
9	Effect of detailed cell structure on light scattering distribution: FDTD study of a B-cell with 3D structure constructed from confocal images. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 25-36.	2.3	60
10	Bulk optical parameters of porcine skin dermis at eight wavelengths from 325 to 1557 nm. Optics Letters, 2005, 30, 412.	3.3	59
11	Modeling of a Type II Photofrin-mediated Photodynamic Therapy Process in a Heterogeneous Tissue Phantom. Photochemistry and Photobiology, 2005, 81, 1460.	2.5	52
12	Label-free classification of cultured cells through diffraction imaging. Biomedical Optics Express, 2011, 2, 1717.	2.9	48
13	Modeling of the rough-interface effect on a converging light beam propagating in a skin tissue phantom. Applied Optics, 2000, 39, 5890.	2.1	46
14	Evaluation of a parallel FDTD code and application to modeling of light scattering by deformed red blood cells. Optics Express, 2005, 13, 5279.	3.4	43
15	Angle-resolved Mueller matrix study of light scattering by B-cells at three wavelengths of 442, 633, and 850 nm. Journal of Biomedical Optics, 2007, 12, 034032.	2.6	42
16	A higher order diffusion model for three-dimensional photon migration and image reconstruction in optical tomography. Physics in Medicine and Biology, 2009, 54, 67-90.	3.0	42
17	Diffraction imaging of spheres and melanoma cells with a microscope objective. Journal of Biophotonics, 2009, 2, 521-527.	2.3	39
18	Validating a Deep Learning Framework by Metamorphic Testing. , 2017, , .		39

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19	Photodynamic therapy for chest wall recurrence from breast cancer. Photodiagnosis and Photodynamic Therapy, 2004, 1, 157-171.	2.6	34
20	Time-resolved thermorefectivity of thin gold films and its dependence on the ambient temperature. Physical Review B, 1992, 45, 13819-13822.	3.2	33
21	Analysis of cellular objects through diffraction images acquired by flow cytometry. Optics Express, 2013, 21, 24819.	3.4	33
22	Efficient delivery of small interfering RNA to plant cells by a nanosecond pulsed laser-induced stress wave for posttranscriptional gene silencing. Plant Science, 2006, 171, 375-381.	3.6	31
23	Comparative study of 3D morphology and functions on genetically engineered mouse melanoma cells. Integrative Biology (United Kingdom), 2012, 4, 1428.	1.3	31
24	Pattern recognition and classification of two cancer cell lines by diffraction imaging at multiple pixel distances. Pattern Recognition, 2017, 61, 234-244.	8.1	31
25	Effect of surface roughness on determination of bulk tissue optical parameters. Optics Letters, 2003, 28, 2204.	3.3	30
26	Polarization imaging and classification of Jurkat T and Ramos B cells using a flow cytometer. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2014, 85, 817-826.	1.5	30
27	A novel method of diffraction imaging flow cytometry for sizing microspheres. Optics Express, 2012, 20, 22245.	3.4	25
28	Dynamics of photoexcited carrier relaxation in C60 films. Physical Review B, 1993, 48, 4929-4932.	3.2	24
29	Self-Checked Metamorphic Testing of an Image Processing Program. , 2010, , .		21
30	A Machine Learning Based Framework for Verification and Validation of Massive Scale Image Data. IEEE Transactions on Big Data, 2021, 7, 451-467.	6.1	20
31	Modeling of Skin Tissue Ablation by Nanosecond Pulses From Ultraviolet to Near-Infrared and Comparison With Experimental Results. IEEE Journal of Quantum Electronics, 2004, 40, 69-77.	1.9	19
32	Study of low speed flow cytometry for diffraction imaging with different chamber and nozzle designs. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2013, 83, 1027-1033.	1.5	19
33	An application of metamorphic testing for testing scientific software. , 2016, , .		19
34	Analysis of diffraction imaging in non-conjugate configurations. Optics Express, 2014, 22, 31568.	3.4	18
35	Mechanism study of porcine skin ablation by nanosecond laser pulses at 1064, 532, 266, and 213 nm. IEEE Journal of Quantum Electronics, 2001, 37, 322-328.	1.9	17
36	A quantitative method for measurement of HL-60 cell apoptosis based on diffraction imaging flow cytometry technique. Biomedical Optics Express, 2014, 5, 2172.	2.9	17

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37	Comparison study of distinguishing cancerous and normal prostate epithelial cells by confocal and polarization diffraction imaging. <i>Journal of Biomedical Optics</i> , 2015, 21, 071102.	2.6	17
38	Quantitative analysis and comparison of 3D morphology between viable and apoptotic MCF-7 breast cancer cells and characterization of nuclear fragmentation. <i>PLoS ONE</i> , 2017, 12, e0184726.	2.5	16
39	Numerical study of reflectance imaging using a parallel Monte Carlo method. <i>Medical Physics</i> , 2007, 34, 2939-2948.	3.0	15
40	Study of corneal ablation with picosecond laser pulses at 211 nm and 263 nm. , 1996, 18, 373-380.		13
41	Metamorphic testing of a Monte Carlo modeling program. , 2011, , .		13
42	In Vivo Study of Intradermal Focusing for Tattoo Removal. <i>Lasers in Medical Science</i> , 2002, 17, 154-164.	2.1	12
43	Fast method for inverse determination of optical parameters from two measured signals. <i>Optics Letters</i> , 2013, 38, 2095.	3.3	12
44	A Framework for Ensuring the Quality of a Big Data Service. , 2016, , .		12
45	Realistic optical cell modeling and diffraction imaging simulation for study of optical and morphological parameters of nucleus. <i>Optics Express</i> , 2016, 24, 366.	3.4	11
46	Acquisition of cross-polarized diffraction images and study of blurring effect by one time-delay-integration camera. <i>Applied Optics</i> , 2015, 54, 5223.	2.1	10
47	Spectrophotometric determination of turbid optical parameters without using an integrating sphere. <i>Applied Optics</i> , 2016, 55, 2079.	2.1	10
48	Modeling of Oxygen Transport and Cell Killing in Typeâ€œI Photodynamic Therapy. <i>Photochemistry and Photobiology</i> , 2012, 88, 969-977.	2.5	9
49	Quantitative characterization of turbidity by radiative transfer based reflectance imaging. <i>Biomedical Optics Express</i> , 2018, 9, 2081.	2.9	9
50	Transient electric field generated by nonequilibrium states in superconducting Pb films. <i>Applied Physics Letters</i> , 1991, 59, 3333-3335.	3.3	8
51	Rapid classification of micron-sized particles of sphere, cylinders and ellipsoids by diffraction image parameters combined with scattered light intensity. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 224, 453-459.	2.3	8
52	Development and evaluation of realistic optical cell models for rapid and labelâ€œfree cell assay by diffraction imaging. <i>Journal of Biophotonics</i> , 2019, 12, e201800287.	2.3	8
53	Application of metamorphic testing monitored by test adequacy in a Monte Carlo simulation program. <i>Software Quality Journal</i> , 2017, 25, 841-869.	2.2	7
54	Machine learning of diffraction image patterns for accurate classification of cells modeled with different nuclear sizes. <i>Journal of Biophotonics</i> , 2020, 13, e202000036.	2.3	7

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55	An ultrasonic device for source to skin surface distance measurement in patient setup. International Journal of Radiation Oncology Biology Physics, 2005, 61, 1587-1589.	0.8	5
56	Building a Deep Learning Classifier for Enhancing a Biomedical Big Data Service. , 2017, , .		5
57	Resolving power of diffraction imaging with an objective: a numerical study. Optics Express, 2017, 25, 9628.	3.4	5
58	Deep learning of diffraction image patterns for accurate classification of five cell types. Journal of Biophotonics, 2020, 13, e201900242.	2.3	5
59	Multiparameter Spectrophotometry Platform for Turbid Sample Measurement by Robust Solutions of Radiative Transfer Problems. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	5
60	The temperature dependence of the resistive response of superconducting Pb films upon picosecond optical excitation. Applied Physics A: Solids and Surfaces, 1991, 52, 155-159.	1.4	4
61	Efficient use of Q-switched lasers in the treatment of cutaneous lesions. , 1995, 2395, 586.		4
62	Building an SVM Classifier for Automated Selection of Big Data. , 2017, , .		4
63	Spectral determination of $\hat{\nu}_a$, $\hat{\nu}_s$ and g from single and multiple scattering signals with one optically thick sample. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 245, 106868.	2.3	4
64	Deep Learning of Morphologic Correlations To Accurately Classify CD4+ and CD8+ T Cells by Diffraction Imaging Flow Cytometry. Analytical Chemistry, 2022, , .	6.5	4
65	Quantitative modeling of tissue images using a parallel Monte Carlo method. , 2005, , .		3
66	Validity of a closed-form diffusion solution in approximation for reflectance imaging with an oblique beam of arbitrary profile. Medical Physics, 2008, 35, 3979-3987.	3.0	3
67	MODELING OF LIGHT SCATTERING BY SINGLE RED BLOOD CELLS WITH THE FDTD METHOD. , 2007, , 213-242.		3
68	Study of 3D cell morphology and effect on light scattering distribution. , 2009, , .		3
69	Feasibility Study of Dual Energy Radiographic Imaging for Target Localization in Radiotherapy for Lung Tumors. PLoS ONE, 2014, 9, e108823.	2.5	3
70	Multivariate analysis of Monte Carlo generated images for diagnosis of dysplastic lesions. , 2005, , .		2
71	Study of 3D cell morphology and effect on light scattering distribution. Proceedings of SPIE, 2009, , .	0.8	2
72	Extraction of microsphere size from diffraction images with an STFT method. , 2012, , .		2

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73	A model of cellular decision making in photodynamic therapy of cancer. , 2012, , .		2
74	Analysis of polarized diffraction images of human red blood cells: a numerical study. Biomedical Optics Express, 2022, 13, 1161.	2.9	2
75	<title>Far-ultraviolet absorption spectra of porcine and human corneas</title>. , 1997, 2971, 46.		1
76	Quasi-elastic light scattering of laser-trapped biological particles. , 2000, , .		1
77	Modeling of PDT kinetics in cell killing. , 2011, , .		1
78	Rapid analysis of white blood cells with diffraction imaging flow cytometry. , 2011, , .		1
79	Study of cell classification with a diffraction imaging flow cytometer method. Proceedings of SPIE, 2011, , .	0.8	1
80	Correlating the light scattering pattern of a biological cell to its mitochondrial properties using a Gabor filter technique. Proceedings of SPIE, 2012, , .	0.8	1
81	Polarization imaging and classification of Jurkat T and Ramos B cells using a flow cytometer. , 2014, 85, 986-986.		1
82	Quantitative assessment of image motion blur in diffraction images of moving biological cells. Optical Engineering, 2016, 55, 023103.	1.0	1
83	Testing Scientific Software with Invariant Relations: A Case Study. , 2019, , .		1
84	Robustness of inverse solutions for radiative transfer parameters from light signals measured with different detection configurations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 274, 107883.	2.3	1
85	Modeling of the Internal Optical Structure of the Nuclei of B-cells. , 2006, , .		1
86	Stochastic model for quantifying effect of surface roughness on light reflection by diffuse reflectance standards. Optical Engineering, 2018, 57, 1.	1.0	1
87	A new assessment model for tumor heterogeneity analysis with [18]F-FDG PET images. EXCLI Journal, 2016, 15, 75-84.	0.7	1
88	Surface ablation of porcine skin tissue using nanosecond laser pulses at 1064 nm. , 1997, , .		0
89	Tattoo removal in micropigs with low-energy pulses from a Q-switched Nd:YAG laser at 1064 nm. , 2001, 4244, 55.		0
90	Quantitative understanding of skin tissue ablation from UV to NIR with a new plasma model. , 0, , .		0

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91	Accurate simulation of light scattering by a red blood cell using the FDTD method. , 0, , .		0
92	Bulk tissue optical parameters of porcine skin dermis at 8 wavelengths from 325 to 1550nm. , 2005, , .		0
93	Simulation of light scattering by a pressure deformed red blood cell with a parallel FDTD method. , 2005, , .		0
94	Angle-resolved Light Scattering Study of NALM-6 and HL-60 Cells for White Blood Cell Differentiation. , 2010, , .		0
95	3D cell feature measurement with a diffraction imaging method. , 2012, , .		0
96	Imaging Based Tissue Optics: Parallel Monte Carlo Modeling and Phantom Measurements. , 2005, , .		0
97	Determination of Intracellular Distributions of Refractive Index of B-cells and HL60 cells at 442, 633 and 850nm. , 2006, , .		0
98	Determination of Optical Parameters through Light Scattering Study: B-lymphocytes. , 2006, , .		0
99	3D Reconstruction of B-lymphocytes with Confocal Images and Parallel FDTD Simulations of Light Scattering. , 2006, , .		0
100	Simulations of Light Scattering from B-cells with Inhomogeneous Nuclei Using a Improved FDTD Program. , 2008, , .		0
101	Noninvasive Determination of Optical Parameters from One Reflectance Image and Extension to Depth-Resolving. , 2008, , .		0
102	Diffraction Imaging Flow Cytometric and 3D Morphological Analysis of Three Cell Lines. , 2010, , .		0
103	Research on Optimization of GLCM Parameter in Cell Classification. , 2016, , .		0
104	Profiling pleural effusion cells by a diffraction imaging method. , 2018, , .		0
105	Spectral determination of $\hat{1}/4a$, $\hat{1}/4s$ and g of one thick turbid sample from three scattered light signals. , 2019, , .		0
106	CNN based classification of 5 cell types by diffraction images. , 2019, , .		0