Vadim Backman

List of Publications by Year
in descending order

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232 papers	9,471 citations	36303 51 h-index	49909 87 g-index

243 all docs	243 docs citations	243 times ranked	7530 citing authors

#	Article	IF	Citations
1	Chromatin as self-returning walks: From population to single cell and back. Biophysical Reports, 2022, 2, 100042.	1.2	1
2	PWSpy: A Python library dedicated to the analysis of Partial Wave Spectroscopic Microscopy data.. Journal of Open Source Software, 2022, 7, 3957.	4.6	0
3	Lipid exposure activates gene expression changes associated with estrogen receptor negative breast cancer. Npj Breast Cancer, 2022, 8, 59.	5.2	4
4	Analysis of three-dimensional chromatin packing domains by chromatin scanning transmission electron microscopy (ChromSTEM). Scientific Reports, 2022, 12, .	3.3	18
5	Nanoscale chromatin imaging and analysis platform bridges 4D chromatin organization with molecular function. Science Advances, 2021, 7, .	10.3	37
6	Spike-in normalization for single-cell RNA-seq reveals dynamic global transcriptional activity mediating anticancer drug response. NAR Genomics and Bioinformatics, 2021, 3, lqab054.	3.2	5
7	Atomic Force Microscopy Detects the Difference in Cancer Cells of Different Neoplastic Aggressiveness via Machine Learning. Advanced NanoBiomed Research, 2021, 1, 2000116.	3.6	13
8	Origins of subdiffractional contrast in optical coherence tomography. Biomedical Optics Express, 2021, 12, 3630.	2.9	3
9	Early Upper Aerodigestive Tract Cancer Detection Using Electron Microscopy to Reveal Chromatin Packing Alterations in Buccal Mucosa Cells. Microscopy and Microanalysis, 2021, 27, 878-888.	0.4	2
10	A Phylogeny-Informed Analysis of the Global Coral-Symbiodiniaceae Interaction Network Reveals that Traits Correlated with Thermal Bleaching Are Specific to Symbiont Transmission Mode. MSystems, 2021, 6, .	3.8	5
11	Quantification of gastric mucosal microcirculation as a surrogate marker of portal hypertension by spatially resolved subdiffuse reflectance spectroscopy in diagnosis of cirrhosis: a proof-of-concept study. Gastrointestinal Endoscopy, 2021, 94, 60-67.e1.	1.0	1
12	Chromatin Reprogramming via Contact Guidance-Induced Nuclear Deformation Promotes Stem Cell Differentiation. , 2021, , .		0
13	Dynamic Crowding Regulates Transcription. Biophysical Journal, 2020, 118, 2117-2129.	0.5	15
14	Disordered chromatin packing regulates phenotypic plasticity. Science Advances, 2020, 6, eaax6232.	10.3	34
15	Physical and data structure of 3D genome. Science Advances, 2020, 6, eaay4055.	10.3	32
16	Nanoscale Chromatin Imaging and Analysis (nano-ChIA) Platform Bridges 4-D Chromatin Organization with Molecular Function. Microscopy and Microanalysis, 2020, 26, 1046-1050.	0.4	3
17	Evidence for possible association of vitamin D status with cytokine storm and unregulated inflammation in COVID-19 patients. Aging Clinical and Experimental Research, 2020, 32, 2141-2158.	2.9	131
18	Uncovering the role of Symbiodiniaceae assemblage composition and abundance in coral bleaching response by minimizing sampling and evolutionary biases. BMC Microbiology, 2020, 20, 124.	3.3	5

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19	Disordered Chromatin Packing Regulates Ensemble Gene Expression and Phenotypic Plasticity. Biophysical Journal, 2020, 118, 549a-550a.	0.5	1
20	Characterizing chromatin packing scaling in whole nuclei using interferometric microscopy. Optics Letters, 2020, 45, 4810.	3.3	11
21	Physicochemical mechanotransduction alters nuclear shape and mechanics via heterochromatin formation. Molecular Biology of the Cell, 2019, 30, 2320-2330.	2.1	77
22	Preservation of cellular nano-architecture by the process of chemical fixation for nanopathology. PLoS ONE, 2019, 14, e0219006.	2.5	4
23	Spectral contrast optical coherence tomography angiography enables single-scan vessel imaging. Light: Science and Applications, 2019, 8, 7.	16.6	24
24	Physicochemical mechanotransduction alters nuclear shape and mechanics via heterochromatin formation. Molecular Biology of the Cell, 2019, , mbc.E19-05-0286.	2.1	6
25	Editorial Introduction to the JSTQE Issue on Biophotonics. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-4.	2.9	0
26	Multimodal interference-based imaging of nanoscale structure and macromolecular motion uncovers UV induced cellular paroxysm. Nature Communications, 2019, 10, 1652.	12.8	16
27	Quantitative quality-control metrics for in vivo oximetry in small vessels by visible light optical coherence tomography angiography. Biomedical Optics Express, 2019, 10, 465.	2.9	8
28	Single Nucleotide Polymorphism Facilitated Down-Regulation of the Cohesin Stromal Antigen-1: Implications for Colorectal Cancer Racial Disparities. Neoplasia, 2018, 20, 289-294.	5.3	7
29	Measuring Nanoscale Chromatin Heterogeneity with Partial Wave Spectroscopic Microscopy. Methods in Molecular Biology, 2018, 1745, 337-360.	0.9	10
30	Correlating colorectal cancer risk with field carcinogenesis progression using partial wave spectroscopic microscopy. Cancer Medicine, 2018, 7, 2109-2120.	2.8	12
31	Chromatin histone modifications and rigidity affect nuclear morphology independent of lamins. Molecular Biology of the Cell, 2018, 29, 220-233.	2.1	257
32	Label free localization of nanoparticles in live cancer cells using spectroscopic microscopy. Nanoscale, 2018, 10, 19125-19130.	5.6	3
33	Inpainting Assisted Controlled Rotation Tomography (CORT). Microscopy and Microanalysis, 2018, 24, 502-503.	0.4	1
34	Single capillary oximetry and tissue ultrastructural sensing by dual-band dual-scan inverse spectroscopic optical coherence tomography. Light: Science and Applications, 2018, 7, 57.	16.6	20
35	In vivo broadband visible light optical coherence tomography probe enables inverse spectroscopic analysis. Optics Letters, 2018, 43, 619.	3.3	6
36	Biophotonic detection of high order chromatin alterations in field carcinogenesis predicts risk of future hepatocellular carcinoma: A pilot study. PLoS ONE, 2018, 13, e0197427.	2.5	1

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37	Nanoscale Imaging of Chromatin with Labeled and Label-Free Super-Resolution Microscopy and Partial-Wave Spectroscopy. , 2018, , .		0
38	Phylogenetic analysis of symbiont transmission mechanisms reveal evolutionary patterns in thermotolerance and host specificity that enhance bleaching resistance among vertically transmitted Symbiodinium. European Journal of Phycology, 2018, 53, 443-459.	2.0	12
39	Early increase in blood supply (EIBS) is associated with tumor risk in the Azoxymethane model of colon cancer. BMC Cancer, 2018, 18, 814.	2.6	6
40	Quantifying Chromatin Fractal Dimension through ChromEM Staining. Microscopy and Microanalysis, 2018, 24, 1282-1283.	0.4	0
41	Fully automated fiber-based optical spectroscopy system for use in a clinical setting. Journal of Biomedical Optics, 2018, 23, 1.	2.6	2
42	Sub-10-nm imaging of nucleic acids using spectroscopic intrinsic-contrast photon-localization optical nanoscopy (SICLON). Optics Letters, 2018, 43, 5817.	3.3	2
43	Spectral biomarkers for chemoprevention of colonic neoplasia: a placebo-controlled double-blinded trial with aspirin. Gut, 2017, 66, 285-292.	12.1	30
44	Consensus thermotolerance ranking for 110 Symbiodinium phylotypes: an exemplar utilization of a novel iterative partialâ€rank aggregation tool with broad application potential. Functional Ecology, 2017, 31, 172-183.	3.6	91
45	Colocalization of cellular nanostructure using confocal fluorescence and partial wave spectroscopy. Journal of Biophotonics, 2017, 10, 377-384.	2.3	13
46	Bleaching response of coral species in the context of assemblage response. Coral Reefs, 2017, 36, 395-400.	2.2	7
47	Theoretical model for optical oximetry at the capillary level: exploring hemoglobin oxygen saturation through backscattering of single red blood cells. Journal of Biomedical Optics, 2017, 22, 025002.	2.6	24
48	ASPirin Intervention for the REDuction of colorectal cancer risk (ASPIRED): a study protocol for a randomized controlled trial. Trials, 2017, 18, 50.	1.6	36
49	Measuring the Autocorrelation Function of Nanoscale Three-Dimensional Density Distribution in Individual Cells Using Scanning Transmission Electron Microscopy, Atomic Force Microscopy, and a New Deconvolution Algorithm. Microscopy and Microanalysis, 2017, 23, 661-667.	0.4	4
50	P2.01-094 Stromal Antigen 1 (SA-1), a Cohesin, is a Novel Proto-Oncogene Regulating Chromatin in Non-Small Cell Lung Cancer (NSCLC). Journal of Thoracic Oncology, 2017, 12, S845-S846.	1.1	0
51	Review of interferometric spectroscopy of scattered light for the quantification of subdiffractional structure of biomaterials. Journal of Biomedical Optics, 2017, 22, 030901.	2.6	23
52	Reflection statistics of weakly disordered optical medium when its mean refractive index is different from an outside medium. Optics Communications, 2017, 393, 185-190.	2.1	1
53	The transformation of the nuclear nanoarchitecture in human field carcinogenesis. Future Science OA, 2017, 3, FSO206.	1.9	8
54	The effects of chemical fixation on the cellular nanostructure. Experimental Cell Research, 2017, 358, 253-259.	2.6	64

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55	Macrogenomic engineering via modulation of the scaling of chromatin packing density. Nature Biomedical Engineering, 2017, 1, 902-913.	22.5	47
56	Parallel Three-Dimensional Tracking of Quantum Rods Using Polarization-Sensitive Spectroscopic Photon Localization Microscopy. ACS Photonics, 2017, 4, 1747-1752.	6.6	20
57	Stochastic fluorescence switching of nucleic acids under visible light illumination. Optics Express, 2017, 25, 7929.	3.4	5
58	Metabolic reprogramming of the premalignant colonic mucosa is an early event in carcinogenesis. Oncotarget, 2017, 8, 20543-20557.	1.8	36
59	Nuclear Blebbing Solely as a Function of Chromatin Compaction State. FASEB Journal, 2017, 31, lb237.	0.5	0
60	Optical Detection of Early Damage in Retinal Ganglion Cells in a Mouse Model of Partial Optic Nerve Crush Injury. , 2016, 57, 5665.		25
61	Automated Cell Selection Using Support Vector Machine for Application to Spectral Nanocytology. BioMed Research International, 2016, 2016, 1-10.	1.9	5
62	Using electron microscopy to calculate optical properties of biological samples. Biomedical Optics Express, 2016, 7, 4749.	2.9	7
63	Detection of extracellular matrix modification in cancer models with inverse spectroscopic optical coherence tomography. Physics in Medicine and Biology, 2016, 61, 6892-6904.	3.0	12
64	Super-resolution spectroscopic microscopy via photon localization. Nature Communications, 2016, 7, 12290.	12.8	91
65	The Effects of Chemical Fixation on the Cellular Nanostructure: A Correlative Study of Back-Scattered Interference Spectrometry Microscopy and TEM. Microscopy and Microanalysis, 2016, 22, 234-235.	0.4	0
66	The Greater Genomic Landscape: The Heterogeneous Evolution of Cancer. Cancer Research, 2016, 76, 5605-5609.	0.9	25
67	Label-free imaging of the native, living cellular nanoarchitecture using partial-wave spectroscopic microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6372-E6381.	7.1	56
68	Finite-difference time-domain-based optical microscopy simulation of dispersive media facilitates the development of optical imaging techniques. Journal of Biomedical Optics, 2016, 21, 065004.	2.6	8
69	Higher Order Chromatin Modulator Cohesin SA1 Is an Early Biomarker for Colon Carcinogenesis: Race-Specific Implications. Cancer Prevention Research, 2016, 9, 844-854.	1.5	11
70	Enhancing the sensitivity of mesoscopic light reflection statistics in weakly disordered media by interface reflections. International Journal of Modern Physics B, 2016, 30, 1650155.	2.0	1
71	Nanoscale refractive index fluctuations detected via sparse spectral microscopy. Biomedical Optics Express, 2016, 7, 883.	2.9	10
72	Superresolution intrinsic fluorescence imaging of chromatin utilizing native, unmodified nucleic acids for contrast. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9716-9721.	7.1	56

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73	Enhanced Survival with Implantable Scaffolds That Capture Metastatic Breast Cancer Cells In Vivo. Cancer Research, 2016, 76, 5209-5218.	0.9	86
74	Subsurface Super-resolution Imaging of Unstained Polymer Nanostructures. Scientific Reports, 2016, 6, 28156.	3.3	31
75	Skeletal light-scattering accelerates bleaching response in reef-building corals. BMC Ecology, 2016, 16, 10.	3.0	43
76	Coral bleaching response index: a new tool to standardize and compare susceptibility to thermal bleaching. Global Change Biology, 2016, 22, 2475-2488.	9.5	75
77	Reconstruction of explicit structural properties at the nanoscale via spectroscopic microscopy. Journal of Biomedical Optics, 2016, 21, 025007.	2.6	3
78	Visible Inverse Spectroscopic Optical Coherence Tomography Probe for Spatially Resolved Nanoscale Characterization. , 2016, , .		0
79	Comparison of Sample Preparation Methods for Analysis of Mucus-Secreting Colon Cancer Cells by Scanning Electron Microscopy. Microscopy and Microanalysis, 2015, 21, 185-186.	0.4	0
80	Harnessing novel modalities: field carcinogenesis detection for personalizing prostate cancer management. Future Oncology, 2015, 11, 2737-2741.	2.4	3
81	Nanocytological Field Carcinogenesis Detection to Mitigate Overdiagnosis of Prostate Cancer: A Proof of Concept Study. PLoS ONE, 2015, 10, e0115999.	2.5	27
82	Nanoscale 3D Refractive Indices Mapping on Native Cheek Cells by Axial Scanning Transmission Electron Tomography. Microscopy and Microanalysis, 2015, 21, 405-406.	0.4	0
83	Subdiffusion reflectance spectroscopy to measure tissue ultrastructure and microvasculature: model and inverse algorithm. Journal of Biomedical Optics, 2015, 20, 097002.	2.6	20
84	Visible light optical coherence tomography measures retinal oxygen metabolic response to systemic oxygenation. Light: Science and Applications, 2015, 4, e334-e334.	16.6	133
85	Fractal Characterization of Chromatin Decompaction in Live Cells. Biophysical Journal, 2015, 109, 2218-2226.	0.5	19
86	Rectal Optical Markers for In Vivo Risk Stratification of Premalignant Colorectal Lesions. Clinical Cancer Research, 2015, 21, 4347-4355.	7.0	17
87	In Vivo Risk Analysis of Pancreatic Cancer Through Optical Characterization of Duodenal Mucosa. Pancreas, 2015, 44, 735-741.	1.1	12
88	Spectroscopic microscopy can quantify the statistics of subdiffractional refractive-index fluctuations in media with random rough surfaces. Optics Letters, 2015, 40, 4931.	3.3	6
89	Super-resolution two-photon microscopy via scanning patterned illumination. Physical Review E, 2015, 91, 042703.	2.1	33
90	911 A Novel Use of Angiotensin II Receptor Blocker (ARB) Losartan to Inhibit AOM Induced Tumorigenesis and Neoangiogenesis in Experimental Colon Cancer. Gastroenterology, 2015, 148, S-172.	1.3	5

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91	Sa1578 Race and Gender Predilection for Spectroscopic Rectal Microvascular Markers in Colonic Field Carcinogenesis Detection: Implications for Colorectal Cancer Screening. Gastrointestinal Endoscopy, 2015, 81, AB268.	1.0	0
92	Monte Carlo Investigation of Optical Coherence Tomography Retinal Oximetry. IEEE Transactions on Biomedical Engineering, 2015, 62, 2308-2315.	4.2	25
93	In vivo capture and label-free detection of early metastatic cells. Nature Communications, 2015, 6, 8094.	12.8	133
94	Buccal Spectral Markers for Lung Cancer Risk Stratification. PLoS ONE, 2014, 9, e110157.	2.5	18
95	Buccal microRNA dysregulation in lung field carcinogenesis: Gender-specific implications. International Journal of Oncology, 2014, 45, 1209-1215.	3.3	15
96	Monte Carlo model of the depolarization of backscattered linearly polarized light in the sub-diffusion regime. Optics Express, 2014, 22, 5325.	3.4	4
97	What structural length scales can be detected by the spectral variance of a microscope image?. Optics Letters, 2014, 39, 4290.	3.3	23
98	In vivo functional microangiography by visible-light optical coherence tomography. Biomedical Optics Express, 2014, 5, 3603.	2.9	53
99	Introduction to the BIOMED 2014 feature issue. Biomedical Optics Express, 2014, 5, 4144.	2.9	0
100	Spatially resolved optical and ultrastructural properties of colorectal and pancreatic field carcinogenesis observed by inverse spectroscopic optical coherence tomography. Journal of Biomedical Optics, 2014, 19, 036013.	2.6	37
101	Nanoscale changes in chromatin organization represent the initial steps of tumorigenesis: a transmission electron microscopy study. BMC Cancer, 2014, 14, 189.	2.6	69
102	Network signatures of nuclear and cytoplasmic density alterations in a model of pre and postmetastatic colorectal cancer. Journal of Biomedical Optics, 2014, 19, 016016.	2.6	20
103	Macromolecular Crowding as a Regulator of Gene Transcription. Biophysical Journal, 2014, 106, 1801-1810.	0.5	72
104	Colonic Mucosal Fatty Acid Synthase as an Early Biomarker for Colorectal Neoplasia: Modulation by Obesity and Gender. Cancer Epidemiology Biomarkers and Prevention, 2014, 23, 2413-2421.	2.5	10
105	Modeling Light Scattering in Tissue as Continuous Random Media Using a Versatile Refractive Index Correlation Function. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 173-186.	2.9	65
106	Endâ€binding protein 1 (EB1) upâ€regulation is an early event in colorectal carcinogenesis. FEBS Letters, 2014, 588, 829-835.	2.8	24
107	Polarization gating spectroscopy of normal-appearing duodenal mucosa to detect pancreatic cancer. Gastrointestinal Endoscopy, 2014, 80, 786-793.e2.	1.0	9
108	The Role of Nuclear Nano-Environment on DNA Dehybridization. , 2014, , .		0

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109	Targeting the ultrastructural origins of field carcinogenesis using low coherence enhanced backscattering. , 2014, , .		1
110	Angora: A Free Software Package for Finite-Difference Time-Domain Electromagnetic Simulation. IEEE Antennas and Propagation Magazine, 2013, 55, 80-93.	1.4	13
111	Single Realization Stochastic FDTD for Weak Scattering Waves in Biological Random Media. IEEE Transactions on Antennas and Propagation, 2013, 61, 818-828.	5.1	45
112	Computation of tightly-focused laser beams in the FDTD method. Optics Express, 2013, 21, 87.	3.4	33
113	Insights into the field carcinogenesis of ovarian cancer based on the nanocytology of endocervical and endometrial epithelial cells. International Journal of Cancer, 2013, 133, 1143-1152.	5.1	31
114	Biological Mechanisms Underlying Structural Changes Induced by Colorectal Field Carcinogenesis Measured with Low-Coherence Enhanced Backscattering (LEBS) Spectroscopy. PLoS ONE, 2013, 8, e57206.	2.5	12
115	Nanoscale markers of esophageal field carcinogenesis: potential implications for esophageal cancer screening. Endoscopy, 2013, 45, 983-988.	1.8	29
116	Can OCT be sensitive to nanoscale structural alterations in biological tissue?. Optics Express, 2013, 21, 9043.	3.4	59
117	Method of detecting tissue contact for fiber-optic probes to automate data acquisition without hardware modification. Biomedical Optics Express, 2013, 4, 1401.	2.9	3
118	High-speed spectral nanocytology for early cancer screening. Journal of Biomedical Optics, 2013, 18, 117002.	2.6	17
119	Ultrastructural alterations in field carcinogenesis measured by enhanced backscattering spectroscopy. Journal of Biomedical Optics, 2013, 18, 097002.	2.6	28
120	Nano-Architectural Alterations in Mucus Layer Fecal Colonocytes in Field Carcinogenesis: Potential for Screening. Cancer Prevention Research, 2013, 6, 1111-1119.	1.5	12
121	A physical sciences network characterization of non-tumorigenic and metastatic cells. Scientific Reports, 2013, 3, 1449.	3.3	146
122	Visible-light optical coherence tomography for retinal oximetry. Optics Letters, 2013, 38, 1796.	3.3	151
123	Advances in Biophotonics Detection of Field Carcinogenesis for Colon Cancer Risk Stratification. Journal of Cancer, 2013, 4, 251-261.	2.5	49
124	Evidence-based Guidelines for Precision Risk Stratification-Based Screening (PRSBS) for Colorectal Cancer: Lessons learned from the US Armed Forces: Consensus and Future Directions. Journal of Cancer, 2013, 4, 172-192.	2.5	14
125	Modulation of Light-Enhancement to Symbiotic Algae by Light-Scattering in Corals and Evolutionary Trends in Bleaching. PLoS ONE, 2013, 8, e61492.	2.5	106
126	HDAC Up-Regulation in Early Colon Field Carcinogenesis Is Involved in Cell Tumorigenicity through Regulation of Chromatin Structure. PLoS ONE, 2013, 8, e64600.	2.5	114

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127	Imaging a full set of optical scattering properties of biological tissue by inverse spectroscopic optical coherence tomography. Optics Letters, 2012, 37, 4443.	3.3	91
128	Introduction to the BIOMED 2012 Feature Issue. Biomedical Optics Express, 2012, 3, 2771.	2.9	0
129	A fiber optic probe design to measure depth- limited optical properties in-vivo with Low-coherence Enhanced Backscattering (LEBS) Spectroscopy. Optics Express, 2012, 20, 19643.	3.4	19
130	Near-field penetrating optical microscopy: a live cell nanoscale refractive index measurement technique for quantification of internal macromolecular density. Optics Letters, 2012, 37, 506.	3.3	8
131	Structural length-scale sensitivities of reflectance measurements in continuous random media under the Born approximation. Optics Letters, 2012, 37, 5220.	3.3	55
132	Structured interference optical coherence tomography. Optics Letters, 2012, 37, 3048.	3.3	7
133	In vivo measurement of the shape of the tissue-refractive-index correlation function and its applicationto detection of colorectal field carcinogenesis. Journal of Biomedical Optics, 2012, 17, 047005.	2.6	13
134	Open source software for electric field Monte Carlo simulation of coherent backscattering in biological media containing birefringence. Journal of Biomedical Optics, 2012, 17, 115001.	2.6	25
135	Polarized Enhanced Backscattering Spectroscopy for Characterization of Biological Tissues at Subdiffusion Length Scales. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1313-1325.	2.9	25
136	Nanocytology of Rectal Colonocytes to Assess Risk of Colon Cancer Based on Field Cancerization. Cancer Research, 2012, 72, 2720-2727.	0.9	56
137	Spectroscopic Applications in Gastrointestinal Endoscopy. Clinical Gastroenterology and Hepatology, 2012, 10, 1335-1341.	4.4	23
138	A Frequency-Domain Near-Field-to-Far-Field Transform for Planar Layered Media. IEEE Transactions on Antennas and Propagation, 2012, 60, 1878-1885.	5.1	11
139	The Microscope in a Computer: Image Synthesis from Three-Dimensional Full-Vector Solutions of Maxwellâ€™s Equations at the Nanometer Scale. Progress in Optics, 2012, 57, 1-91.	0.6	15
140	Nanoscale Differences Assessed by Partial Wave Spectroscopy in the Field of Esophageal Cancer and Barrett's Esophagus. Gastroenterology, 2011, 140, S-752.	1.3	5
141	Understanding Biological Mechanisms of Nuclear Disorder Strength in Early Carcinogenesis. Gastroenterology, 2011, 140, S-765-S-766.	1.3	4
142	Light-Scattering Technologies for Field Carcinogenesis Detection: A Modality for Endoscopic Prescreening. Gastroenterology, 2011, 140, 35-41.e5.	1.3	46
143	Colonoscopy and Optical Biopsy: Bridging Technological Advances to Clinical Practice. Gastroenterology, 2011, 140, 1863-1867.	1.3	18
144	Crowding-Induced Structural Alterations of Random-Loop Chromosome Model. Physical Review Letters, 2011, 106, 168102.	7.8	52

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145	The influence of chromosome density variations on the increase in nuclear disorder strength in carcinogenesis. Physical Biology, 2011, 8, 015004.	1.8	33
146	Neo-angiogenesis and the premalignant micro-circulatory augmentation of early colon carcinogenesis. Cancer Letters, 2011, 306, 205-213.	7.2	23
147	Experimental confirmation at visible light wavelengths of the backscattering enhancement phenomenon of the photonic nanojet. Optics Express, 2011, 19, 7084.	3.4	70
148	Alternate formulation of enhanced backscattering as phase conjugation and diffraction: derivation and experimental observation. Optics Express, 2011, 19, 11922.	3.4	8
149	Numerical simulation of partially coherent broadband optical imaging using the finite-difference time-domain method. Optics Letters, 2011, 36, 1596.	3.3	17
150	Measurement of the spatial backscattering impulse-response at short length scales with polarized enhanced backscattering. Optics Letters, 2011, 36, 4737.	3.3	20
151	Association of stem-like cells in gender-specific chemoprevention against intestinal neoplasia in MIN mouse. Oncology Reports, 2011, 26, 1127-32.	2.6	1
152	A proposed perfectly matched stratified medium FDTD TFSF sourced by inhomogeneous plane waves. , 2011, , .		4
153	Quantification of nanoscale density fluctuations by electron microscopy: probing cellular alterations in early carcinogenesis. Physical Biology, 2011, 8, 026012.	1.8	21
154	FDTD simulation of a partially-coherent Gaussian Schell-model beam. , 2011, , .		0
155	Nanocytology for field carcinogenesis detection: novel paradigm for lung cancer risk stratification. Future Oncology, 2011, 7, 1-3.	2.4	15
156	Characterization of Light Transport in Scattering Media at Subdiffusion Length Scales with Low-Coherence Enhanced Backscattering. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 619-626.	2.9	26
157	Optical Detection of Buccal Epithelial Nanoarchitectural Alterations in Patients Harboring Lung Cancer: Implications for Screening. Cancer Research, 2010, 70, 7748-7754.	0.9	56
158	Optical Measurement of Rectal Microvasculature as an Adjunct to Flexible Sigmoidosocopy: Gender-Specific Implications. Cancer Prevention Research, 2010, 3, 844-851.	1.5	13
159	Quantification of nanoscale density fluctuations using electron microscopy: Light-localization properties of biological cells. Applied Physics Letters, 2010, 97, 243704.	3.3	17
160	Microscopic Imaging and Spectroscopy with Scattered Light. Annual Review of Biomedical Engineering, 2010, 12, 285-314.	12.3	114
161	Role of Cytoskeleton in Controlling the Disorder Strength of Cellular Nanoscale Architecture. Biophysical Journal, 2010, 99, 989-996.	0.5	59
162	Analysis of pressure, angle and temporal effects on tissue optical properties from â€¨polarization-gated spectroscopic probe measurements. Biomedical Optics Express, 2010, 1, 489.	2.9	24

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163	A predictive model of backscattering at subdiffusion length scales. Biomedical Optics Express, 2010, 1, 1034.	2.9	28
164	Depth-resolved measurement of mucosal microvascular blood content using â€˜low-coherence enhanced backscattering spectroscopy. Biomedical Optics Express, 2010, 1, 1196.	2.9	8
165	Quasi one-dimensional light beam generated by a graded-index microsphere: errata. Optics Express, 2010, 18, 3973.	3.4	6
166	Nonscalar elastic light scattering from continuous media in the Born approximation: erratum. Optics Letters, 2010, 35, 1367.	3.3	1
167	Investigating Population Risk Factors of Pancreatic Cancer by Evaluation of Optical Markers in the Duodenal Mucosa (Erratum). Disease Markers, 2009, 27, 253-253.	1.3	1
168	Using FDTD to improve our understanding of partial wave spectroscopy for advancing ultra early-stage cancer detection techniques. , 2009, , .		1
169	Validation of the born approximation in 2-D weakly-scattering biological random media using the FDTD method. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	1
170	Nanoscale Cellular Changes in Field Carcinogenesis Detected by Partial Wave Spectroscopy. Cancer Research, 2009, 69, 5357-5363.	0.9	124
171	Rectal Mucosal Microvascular Blood Supply Increase Is Associated with Colonic Neoplasia. Clinical Cancer Research, 2009, 15, 3110-3117.	7.0	34
172	Photonic Nanojets. Journal of Computational and Theoretical Nanoscience, 2009, 6, 1979-1992.	0.4	335
173	Association between Rectal Optical Signatures and Colonic Neoplasia: Potential Applications for Screening. Cancer Research, 2009, 69, 4476-4483.	0.9	63
174	Partial-wave microscopic spectroscopy detects subwavelength refractive index fluctuations: an application to cancer diagnosis. Optics Letters, 2009, 34, 518.	3.3	99
175	Nonscalar elastic light scattering from continuous random media in the Born approximation. Optics Letters, 2009, 34, 1891.	3.3	105
176	Accuracy of the Born approximation in calculating the scattering coefficient of biological continuous random media. Optics Letters, 2009, 34, 2679.	3.3	30
177	Quasi one-dimensional light beam generated by a graded-index microsphere. Optics Express, 2009, 17, 3722.	3.4	100
178	Spectral Slope from the Endoscopically-Normal Mucosa Predicts Concurrent Colonic Neoplasia: A Pilot Ex-Vivo Clinical Study. Diseases of the Colon and Rectum, 2008, 51, 1381-1386.	1.3	12
179	Endogenous optical biomarkers of normal and human papillomavirus immortalized epithelial cells. International Journal of Cancer, 2008, 122, 363-371.	5.1	54
180	ADE-FDTD Scattered-Field Formulation for Dispersive Materials. IEEE Microwave and Wireless Components Letters, 2008, 18, 4-6.	3.2	33

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