Vladoslav V Yakovlev

List of Publications by Year
in descending order

101 papers	2,595 citations	186265 28 h-index	189892 50 g-index
103 all docs	103 docs citations	103 times ranked	2820 citing authors

#	Article	IF	Citations
1	Brillouin spectroscopy and radiography for assessment of viscoelastic and regenerative properties of mammalian bones. Journal of Biomedical Optics, 2018, 23, 1.	2.6	432
2	Comparison of coherent and spontaneous Raman microspectroscopies for noninvasive detection of single bacterial endospores. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7776-7779.	7.1	132
3	Broadly tunable 30-fs pulses produced by optical parametric amplification. Optics Letters, 1994, 19, 2000.	3.3	107
4	Dual Raman-Brillouin Microscope for Chemical and Mechanical Characterization and Imaging. Analytical Chemistry, 2015, 87, 7519-7523.	6.5	106
5	Ultrafast rainbow: tunable ultrashort pulses from a solid-state kilohertz system. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 444.	2.1	104
6	Seeing cells in a new light: a renaissance of Brillouin spectroscopy. Advances in Optics and Photonics, 2016, 8, 300.	25.5	100
7	Bright emission from a random Raman laser. Nature Communications, 2014, 5, 4356.	12.8	88
8	Background clean-up in Brillouin microspectroscopy of scattering medium. Optics Express, 2014, 22, 5410.	3.4	87
9	Stimulated Brillouin Scattering Microscopic Imaging. Scientific Reports, 2016, 5, 18139.	3.3	78
10	Phase and intensity characterization of femtosecond pulses from a chirped-pulse amplifier by frequency-resolved optical gating. Optics Letters, 1995, 20, 483.	3.3	64
11	Single-shot stand-off chemical identification of powders using random Raman lasing. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12320-12324.	7.1	63
12	Impulsive Brillouin microscopy. Optica, 2017, 4, 124.	9.3	62
13	Assessment of tissue heating under tunable near-infrared radiation. Journal of Biomedical Optics, 2014, 19, 070501.	2.6	55
14	Ultrasensitive Nonâ€Resonant Detection of Ultrasound with Plasmonic Metamaterials. Advanced Materials, 2013, 25, 2351-2356.	21.0	54
15	Subcellular measurements of mechanical and chemical properties using dual Raman-Brillouin microspectroscopy. Journal of Biophotonics, 2016, 9, 201-207.	2.3	54
16	Assessment of Local Heterogeneity in Mechanical Properties of Nanostructured Hydrogel Networks. ACS Nano, 2017, 11, 7690-7696.	14.6	49
17	Detecting anthrax in the mail by coherent Raman microspectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1151-1153.	7.1	48
18	Optimizing signal collection efficiency of the VIPA-based Brillouin spectrometer. Journal of Innovative Optical Health Sciences, 2015, 08, 1550021.	1.0	44

#	ARTICLE	IF	CITATIONS
19	Analytical capabilities of coherent anti-Stokes Raman scattering microspectroscopy. Journal of Modern Optics, 2008, 55, 3237-3254.	1.3	42
20	Flow cytometry using Brillouin imaging and sensing via time-resolved optical (BISTRO) measurements. Analyst, The, 2015, 140, 7160-7164.	3.5	40
21	Improving sensitivity in nonlinear Raman microspectroscopy imaging and sensing. Journal of Biomedical Optics, 2011, 16, 021114.	2.6	39
22	Precise Determination of Brillouin Scattering Spectrum Using a Virtually Imaged Phase Array (VIPA) Spectrometer and Charge-Coupled Device (CCD) Camera. Applied Spectroscopy, 2016, 70, 1356-1363.	2.2	39
23	Brillouin spectroscopy as a new method of screening for increased CSF total protein during bacterial meningitis. Journal of Biophotonics, 2015, 8, 408-414.	2.3	37
24	Wavefront shaping enhanced Raman scattering in a turbid medium. Optics Letters, 2016, 41, 1769.	3.3	36
25	Assessing performance of modern Brillouin spectrometers. Optics Express, 2018, 26, 2400.	3.4	36
26	Label-free sensing of cells with fluorescence lifetime imaging: The quest for metabolic heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	35
27	Modeling focusing Gaussian beams in a turbid medium with Monte Carlo simulations. Optics Express, 2015, 23, 8699.	3.4	33
28	Differentiating melanoma and healthy tissues based on elasticity-specific Brillouin microspectroscopy. Biomedical Optics Express, 2019, 10, 1774.	2.9	33
29	Chemical Analysis of Molecular Species through Turbid Medium. Analytical Chemistry, 2014, 86, 1445-1451.	6.5	25
30	Two-Photon Infrared Resonance Can Enhance Coherent Raman Scattering. Physical Review Letters, 2018, 120, 063602.	7.8	25
31	Nonlinear Brillouin spectroscopy: what makes it a better tool for biological viscoelastic measurements. Biomedical Optics Express, 2019, 10, 1750.	2.9	25
32	Highâ€Fidelity Image Reconstruction through Multimode Fiber via Polarizationâ€Enhanced Parametric Speckle Imaging. Laser and Photonics Reviews, 2021, 15, 2000376.	8.7	24
33	Electronically tunable coherent Raman spectroscopy using acousto-optics tunable filter. Optics Express, 2015, 23, 24669.	3.4	22
34	A narrow-band speckle-free light source via random Raman lasing. Journal of Modern Optics, 2016, 63, 46-49.	1.3	22
35	Spatially offset Raman microspectroscopy of highly scattering tissue: theory and experiment. Journal of Modern Optics, 2015, 62, 97-101.	1.3	21
36	Pure electrical, highly-efficient and sidelobe free coherent Raman spectroscopy using acousto-optics tunable filter (AOTF). Scientific Reports, 2016, 6, 20017.	3.3	21

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37	Optical assessment of changes in mechanical and chemical properties of adipose tissue in dietâ€induced obese rats. Journal of Biophotonics, 2017, 10, 1694-1702.	2.3	21
38	Photodynamic viral inactivation: Recent advances and potential applications. Applied Physics Reviews, 2021, 8, 021315.	11.3	21
39	Raman spectroscopy with LED excitation source. Journal of Raman Spectroscopy, 2013, 44, 1058-1059.	2.5	19
40	Lightweight Raman spectroscope using time-correlated photon-counting detection. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12315-12320.	7.1	19
41	Machine-Learning Assisted Discrimination of Precancerous and Cancerous from Healthy Oral Tissue Based on Multispectral Autofluorescence Lifetime Imaging Endoscopy. Cancers, 2021, 13, 4751.	3.7	19
42	Enhanced Second Harmonic Generation Efficiency via Wavefront Shaping. ACS Photonics, 2017, 4, 1790-1796.	6.6	17
43	Revealing the glass transition in shape memory polymers using Brillouin spectroscopy. Applied Physics Letters, 2017, 111, 241904.	3.3	17
44	A proposal for a random Raman laser. Journal of Modern Optics, 2014, 61, 57-60.	1.3	15
45	Coherent anti-Stokes Raman scattering imaging of microcalcifications associated with breast cancer. Analyst, The, 2021, 146, 1253-1259.	3.5	14
46	New insights into a hydrogen bond: hyper-Raman spectroscopy of DMSO-water solution. Physical Chemistry Chemical Physics, 2021, 23, 24047-24051.	2.8	11
47	Raman microspectroscopy of melanosomes: the effect of long term light irradiation. Journal of Biophotonics, 2011, 4, 805-813.	2.3	10
48	Investigating femtosecond-laser-induced two-photon photoacoustic generation. Journal of Biomedical Optics, 2014, 19, 085001.	2.6	9
49	Safety and delivery efficiency of a photodynamic treatment of the lungs using indocyanine green and extracorporeal near infrared illumination. Journal of Biophotonics, 2020, 13, e202000176.	2.3	9
50	Enhanced coupling of light into a turbid medium through microscopic interface engineering. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7941-7946.	7.1	8
51	Controlled supercontinua via spatial beam shaping. Journal of Modern Optics, 2018, 65, 1332-1335.	1.3	8
52	Surface-enhanced Brillouin scattering in a vicinity of plasmonic gold nanostructures. Proceedings of SPIE, 2015, , .	0.8	7
53	Chemically Specific Imaging Through Stimulated Raman Photoexcitation and Ultrasound Detection: Minireview. Australian Journal of Chemistry, 2012, 65, 260.	0.9	6
54	Assessing the effect of prolonged use of desloratadine on adipose Brillouin shift and composition in rats. Journal of Biophotonics, 2021, 14, e202000269.	2.3	6

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55	Continuous assessment of metabolic activity of mitochondria using resonance Raman microspectroscopy. Journal of Biophotonics, 2021, 14, e202000384.	2.3	6
56	Utilizing scattering to further enhance integrating cavity-enhanced spectroscopy. Journal of Modern Optics, 2016, 63, 76-79.	1.3	5
57	Transient absorption spectroscopy to explore cellular pathways to photobiomodulation. Journal of Photochemistry and Photobiology B: Biology, 2021, 222, 112271.	3.8	5
58	Detecting mineral content in turbid medium using nonlinear Raman imaging: feasibility study. Journal of Modern Optics, 2011, 58, 1914-1921.	1.3	4
59	Multi-Wavelength Excitation Brillouin Spectroscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-5.	2.9	4
60	Coherent Anti-Stokes Raman Scattering Microspectroscopy: An Emerging Technique for Non-Invasive Optical Assessment of a Local Bio-Nano-Environment. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-6.	2.9	3
61	Simulated supercontinuum generation in water and the human eye. , 2019, , .		3
62	Mammalian complex III heme dynamics studied with pump-probe spectroscopy and red light illuminations. Biomedical Optics Express, 2021, 12, 7082.	2.9	3
63	En route to nanoscopic quantum optical imaging: counting emitters with photon-number-resolving detectors. Optics Express, 2022, 30, 12495.	3.4	3
64	Enhanced Chemical Sensing with Multiorder Coherent Raman Scattering Spectroscopic Dephasing. Analytical Chemistry, 0, , .	6.5	3
65	Discrimination of cancerous from benign pigmented skin lesions based on multispectral autofluorescence lifetime imaging dermoscopy and machine learning. Journal of Biomedical Optics, 2022, 27, .	2.6	3
66	Using Brillouin microspectroscopy to characterize adipocytesâ€™ response to lipid droplet accumulation. , 2017, , .		2
67	Nanoscale optical assessment of photochemical changes of SU-8 photoresist induced by ultrashort near-IR optical excitation. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	2
68	Second Harmonic Imaging Enhanced by Deep Learning Decipher. ACS Photonics, 2021, 8, 1562-1568.	6.6	2
69	Brillouin light scattering spectroscopy for tissue engineering application. , 2018, , .		2
70	Investigation of reaction mechanisms of cytochrome c and mitochondria with transient absorption spectroscopy. , 2019, , .		2
71	Sequentially-Shifted Excitation (SSE) Brillouin spectroscopy for recovering signal contaminated with strong scattering, absorption or fluorescence. , 2019, , .		2
72	Technologically feasible quasi-edge states and topological Bloch oscillation in the synthetic space. Optics Express, 2022, 30, 24924.	3.4	2

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73	How to drive CARS in reverse. Journal of Modern Optics, 2014, 61, 53-56.	1.3	1
74	Assessing the effect of a high-fat diet on rodents' adipose tissue using Brillouin and Raman spectroscopy. Proceedings of SPIE, 2016, , .	0.8	1
75	Investigation of burn effect on skin using simultaneous Raman-Brillouin spectroscopy, and fluorescence microspectroscopy. , 2017, , .		1
76	BISTRO measurement also means better measurement (Conference Presentation). , 2018, , .		1
77	Biomedical optics applications of advanced lasers and nonlinear optics. Journal of Biomedical Optics, 2020, 25, 1.	2.6	1
78	Antimicrobial photodynamic therapy combined with antibiotics reduces resistance and aids elimination in four resistant bacterial strains. , 2022, , .		1
79	Imaging mechanical properties of cancer cells during metastasis with Brillouin microspectroscopy. , 2022, , .		1
80	Brillouin spectroscopy imaging of cell phototoxic damage. , 2022, , .		1
81	Methylene blue uptake and biological elimination preliminary study in Drosophila for regulation of long-term photodynamics. , 2022, , .		1
82	Brillouin microspectroscopy of nanostructured biomaterials: photonics assisted tailoring mechanical properties. Proceedings of SPIE, 2016, , .	0.8	0
83	Brillouin spectroscopy of clotting dynamics in a model system. , 2016, , .		0
84	Watching embryonic development in a new light: elasticity specific imaging with dual Brillouin/Raman microspectroscopy. , 2016, , .		0
85	Characterization of red blood cells (RBCs) using dual Brillouin/Raman micro-spectroscopy. , 2016, , .		0
86	High-speed elasticity-specific nonlinear Brillouin imaging/sensing via time-resolved optical (BISTRO) measurements. Proceedings of SPIE, 2016, , .	0.8	0
87	What is next for Brillouin microscopy in biology and medicine?. Proceedings of SPIE, 2017, , .	0.8	0
88	Brillouin microspectroscopy assessment of tissue differentiation during embryonic development. Proceedings of SPIE, 2017, , .	0.8	0
89	Brillouin micro-elastography of laser-processed materials. Proceedings of SPIE, 2017, , .	0.8	0
90	Comment on â€œEnhancement of the Raman Effect by Infrared Pumpingâ€• Physical Review Letters, 2020, 124, 159401.	7.8	0

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91	High-speed flow cytometry using nonlinear Brillouin imaging/sensing via time-resolved optical (BISTRO) measurements. , 2016, , .		0
92	Toward investigating changes in cell mechanoelastic properties in response to nanosecond pulsed electric fields. Proceedings of SPIE, 2017, , .	0.8	0
93	CARS microscope enables BISTRO measurements. , 2017, , .		0
94	Generation of tunable high-repetition rate middle infrared transform-limited picosecond pulses. , 2018, , .		0
95	Dual Raman-Brillouin spectroscopic investigation of plant stress response and development. , 2018, , .		0
96	Resonantly enhanced coherent anti-Stokes Raman scattering (Conference Presentation). , 2018, , .		0
97	Investigating breakdown thresholds of picosecond optical pulses and nano-second pulsed electric fields. , 2019, , .		0
98	AI-driven discrimination of benign from malignant pigmented skin lesions based on multispectral autofluorescence lifetime dermoscopy imaging. , 2022, , .		0
99	What are we eating?. , 2022, , .		0
100	Towards in vivo larynx imaging: assessing mechanical properties of larynx with Brillouin microscopy. , 2022, , .		0
101	Segmentation of laser induced retinal lesions using deep learning (December 2021). Lasers in Surgery and Medicine, 0, , .	2.1	0