

# Gerald Steiner

## List of Publications by Year in descending order

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Version: 2024-02-01

69  
papers

1,506  
citations

331670  
21  
h-index

345221  
36  
g-index

80  
all docs

80  
docs citations

80  
times ranked

1904  
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface plasmon resonance imaging. <i>Analytical and Bioanalytical Chemistry</i> , 2004, 379, 328-331.	3.7	161
2	Label-Free Delineation of Brain Tumors by Coherent Anti-Stokes Raman Scattering Microscopy in an Orthotopic Mouse Model and Human Glioblastoma. <i>PLoS ONE</i> , 2014, 9, e107115.	2.5	77
3	Conformational Changes during Protein Adsorption. FT-IR Spectroscopic Imaging of Adsorbed Fibrinogen Layers. <i>Analytical Chemistry</i> , 2007, 79, 1311-1316.	6.5	75
4	Intrinsic Indicator of Photodamage during Label-Free Multiphoton Microscopy of Cells and Tissues. <i>PLoS ONE</i> , 2014, 9, e110295.	2.5	69
5	Distinguishing and grading human gliomas by IR spectroscopy. <i>Biopolymers</i> , 2003, 72, 464-471.	2.4	65
6	Hydrogel-Based Piezoresistive pH Sensors: Investigations Using FT-IR Attenuated Total Reflection Spectroscopic Imaging. <i>Analytical Chemistry</i> , 2008, 80, 2957-2962.	6.5	61
7	Non-invasive monitoring of blood glucose using optical methods for skin spectroscopy—opportunities and recent advances. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 63-77.	3.7	60
8	Trends in Fourier transform infrared spectroscopic imaging. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 671-678.	3.7	59
9	Gender determination of fertilized unincubated chicken eggs by infrared spectroscopic imaging. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 400, 2775-2782.	3.7	47
10	Vibrational Spectroscopic Imaging and Multiphoton Microscopy of Spinal Cord Injury. <i>Analytical Chemistry</i> , 2012, 84, 8707-8714.	6.5	47
11	In ovo sexing of chicken eggs by fluorescence spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 1185-1194.	3.7	47
12	Sexing of chicken eggs by fluorescence and Raman spectroscopy through the shell membrane. <i>PLoS ONE</i> , 2018, 13, e0192554.	2.5	47
13	Identification of tumor tissue by FTIR spectroscopy in combination with positron emission tomography. <i>Vibrational Spectroscopy</i> , 2002, 28, 103-110.	2.2	43
14	In Ovo Sexing of Domestic Chicken Eggs by Raman Spectroscopy. <i>Analytical Chemistry</i> , 2016, 88, 8657-8663.	6.5	41
15	Intraoperative imaging of cortical cerebral perfusion by time-resolved thermography and multivariate data analysis. <i>Journal of Biomedical Optics</i> , 2011, 16, 016001.	2.6	35
16	IDH1 mutation in human glioma induces chemical alterations that are amenable to optical Raman spectroscopy. <i>Journal of Neuro-Oncology</i> , 2018, 139, 261-268.	2.9	35
17	Effects of tissue fixation on coherent anti-Stokes Raman scattering images of brain. <i>Journal of Biomedical Optics</i> , 2013, 19, 071402.	2.6	33
18	Rapid Label-Free Analysis of Brain Tumor Biopsies by Near Infrared Raman and Fluorescence Spectroscopy—A Study of 209 Patients. <i>Frontiers in Oncology</i> , 2019, 9, 1165.	2.8	29

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19	Assessing the efficacy of coherent anti-Stokes Raman scattering microscopy for the detection of infiltrating glioblastoma in fresh brain samples. Journal of Biophotonics, 2017, 10, 404-414.	2.3	28
20	Optical Analysis of Glioma: Fourier-Transform Infrared Spectroscopy Reveals the IDH1 Mutation Status. Clinical Cancer Research, 2018, 24, 2530-2538.	7.0	27
21	Rapid and label-free classification of human glioma cells by infrared spectroscopic imaging. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2008, 73A, 1158-1164.	1.5	23
22	Infrared Spectroscopic Studies of Cells and Tissues: Triple Helix Proteins as a Potential Biomarker for Tumors. PLoS ONE, 2013, 8, e58332.	2.5	20
23	Biochemical Monitoring of Spinal Cord Injury by FT-IR Spectroscopy—Effects of Therapeutic Alginate Implant in Rat Models. PLoS ONE, 2015, 10, e0142660.	2.5	20
24	Label-free multiphoton microscopy reveals relevant tissue changes induced by alginate hydrogel implantation in rat spinal cord injury. Scientific Reports, 2018, 8, 10841.	3.3	19
25	Label-free identification of the glioma stem-like cell fraction using Fourier-transform infrared spectroscopy. International Journal of Radiation Biology, 2014, 90, 710-717.	1.8	18
26	Characterization of Metal-Supported Poly(methyl methacrylate) Microstructures by FTIR Imaging Spectroscopy. Langmuir, 2006, 22, 4125-4130.	3.5	16
27	Endogenous Two-Photon Excited Fluorescence Provides Label-Free Visualization of the Inflammatory Response in the Rodent Spinal Cord. BioMed Research International, 2015, 2015, 1-9.	1.9	15
28	Nondestructive Molecular Characterization of Polycarbonate/Polyvinylamine Composites after Thermally Induced Aminolysis. Macromolecular Materials and Engineering, 2016, 301, 648-652.	3.6	15
29	Identification of kidney tumor tissue by infrared spectroscopy of extracellular matrix. Journal of Biomedical Optics, 2014, 19, 087005.	2.6	14
30	Treatment with XAV-939 prevents in vitro calcification of human valvular interstitial cells. PLoS ONE, 2018, 13, e0208774.	2.5	14
31	Nerve regeneration in the cephalopod mollusc <i>Octopus vulgaris</i> : label-free multiphoton microscopy as a tool for investigation. Journal of the Royal Society Interface, 2018, 15, 20170889.	3.4	13
32	Infrared spectroscopic imaging of renal tumor tissue. Journal of Biomedical Optics, 2011, 16, 096006.	2.6	12
33	Intra-operative optical diagnostics with vibrational spectroscopy. Analytical and Bioanalytical Chemistry, 2011, 400, 2745-2753.	3.7	12
34	Hyperspectral imaging - A new modality for eye diagnostics. Biomedizinische Technik, 2012, 57, .	0.8	12
35	Optical spectroscopic methods for intraoperative diagnosis. Analytical and Bioanalytical Chemistry, 2014, 406, 21-25.	3.7	12
36	Label-free multiphoton microscopy reveals altered tissue architecture in hippocampal sclerosis. Epilepsia, 2017, 58, e1-e5.	5.1	12

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37	Sexing of turkey poults by Fourier transform infrared spectroscopy. Analytical and Bioanalytical Chemistry, 2010, 396, 465-470.	3.7	11
38	Contactless in ovo sex determination of chicken eggs. Current Directions in Biomedical Engineering, 2017, 3, 131-134.	0.4	11
39	Label-free multiphoton imaging allows brain tumor recognition based on texture analysis—a study of 382 tumor patients. Neuro-Oncology Advances, 2020, 2, vdaa035.	0.7	11
40	Inflammation-related alterations of lipids after spinal cord injury revealed by Raman spectroscopy. Journal of Biomedical Optics, 2016, 21, 061008.	2.6	10
41	Identification of distinctive features in human intracranial tumors by label-free nonlinear multimodal microscopy. Journal of Biophotonics, 2019, 12, e201800465.	2.3	10
42	Mapping of language and motor function during awake neurosurgery with intraoperative optical imaging. Neurosurgical Focus, 2020, 48, E3.	2.3	10
43	Label-free differentiation of human pituitary adenomas by FT-IR spectroscopic imaging. Analytical and Bioanalytical Chemistry, 2012, 403, 727-735.	3.7	9
44	Framework for 2D-3D image fusion of infrared thermography with preoperative MRI. Biomedizinische Technik, 2017, 62, 599-607.	0.8	9
45	Wavelet Subspace Analysis of Intraoperative Thermal Imaging for Motion Filtering. Lecture Notes in Computer Science, 2014, , 411-420.	1.3	7
46	Optical molecular imaging of corpora amylacea in human brain tissue. Biomedizinische Technik, 2018, 63, 579-585.	0.8	7
47	Rapid intraoperative diagnosis of kidney cancer by attenuated total reflection infrared spectroscopy of tissue smears. Journal of Biophotonics, 2018, 11, e201700260.	2.3	7
48	Polarization Modulation-Infrared Reflection Absorption Spectroscopic Mapping. Analytical Chemistry, 2006, 78, 2487-2493.	6.5	6
49	PM-IRRAS mapping of ultrathin molecular films with high spatial resolution. Analytical and Bioanalytical Chemistry, 2009, 395, 1641-1650.	3.7	5
50	Label free molecular sexing of monomorphic birds using infrared spectroscopic imaging. Talanta, 2016, 150, 155-161.	5.5	5
51	Microstructure of urinary stones as studied by means of multimodal nonlinear optical imaging. Journal of Raman Spectroscopy, 2017, 48, 22-29.	2.5	5
52	Molecular Spectroscopic Imaging Offers a Systematic Assessment of Pathological Aortic Valve and Prosthesis Tissue in Biomineralization. Crystals, 2020, 10, 763.	2.2	5
53	Fiber based infrared spectroscopy of cancer tissues. Journal of Molecular Structure, 2020, 1220, 128724.	3.6	5
54	Fiber attenuated total reflection infrared spectroscopy of kidney tissue during live surgery. Journal of Biophotonics, 2020, 13, e202000018.	2.3	5

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55	Characterization of cortical hemodynamic changes following sensory, visual, and speech activation by intraoperative optical imaging utilizing phase-based evaluation methods. Human Brain Mapping, 2022, 43, 598-615.	3.6	5
56	Motion correction of thermographic images in neurosurgery. , 2015, , .		3
57	Label-free Imaging of Tissue Architecture during Axolotl Peripheral Nerve Regeneration in Comparison to Functional Recovery. Scientific Reports, 2019, 9, 12641.	3.3	3
58	Conductive Polymer for Elevated Temperature Applications Based on Sodium Sulfosuccinate Coupled Poly(ethylene glycol)s. Macromolecular Chemistry and Physics, 2011, 212, 2641-2647.	2.2	2
59	Cerebral cortex classification by conditional random fields applied to intraoperative thermal imaging. Current Directions in Biomedical Engineering, 2016, 2, 475-478.	0.4	2
60	Characterization of ultra-thin polymer films by polarization modulation FTIR spectroscopy. Macromolecular Symposia, 2001, 164, 159-166.	0.7	1
61	Molecular Imaging of Microstructured Polymer Surfaces. , 0, , 7-15.		1
62	Photonics West – one of the largest conferences in the world. Analytical and Bioanalytical Chemistry, 2010, 397, 903-904.	3.7	1
63	Application of thermography for cerebral perfusion imaging during aneurysm surgery. Current Directions in Biomedical Engineering, 2018, 4, 29-32.	0.4	1
64	Guozhen Wu: Vibrational spectroscopy. Analytical and Bioanalytical Chemistry, 2020, 412, 7-8.	3.7	1
65	Measurement Techniques. , 2005, , 70-88.		0
66	Bird sexing by Fourier transform infrared spectroscopy. Proceedings of SPIE, 2010, , .	0.8	0
67	Living cell spectroscopy challenge. Analytical and Bioanalytical Chemistry, 2011, 400, 2681-2682.	3.7	0
68	Solution to living cell spectroscopy challenge. Analytical and Bioanalytical Chemistry, 2011, 401, 2327-2327.	3.7	0
69	Molecular spectroscopy from near-infrared to terahertz wavelengths – more than just good vibrations: Seventh International Conference on Advanced Vibrational Spectroscopy (ICVAS 7). Analytical and Bioanalytical Chemistry, 2014, 406, 1819-1820.	3.7	0