Mamoru Hashimoto

List of Publications by Year
in descending order

104	1,998	331670 21	243625 44
papers	citations	h-index	g-index

106	106	106	1970
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tip-Enhanced Coherent Anti-Stokes Raman Scattering for Vibrational Nanoimaging. Physical Review Letters, 2004, 92, 220801.	7.8	380
2	Molecular vibration imaging in the fingerprint region by use of coherent anti-Stokes Raman scattering microscopy with a collinear configuration. Optics Letters, 2000, 25, 1768.	3.3	218
3	Real-time terahertz color scanner for moving objects. Optics Express, 2008, 16, 1208.	3.4	108
4	Structure of the Twisted-Intramolecular-Charge-Transfer Excited Singlet and Triplet States of 4-(Dimethylamino)benzonitrile As Studied by Nanosecond Time-Resolved Infrared Spectroscopy. The Journal of Physical Chemistry, 1995, 99, 7875-7877.	2.9	105
5	A Time-Resolved CMOS Image Sensor With Draining-Only Modulation Pixels for Fluorescence Lifetime Imaging. IEEE Transactions on Electron Devices, 2012, 59, 2715-2722.	3.0	104
6	Amplification of coherent anti-Stokes Raman scattering by a metallic nanostructure for a high resolution vibration microscopy. Journal of Applied Physics, 2004, 95, 2676-2681.	2.5	71
7	Local enhancement of coherent anti-Stokes Raman scattering by isolated gold nanoparticles. Journal of Raman Spectroscopy, 2003, 34, 651-654.	2.5	63
8	Application of tip-enhanced microscopy for nonlinear Raman spectroscopy. Applied Physics Letters, 2004, 84, 1768-1770.	3.3	61
9	Multichannel Fourier-transform infrared spectrometer. Applied Optics, 1992, 31, 6096.	2.1	58
10	Second-Harmonic-Generation Microscopy Using Excitation Beam with Controlled Polarization Pattern to Determine Three-Dimensional Molecular Orientation. Japanese Journal of Applied Physics, 2005, 44, L1066-L1068.	1.5	54
11	Multi-focus excitation coherent anti-Stokes Raman scattering (CARS) microscopy and its applications for real-time imaging. Optics Express, 2009, 17, 9526.	3.4	52
12	Second-harmonic-generation microscope using eight-segment polarization-mode converter to observe three-dimensional molecular orientation. Optics Letters, 2007, 32, 1680.	3.3	48
13	Accumulation of advanced glycation end-products in human dentine. Archives of Oral Biology, 2014, 59, 119-124.	1.8	42
14	Three-dimensional transfer functions of coherent anti-Stokes Raman scattering microscopy. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 771.	1.5	39
15	Correlative near-infrared light and cathodoluminescence microscopy using Y2O3:Ln, Yb (Lnâ€‰=â€‰Tm, Er) nanophosphors for multiscale, multicolour bioimaging. Scientific Reports, 2016, 6, 25950.	3.3	37
16	Multicolor Cathodoluminescence Microscopy for Biological Imaging with Nanophosphors. Applied Physics Express, 2011, 4, 112402.	2.4	34
17	Jitter reduction of two synchronized picosecond mode-locked lasers using balanced cross-correlator with two-photon detectors. Applied Physics Letters, 2006, 89, 191101.	3.3	29
18	Y2O3:Tm,Yb nanophosphors for correlative upconversion luminescence and cathodoluminescence imaging. Micron, 2014, 67, 90-95.	2.2	26

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19	Near-infrared broadband dual-frequency-comb spectroscopy with a resolution beyond the Fourier limit determined by the observation time window. Optics Express, 2015, 23, 33184.	3.4	26
20	Visual Demonstration of Calcium Accumulation in Human Arteries of Upper and Lower Limbs. Biological Trace Element Research, 2001, 81, 115-125.	3.5	22
21	High-resolution microscopy for biological specimens via cathodoluminescence of Eu- and Zn-doped Y_2O_3nanophosphors. Optics Express, 2013, 21, 25655.	3.4	22
22	Time-resolved infrared study of ground-state phototautomer formed in the excited-state proton transfer of 7-hydroxyquinoline in methanol. Chemical Physics Letters, 1997, 271, 320-326.	2.6	21
23	Super-resolution discrete Fourier transform spectroscopy beyond time-window size limitation using precisely periodic pulsed radiation. Optica, 2015, 2, 460.	9.3	21
24	Coherent anti-Stokes Raman scattering rigid endoscope toward robot-assisted surgery. Biomedical Optics Express, 2018, 9, 387.	2.9	20
25	An ultraviolet nanosecond light pulse generator using a light emitting diode for test of photodetectors. Review of Scientific Instruments, 1997, 68, 1365-1368.	1.3	19
26	Fast spectral coherent anti-Stokes Raman scattering microscopy with high-speed tunable picosecond laser. Journal of Biomedical Optics, 2013, 18, 1.	2.6	19
27	Multispectral Emissions of Lanthanide-Doped Gadolinium Oxide Nanophosphors for Cathodoluminescence and Near-Infrared Upconversion/Downconversion Imaging. Nanomaterials, 2016, 6, 163.	4.1	17
28	A Stimulated Raman Scattering CMOS Pixel Using a High-Speed Charge Modulator and Lock-in Amplifier. Sensors, 2016, 16, 532.	3.8	17
29	Improvement of nerve imaging speed with coherent anti-Stokes Raman scattering rigid endoscope using deep-learning noise reduction. Scientific Reports, 2020, 10, 15212.	3.3	17
30	Proposition of Single Molecular Orientation Determination Using polarization Controlled Beam by Liquid Crystal Spatial Light Modulators. Optical Review, 2005, 12, 37-41.	2.0	16
31	Finding of Optimal Calcium Ion Probes for Fluorescence Lifetime Measurement. Optical Review, 2005, 12, 415-419.	2.0	16
32	Correlations of Calcium Accumulations in Arteries, Veins, Cartilages, Ligaments, and Bones in Single Humans. Biological Trace Element Research, 2001, 74, 211-222.	3.5	15
33	Automatic Pulse Duration Control of Picosecond Laser using Two-Photon Absorption Detector. Japanese Journal of Applied Physics, 2005, 44, 3958-3961.	1.5	15
34	Decrease in fluorescence lifetime by glycation of collagen and its application in determining advanced glycation end-products in human dentin. Biomedical Optics Express, 2015, 6, 1844.	2.9	15
35	Synthesis of Y_2O_3 nanophosphors by homogeneous precipitation method using excessive urea for cathodoluminescence and upconversion luminescence bioimaging. Optical Materials Express, 2016, 6, 831.	3.0	15
36	Enhancement of second-harmonic generation from self-assembled monolayers on gold by excitation with a radially polarized beam. Optics Letters, 2009, 34, 1423.	3.3	13

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37	Rare-earth-doped nanophosphors for multicolor cathodoluminescence nanobioimaging using scanning transmission electron microscopy. Journal of Biomedical Optics, 2015, 20, 056007.	2.6	13
38	Influence of Nonenzymatic Glycation in Dentinal Collagen on Dental Caries. Journal of Dental Research, 2016, 95, 1528-1534.	5.2	12
39	Photo-Induced Cell Damage Analysis for Single- and Multifocus Coherent Anti-Stokes Raman Scattering Microscopy. Journal of Spectroscopy, 2017, 2017, 1-8.	1.3	10
40	Construction of a Multichannel Fourier Transform Infrared Spectrometer for Single-Event Time-Resolved Spectroscopy. Applied Spectroscopy, 1996, 50, 1030-1033.	2.2	9
41	Orientation detection of a single molecule using pupil filter with electrically controllable polarization pattern. Optical Review, 2015, 22, 875-881.	2.0	8
42	Label-Free Biomedical Imaging Using High-Speed Lock-In Pixel Sensor for Stimulated Raman Scattering. Sensors, 2017, 17, 2581.	3.8	8
43	Invited Article: Label-free nerve imaging with a coherent anti-Stokes Raman scattering rigid endoscope using two optical fibers for laser delivery. APL Photonics, 2018, 3, 092407.	5.7	8
44	Multi-focus coherent anti-Stokes Raman scattering microscopy. Microscopy and Microanalysis, 2003, 9, 1090-1091.	0.4	7
45	Real-time imaging of laser-induced membrane disruption of a living cell observed with multifocus coherent anti-Stokes Raman scattering microscopy. Journal of Biomedical Optics, 2011, 16, 1.	2.6	7
46	High-sensitivity and high-spatial-resolution imaging of self-assembled monolayer on platinum using radially polarized beam excited second-harmonic-generation microscopy. Applied Physics Express, 2015, 8, 112401.	2.4	7
47	Nerve Segmentation with Deep Learning from Label-Free Endoscopic Images Obtained Using Coherent Anti-Stokes Raman Scattering. Biomolecules, 2020, 10, 1012.	4.0	7
48	<title>Coherent anti-Stokes Raman scattering microscope</title>. , 1999, 3749, 496.		5
49	TIP-ENHANCED NEAR-FIELD CARS MICROSCOPY. Journal of Nonlinear Optical Physics and Materials, 2004, 13, 593-599.	1.8	5
50	Ultrahigh-speed multiplex coherent anti-Stokes Raman scattering microspectroscopy using scanning elliptical focal spot. Journal of Chemical Physics, 2021, 155, 144201.	3.0	5
51	Molecular Orientation Imaging of Liquid Crystals by Tunable-Polarization-Mode Coherent Anti-Stokes Raman Scattering Microscopy. Applied Physics Express, 2013, 6, 072401.	2.4	3
52	Avoidance of four-wave mixing in optical fiber bundle for coherent anti-Stokes Raman scattering endomicroscopy. Optics Letters, 2021, 46, 3356.	3.3	3
53	Real-Time Pursuit of Crystal Growth by Millisecond Time-Resolved Multichannel Fourier Transform Infrared Spectroscopy. Applied Spectroscopy, 1998, 52, 222-225.	2.2	2
54	Coherent Anti-Stokes Raman Scattering Microscopy.. Acta Histochemica Et Cytochemica, 2002, 35, 83-86.	1.6	2

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55	Second-harmonic-generation microscope using eight-segment polarization-mode converter to observe three-dimensional molecular orientation: publisher's note. Optics Letters, 2007, 32, 2465.	3.3	2
56	Multi-focus CARS microscopy using microlens array scanner for realtime molecular spectral imaging. , 2009, , .		2
57	Photo-induced cell damage analysis for multi-focus CARS microscopy. , 2011, , .		2
58	Tip-enhanced NSOM. , 2004, , .		1
59	Tip-enhanced near-field CARS microscopy for molecular nano-imaging. , 2005, 5700, 52.		1
60	Three dimensional polarization control and its application to SHG imaging. , 0, , .		1
61	Multifocus CARS microscopy for realtime vibrational imaging. Proceedings of SPIE, 2009, , .	0.8	1
62	High-speed CARS spectral imaging using acousto optic tunable filter. , 2010, , .		1
63	Real-time molecular imaging of organelles in living cell by multifocus excitation CARS microscope. Proceedings of SPIE, 2010, , .	0.8	1
64	Development of polarization-mode controllable CARS microscope. Proceedings of SPIE, 2011, , .	0.8	1
65	High-speed spectral tuning CARS microscopy using AOTF laser. Proceedings of SPIE, 2012, , .	0.8	1
66	Coherent Anti-Stokes Raman Scattering Microscopy for High Speed Non- Staining Biomolecular Imaging. Current Pharmaceutical Biotechnology, 2013, 14, 150-158.	1.6	1
67	A stimulated Raman scattering imager using high-speed lateral electric field modulator and lock-in pixels amplifiers. , 2014, , .		1
68	A CMOS image sensor using high-speed lock-in pixels for stimulated Raman scattering. , 2016, , .		1
69	Frequency-Swept Asynchronous-Optical-Sampling Terahertz Time-Domain Spectroscopy. , 2013, , .		1
70	Coherent anti-stokes Raman scattering microscopy for high speed non- staining biomolecular imaging. Current Pharmaceutical Biotechnology, 2013, 14, 150-8.	1.6	1
71	MULTICHANNEL Fr-IR SPECTROMETER WITH A 4096-ELEMENT INFRARED CCD. Analytical Sciences, 1991, 7, 575-576.	1.6	0
72	Coherent anti-stokes raman microscope for identification of cellular molecule. , 0, , .		0

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73	Coherent anti-Stokes Raman spectroscopy for nano-imaging with a metallic near-field probe. , 2004, 5516, 1.		0
74	Multi-focus CARS microscopy using automatic pulse duration control system. , 0, , .		0
75	SHG microscopy excited by polarization controlled beam for three-dimensional molecular orientation measurement. , 2006, 6290, 130.		0
76	A compact polarization converter to observe molecular orientation. , 2007, , .		0
77	Lipids distribution imaging of lipid vesicles by multi-focus excitation CARS microscope. Proceedings of SPIE, 2009, , .	0.8	0
78	Development of a strain visualization system for microstructures using single fluorescent molecule tracking on a three-dimensional orientation microscope. Proceedings of SPIE, 2011, , .	0.8	0
79	CARS Microscopy: Implementation of Nonlinear Vibrational Spectroscopy for Far-Field and Near-Field Imaging. Springer Series in Optical Sciences, 2012, , 317-346.	0.7	0
80	Fourth-order coherent Raman microspectroscopy for detection of material symmetry. Proceedings of SPIE, 2014, , .	0.8	0
81	Lock-in pixels readout circuit using a high speed lateral electric field modulator with differential charge accumulation for stimulated Raman scattering imager. , 2014, , .		0
82	C6-P-04Tri-modal imaging techniques Cathodoluminescence (CL) - Near Infrared (NIR) and Magnetic resonance imaging (MRI) with lanthanides doped Gd₂O₃. Microscopy (Oxford,) Tj ETQq0 0 0 rgBT /Overlock 1	1.5	0
83	C6-P-01Rare-earth doped Y₂O₃nano-phosphor probes for correlative cathodoluminescence and near-infrared optical bio-imaging. Microscopy (Oxford, England), 2015, 64, i140.2-i140.	1.5	0
84	Multimodal Imaging Probing Platform Based on Upconverting Rare-Earth Doped Gd2O3 Nanocrystals. Biophysical Journal, 2015, 108, 171a-172a.	0.5	0
85	Label free bioimaging using nonlinear coherent Raman microscopy. , 2015, , .		0
86	Capillary Electrophoresis System using Biological Reaction of Single Cell as a Sensor Probe. The Proceedings of the JSME Annual Meeting, 2000, 2000.2, 267-268.	0.0	0
87	Changes of autofluorescence in human dentine caused by caries. Proceedings of the JSME Bioengineering Conference and Seminar, 2000, 2000.11, 149-150.	0.0	0
88	Capillary electrophoresis system using a fluorescence labeled cell as a sensor probe. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2001, 2001.13, 20-21.	0.0	0
89	Resonance enhancement of coherent anti-Stokes Raman scattering microscopy. Proceedings of the JSME Bioengineering Conference and Seminar, 2002, 2002.13, 85-86.	0.0	0
90	Confocal Fluorescence Lifetime Imaging by Asynchronous Sampling. The Proceedings of Conference of Kansai Branch, 2003, 2003.78, _1-31_-_1-32_.	0.0	0

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91	Coherent anti-Stokes Raman scattering microscopy using near IR exitation and UV excitation. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2003, 2003.15, 137-138.	0.0	0
92	Development of Coherent Anti-Stokes Raman Scattering Microscopy. The Review of Laser Engineering, 2003, 31, 375-379.	0.0	0
93	Coherent anti-Stokes Raman scattering microscopy. The Review of Laser Engineering, 2006, 34, 256-257.	0.0	0
94	1203 Second harmonic generation imaging of organic molecule on metal by radial polarization excitation. The Proceedings of Conference of Kansai Branch, 2008, 2008.83, _12-3_.	0.0	0
95	602 Label-free, high-speed imaging with real-time CARS microscope. The Proceedings of Conference of Kansai Branch, 2008, 2008.83, _6-2_.	0.0	0
96	B201 Label-free and real-time CARS imaging of living cell reactions in laser-induced ablation. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2009, 2009.20, 93-94.	0.0	0
97	1F16 Histological assessment of atherosclerosis by nonlinear optical multimodal microscopy. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 175-176.	0.0	0
98	1G34 Histological assessment of the atherosclerosis by nonlinear optical multimodal microscopy II. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2015, 2015.27, 287-288.	0.0	0
99	PS2-14 OBSERVATION OF CELLULLAR RESPONSE TO OXYGEN TENSION USING MICROFLUIDIC DEVICES(PS2:) Tj ETQq1 1 0.784314 rgB Biomechanics Emerging Science and Technology in Biomechanics, 2015, 2015.8, 256.	0.0	0
100	1C35 Development of a microfluidic device for observation of oxygen-dependent cellular response. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2015, 2015.27, 123-124.	0.0	0
101	PS2-3 Label free imaging of atherosclerotic lesions using stimulated Raman scattering, second harmonic generation, and two-photon fluorescence microscopy(PS2: Poster Short Presentation) Tj ETQq1 1 0.784314 rgBT /Overlock 1 and Technology in Biomechanics, 2015, 2015.8, 244.	0.0	0
102	Discrete Fourier Transform Infrared Spectroscopy Using Precisely Periodic Pulse. , 2015, , .		0
103	10.1063/1.5031817.1. , 2018, , .		0
104	Near real-time nerve visualization using coherent Raman scattering rigid endoscope and deep learning-based image processing for nerve-sparing surgery. , 2022, , .		0