Katsumasa Fujita

List of Publications by Year
in descending order

152	5,433	87888 38	88630 70
papers	citations	h-index	g-index
157	157	157	6004
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Label-free Raman observation of cytochrome c dynamics during apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 28-32.	7.1	399
2	Alkyne-Tag Raman Imaging for Visualization of Mobile Small Molecules in Live Cells. Journal of the American Chemical Society, 2012, 134, 20681-20689.	13.7	370
3	Raman and SERS microscopy for molecular imaging of live cells. Nature Protocols, 2013, 8, 677-692.	12.0	304
4	Imaging of EdU, an Alkyne-Tagged Cell Proliferation Probe, by Raman Microscopy. Journal of the American Chemical Society, 2011, 133, 6102-6105.	13.7	302
5	Raman microscopy for dynamic molecular imaging of living cells. Journal of Biomedical Optics, 2008, 13, 1.	2.6	258
6	Dynamic SERS Imaging of Cellular Transport Pathways with Endocytosed Gold Nanoparticles. Nano Letters, 2011, 11, 5344-5348.	9.1	216
7	High-Resolution Confocal Microscopy by Saturated Excitation of Fluorescence. Physical Review Letters, 2007, 99, 228105.	7.8	197
8	Molecular imaging of live cells by Raman microscopy. Current Opinion in Chemical Biology, 2013, 17, 708-715.	6.1	170
9	Sphingomyelin distribution in lipid rafts of artificial monolayer membranes visualized by Raman microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4558-4563.	7.1	113
10	High-Speed and Scalable Whole-Brain Imaging in Rodents and Primates. Neuron, 2017, 94, 1085-1100.e6.	8.1	108
11	Introduction to super-resolution microscopy. Microscopy (Oxford, England), 2014, 63, 177-192.	1.5	93
12	Structured line illumination Raman microscopy. Nature Communications, 2015, 6, 10095.	12.8	90
13	Generation of calcium waves in living cells by pulsed-laser-induced photodisruption. Applied Physics Letters, 2001, 79, 1208-1210.	3.3	88
14	Second-harmonic-generation microscope with a microlens array scanner. Optics Letters, 2002, 27, 1324.	3.3	88
15	Label-free biochemical imaging of heart tissue with high-speed spontaneous Raman microscopy. Biochemical and Biophysical Research Communications, 2009, 382, 370-374.	2.1	87
16	Measurement of a Saturated Emission of Optical Radiation from Gold Nanoparticles: Application to an Ultrahigh Resolution Microscope. Physical Review Letters, 2014, 112, 017402.	7.8	87
17	Visualizing Cell State Transition Using Raman Spectroscopy. PLoS ONE, 2014, 9, e84478.	2.5	85
18	Improving spinning disk confocal microscopy by preventing pinhole cross-talk for intravital imaging. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3399-3404.	7.1	80

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19	Alkyne-Tag SERS Screening and Identification of Small-Molecule-Binding Sites in Protein. Journal of the American Chemical Society, 2016, 138, 13901-13910.	13.7	76
20	Time-resolved observation of surface-enhanced Raman scattering from gold nanoparticles during transport through a living cell. Journal of Biomedical Optics, 2009, 14, 024038.	2.6	74
21	Nanoscale heating of laser irradiated single gold nanoparticles in liquid. Optics Express, 2011, 19, 12375.	3.4	72
22	A fast- and positively photoswitchable fluorescent protein for ultralow-laser-power RESOLFT nanoscopy. Nature Methods, 2015, 12, 515-518.	19.0	67
23	Multiphoton excitationâ€"evoked chromophore-assisted laser inactivation using green fluorescent protein. Nature Methods, 2005, 2, 503-505.	19.0	66
24	Non-label immune cell state prediction using Raman spectroscopy. Scientific Reports, 2016, 6, 37562.	3.3	63
25	Quantitative Evaluation of Surface-Enhanced Raman Scattering Nanoparticles for Intracellular pH Sensing at a Single Particle Level. Analytical Chemistry, 2019, 91, 3254-3262.	6.5	57
26	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
27	Saturation and Reverse Saturation of Scattering in a Single Plasmonic Nanoparticle. ACS Photonics, 2014, 1, 32-37.	6.6	52
28	A sensitive and specific Raman probe based on bisarylbutadiyne for live cell imaging of mitochondria. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 664-667.	2.2	48
29	Optical trapping and surgery of living yeast cells using a single laser. Review of Scientific Instruments, 2008, 79, 103705.	1.3	47
30	The molecular chaperone Hsp47 is essential for cartilage and endochondral bone formation. Journal of Cell Science, 2012, 125, 1118-1128.	2.0	46
31	Metal nanoparticles for nano-imaging and nano-analysis. Physical Chemistry Chemical Physics, 2013, 15, 13713.	2.8	45
32	Simultaneous imaging of protonated and deprotonated carbonylcyanide p-trifluoromethoxyphenylhydrazone in live cells by Raman microscopy. Chemical Communications, 2014, 50, 1341-1343.	4.1	45
33	Ultrasmall all-optical plasmonic switch and its application to superresolution imaging. Scientific Reports, 2016, 6, 24293.	3.3	45
34	High-speed Raman imaging of cellular processes. Current Opinion in Chemical Biology, 2016, 33, 16-24.	6.1	45
35	Confocal multipoint multiphoton excitation microscope with microlens and pinhole arrays. Optics Communications, 2000, 174, 7-12.	2.1	44
36	Time-lapse Raman imaging of osteoblast differentiation. Scientific Reports, 2015, 5, 12529.	3.3	44

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37	Giant photothermal nonlinearity in a single silicon nanostructure. Nature Communications, 2020, 11, 4101.	12.8	42
38	Two-Photon Excited Fluorescence and Second-Harmonic Generation of the DAST Organic Nanocrystals. Journal of Physical Chemistry C, 2011, 115, 8988-8993.	3.1	40
39	3D SERS (surface enhanced Raman scattering) imaging of intracellular pathways. Methods, 2014, 68, 348-353.	3.8	39
40	Quantitative Drug Dynamics Visualized by Alkyne-Tagged Plasmonic-Enhanced Raman Microscopy. ACS Nano, 2020, 14, 15032-15041.	14.6	39
41	Location-Dependent Photogeneration of Calcium Waves in HeLa Cells. Cell Biochemistry and Biophysics, 2006, 45, 167-176.	1.8	36
42	Three-dimensional subsurface microprocessing of collagen by ultrashort laser pulses. Applied Physics Letters, 2001, 78, 999-1001.	3.3	35
43	Beyond the diffraction-limit biological imaging by saturated excitation microscopy. Journal of Biomedical Optics, 2008, 13, 050507.	2.6	34
44	Photogeneration of membrane potential hyperpolarization and depolarization in non-excitable cells. European Biophysics Journal, 2009, 38, 255-262.	2.2	33
45	Super-Spatial- and -Spectral-Resolution in Vibrational Imaging via Saturated Coherent Anti-Stokes Raman Scattering. Physical Review Applied, 2015, 4, .	3.8	33
46	Using redox-sensitive mitochondrial cytochrome Raman bands for label-free detection of mitochondrial dysfunction. Analyst, The, 2019, 144, 2531-2540.	3.5	33
47	SAX microscopy with fluorescent nanodiamond probes for high-resolution fluorescence imaging. Biomedical Optics Express, 2011, 2, 1946.	2.9	30
48	Label-free molecular imaging of living cells. Molecules and Cells, 2008, 26, 530-5.	2.6	30
49	Deep-UV biological imaging by lanthanide ion molecular protection. Biomedical Optics Express, 2016, 7, 158.	2.9	29
50	Nonlinear plasmonic imaging techniques and their biological applications. Nanophotonics, 2017, 6, 31-49.	6.0	27
51	Study of Nonlinear Plasmonic Scattering in Metallic Nanoparticles. ACS Photonics, 2016, 3, 1432-1439.	6.6	25
52	High-resolution imaging in two-photon excitation microscopy using in situ estimations of the point spread function. Biomedical Optics Express, 2018, 9, 202.	2.9	25
53	High-Resolution Raman Microscopic Detection of Follicular Thyroid Cancer Cells with Unsupervised Machine Learning. Journal of Physical Chemistry B, 2019, 123, 4358-4372.	2.6	25
54	Comparison of Staining Selectivity for Subcellular Structures by Carbazoleâ€Based Cyanine Probes in Nonlinear Optical Microscopy. ChemBioChem, 2011, 12, 52-55.	2.6	24

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55	Surface Plasmon Localization-Based Super-resolved Raman Microscopy. Nano Letters, 2020, 20, 8951-8958.	9.1	24
56	An enzyme-responsive metal-enhanced near-infrared fluorescence sensor based on functionalized gold nanoparticles. Chemical Science, 2015, 6, 4934-4939.	7.4	23
57	Au-Protected Ag Core/Satellite Nanoassemblies for Excellent Extra-/Intracellular Surface-Enhanced Raman Scattering Activity. ACS Applied Materials & Interfaces, 2017, 9, 44027-44037.	8.0	23
58	Saturated excitation microscopy for sub-diffraction-limited imaging of cell clusters. Journal of Biomedical Optics, 2013, 18, 1.	2.6	22
59	Analysis of dynamic SERS spectra measured with a nanoparticle during intracellular transportation in 3D. Journal of Optics (United Kingdom), 2015, 17, 114023.	2.2	22
60	Saturated two-photon excitation fluorescence microscopy with core-ring illumination. Optics Letters, 2017, 42, 571.	3.3	22
61	In situ visualization of the intracellular Ca2+ dynamics at the border of the acute myocardial infarct. Molecular and Cellular Biochemistry, 2003, 248, 135-139.	3.1	21
62	Multimodal label-free microscopy. Journal of Innovative Optical Health Sciences, 2014, 07, 1330009.	1.0	21
63	Visible-wavelength two-photon excitation microscopy for fluorescent protein imaging. Journal of Biomedical Optics, 2015, 20, 1.	2.6	21
64	Dendrimer adjusted nanocrystals of DAST: organic crystal with enhanced nonlinear optical properties. Nanoscale, 2010, 2, 913.	5.6	20
65	Visualizing the appearance and disappearance of the attractor of differentiation using Raman spectral imaging. Scientific Reports, 2015, 5, 11358.	3.3	19
66	Featureâ€based recognition of Surfaceâ€enhanced Raman spectra for biological targets. Journal of Biophotonics, 2013, 6, 587-597.	2.3	18
67	Raman spectroscopic histology using machine learning for nonalcoholic fatty liver disease. FEBS Letters, 2019, 593, 2535-2544.	2.8	18
68	High-Throughput Cell Imaging and Classification by Narrowband and Low-Spectral-Resolution Raman Microscopy. Journal of Physical Chemistry B, 2019, 123, 2654-2661.	2.6	18
69	Point spread function analysis with saturable and reverse saturable scattering. Optics Express, 2014, 22, 26016.	3.4	17
70	Laser-targeted photofabrication of gold nanoparticles inside cells. Nature Communications, 2014, 5, 5144.	12.8	17
71	Label-free Raman imaging of the macrophage response to the malaria pigment hemozoin. Analyst, The, 2015, 140, 2350-2359.	3.5	17
72	Saturated excitation microscopy using differential excitation for efficient detection of nonlinear fluorescence signals. APL Photonics, 2018, 3, .	5.7	17

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73	Determination of the Expanded Optical Transfer Function in Saturated Excitation Imaging and High Harmonic Demodulation. Applied Physics Express, 2011, 4, 042401.	2.4	16
74	Dualâ€polarization Raman spectral imaging to extract overlapping molecular fingerprints of living cells. Journal of Biophotonics, 2015, 8, 546-554.	2.3	16
75	Multiphoton-Excited Deep-Ultraviolet Photolithography for 3D Nanofabrication. ACS Applied Nano Materials, 2020, 3, 11434-11441.	5.0	16
76	Real-Time Two-Photon Microscopy and Its Application for In Situ Imaging.. Acta Histochemica Et Cytochemica, 2001, 34, 399-403.	1.6	15
77	Super-resolved Raman microscopy using random structured light illumination: Concept and feasibility. Journal of Chemical Physics, 2021, 155, 144202.	3.0	15
78	On fluorescence blinking of single molecules in polymers. Chemical Physics Letters, 2009, 468, 234-238.	2.6	14
79	Dynamic pH measurements of intracellular pathways using nano-plasmonic assemblies. Analyst, The, 2020, 145, 5768-5775.	3.5	14
80	Temporal coherence behavior of a semiconductor laser under strong optical feedback. Optics Communications, 1999, 161, 123-131.	2.1	13
81	<i>In situ</i> Raman imaging of osteoblastic mineralization. Journal of Raman Spectroscopy, 2014, 45, 157-161.	2.5	13
82	Protein expression guided chemical profiling of living cells by the simultaneous observation of Raman scattering and anti-Stokes fluorescence emission. Scientific Reports, 2017, 7, 43569.	3.3	13
83	Multiwell Raman plate reader for high-throughput biochemical screening. Scientific Reports, 2021, 11, 15742.	3.3	13
84	Mie-enhanced photothermal/thermo-optical nonlinearity and applications on all-optical switch and super-resolution imaging [Invited]. Optical Materials Express, 2021, 11, 3608.	3.0	13
85	Wavefrontâ€sensorless adaptive optics with a laserâ€free spinning disk confocal microscope. Journal of Microscopy, 2022, 288, 106-116.	1.8	12
86	Saturated Excitation Microscopy with Optimized Excitation Modulation. ChemPhysChem, 2014, 15, 743-749.	2.1	11
87	Direct visualization of an antidepressant analog using surface-enhanced Raman scattering in the brain. JCI Insight, 2020, 5, .	5.0	11
88	Bessel-beam illumination Raman microscopy. Biomedical Optics Express, 2022, 13, 3161.	2.9	11
89	Saturated excitation of fluorescent proteins for subdiffraction-limited imaging of living cells in three dimensions. Interface Focus, 2013, 3, 20130007.	3.0	10
90	Nonlinear fluorescence imaging by photoinduced charge separation. Japanese Journal of Applied Physics, 2015, 54, 042403.	1.5	10

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91	Resolution enhancement in deep-tissue nanoparticle imaging based on plasmonic saturated excitation microscopy. APL Photonics, 2018, 3, 031301.	5.7	10
92	Spectral focusing in picosecond pulsed stimulated Raman scattering microscopy. Biomedical Optics Express, 2022, 13, 995.	2.9	9
93	Label-Free Monitoring of Drug-Induced Cytotoxicity and Its Molecular Fingerprint by Live-Cell Raman and Autofluorescence Imaging. Analytical Chemistry, 2022, 94, 10019-10026.	6.5	9
94	Cell type discrimination based on image features of molecular component distribution. Scientific Reports, 2018, 8, 11726.	3.3	8
95	Nonlinear Scattering of Near-Infrared Light for Imaging Plasmonic Nanoparticles in Deep Tissue. ACS Photonics, 2020, 7, 2139-2146.	6.6	8
96	Double-Pass Confocal Absorption Microscope with a Phase Conjugation Mirror. Japanese Journal of Applied Physics, 1996, 35, L852-L853.	1.5	7
97	Adaptive printing using VO2 optical antennas with subwavelength resolution. Applied Physics Letters, 2019, 115, 161105.	3.3	7
98	Photoinitiatorâ€Free Twoâ€Photon Polymerization of Biocompatible Materials for 3D Micro/Nanofabrication. Advanced Optical Materials, 2022, 10, .	7.3	7
99	Single-pulse cell stimulation with a near-infrared picosecond laser. Applied Physics Letters, 2005, 87, 243901.	3.3	6
100	Follow-up review: recent progress in the development of super-resolution optical microscopy. Microscopy (Oxford, England), 2016, 65, 275-281.	1.5	6
101	Hot Carrier Generation in Two-Dimensional Silver Nanoparticle Arrays at Different Excitation Wavelengths under On-Resonant Conditions. Journal of Physical Chemistry C, 2020, 124, 13936-13941.	3.1	6
102	Detecting nitrile-containing small molecules by infrared photothermal microscopy. Analyst, The, 2021, 146, 2307-2312.	3.5	6
103	Hyperspectral two-photon excitation microscopy using visible wavelength. Optics Letters, 2021, 46, 37.	3.3	6
104	Time-gated imaging for multifocus second-harmonic generation microscopy. Review of Scientific Instruments, 2005, 76, 073704.	1.3	5
105	Visible-wavelength two-photon excitation microscopy with multifocus scanning for volumetric live-cell imaging. Journal of Biomedical Optics, 2019, 25, 1.	2.6	5
106	Metallic nanoparticles as SERS agents for biomolecular imaging. Current Pharmaceutical Biotechnology, 2013, 14, 141-9.	1.6	5
107	Label-free monitoring of crystalline chitin hydrolysis by chitinase based on Raman spectroscopy. Analyst, The, 2021, 146, 4087-4094.	3.5	4
108	Visible-Wavelength Multiphoton Activation Confocal Microscopy. ACS Photonics, 2021, 8, 2666-2673.	6.6	3

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109	Super-Resolution Imaging in Raman Microscopy. Biological and Medical Physics Series, 2019, , 195-211.	0.4	3
110	1N1312 Time-resolved Raman imaging of malarial hemozoin(Bioimaging 1,The 49th Annual Meeting of the) Tj ETQq0 0 0 rgBT /Overlock	0.1	2
111	Measurement of Scattering Nonlinearities from a Single Plasmonic Nanoparticle. Journal of Visualized Experiments, 2016, , .	0.3	2
112	Dynamic Ramanâ ˆ•SERS Imaging of Living Cells by Slit-Scanning Microscopy. AIP Conference Proceedings, 2010, , .	0.4	1
113	Raman microscopy: Chemical and analytical imaging of biomolecules. , 2015, , .		1
114	For Microscopy special feature on â€˜super resolution microscopyâ€™. Microscopy (Oxford, England), 2015, 64, 225-225.	1.5	1
115	Raman Microscopy. , 2018, , .		1
116	Laser Feedback Microscopy Controlling the Laser Oscillation of Semiconductor Laser by Reentered Light.. The Review of Laser Engineering, 1996, 24, 1084-1090.	0.0	1
117	Recent Developments in Super Resolution Fluorescence Microscopy. Seibutsu Butsuri, 2010, 50, 174-179.	0.1	1
118	Multiline illumination Raman microscopy for rapid cell imaging. , 2020, , .		1
119	Saturated-excitation image scanning microscopy. Optics Express, 2022, 30, 13825.	3.4	1
120	3P304 Surface enhanced Raman spectroscopy of living cells with gold nanoparticles(Bioimaging. The) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
121	Focus on Microscopy 2008. Imaging & Microscopy, 2007, 9, 16-16.	0.1	0
122	1P-335 An optical pacemaker for heart muscle cells(The 46th Annual Meeting of the Biophysical Society) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	0
123	1P-340 An optical pacemaker for heart muscle cells : the laser irradiation power, phase, frequency dependencies(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S74-S75.	0.1	0
124	2P-325 Formation of gold nanoparticles in living cells by reduction of gold ion solution(The 46th) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1	0.1	0
125	Metallic Nanoparticles for Enhanced Raman Imaging of Living Cells. The Review of Laser Engineering, 2010, 38, 427-432.	0.0	0
126	Optical control of cell functions: Using laser light to remote control signalling, contraction and action potentials in living cells. , 2011, , .		0

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127	Slit-scanning confocal Raman microscopy: Practical applications in live cell imaging. , 2011, , .		0
128	3PS037 Ranian microscopy distinguishes the status of differentiating cell(The 50th Annual Meeting of) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.1	0
129	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
130	Imaging Small Molecules in Living Cells with a Tiny Tag and Raman Microscopy. Seibutsu Butsuri, 2012, 52, 034-035.	0.1	0
131	Surface enhanced Raman scattering (SERS) imaging of intracellular transportation in 3D. , 2013, , .		0
132	Saturable scattering and its application to superresolution microscopy. , 2013, , .		0
133	High-resolution Raman microscopy for molecular imaging of cells. , 2015, , .		0
134	Special Section Guest Editorial:Protein Photonics for Imaging, Sensing, and Manipulation: Honoring Prof. Osamu Shimomura, a Pioneer of Photonics for Biomedical Research. Journal of Biomedical Optics, 2015, 20, 101201.	2.6	0
135	Visible-wavelength two-photon excitation microscopy. , 2015, , .		0
136	Raman spectroscopic detection of bio-active small molecules using alkyne tag. , 2015, , .		0
137	Superresolution imaging based on nonlinearities of plasmonic scattering. , 2015, , .		0
138	Surface-enhanced Raman scattering (SERS) imaging of alkyne-tagged small molecule drug in live cells with endocytosed gold nanoparticles. Proceedings of SPIE, 2017, , .	0.8	0
139	Improvement of spatial and spectral resolution in Raman microscopy. Proceedings of SPIE, 2017, , .	0.8	0
140	Micro-Raman Spectroscopy. , 2018, , 375-379.		0
141	Visualizing Bioactive Small Molecules by Alkyne Tagging and Slit-Scanning Raman Microscopy. Methods in Molecular Biology, 2019, 1888, 99-114.	0.9	0
142	Using saturated absorption for superâ€resolution laser scanning transmission microscopy. Journal of Microscopy, 2021, , .	1.8	0
143	Realtime Nonlinear-Optical Microscopy for Observing Biological Cells. The Review of Laser Engineering, 2003, 31, 370-374.	0.0	0
144	New Development in Nonlinear Optical Microscopy. The Review of Laser Engineering, 2006, 34, 818-821.	0.0	0

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145	High-Resolution Fluorescence Imaging by Saturated Excitation (SAX): Its Principle and Imaging Properties in Biology. The Review of Laser Engineering, 2013, 41, 113.	0.0	0
146	Structured Illumination Raman Microscopy for High-Resolution Label-Free Imaging. The Review of Laser Engineering, 2016, 44, 648.	0.0	0
147	High-throughput discrimination of cancerous and noncancerous human cell lines by high-speed spontaneous Raman microscopy. , 2020, , .		0
148	Plasmon-enhanced Raman microscopy of cell membrane molecules. , 2021, , .		0
149	High-Throughput Screening Using Raman Spectroscopy With Multi-Focal Spots. , 2020, , .		0
150	High-Speed and High-Resolution Raman Imaging of Biological Molecule Using Line Illumination. , 2021, , .		0
151	Spontaneous Raman and SERS microscopy for Raman tag imaging. , 2022, , 275-287.		0
152	Stimulated Raman scattering microscopy with spectral focusing of 2-ps laser pulses for higher spectral resolution and signal-to-background ratio. , 2022, , .		0