

Katsuhiko Ajito

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81
papers

2,473
citations

30
h-index

47
g-index

92
ext. papers

2,902
ext. citations

3.8
avg, IF

4.81
L-index

#	Paper	IF	Citations
81	Observation of a small number of molecules at a metal nanogap arrayed on a solid surface using surface-enhanced Raman scattering. <i>Journal of the American Chemical Society</i> , 2007 , 129, 1658-62	16.4	181
80	24 Gbit/s data transmission in 300 GHz band for future terahertz communications. <i>Electronics Letters</i> , 2012 , 48, 953	1.1	129
79	50-Gb/s Direct Conversion QPSK Modulator and Demodulator MMICs for Terahertz Communications at 300 GHz. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2014 , 62, 600-609	4.1	108
78	Study of the Photochromic Properties of Amorphous MoO ₃ Films Using Raman Microscopy. <i>The Journal of Physical Chemistry</i> , 1995 , 99, 16383-16388		108
77	THz Chemical Imaging for Biological Applications. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2011 , 1, 293-300	3.4	103
76	Uni-Travelling-Carrier Photodiode Module Generating 300 GHz Power Greater Than 1 mW. <i>IEEE Microwave and Wireless Components Letters</i> , 2012 , 22, 363-365	2.6	102
75	Quantitative measurements of amino acids by terahertz time-domain transmission spectroscopy. <i>Analytical Chemistry</i> , 2006 , 78, 5424-8	7.8	98
74	300-GHz Step-Profiled Corrugated Horn Antennas Integrated in LTCC. <i>IEEE Transactions on Antennas and Propagation</i> , 2014 , 62, 5437-5444	4.9	84
73	A self-assembled nano optical switch and transistor based on a rigid conjugated polymer, thioacetyl-end-functionalized poly(para-phenylene ethynylene). <i>Journal of the American Chemical Society</i> , 2005 , 127, 2804-5	16.4	75
72	. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013 , 3, 445-452	3.4	62
71	8 Gbit/s wireless data transmission at 250 GHz. <i>Electronics Letters</i> , 2009 , 45, 1121	1.1	62
70	Analytical terahertz spectroscopy. <i>Analytical Sciences</i> , 2008 , 24, 185-92	1.7	58
69	Terahertz-wave generation from quasi-phase-matched GaP for 1.55 μ m pumping. <i>Applied Physics Letters</i> , 2006 , 88, 071118	3.4	58
68	Broadband dielectric spectroscopy of glucose aqueous solution: Analysis of the hydration state and the hydrogen bond network. <i>Journal of Chemical Physics</i> , 2015 , 142, 234504	3.9	54
67	Angle-dependent terahertz time-domain spectroscopy of amino acid single crystals. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 21259-63	3.4	54
66	Characterization of dye-doped TiO ₂ films prepared by spray-pyrolysis. <i>Applied Surface Science</i> , 1997 , 113-114, 426-431	6.7	51
65	Terahertz wireless communication link at 300 GHz 2010 ,		50

64	Chemical mapping of pharmaceutical cocrystals using terahertz spectroscopic imaging. <i>Analytical Chemistry</i> , 2013 , 85, 1980-4	7.8	49
63	Laser trapping and Raman spectroscopy of single cellular organelles in the nanometer range. <i>Lab on A Chip</i> , 2002 , 2, 11-4	7.2	46
62	Surface-Enhanced Raman Scattering Imaging of Photopatterned Self-Assembled Monolayers. <i>Langmuir</i> , 1996 , 12, 5525-5527	4	45
61	Characterization of the hydrogen-bond network of water around sucrose and trehalose: Microwave and terahertz spectroscopic study. <i>Journal of Chemical Physics</i> , 2017 , 146, 105102	3.9	42
60	Phase-Sensitive Terahertz Self-Heterodyne System Based on Photodiode and Low-Temperature-Grown GaAs Photoconductor at 1.55 μm . <i>IEEE Sensors Journal</i> , 2013 , 13, 31-36	4	39
59	Selective chemisorption of end-functionalized conjugated polymer on macro- and nanoscale surfaces. <i>Langmuir</i> , 2005 , 21, 511-5	4	38
58	Detection of glutamate in optically trapped single nerve terminals by Raman spectroscopy. <i>Analytical Chemistry</i> , 2004 , 76, 2506-10	7.8	37
57	Self-assembled rigid conjugated polymer nanojunction and its nonlinear current-voltage characteristics at room temperature. <i>Applied Physics Letters</i> , 2004 , 85, 115-117	3.4	35
56	Microscopic Observation of TiO ₂ Photocatalysis Using Scanning Electrochemical Microscopy. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 3213-3217	3.4	34
55	Combined Near-Infrared Raman Microprobe and Laser Trapping System: Application to the Analysis of a Single Organic Microdroplet in Water. <i>Applied Spectroscopy</i> , 1998 , 52, 339-342	3.1	33
54	Two-Dimensional Surface-Enhanced Raman Imaging of a Roughened Silver Electrode Surface with Adsorbed Pyridine and Comparison with AFM Images. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 7293-7297	3.1	31
53	Near-infrared Raman spectroscopy of single particles. <i>TrAC - Trends in Analytical Chemistry</i> , 2001 , 20, 255-262	14.6	30
52	Investigation of the molecular extraction process in single subpicoliter droplets using a near-infrared laser Raman trapping system. <i>Analytical Chemistry</i> , 2000 , 72, 4721-5	7.8	25
51	Strain imaging analysis of Si using Raman microscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 1234-1238	2.9	25
50	Self-Heterodyne Spectrometer Using Uni-Travelling-Carrier Photodiodes for Terahertz-Wave Generators and Optoelectronic Mixers. <i>Journal of Lightwave Technology</i> , 2014 , 32, 3683-3689	4	24
49	Vibrational frequency shift induced by protonation on pyridine studied by ab initio molecular orbital calculation. <i>Chemical Physics Letters</i> , 1989 , 158, 193-198	2.5	23
48	Quantitative analysis of amino acids in dietary supplements using terahertz time-domain spectroscopy. <i>Analytical Sciences</i> , 2011 , 27, 351	1.7	20
47	Carrier injection from gold electrodes into thioacetyl-end-functionalized poly(para-phenyleneethynylene)s. <i>Physical Review B</i> , 2004 , 69,	3.3	19

46	Terahertz Spectroscopic Imaging of Polymorphic Forms in Pharmaceutical Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2011 , 538, 33-38	0.5	18
45	Terahertz time-domain spectra of aromatic carboxylic acids incorporated in nano-sized pores of mesoporous silicate. <i>Analytical Sciences</i> , 2007 , 23, 803-7	1.7	18
44	CW-THz vector spectroscopy and imaging system based on 1.55- μ m fiber-optics. <i>Optics Express</i> , 2014 , 22, 1735-41	3.3	17
43	Millimeter- and THz-wave photonics towards 100-Gbit/s wireless transmission 2010 ,		16
42	Continuous-Wave THz Homodyne Spectroscopy and Imaging System With Electro-Optical Phase Modulation for High Dynamic Range. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013 , 3, 158-164	3.4	15
41	Control of near-infrared optical response of metal nano-structured film on glass substrate for intense Raman scattering. <i>Faraday Discussions</i> , 2006 , 132, 179-90; discussion 227-47	3.6	15
40	Terahertz notch filter using intermolecular hydrogen bonds in a sucrose crystal. <i>Optics Express</i> , 2006 , 14, 5765-72	3.3	15
39	Continuous-wave Terahertz Spectroscopy System Based on Photodiodes. <i>Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium</i> , 2010 , 6, 390-394		15
38	Nondestructive Multicomponent Terahertz Chemical Imaging of Medicine in Tablets. <i>Journal of the Electrochemical Society</i> , 2014 , 161, B171-B175	3.9	14
37	Tomographic Imaging Using Photonically Generated Low-Coherence Terahertz Noise Sources. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2012 , 2, 485-492	3.4	14
36	Multi-gigabit wireless data transmission at over 200-GHz 2009 ,		14
35	Combined Raman and photoelectrochemical imaging system. Application to TiO ₂ films grown anodically on Ti/Ag alloy. <i>Journal of Electroanalytical Chemistry</i> , 1995 , 386, 229-233	4.1	14
34	Compact and stable THz vector spectroscopy using silicon photonics technology. <i>Optics Express</i> , 2014 , 22, 7178-85	3.3	13
33	A 325 GHz Quadrature Voltage Controlled Oscillator With Superharmonic-Coupling. <i>IEEE Microwave and Wireless Components Letters</i> , 2013 , 23, 430-432	2.6	13
32	Thin semiconductor films: photoeffects and new applications. <i>Electrochimica Acta</i> , 1994 , 39, 1229-1236	6.7	13
31	Quantitative Mapping of Pharmaceutical Cocrystals Within Cellulose by Terahertz Spectroscopy. <i>Journal of Lightwave Technology</i> , 2014 , 32, 3768-3773	4	12
30	Raman, hyper-Raman, hyper-Rayleigh, two-photon luminescence and morphology-dependent resonance modes in a single optical tweezers system. <i>Physical Review E</i> , 2005 , 72, 012903	2.4	12
29	Terahertz Time-domain Spectra of Inter- and Intramolecular Hydrogen Bonds of Fumaric and Maleic Acids. <i>Chemistry Letters</i> , 2006 , 35, 1128-1129	1.7	12

28	Coexistence of Kosmotropic and Chaotropic Impacts of Urea on Water As Revealed by Terahertz Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 1268-1277	3.4	11
27	Detecting a sodium chloride ion pair in ice using terahertz time-domain spectroscopy. <i>Analytical Sciences</i> , 2007 , 23, 917-20	1.7	11
26	Imaging and spectroscopic analysis of single microdroplets containing p-cresol using the near-infrared laser tweezers/Raman microprobe system. <i>Surface Science</i> , 1999 , 427-428, 141-146	1.8	11
25	Direct structural observation of liquid molecules in single picoliter microdroplets using near-infrared Raman microprobe spectroscopy combined with laser trapping and chemical-tomographic imaging techniques. <i>Thin Solid Films</i> , 1998 , 331, 181-188	2.2	10
24	10-Gbit/s close-proximity wireless system meeting the regulation for extremely low-power radio stations. <i>IEICE Electronics Express</i> , 2014 , 11, 20130989-20130989	0.5	9
23	Capturing the Freeze-Drying Dynamics of NaCl Nanoparticles Using THz Spectroscopy. <i>Journal of the American Chemical Society</i> , 2018 , 140, 13793-13797	16.4	9
22	Continuous-wave terahertz spectroscopic imaging at over 1 THz for pharmaceutical applications 2010 ,		8
21	Millimeter-wave imaging using photonics-based noise source 2009 ,		8
20	SERS and FT-IR studies of CO adsorbed on underpotential deposited Ag/Pt electrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1990 , 280, 415-423		8
19	InP HBT voltage controlled oscillator for 300-GHz-band wireless communications 2012 ,		5
18	Observation and Manipulation of Nanostructures Formed by Rigid Rodlike Polymers. <i>Japanese Journal of Applied Physics</i> , 2004 , 43, 4521-4524	1.4	5
17	Terahertz imaging using swept source optical-coherence-tomography techniques 2012 ,		4
16	Terahertz Chemical Imaging of Molecular Networks for Pharmaceutical Applications. <i>ECS Transactions</i> , 2011 , 35, 157-165	1	4
15	Terahertz Images of Biological Molecules: Frequency Dependence of Spatial Resolution Using a Tunable Terahertz Laser Source. <i>Japanese Journal of Applied Physics</i> , 2008 , 47, 1315-1320	1.4	4
14	Three-Dimensional Molecular Imaging of p-cresol in a Micro- Capillary Cell using Near-Infrared Raman Microprobe Chemical Tomography. <i>Molecular Crystals and Liquid Crystals</i> , 1998 , 314, 191-196		4
13	Analysis of power enhancement of terahertz waves in periodically inverted GaP pumped at 1.55 mm. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007 , 204, 1221-1226	1.6	3
12	Study of reactor-NO ₂ -gas diffusion in a porous glass chip by near-infrared Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2002 , 4, 2341-2345	3.6	3
11	Raman Spectroscopy of Pharmaceutical Cocrystals in Nanosized Pores of Mesoporous Silica. <i>Analytical Sciences</i> , 2017 , 33, 47-52	1.7	2

10	Continuous-wave coherent homodyne detection with balanced electro-optical phase modulation 2012,		2
9	Tomographic imaging using photonically generated low-coherence terahertz sources 2011,		2
8	Near-Infrared Raman Spectra of Azo Dye Produced by a Nitrogen-Dioxide-Gas-Selective Coloration Reaction in a Porous Glass Chip. <i>Applied Spectroscopy</i> , 2001 , 55, 1151-1154	3.1	2
7	Double-beam CW THz system with photonic phase modulator for sub-THz glucose hydration sensing 2016,		2
6	Self-heterodyne terahertz spectrometer based on photodiodes 2013,		1
5	Dynamic range criterion of THz spectrum for amino acids measurements. <i>Frontiers of Optoelectronics in China</i> , 2009 , 2, 239-243		1
4	A 3-Dimensional display and process software for THz spectrum. <i>Journal of Physics: Conference Series</i> , 2011 , 276, 012210	0.3	0
3	?????????????????. <i>Electrochemistry</i> , 2006 , 74, 506-511	1.2	
2	Nanometer-scale Raman Spectroscopy of Neurons. <i>Microscopy and Microanalysis</i> , 2003 , 9, 1062-1063	0.5	
1	Linear and non-linear microspectroscopy in an optical tweezers system 2005 , 5700, 28		