Katsuhiro Ajito

List of Publications by Year in Descending Order

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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	Coexistence of Kosmotropic and Chaotropic Impacts of Urea on Water As Revealed by Terahertz Spectroscopy. *Journal of Physical Chemistry B*, **2018**, 122, 1268-1277	3.4	11
80	Capturing the Freeze-Drying Dynamics of NaCl Nanoparticles Using THz Spectroscopy. *Journal of the American Chemical Society*, **2018**, 140, 13793-13797	16.4	9
79	Characterization of the hydrogen-bond network of water around sucrose and trehalose: Microwave and terahertz spectroscopic study. *Journal of Chemical Physics*, **2017**, 146, 105102	3.9	42
78	Raman Spectroscopy of Pharmaceutical Cocrystals in Nanosized Pores of Mesoporous Silica. *Analytical Sciences*, **2017**, 33, 47-52	1.7	2
77	Double-beam CW THz system with photonic phase modulator for sub-THz glucose hydration sensing **2016**,		2
76	Broadband dielectric spectroscopy of glucose aqueous solution: Analysis of the hydration state and the hydrogen bond network. *Journal of Chemical Physics*, **2015**, 142, 234504	3.9	54
75	Nondestructive Multicomponent Terahertz Chemical Imaging of Medicine in Tablets. *Journal of the Electrochemical Society*, **2014**, 161, B171-B175	3.9	14
74	300-GHz Step-Profiled Corrugated Horn Antennas Integrated in LTCC. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 5437-5444	4.9	84
73	50-Gb/s Direct Conversion QPSK Modulator and Demodulator MMICs for Terahertz Communications at 300 GHz. *IEEE Transactions on Microwave Theory and Techniques*, **2014**, 62, 600-609	4.1	108
72	10-Gbit/s close-proximity wireless system meeting the regulation for extremely low-power radio stations. *IEICE Electronics Express*, **2014**, 11, 20130989-20130989	0.5	9
71	CW-THz vector spectroscopy and imaging system based on 1.55-μm fiber-optics. *Optics Express*, **2014**, 22, 1735-41	3.3	17
70	Compact and stable THz vector spectroscopy using silicon photonics technology. *Optics Express*, **2014**, 22, 7178-85	3.3	13
69	Quantitative Mapping of Pharmaceutical Cocrystals Within Cellulose by Terahertz Spectroscopy. *Journal of Lightwave Technology*, **2014**, 32, 3768-3773	4	12
68	Self-Heterodyne Spectrometer Using Uni-Traveling-Carrier Photodiodes for Terahertz-Wave Generators and Optoelectronic Mixers. *Journal of Lightwave Technology*, **2014**, 32, 3683-3689	4	24
67	. *IEEE Transactions on Terahertz Science and Technology*, **2013**, 3, 445-452	3.4	62
66	Self-heterodyne terahertz spectrometer based on photodiodes **2013**,		1
65	Chemical mapping of pharmaceutical cocrystals using terahertz spectroscopic imaging. *Analytical Chemistry*, **2013**, 85, 1980-4	7.8	49

64	Continuous-Wave THz Homodyne Spectroscopy and Imaging System With Electro-Optical Phase Modulation for High Dynamic Range. *IEEE Transactions on Terahertz Science and Technology*, **2013**, 3, 158-164	3.4	15
63	A 325 GHz Quadrature Voltage Controlled Oscillator With Superharmonic-Coupling. *IEEE Microwave and Wireless Components Letters*, **2013**, 23, 430-432	2.6	13
62	Phase-Sensitive Terahertz Self-Heterodyne System Based on Photodiode and Low-Temperature-Grown GaAs Photoconductor at 1.55 $mu{rm m}$. *IEEE Sensors Journal*, **2013**, 13, 31-36	4	39
61	InP HBT voltage controlled oscillator for 300-GHz-band wireless communications **2012**,		5
60	Tomographic Imaging Using Photonically Generated Low-Coherence Terahertz Noise Sources. *IEEE Transactions on Terahertz Science and Technology*, **2012**, 2, 485-492	3.4	14
59	Terahertz imaging using swept source optical-coherence-tomography techniques **2012**,		4
58	Continuous-wave coherent homodyne detection with balanced electro-optical phase modulation **2012**,		2
57	Uni-Travelling-Carrier Photodiode Module Generating 300 GHz Power Greater Than 1 mW. *IEEE Microwave and Wireless Components Letters*, **2012**, 22, 363-365	2.6	102
56	24 Gbit/s data transmission in 300 GHz band for future terahertz communications. *Electronics Letters*, **2012**, 48, 953	1.1	129
55	Terahertz Spectroscopic Imaging of Polymorphic Forms in Pharmaceutical Crystals. *Molecular Crystals and Liquid Crystals*, **2011**, 538, 33-38	0.5	18
54	THz Chemical Imaging for Biological Applications. *IEEE Transactions on Terahertz Science and Technology*, **2011**, 1, 293-300	3.4	103
53	A 3-Dimensional display and process software for THz spectrum. *Journal of Physics: Conference Series*, **2011**, 276, 012210	0.3	0
52	Quantitative analysis of amino acids in dietary supplements using terahertz time-domain spectroscopy. *Analytical Sciences*, **2011**, 27, 351	1.7	20
51	Tomographic imaging using photonically generated low-coherence terahertz sources **2011**,		2
50	Terahertz Chemical Imaging of Molecular Networks for Pharmaceutical Applications. *ECS Transactions*, **2011**, 35, 157-165	1	4
49	Continuous-wave terahertz spectroscopic imaging at over 1 THz for pharmaceutical applications **2010**,		8
48	Millimeter- and THz-wave photonics towards 100-Gbit/s wireless transmission **2010**,		16
47	Terahertz wireless communication link at 300 GHz **2010**,		50

46	Continuous-wave Terahertz Spectroscopy System Based on Photodiodes. *Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium*, **2010**, 6, 390-394		15
45	Millimeter-wave imaging using photonics-based noise source **2009**,		8
44	Dynamic range criterion of THz spectrum for amino acids measurements. *Frontiers of Optoelectronics in China*, **2009**, 2, 239-243		1
43	8 Gbit/s wireless data transmission at 250 GHz. *Electronics Letters*, **2009**, 45, 1121	1.1	62
42	Multi-gigabit wireless data transmission at over 200-GHz **2009**,		14
41	Terahertz Images of Biological Molecules: Frequency Dependence of Spatial Resolution Using a Tunable Terahertz Laser Source. *Japanese Journal of Applied Physics*, **2008**, 47, 1315-1320	1.4	4
40	Analytical terahertz spectroscopy. *Analytical Sciences*, **2008**, 24, 185-92	1.7	58
39	Observation of a small number of molecules at a metal nanogap arrayed on a solid surface using surface-enhanced Raman scattering. *Journal of the American Chemical Society*, **2007**, 129, 1658-62	16.4	181
38	Analysis of power enhancement of terahertz waves in periodically inverted GaP pumped at 1.55 mm. *Physica Status Solidi (A) Applications and Materials Science*, **2007**, 204, 1221-1226	1.6	3
37	Detecting a sodium chloride ion pair in ice using terahertz time-domain spectroscopy. *Analytical Sciences*, **2007**, 23, 917-20	1.7	11
36	Terahertz time-domain spectra of aromatic carboxylic acids incorporated in nano-sized pores of mesoporous silicate. *Analytical Sciences*, **2007**, 23, 803-7	1.7	18
35	Quantitative measurements of amino acids by terahertz time-domain transmission spectroscopy. *Analytical Chemistry*, **2006**, 78, 5424-8	7.8	98
34	Control of near-infrared optical response of metal nano-structured film on glass substrate for intense Raman scattering. *Faraday Discussions*, **2006**, 132, 179-90; discussion 227-47	3.6	15
33	Terahertz-wave generation from quasi-phase-matched GaP for 1.55μm pumping. *Applied Physics Letters*, **2006**, 88, 071118	3.4	58
32	Angle-dependent terahertz time-domain spectroscopy of amino acid single crystals. *Journal of Physical Chemistry B*, **2006**, 110, 21259-63	3.4	54
31	Terahertz notch filter using intermolecular hydrogen bonds in a sucrose crystal. *Optics Express*, **2006**, 14, 5765-72	3.3	15
30	Terahertz Time-domain Spectra of Inter- and Intramolecular Hydrogen Bonds of Fumaric and Maleic Acids. *Chemistry Letters*, **2006**, 35, 1128-1129	1.7	12
29	????????????????. *Electrochemistry*, **2006**, 74, 506-511	1.2	

28	A self-assembled nano optical switch and transistor based on a rigid conjugated polymer, thioacetyl-end-functionalized poly(para-phenylene ethynylene). *Journal of the American Chemical Society*, **2005**, 127, 2804-5	16.4	75
27	Selective chemisorption of end-functionalized conjugated polymer on macro- and nanoscale surfaces. *Langmuir*, **2005**, 21, 511-5	4	38
26	Raman, hyper-Raman, hyper-Rayleigh, two-photon luminescence and morphology-dependent resonance modes in a single optical tweezers system. *Physical Review E*, **2005**, 72, 012903	2.4	12
25	Linear and non-linear microspectroscopy in an optical tweezers system **2005**, 5700, 28		
24	Observation and Manipulation of Nanostructures Formed by Rigid Rodlike Polymers. *Japanese Journal of Applied Physics*, **2004**, 43, 4521-4524	1.4	5
23	Carrier injection from gold electrodes into thioacetyl-end-functionalized poly(para-phenyleneethynylene)s. *Physical Review B*, **2004**, 69,	3.3	19
22	Self-assembled rigid conjugated polymer nanojunction and its nonlinear current□voltage characteristics at room temperature. *Applied Physics Letters*, **2004**, 85, 115-117	3.4	35
21	Detection of glutamate in optically trapped single nerve terminals by Raman spectroscopy. *Analytical Chemistry*, **2004**, 76, 2506-10	7.8	37
20	Nanometer-scale Raman Spectroscopy of Neurons. *Microscopy and Microanalysis*, **2003**, 9, 1062-1063	0.5	
19	Study of reactor-NO2-gas diffusion in a porous glass chip by near-infrared Raman spectroscopy. *Physical Chemistry Chemical Physics*, **2002**, 4, 2341-2345	3.6	3
18	Laser trapping and Raman spectroscopy of single cellular organelles in the nanometer range. *Lab on A Chip*, **2002**, 2, 11-4	7.2	46
17	Near-infrared Raman spectroscopy of single particles. *TrAC - Trends in Analytical Chemistry*, **2001**, 20, 255-262	14.6	30
16	Near-Infrared Raman Spectra of Azo Dye Produced by a Nitrogen-Dioxide-Gas-Selective Coloration Reaction in a Porous Glass Chip. *Applied Spectroscopy*, **2001**, 55, 1151-1154	3.1	2
15	Investigation of the molecular extraction process in single subpicoliter droplets using a near-infrared laser Raman trapping system. *Analytical Chemistry*, **2000**, 72, 4721-5	7.8	25
14	Imaging and spectroscopic analysis of single microdroplets containing p-cresol using the near-infrared laser tweezers/Raman microprobe system. *Surface Science*, **1999**, 427-428, 141-146	1.8	11
13	Microscopic Observation of TiO2Photocatalysis Using Scanning Electrochemical Microscopy. *Journal of Physical Chemistry B*, **1999**, 103, 3213-3217	3.4	34
12	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. *Thin Solid Films*, **1998**, 331, 181-188	2.2	10
11	Three-Dimensional Molecular Imaging of p□resol in a Micro- Capillary Cell using Near-Infrared Raman Microprobe Chemical Tomography. *Molecular Crystals and Liquid Crystals*, **1998**, 314, 191-196		4

10	Combined Near-Infrared Raman Microprobe and Laser Trapping System: Application to the Analysis of a Single Organic Microdroplet in Water. *Applied Spectroscopy*, **1998**, 52, 339-342	3.1	33
9	Characterization of dye-doped TiO2 films prepared by spray-pyrolysis. *Applied Surface Science*, **1997**, 113-114, 426-431	6.7	51
8	Two-Dimensional Surface-Enhanced Raman Imaging of a Roughened Silver Electrode Surface with Adsorbed Pyridine and Comparison with AFM Images. *The Journal of Physical Chemistry*, **1996**, 100, 7293-7297		31
7	Surface-Enhanced Raman Scattering Imaging of Photopatterned Self-Assembled Monolayers. *Langmuir*, **1996**, 12, 5525-5527	4	45
6	Combined Raman and photoelectrochemical imaging system. Application to TiO2 films grown anodically on Ti?Ag alloy. *Journal of Electroanalytical Chemistry*, **1995**, 386, 229-233	4.1	14
5	Strain imaging analysis of Si using Raman microscopy. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1995**, 13, 1234-1238	2.9	25
4	Study of the Photochromic Properties of Amorphous MoO3 Films Using Raman Microscopy. *The Journal of Physical Chemistry*, **1995**, 99, 16383-16388		108
3	Thin semiconductor films: photoeffects and new applications. *Electrochimica Acta*, **1994**, 39, 1229-1236	6.7	13
2	SERS and FT-IR studies of CO adsorbed on underpotential deposited Ag/Pt electrodes. *Journal of Electroanalytical Chemistry and Interfacial Electrochemistry*, **1990**, 280, 415-423		8
1	Vibrational frequency shift induced by protonation on pyridine studied by ab initio molecular orbital calculation. *Chemical Physics Letters*, **1989**, 158, 193-198	2.5	23