

# Toshiaki Hattori

## List of Publications by Year in descending order

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70  
papers

1,286  
citations

361413

20  
h-index

361022

35  
g-index

70  
all docs

70  
docs citations

70  
times ranked

902  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photonic dispersion relation in a one-dimensional quasicrystal. Physical Review B, 1994, 50, 4220-4223.	3.2	137
2	Analysis of optical nonlinearity by defect states in one-dimensional photonic crystals. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 348.	2.1	130
3	Femtosecond dephasing in a polydiacetylene film measured by degenerate four-wave mixing with an incoherent nanosecond laser. Chemical Physics Letters, 1987, 133, 230-234.	2.6	93
4	Ultrafast optical Kerr dynamics studied with incoherent light. Journal of Chemical Physics, 1991, 94, 3332-3346.	3.0	89
5	Intense Terahertz Pulses from Large-Aperture Antenna with Interdigitated Electrodes. Japanese Journal of Applied Physics, 2006, 45, L422-L424.	1.5	58
6	Time-Resolved Study of Intense Terahertz Pulses Generated by a Large-Aperture Photoconductive Antenna. Japanese Journal of Applied Physics, 2001, 40, 4907-4912.	1.5	56
7	Terahertz imaging system using high- $T_c$ superconducting oscillation devices. Journal of Applied Physics, 2012, 111, .	2.5	56
8	Simulation study on cascaded terahertz pulse generation in electro-optic crystals. Optics Express, 2007, 15, 8076.	3.4	55
9	Tunable terahertz emission from the intrinsic Josephson junctions in acute isosceles triangular $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ mesas. Optics Express, 2013, 21, 2171.	3.4	54
10	Quantum terahertz electronics (QTE) using coherent radiation from high temperature superconducting $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ intrinsic Josephson junctions. Physica C: Superconductivity and Its Applications, 2013, 491, 2-6.	1.2	36
11	Salt effects on the picosecond dynamics of lysozyme hydration water investigated by terahertz time-domain spectroscopy and an insight into the Hofmeister series for protein stability and solubility. Physical Chemistry Chemical Physics, 2016, 18, 15060-15069.	2.8	36
12	Terahertz wave detection performance of photoconductive antennas: Role of antenna structure and gate pulse intensity. Journal of Applied Physics, 2005, 97, 103103.	2.5	35
13	Linear propagation of light investigated with a white-light Michelson interferometer. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 1074.	2.1	29
14	Phase-sensitive high-speed THz imaging. Journal Physics D: Applied Physics, 2004, 37, 770-773.	2.8	26
15	Terahertz Oscillating Devices Based Upon the Intrinsic Josephson Junctions in a High Temperature Superconductor. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 131-146.	2.2	26
16	Effect of Bias Electrode Position on Terahertz Radiation From Pentagonal Mesas of Superconducting $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ . IEEE Transactions on Terahertz Science and Technology, 2015, 5, 505-511.	3.1	26
17	Gaussian Beam Analysis of Temporal Waveform of Focused Terahertz Pulses. Japanese Journal of Applied Physics, 2002, 41, 5198-5204.	1.5	24
18	Interferometric observation of femtosecond free induction decay. Optics Letters, 1994, 19, 1867.	3.3	22

#	ARTICLE	IF	CITATIONS
19	Study of coherent and continuous terahertz wave emission in equilateral triangular mesas of superconducting Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8</sub> + $\delta$ intrinsic Josephson junctions. <i>Physica C: Superconductivity and Its Applications</i> , 2013, 491, 16-19.	1.2	21
20	Measurement of dephasing time using incoherent light in the Kerr shutter configuration. <i>Optics Letters</i> , 1989, 14, 453.	3.3	20
21	Ring formation of focused half-cycle terahertz pulses. <i>Journal Physics D: Applied Physics</i> , 2003, 36, 229-235.	2.8	20
22	Modeling the electromagnetic cavity mode contributions to the THz emission from triangular Bi <sub>2</sub> Sr <sub>2</sub> CaCu <sub>2</sub> O <sub>8</sub> + $\delta$ mesas. <i>Physica C: Superconductivity and Its Applications</i> , 2013, 491, 30-34.	1.2	20
23	Deformation corrected real-time terahertz imaging. <i>Applied Physics Letters</i> , 2007, 90, 261106.	3.3	18
24	Observation of salt effects on hydration water of lysozyme in aqueous solution using terahertz time-domain spectroscopy. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	17
25	Accumulated photon echoes by using a nonlaser light source. <i>Optics Letters</i> , 1993, 18, 832.	3.3	16
26	Terahertz artificial material based on integrated metal-rod-array for phase sensitive fluid detection. <i>Optics Express</i> , 2017, 25, 8571.	3.4	16
27	Electric Field Imaging Using Intense Half-Cycle Terahertz Pulses. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 1771-1776.	1.5	13
28	THz emission from a triangular mesa structure of Bi-2212 intrinsic Josephson junctions. <i>Journal of Physics: Conference Series</i> , 2012, 400, 022014.	0.4	13
29	1-kHz Real-Time Imaging Using a Half-Cycle Terahertz Electromagnetic Pulse. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L288-L291.	1.5	12
30	Sharp resonances in terahertz free-standing three-dimensional metallic woven meshes. <i>Optics Express</i> , 2020, 28, 30174.	3.4	12
31	A white-light Michelson interferometer in the visible and near infrared regions. <i>Review of Scientific Instruments</i> , 1998, 69, 2854-2858.	1.3	11
32	Terahertz spectroscopic characterization of paper. , 2010, , .		11
33	Classical theory of two-dimensional time-domain terahertz spectroscopy. <i>Journal of Chemical Physics</i> , 2010, 133, 204503.	3.0	10
34	Observation of ultrashort pulse propagation anisotropy in a semiconductor quantum nanostructure optical waveguide by cross-correlation frequency resolved optical gating spectroscopy. <i>Journal of Applied Physics</i> , 2003, 94, 2616-2621.	2.5	9
35	Investigation of spectral properties and lateral confinement of THz waves on a metal-rod-array-based photonic crystal waveguide. <i>Optics Express</i> , 2018, 26, 15570.	3.4	8
36	160 Gb/s-Based Field Transmission Experiments Using Polarizer-Based PMD Compensator With Optical Power Monitor. <i>Journal of Lightwave Technology</i> , 2009, 27, 451-461.	4.6	7

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37	All-optically stabilized frequency comb. Applied Physics Express, 2015, 8, 122701.	2.4	6
38	Tuning transmission properties of 3D printed metal rod arrays by breaking the structural symmetry. Optics Express, 2021, 29, 538.	3.4	6
39	Improvement of Signal-to-Noise Ratio of Terahertz Electromagnetic Waves by Bias Field Modulation of Photoconductive Antenna. Japanese Journal of Applied Physics, 2006, 45, 8714-8716.	1.5	5
40	Geometry-dependent modal field properties of metal-rod-array-based terahertz waveguides. OSA Continuum, 2019, 2, 655.	1.8	5
41	Chirp Control of Free Carrier Injection in GaAs Using Femtosecond Optical Pulses. Japanese Journal of Applied Physics, 2005, 44, 6101-6104.	1.5	4
42	Hydration of Aqueous Polymers Investigated by Terahertz Spectroscopy and Principal Component Analysis. , 2018, , .		3
43	Terahertz Bragg Resonator Based on a Mechanical Assembly of Metal Grating and Metal Waveguide. Journal of Lightwave Technology, 2020, 38, 3701-3709.	4.6	3
44	Femtosecond accumulated photon echoes excited by an incandescent lamp. Optics Communications, 1996, 130, 104-108.	2.1	2
45	Observation of the waveform of accumulated photon echoes in a dye-doped polymer film by use of an interferometer. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 1768.	2.1	2
46	Femtosecond Interferometric Waveform Measurement of Photon Echoes Using a Collinear Geometry. Japanese Journal of Applied Physics, 2000, 39, 3429-3437.	1.5	2
47	Coherent control of inhomogeneously broadened system by area-regulated pulse sequence. Applied Physics Letters, 2004, 84, 2235-2237.	3.3	2
48	Synthesis of terahertz electromagnetic wave pulses using amplitude-and-phase masks. Chemical Physics, 2006, 326, 577-582.	1.9	2
49	Constructive and Destructive Two-Pulse Excitation Investigated with a White-Light Michelson Interferometer. Optical Review, 1998, 5, 263-266.	2.0	1
50	Spectroscopy and sensing of fluid using terahertz waves. , 2018, , .		1
51	Ultrafast Spectroscopy with a White-Light Michelson Interferometer.. The Review of Laser Engineering, 1995, 23, 954-960.	0.0	0
52	Cascading in THz Wave Generation by Optical Rectification. , 2006, , .		0
53	EO sampling methods for real-time THz imaging. , 2007, , .		0
54	Coherent synthesis of THz wave profiles. , 2007, , .		0

#	ARTICLE	IF	CITATIONS
55	T-ray profile synthesis using photoconductive emitter array. Proceedings of SPIE, 2007, , .	0.8	0
56	Real-time calibrated terahertz field profile imaging. , 2009, , .		0
57	Intense Terahertz Pulse Generation by Pulse Front Tilting. The Review of Laser Engineering, 2009, 37, 345-349.	0.0	0
58	Two-dimensional terahertz time-domain spectroscopy of classical oscillators. , 2011, , .		0
59	Terahertz spectroscopic study of ion effects on protein hydration. , 2015, , .		0
60	Terahertz plasmonic waveguides based on a microstructure of metal rod array. , 2015, , .		0
61	Terahertz volatile gas sensing and sensitivity analysis based on microporous polymer structures. , 2017, , .		0
62	In situ detection for chemical products based on a flexible terahertz pipe. , 2017, , .		0
63	Terahertz integrated waveguide sensor based on a metal rod array for phase sensitive fluid detection. , 2017, , .		0
64	Characterization of Terahertz Wave Propagation Dependent on Metal-Rod-Array Structures. , 2018, , .		0
65	Characterization of Terahertz Plasmonic Structures Based on Metallic Wire Woven Meshes. , 2018, , .		0
66	Investigation of metal-rod-array based hybrid plasmonic terahertz field. , 2018, , .		0
67	Investigation of THz tapered parallel plate waveguide integrated with a metal slit array. , 2019, , .		0
68	Autocorrelation Measurement of Femtosecond Optical Pulses Using Two-Photon-Induced Photocurrent in a Photomultiplier Tube. Springer Series in Chemical Physics, 2001, , 117-119.	0.2	0
69	Measurements of femtosecond relaxations in condensed phase using incoherent light.. The Review of Laser Engineering, 1987, 15, 923-929.	0.0	0
70	A. ãf-ãf¼ã, ¶ãf¼ç% ©ç¶ãf»çS'ã¼. The Review of Laser Engineering, 1998, 26, 3-7,12.	0.0	0