

# Hideki Hirori

## List of Publications by Year in descending order

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76  
papers

2,444  
citations

236925

25  
h-index

197818

49  
g-index

78  
all docs

78  
docs citations

78  
times ranked

2541  
citing authors

#	ARTICLE	IF	CITATIONS
1	Single-cycle terahertz pulses with amplitudes exceeding 1 MV/cm generated by optical rectification in LiNbO <sub>3</sub> . Applied Physics Letters, 2011, 98, .	3.3	711
2	Extraordinary carrier multiplication gated by a picosecond electric field pulse. Nature Communications, 2011, 2, 594.	12.8	182
3	Attenuated Total Reflection Spectroscopy in Time Domain Using Terahertz Coherent Pulses. Japanese Journal of Applied Physics, 2004, 43, L1287-L1289.	1.5	159
4	Real-time terahertz near-field microscope. Optics Express, 2011, 19, 8277.	3.4	126
5	THz Nonlinear Spectroscopy of Solids. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 301-312.	3.1	103
6	Excitonic interactions with intense terahertz pulses in ZnSe/ZnMgSSe multiple quantum wells. Physical Review B, 2010, 81, .	3.2	74
7	Nonlinear magnetization dynamics of antiferromagnetic spin resonance induced by intense terahertz magnetic field. New Journal of Physics, 2016, 18, 013045.	2.9	63
8	Exciton Localization of Single-Walled Carbon Nanotubes Revealed by Femtosecond Excitation Correlation Spectroscopy. Physical Review Letters, 2006, 97, 257401.	7.8	57
9	Subcycle Transient Scanning Tunneling Spectroscopy with Visualization of Enhanced Terahertz Near Field. ACS Photonics, 2019, 6, 1356-1364.	6.6	54
10	Radiative lifetimes and coherence lengths of one-dimensional excitons in single-walled carbon nanotubes. Physical Review B, 2009, 80, .	3.2	51
11	High-order harmonic generation from hybrid organic-inorganic perovskite thin films. APL Materials, 2019, 7, .	5.1	49
12	Terahertz Scanning Tunneling Microscopy for Visualizing Ultrafast Electron Motion in Nanoscale Potential Variations. ACS Photonics, 2021, 8, 315-323.	6.6	46
13	Antiferromagnetic resonance excitation by terahertz magnetic field resonantly enhanced with split ring resonator. Applied Physics Letters, 2014, 105, .	3.3	44
14	Near-field THz imaging of free induction decay from a tyrosine crystal. Optics Express, 2010, 18, 18419.	3.4	41
15	Destructive interference effect on surface plasmon resonance in terahertz attenuated total reflection. Optics Express, 2005, 13, 10801.	3.4	40
16	Excitonic enhancement of optical nonlinearities in perovskite $\text{CH}_3\text{NH}_3\text{PbBr}_3$ single crystals. Physical Review Materials, 2019, 3, .	2.3	37
17	Dynamical Franz-Keldysh effect in GaAs/AlGaAs multiple quantum wells induced by single-cycle terahertz pulses. Applied Physics Letters, 2010, 97, .	3.3	35
18	Impact ionization dynamics in silicon by MV/cm THz fields. New Journal of Physics, 2017, 19, 123018.	2.9	35

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19	Enhancing the Hot-Phonon Bottleneck Effect in a Metal Halide Perovskite by Terahertz Phonon Excitation. <i>Physical Review Letters</i> , 2021, 126, 077401.	7.8	34
20	High-order harmonic generation in graphene: Nonlinear coupling of intraband and interband transitions. <i>Physical Review B</i> , 2021, 103, .	3.2	31
21	Subcycle Optical Response Caused by a Terahertz Dressed State with Phase-Locked Wave Functions. <i>Physical Review Letters</i> , 2016, 117, 277402.	7.8	29
22	Effect of A-Site Cation on Photoluminescence Spectra of Single Lead Bromide Perovskite Nanocrystals. <i>Nano Letters</i> , 2020, 20, 4022-4028.	9.1	29
23	Role of virtual band population for high harmonic generation in solids. <i>Physical Review B</i> , 2020, 102, .	3.2	28
24	Nonlinear Optical Phenomena Induced by Intense Single-Cycle Terahertz Pulses. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013, 19, 8401110-8401110.	2.9	26
25	Exciton energy transfer between the inner and outer tubes in double-walled carbon nanotubes. <i>Physical Review B</i> , 2008, 78, .	3.2	25
26	Electron dynamics in chromium probed with 20-fs optical pulses. <i>Physical Review B</i> , 2003, 68, .	3.2	24
27	Dynamical Nonlinear Interactions of Solids with Strong Terahertz Pulses. <i>Journal of the Physical Society of Japan</i> , 2016, 85, 082001.	1.6	24
28	Electric field ionization of gallium acceptors in germanium induced by single-cycle terahertz pulses. <i>Physical Review B</i> , 2013, 87, .	3.2	22
29	Ultrafast Control of the Polarity of $\text{BiCoO}_3$ by Orbital Excitation as Investigated by Femtosecond Spectroscopy. <i>Physical Review Applied</i> , 2017, 7, .	3.2	20
30	Modifying angular and polarization selection rules of high-order harmonics by controlling electron trajectories in k-space. <i>Nature Communications</i> , 2020, 11, 3069.	12.8	20
31	Terahertz pulse-altered gene networks in human induced pluripotent stem cells. <i>Optics Letters</i> , 2020, 45, 6078.	3.3	20
32	Temporal decoupling of spin and crystallographic phase transitions in $\text{Fe}(\text{BiCoO}_3)$ . <i>Physical Review B</i> , 2009, 79, .	3.2	17
33	Zener Tunneling Breakdown in Phase-Change Materials Revealed by Intense Terahertz Pulses. <i>Physical Review Letters</i> , 2018, 121, 165702.	7.8	17
34	Strong spin-orbit coupling inducing Autler-Townes effect in lead halide perovskite nanocrystals. <i>Nature Communications</i> , 2021, 12, 3026.	12.8	17
35	Size-controlled quantum dots reveal the impact of intraband transitions on high-order harmonic generation in solids. <i>Nature Physics</i> , 2022, 18, 874-878.	16.7	17
36	Terahertz-Induced Optical Emission of Photoexcited Undoped GaAs Quantum Wells. <i>Physical Review Letters</i> , 2013, 111, 067401.	7.8	16

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37	Time-resolved observation of coherent excitonic nonlinear response with a table-top narrowband THz pulse wave. Applied Physics Letters, 2015, 107, 221106.	3.3	15
38	Impact of spin-orbit splitting on two-photon absorption spectra in a halide perovskite single crystal. Physical Review B, 2021, 103, .	3.2	14
39	Biexciton state causes photoluminescence fluctuations in CdSe/ZnS core/shell quantum dots at high photoexcitation densities. Physical Review B, 2013, 88, .	3.2	13
40	Ultrafast Control of Ferroelectricity with Dynamical Repositioning of Protons in a Supramolecular Cocrystal Studied by Femtosecond Nonlinear Spectroscopy. Journal of the Physical Society of Japan, 2019, 88, 013705.	1.6	12
41	On the progress of ultrafast time-resolved THz scanning tunneling microscopy. APL Materials, 2021, 9, .	5.1	12
42	Interference effects in high-order harmonics from colloidal perovskite nanocrystals excited by an elliptically polarized laser. Physical Review Materials, 2021, 5, .	2.4	11
43	Ultrastrong coupling between THz phonons and photons caused by an enhanced vacuum electric field. Physical Review Research, 2021, 3, .	3.6	9
44	Generation of wavelength-tunable few-cycle pulses in the mid-infrared at repetition rates up to 10 <sup>6</sup> kHz. Optics Letters, 2021, 46, 5280.	3.3	9
45	Terahertz pulse-altered gene networks in human induced pluripotent stem cells. Optics Letters, 2020, 45, 6078-6081.	3.3	9
46	Coherent detection of THz-induced sideband emission from excitons in the nonperturbative regime. Physical Review B, 2018, 97, .	3.2	3
47	High sensitive detection of optical constants with phase shift in Terahertz time-domain reflection spectroscopy. , 2005, , .		2
48	Novel Spin-on Carbon Hard Mask with Hardening by Ion Implantation. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2007, 20, 365-372.	0.3	2
49	Enhancement of THz field in a gap of dipole antenna. , 2010, , .		2
50	Accurate determination of complex dielectric constants by terahertz time domain attenuated total reflection spectroscopy. , 0, , .		1
51	Single-cycle terahertz pulses with amplitudes exceeding 1 MV/cm generated by optical rectification in LiNbO <sub>3</sub> and applications to nonlinear optics. Proceedings of SPIE, 2012, , .	0.8	1
52	Ultrafast reflectivity change of vanadium dioxide induced by THz field enhanced by a metallic structure. Japanese Journal of Applied Physics, 2019, 58, 083002.	1.5	1
53	Accurate measurement of phase shift on the surface-plasmon resonance. , 2004, , .		1
54	Phase jumps on surface plasmon resonance. , 2005, , .		0

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55	Interference effect on the surface plasmon excitation. , 0, , .		0
56	Dynamics of Biomolecules in Water by Terahertz Time-domain Attenuated Total Reflection Spectroscopy. , 0, , .		0
57	Dynamical Franz-Keldysh effect in GaAs induced by monocycle terahertz pulse. , 2010, , .		0
58	Extraordinary carrier multiplication in GaAs MQWs induced by intense terahertz pulse. , 2011, , .		0
59	Non-linear terahertz spectroscopy of accepters in p-Ge. , 2011, , .		0
60	Near-field THz imaging of a split ring resonator matrix. , 2011, , .		0
61	Photoluminescence flash induced by intense single-cycle terahertz pulses in undoped GaAs quantum wells. , 2013, , .		0
62	High-power THz pulse generation and nonlinear THz spectroscopy. , 2013, , .		0
63	Time-resolved observation of excitonic dynamics under coherent terahertz excitation in GaAs quantum wells. , 2015, , .		0
64	Terahertz Nonlinear Magnetic Response in Antiferromagnets. , 2015, , .		0
65	THz-induced ultrafast modulation of NIR refractive index of silicon. , 2016, , .		0
66	Phase-sensitive observation of THz-dressed exciton. , 2016, , .		0
67	High impact ionization rate in silicon by sub-picosecond THz electric field pulses (Conference) Tj ETQq1 1 0.784314 rgBT /Ovgrlock 10		0
68	Dynamical control of optical properties by using a terahertz dressed state. , 2017, , .		0
69	Response of human induced pluripotent stem cells to terahertz radiation. , 2021, , .		0
70	Nonperturbative Excitonic Interaction with Intense THz Pulses in ZnSe/ZnMgSSe Multiple Quantum Wells. , 2010, , .		0
71	Highly Efficient Carrier Multiplication and Bright Exciton Luminescence under Intense Terahertz Pulse. , 2011, , .		0
72	Highly Efficient Carrier Multiplication and Bright Exciton Luminescence under Intense Terahertz Pulse. , 2011, , .		0

#	ARTICLE	IF	CITATIONS
73	High-Power Terahertz Pulse Generation and Nonlinear Terahertz Spectroscopy. The Review of Laser Engineering, 2012, 40, 480.	0.0	0
74	Ultra-intense Terahertz Pulse Generation and Application to Nonlinear THz Spectroscopy. , 2013, , .		0
75	Resonant antiferromagnetic spin wave excitation by terahertz magnetic near-field with split ring resonator. , 2014, , .		0
76	Sub-cycle Control of Optical Response by Using a Terahertz Excitonic Dressed State. , 2018, , .		0