

Klaus Reimann

List of Publications by Year in descending order

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papers

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126708

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citing authors

#	ARTICLE	IF	CITATIONS
1	Phonon-Induced Relocation of Valence Charge in Boron Nitride Observed by Ultrafast X-Ray Diffraction. <i>Physical Review Letters</i> , 2022, 128, 136402.	2.9	5
2	Underdamped longitudinal soft modes in ionic crystallites' lattice and charge motions observed by ultrafast x-ray diffraction. <i>Structural Dynamics</i> , 2022, 9, 024501.	0.9	0
3	Excitation of tunable plasmons in silicon using microwave transmission through a metallic aperture. <i>Applied Physics Letters</i> , 2022, 120, 162103.	1.5	1
4	Two-dimensional terahertz spectroscopy of condensed-phase molecular systems. <i>Journal of Chemical Physics</i> , 2021, 154, 120901.	1.2	30
5	Terahertz Polaron Oscillations of Electrons Solvated in Liquid Water. <i>Physical Review Letters</i> , 2021, 126, 097401.	2.9	12
6	Two-color two-dimensional terahertz spectroscopy: A new approach for exploring even-order nonlinearities in the nonperturbative regime. <i>Journal of Chemical Physics</i> , 2021, 154, 154203.	1.2	4
7	Ultrafast nonlinear phonon response of few-layer hexagonal boron nitride. <i>Physical Review B</i> , 2021, 104, .	1.1	4
8	Mono-cycle terahertz pulses from intersubband shift currents in asymmetric semiconductor quantum wells. <i>Optica</i> , 2021, 8, 1638.	4.8	5
9	A Mechanistic Perspective on Plastically Flexible Coordination Polymers. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5557-5561.	7.2	50
10	Field-Induced Tunneling Ionization and Terahertz-Driven Electron Dynamics in Liquid Water. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7717-7722.	2.1	20
11	Frequency Upshift of the Transverse Optical Phonon Resonance in GaAs by Femtosecond Electron-Hole Excitation. <i>Physical Review Letters</i> , 2020, 125, 027401.	2.9	3
12	Ein mechanistischer Blick auf plastisch flexible Koordinationspolymere. <i>Angewandte Chemie</i> , 2020, 132, 5602-5607.	1.6	9
13	Spatial distribution of electric-field enhancement across the gap of terahertz bow-tie antennas. <i>Optics Express</i> , 2020, 28, 24389.	1.7	13
14	Soft-mode driven dynamics in ferroelectrics -new insight from ultrafast terahertz and x-ray experiments. <i>EPJ Web of Conferences</i> , 2019, 205, 04001.	0.1	0
15	Millijoule few-cycle 5 μ m source at 1 kHz repetition rate for generating broadband pulses from the mid- to far-infrared. <i>EPJ Web of Conferences</i> , 2019, 205, 01014.	0.1	0
16	Impact of piezoelectric fields on coherent zone-folded phonons in GaAs/AlAs superlattices. <i>Physical Review B</i> , 2019, 100, .	1.1	1
17	Time-resolved photoluminescence from <i>n</i> -doped GaN/Al _{0.18} Ga _{0.82} N short-period superlattices probes carrier kinetics and long-term structural stability. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	5
18	Terahertz driven amplification of coherent optical phonons in GaAs coupled to metallic dog-bone resonators. <i>EPJ Web of Conferences</i> , 2019, 205, 05007.	0.1	2

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19	Terahertz Driven Amplification of Coherent Optical Phonons in GaAs Coupled to a Metasurface. Physical Review Letters, 2019, 122, 107402.	2.9	13
20	Ultrafast carrier dynamics in a $\text{GaN}/\text{InN}/\text{GaN}$ superlattice. Physical Review B, 2018, 97, .	1.1	1
21	Resonant Second-Order Nonlinear Terahertz Response of Gallium Arsenide. Physical Review Letters, 2018, 121, 266602.	2.9	20
22	Multidimensional Terahertz Spectroscopy. , 2018, , 197-206.		0
23	Ultrafast carrier dynamics in AlGaIn/GaN superlattices by time-dependent reflectivity measurements (Conference Presentation). , 2018, , .		0
24	Nonlinear Terahertz Spectroscopy on Multilayer Graphene. , 2017, , 269-293.		0
25	Strong Local-Field Enhancement of the Nonlinear Soft-Mode Response in a Molecular Crystal. Physical Review Letters, 2017, 119, 097404.	2.9	19
26	Mid-infrared beam splitter for ultrashort pulses. Optics Letters, 2017, 42, 2918.	1.7	3
27	Strong Local-Field Enhancement of the Nonlinear Softmode Response in Aspirin. , 2017, , .		0
28	Phase-resolved two-dimensional terahertz spectroscopy including off-resonant interactions beyond the $\hbar\omega > 3k_B T$ limit. Journal of Chemical Physics, 2016, 144, 184202.	1.2	23
29	Two-Phonon Quantum Coherences in Indium Antimonide Studied by Nonlinear Two-Dimensional Terahertz Spectroscopy. Physical Review Letters, 2016, 116, 177401.	2.9	25
30	Strong Amplification of Coherent Acoustic Phonons by Intraminiband Currents in a Semiconductor Superlattice. Physical Review Letters, 2016, 116, 075504.	2.9	34
31	Amplification of Coherent Sub-Terahertz Phonons by Interaction with Drift Currents in a Semiconductor Superlattice. , 2016, , .		1
32	Two-Phonon Quantum Coherences in InSb Studied by Two-Dimensional Terahertz Spectroscopy. , 2016, , .		0
33	Nonresonant coherent control: Intersubband excitations manipulated by a nonresonant terahertz pulse. Physical Review B, 2015, 92, .	1.1	10
34	Focus: Phase-resolved nonlinear terahertz spectroscopyâ€”From charge dynamics in solids to molecular excitations in liquids. Journal of Chemical Physics, 2015, 142, 212301.	1.2	20
35	Ultra-broadband terahertz pulses generated in the organic crystal DSTMS. Optics Letters, 2015, 40, 3404.	1.7	36
36	Control of Coherent Intersubband Excitations by a Nonresonant THz Pulse. , 2015, , .		0

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37	Terahertz radiative coupling and damping in multilayer graphene. New Journal of Physics, 2014, 16, 013027.	1.2	21
38	High-Field Terahertz Bulk Photovoltaic Effect in Lithium Niobate. Physical Review Letters, 2014, 112, 146602.	2.9	69
39	Ultrafast terahertz response of multilayer graphene in the nonperturbative regime. Physical Review B, 2014, 89, .	1.1	132
40	Focus on nonlinear terahertz studies. New Journal of Physics, 2014, 16, 045016.	1.2	27
41	High-field terahertz shift current in lithium niobate. , 2014, , .		0
42	Terahertz harmonics in multi-layer graphene in the nonperturbative regime. , 2014, , .		0
43	Ultrafast Terahertz Response of Lithium Niobate in the Nonperturbative Regime. , 2014, , .		0
44	Ultrafast two-dimensional terahertz spectroscopy of elementary excitations in solids. New Journal of Physics, 2013, 15, 025039.	1.2	113
45	Coupling of intersubband transitions to zone-folded acoustic phonons in a GaN/AlN superlattice. Physical Review B, 2012, 85, .	1.1	4
46	Nonlinear THz spectroscopy of graphene. , 2012, , .		0
47	Ultrafast nonlinear terahertz studies of high-field charge transport in semiconductors. Proceedings of SPIE, 2012, , .	0.8	0
48	Nonlinear electron transport in an electron-hole plasma. Physical Review B, 2012, 85, .	1.1	9
49	Two-dimensional THz Spectroscopy of Graphene. , 2012, , .		0
50	Two-Dimensional Terahertz Correlation Spectra of Electronic Excitations in Semiconductor Quantum Wells. Journal of Physical Chemistry B, 2011, 115, 5448-5455.	1.2	87
51	High-Field Transport in an Electron-Hole Plasma: Transition from Ballistic to Drift Motion. Physical Review Letters, 2011, 107, 256602.	2.9	18
52	High field transport of photo-injected electrons in GaAs: Transition from ballistic to drift motion. , 2011, , .		0
53	One- and two-dimensional nonlinear THz spectroscopy on semiconductor nanostructures. Proceedings of SPIE, 2011, , .	0.8	0
54	Strong Correlation of Electronic and Lattice Excitations in AlGaAs Semiconductor Quantum Wells Revealed by Two-Dimensional Terahertz Spectroscopy. Physical Review Letters, 2011, 107, 067401.	2.9	46

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55	Nonlinear terahertz spectroscopy. Proceedings of SPIE, 2010, , .	0.8	0
56	Coherent Ballistic Motion of Electrons in a Periodic Potential. Physical Review Letters, 2010, 104, 146602.	2.9	114
57	Ultrafast Spatiotemporal Dynamics of Terahertz Generation by Ionizing Two-Color Femtosecond Pulses in Gases. Physical Review Letters, 2010, 105, 053903.	2.9	168
58	Terahertz-induced interband tunneling of electrons in GaAs. Physical Review B, 2010, 82, .	1.1	66
59	Two-Color Two-Dimensional Terahertz Spectroscopy on Intersubband Transitions of Coupled Quantum Wells. , 2010, , .		2
60	Ultrafast Coherent High-Field Electron Transport in GaAs. , 2010, , .		0
61	Deformation Measurements of High-Speed MEMS With Combined Two-Wavelength Single-Pulse Digital Holography and Single Phase Reconstruction Using Subpicosecond Pulses. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1351-1358.	1.9	2
62	Harnessing terahertz polarization. Nature Photonics, 2009, 3, 495-496.	15.6	5
63	Phase-resolved two-dimensional spectroscopy based on collinear n-wave mixing in the ultrafast time domain. Journal of Chemical Physics, 2009, 130, 164503.	1.2	87
64	Nonlinear THz response of n -type GaAs. , 2009, , .		0
65	High-Order Optical Nonlinearities from Collinear Time-Resolved Two-Dimensional Spectroscopy. , 2009, , .		0
66	High-precision Contouring of Rapidly Oscillating Optical Surfaces with Two-wavelength Single-shot Digital Holography. , 2009, , .		0
67	Bloch Oscillations and Zener Tunneling in Bulk GaAs. , 2009, , .		0
68	A table-top source of strong pulses. Nature Photonics, 2008, 2, 596-597.	15.6	8
69	Ultrafast phase-resolved pump-probe measurements on a quantum cascade laser. Applied Physics Letters, 2008, 93, 151106.	1.5	26
70	Carrier-wave Rabi flopping on radiatively coupled shallow donor transitions in n -type GaAs. Physical Review B, 2008, 77, .	1.1	17
71	Nonlinear Terahertz and Midinfrared Response of n-Type GaAs. , 2008, , 237-249.		1
72	Simultaneous ultrafast probing of intramolecular vibrations and photoinduced charge carriers in rubrene using broadband time-domain THz spectroscopy. Physical Review B, 2007, 75, .	1.1	15

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73	Table-top sources of ultrashort THz pulses. Reports on Progress in Physics, 2007, 70, 1597-1632.	8.1	232
74	Measuring optical frequencies in the 0–40 THz range with non-synchronized electro-optic sampling. Nature Photonics, 2007, 1, 577-580.	15.6	41
75	Internal motions of a quasiparticle governing its ultrafast nonlinear response. Nature, 2007, 450, 1210-1213.	13.7	127
76	Ultrafast Nonlinear Terahertz Spectroscopy of n-Type GaAs. , 2007, , .		0
77	Frequency counter for optical frequencies up to 40 THz. , 2007, , .		1
78	Nonlinear Terahertz Response of n-Type GaAs. Physical Review Letters, 2006, 96, 187402.	2.9	115
79	Radiative coupling of intersubband transitions in GaAs/AlGaAs multiple quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 262-265.	1.3	7
80	Phonon sidebands of intersubband absorption in AlGaIn/GaN high-electron-mobility transistors. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 562-565.	1.3	1
81	Ultrafast hole burning in intersubband absorption lines of GaN/AlN superlattices. Applied Physics Letters, 2006, 89, 151103.	1.5	11
82	Nonlinear THz Spectroscopy on n-Type GaAs. , 2006, , .		0
83	Generation of single-cycle THz transients with high electric-field amplitudes. Optics Letters, 2005, 30, 2805.	1.7	486
84	Optical Phonon Sidebands of Electronic Intersubband Absorption in Strongly Polar Semiconductor Heterostructures. Physical Review Letters, 2005, 94, 037403.	2.9	54
85	Femtosecond intersubband dynamics of electrons in AlGaIn/GaN-based high-electron-mobility transistors. Semiconductor Science and Technology, 2004, 19, S463-S464.	1.0	2
86	Phase-Resolved Nonlinear Response of a Two-Dimensional Electron Gas under Femtosecond Intersubband Excitation. Physical Review Letters, 2004, 92, 047402.	2.9	139
87	Optical dephasing of coherent intersubband transitions in a quasi-two-dimensional electron gas. Physical Review B, 2004, 69, .	1.1	81
88	Nonlinear terahertz spectroscopy of semiconductor nanostructures. Applied Physics A: Materials Science and Processing, 2004, 78, 435-440.	1.1	25
89	Coherent charge transport in semiconductor quantum cascade structures. Journal of Physics Condensed Matter, 2004, 16, R25-R48.	0.7	25
90	Coherent vs. incoherent charge transport in semiconductor quantum cascade structures. , 2004, 5352, 333.		0

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91	Wavefront autocorrelation of femtosecond laser beams. , 2004, 5333, 122.		2
92	Rabi oscillations of intersubband transitions in GaAs/AlGaAs MQWs. Semiconductor Science and Technology, 2004, 19, S285-S286.	1.0	9
93	Direct field-resolved detection of terahertz transients with amplitudes of megavolts per centimeter. Optics Letters, 2003, 28, 471.	1.7	159
94	Ultrashort-pulse wave-front autocorrelation. Optics Letters, 2003, 28, 2399.	1.7	53
95	Ultrafast optical nonlinearity of low-temperature-grown GaInAs/AlInAs quantum wells at wavelengths around 1.55 μm . Applied Physics Letters, 2002, 80, 1936-1938.	1.5	21
96	Electron-phonon renormalization of the absorption edge of the cuprous halides. Physical Review B, 2002, 65, .	1.1	38
97	Nonlinear magneto-optical properties of $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$ and $\text{Nd}_{1-x}\text{Sr}_x\text{MnO}_3$. Journal of Applied Physics, 2002, 91, 7505.	1.1	1
98	Ultrafast Coherent Electron Transport in Semiconductor Quantum Cascade Structures. Physical Review Letters, 2002, 89, 047402.	2.9	58
99	Coherent nonlinear dynamics of intersubband excitations in a two-dimensional electron gas. Physica B: Condensed Matter, 2002, 314, 244-247.	1.3	8
100	Ultrafast coherent electron transport in GaAs/AlGaAs quantum cascade structures. Physica B: Condensed Matter, 2002, 314, 314-322.	1.3	6
101	Above-room-temperature operation of IV-VI microcavity lasers. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 888-891.	1.3	0
102	Optical deformation-potential scattering of holes in multiple quantum well structures. Physical Review B, 2001, 65, .	1.1	21
103	Lead-salt-based VCSELs for the 3- to 6- μm range. , 2001, , .		0
104	Epitaxial Bragg mirrors for the mid-infrared and their applications. Progress in Quantum Electronics, 2001, 25, 193-228.	3.5	53
105	Nonlinear Magneto-Optical Properties of Colossal Magnetoresistive Manganites. Physical Review Letters, 2001, 86, 6002-6005.	2.9	14
106	Homogeneous broadening and excitation-induced dephasing of intersubband transitions in a quasi-two-dimensional electron gas. Physical Review B, 2001, 63, .	1.1	49
107	Ultrafast Dynamics of Intersubband Excitations in a Quasi-Two-Dimensional Hole Gas. Physical Review Letters, 2001, 86, 1122-1125.	2.9	31
108	Above-room-temperature mid-infrared lasing from vertical-cavity surface-emitting PbTe quantum-well lasers. Applied Physics Letters, 2001, 78, 862-864.	1.5	55

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109	Generation, shaping, and characterization of intense femtosecond pulses tunable from 3 to 20 μm . Journal of the Optical Society of America B: Optical Physics, 2000, 17, 2086.	0.9	302
110	Two-photon spectroscopy of SnO ₂ under hydrostatic pressure. Solid State Communications, 1999, 110, 697-700.	0.9	20
111	Optical determination of the size distribution of CuCl nanocrystals in NaCl. Journal of Crystal Growth, 1999, 196, 135-140.	0.7	4
112	High Pressure Luminescence of Zincblende and Wurtzite GaN. Physica Status Solidi (B): Basic Research, 1999, 211, 57-61.	0.7	11
113	Experimental determination of the electronic band structure of SnO ₂ . Solid State Communications, 1998, 105, 649-652.	0.9	97
114	Effects of the isotopic composition on the fundamental gap of CuCl. Physical Review B, 1998, 57, 15183-15190.	1.1	89
115	Direct comparison of the pressure-induced band-gap shifts in cubic and hexagonal GaN. Journal of Applied Physics, 1998, 84, 2971-2973.	1.1	8
116	Free excitons with n=2 in bulk GaN. Applied Physics Letters, 1997, 71, 948-949.	1.5	38
117	Electron-phonon interaction at the direct gap of the copper halides. Solid State Communications, 1996, 98, 27-30.	0.9	32
118	Determination of the Pressure Dependence of Band Structure Parameters by Two-Photon Spectroscopy. Physica Status Solidi (B): Basic Research, 1996, 198, 71-80.	0.7	22
119	Two- and three-photon spectroscopy of solids under high pressure. High Pressure Research, 1996, 15, 73-93.	0.4	18
120	Determination of the orientation of CuCl nanocrystals in a NaCl matrix. Solid State Communications, 1995, 94, 189-191.	0.9	48
121	Band gaps, crystal-field splitting, spin-orbit coupling, and exciton binding energies in ZnO under hydrostatic pressure. Solid State Communications, 1995, 94, 251-254.	0.9	484
122	Two-photon spectroscopy in the low- and high-pressure phases of AgGaS ₂ . Solid State Communications, 1995, 96, 279-283.	0.9	12
123	Two-photon absorption in CuCl and CuBr under hydrostatic pressure. Physical Review B, 1994, 49, 11021-11027.	1.1	37
124	Violet laser emission in copper halides. Journal of Applied Physics, 1994, 76, 4897-4899.	1.1	9
125	Time-Resolved Two-Photon Emission in Cu ₂ O. Europhysics Letters, 1987, 3, 853-857.	0.7	24
126	Optical stark effect of excitons in semiconductors. Journal of Luminescence, 1987, 38, 235-238.	1.5	7

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127	Observation of the Resonant Optical Stark Effect in a Semiconductor. Physical Review Letters, 1985, 55, 1335-1337.	2.9	172
128	Determination of Valence Band Parameters in ZnTe. Physica Status Solidi (B): Basic Research, 1984, 125, 653-657.	0.7	22
129	Investigation of mixed-mode polariton dispersion in Ag ₂ Gas. Physica Status Solidi (B): Basic Research, 1982, 114, 553-559.	0.7	10
130	Coherent polaron dynamics of electrons solvated in polar liquids. , 0, , .		1