

Filip Kadlec

List of Publications by Year in descending order

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138
papers

2,543
citations

172207

29
h-index

223531

46
g-index

140
all docs

140
docs citations

140
times ranked

2635
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical rectification at metal surfaces. <i>Optics Letters</i> , 2004, 29, 2674.	1.7	125
2	Ultrafast opto-terahertz photonic crystal modulator. <i>Optics Letters</i> , 2007, 32, 680.	1.7	101
3	Phase-sensitive time-domain terahertz reflection spectroscopy. <i>Review of Scientific Instruments</i> , 2003, 74, 4711-4717.	0.6	100
4	Study of terahertz radiation generated by optical rectification on thin gold films. <i>Optics Letters</i> , 2005, 30, 1402.	1.7	99
5	Tunable terahertz metamaterials with negative permeability. <i>Physical Review B</i> , 2009, 79, .	1.1	99
6	Tunable structures and modulators for THz light. <i>Comptes Rendus Physique</i> , 2008, 9, 197-214.	0.3	96
7	Gouy shift correction for highly accurate refractive index retrieval in time-domain terahertz spectroscopy. <i>Optics Express</i> , 2010, 18, 15338.	1.7	91
8	Ultrafast carrier dynamics in microcrystalline silicon probed by time-resolved terahertz spectroscopy. <i>Physical Review B</i> , 2009, 79, .	1.1	77
9	Optical rectification at metal surfaces. , 0, , .		74
10	Dielectric tunability of SrTiO ₃ thin films in the terahertz range. <i>Applied Physics Letters</i> , 2006, 88, 102901.	1.5	70
11	Methodology of an optical pump-terahertz probe experiment: An analytical frequency-domain approach. <i>Journal of Chemical Physics</i> , 2002, 117, 8454-8466.	1.2	65
12	Incipient ferroelectricity of water molecules confined to nano-channels of beryl. <i>Nature Communications</i> , 2016, 7, 12842.	5.8	65
13	A metal-dielectric antenna for terahertz near-field imaging. <i>Journal of Applied Physics</i> , 2005, 98, 014910.	1.1	63
14	Broadband dielectric response and grain-size effect in K _{0.5} Na _{0.5} NbO ₃ ceramics. <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	58
15	Highly tunable SrTiO ₃ •DyScO ₃ heterostructures for applications in the terahertz range. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	56
16	Composition dependence of the lattice vibrations in Sr _{n+1} Ti _n O _{3n+1} Ruddlesden-Popper homologous series. <i>Journal of the European Ceramic Society</i> , 2003, 23, 2639-2645.	2.8	55
17	Propagation of terahertz pulses in photoexcited media: Analytical theory for layered systems. <i>Journal of Chemical Physics</i> , 2007, 127, 024506.	1.2	51
18	Fast one-dimensional photonic crystal modulators for the terahertz range. <i>Optics Express</i> , 2007, 15, 8898.	1.7	48

#	ARTICLE	IF	CITATIONS
19	Temperature and electric field tuning of the ferroelectric soft mode in a strained SrTiO_3 . Physical Review B, 2009, 80, .	1.1	48
20	Resonant magnetic response of TiO ₂ microspheres at terahertz frequencies. Applied Physics Letters, 2012, 100, 061117.	1.5	48
21	High tunability of the soft mode in strained $\text{SrTiO}_3/\text{DyScO}_3$ multilayers. Journal of Physics Condensed Matter, 2009, 21, 115902.	0.7	42
22	Optical two-photon absorption in GaAs measured by optical-pump terahertz-probe spectroscopy. Physical Review B, 2004, 70, .	1.1	38
23	Broadband dielectric terahertz metamaterials with negative permeability. Optics Letters, 2009, 34, 3541.	1.7	38
24	Microwave dielectric relaxation in cubic bismuth based pyrochlores containing titanium. Journal of Applied Physics, 2006, 100, 014105.	1.1	37
25	Contrast in terahertz conductivity of phase-change materials. Solid State Communications, 2012, 152, 852-855.	0.9	35
26	Title is missing!. Journal of Materials Science, 1998, 33, 969-975.	1.7	32
27	Nonresonant ionization of oxygen molecules by femtosecond pulses: Plasma dynamics studied by time-resolved terahertz spectroscopy. Journal of Chemical Physics, 2005, 123, 104310.	1.2	32
28	Microwave and infrared dielectric response of monoclinic bismuth zinc niobate based pyrochlore ceramics with ion substitution in A site. Journal of Applied Physics, 2006, 100, 034109.	1.1	32
29	Study of the ferroelectric phase transition in germanium telluride using time-domain terahertz spectroscopy. Physical Review B, 2011, 84, .	1.1	31
30	Independent determination of the complex refractive index and wave impedance by time-domain terahertz spectroscopy. Optics Communications, 2006, 260, 175-183.	1.0	29
31	Ultrafast far-infrared dynamics probed by terahertz pulses: A frequency-domain approach. II. Applications. Journal of Chemical Physics, 2005, 122, 104504.	1.2	27
32	Active optical control of the terahertz reflectivity of high-resistivity semiconductors. Optics Letters, 2005, 30, 1992.	1.7	27
33	Spin and lattice excitations of a BiFeO_3 film and ceramics. Physical Review B, 2015, 91, .	1.1	27
34	Materials with on-demand refractive indices in the terahertz range. Optics Letters, 2008, 33, 2275.	1.7	26
35	Ultrafast far-infrared dynamics probed by terahertz pulses: A frequency domain approach. I. Model systems. Journal of Chemical Physics, 2005, 122, 104503.	1.2	25
36	Electromagnon in the Y-type hexaferrite BaSrCoZnFe_{12} . Physical Review B, 2018, 97, .	1.1	25

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37	Tuning of dielectric properties of SrTiO ₃ in the terahertz range. Physical Review B, 2011, 84, .	1.1	24
38	Electromagnon in the hexaferrite Z-type Physical Review B, 2016, 94, .	1.1	23
39	Tunable THz metamaterials based on an array of paraelectric SrTiO ₃ rods. Applied Physics A: Materials Science and Processing, 2011, 103, 689-692.	1.1	21
40	Terahertz surface impedance of epitaxial MgB ₂ thin film. Applied Physics Letters, 2005, 87, 092503.	1.5	20
41	Field-induced soft mode hardening in SrTiO ₃ /DyScO ₃ multilayers. Applied Physics Letters, 2008, 93, .	1.5	20
42	High photocarrier mobility in ultrafast ion-irradiated In _{0.53} Ga _{0.47} As for terahertz applications. Journal Physics D: Applied Physics, 2009, 42, 195103.	1.3	20
43	Ultrafast terahertz photoconductivity in nanocrystalline mesoporous TiO ₂ films. Applied Physics Letters, 2010, 96, 062103.	1.5	20
44	Ultrafast carrier dynamics in InP studied by time-resolved terahertz spectroscopy. Physical Review B, 2008, 78, .	1.8	18
45	Possible coupling between magnons and phonons in multiferroic CaMn ₇ O ₁₂ . Physical Review B, 2014, 89, .	1.1	18
46	Correlation between infrared, THz and microwave dielectric properties of vanadium doped antiferroelectric BiNbO ₄ . Journal of the European Ceramic Society, 2006, 26, 2861-2865.	2.8	15
47	Transition between metamaterial and photonic-crystal behavior in arrays of dielectric rods. Optics Express, 2014, 22, 30492.	1.7	15
48	Magnetolectric excitations in multiferroic Ni ₃ Te ₂ O ₆ . Physical Review B, 2017, 95, .	1.1	15
49	Far-infrared electrodynamics of thin superconducting NbN film in magnetic fields. Superconductor Science and Technology, 2014, 27, 055009.	1.8	14
50	Disappearance of the infrared soft mode in the weak ferroelectric Li ₂ Ge ₇ O ₁₅ . Solid State Communications, 1995, 94, 725-729.	0.9	13
51	Dynamics of the glass and superionic phase transitions in Cs ₅ H ₃ (SO ₄) ₄ ·H ₂ O protonic conductor. Ferroelectrics, 1996, 176, 179-201.	0.3	13
52	Electromagnon in ferrimagnetic Fe ₂ O ₃ nanograin ceramics. Physical Review B, 2017, 95, .	1.1	13
53	Dielectric and conducting properties of unintentionally and Sn-doped i ² -Ga ₂ O ₃ studied by terahertz spectroscopy. Journal of Applied Physics, 2020, 127, .	1.1	13
54	Vibrational spectra of superionic crystals (BaF ₂) _{1-x} (LaF ₃) _x . Journal of Physics and Chemistry of Solids, 1999, 60, 861-866.	1.9	11

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55	Study of responsiveness of near-field terahertz imaging probes. Journal Physics D: Applied Physics, 2009, 42, 155501.	1.3	11
56	Spectroscopic studies of the ferroelectric and magnetic phase transitions in multiferroic Sr _{1-x} Ba _x MnO ₃ . Journal of Physics Condensed Matter, 2016, 28, 175901.	0.7	11
57	Structural, magnetic, and spin dynamical properties of the polar antiferromagnet MnTeO_6 . Physical Review B, 2018, 97, .	1.1	11
58	High-temperature phase transitions in SrBi ₂ Ta ₂ O ₉ film: a study by THz spectroscopy. Journal of Physics Condensed Matter, 2004, 16, 6763-6769.	0.7	10
59	Terahertz and direct current losses and the origin of non-Drude terahertz conductivity in the crystalline states of phase change materials. Journal of Applied Physics, 2013, 114, 233105.	1.1	10
60	THz-IR spectroscopy of single H ₂ O molecules confined in nanocage of beryl crystal lattice. Phase Transitions, 2014, 87, 966-972.	0.6	10
61	Defects and lattice distortions in the superionic conductor Ba _{0.84} La _{0.16} F _{2.16} . Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 57, 234-240.	1.7	9
62	Inelastic neutron scattering study of the superionic solid solutions Ba _{1-x} La _x F _{2+x} . Solid State Ionics, 1999, 119, 131-137.	1.3	9
63	High-temperature infrared reflectivity of yttria-stabilized hafnia single crystals. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 72, 56-58.	1.7	9
64	Optical pump-terahertz probe spectroscopy of dyes in solutions: Probing the dynamics of liquid solvent or solid precipitate?. Journal of Chemical Physics, 2004, 120, 912-917.	1.2	9
65	Structural, magnetic, and spin dynamical properties of the polar antiferromagnets MnTeO_6 and MnTeO_7 . Physical Review B, 2018, 97, .	1.1	9
66	Carrier dynamics in microcrystalline silicon studied by time-resolved terahertz spectroscopy. Journal of Non-Crystalline Solids, 2006, 352, 2846-2849.	1.5	8
67	Assessing skin hydration status in haemodialysis patients using terahertz spectroscopy: a pilot/feasibility study. Physics in Medicine and Biology, 2008, 53, 7063-7071.	1.6	8
68	TiO ₂ microsphere-based metamaterials exhibiting effective magnetic response in the terahertz regime. Applied Physics A: Materials Science and Processing, 2012, 109, 891-894.	1.1	8
69	Unusual ferroelectric and magnetic phases in multiferroic Bi_2HfO_8 ceramics. Physical Review B, 2017, 95, .	1.1	8
70	Experimental Gouy phase shift compensation in Terahertz time-domain spectroscopy. Photonics and Nanostructures - Fundamentals and Applications, 2018, 31, 129-133.	1.0	8
71	Fingerprints of Critical Phenomena in a Quantum Paraelectric Ensemble of Nanoconfined Water Molecules. Nano Letters, 2022, 22, 3380-3384.	4.5	8
72	An interconnected 2D-TM EBG structure for millimeter and submillimeter waves. IEEE Journal on Selected Areas in Communications, 2005, 23, 1378-1384.	9.7	7

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73	Electric-field tuning of a planar terahertz metamaterial based on strained SrTiO ₃ layers. Journal Physics D: Applied Physics, 2018, 51, 054001.	1.3	7
74	Vibrational spectra of multiferroics with Y- and Z-type hexaferrite structures. Ferroelectrics, 2018, 532, 208-220.	0.3	7
75	Lead-substituted barium hexaferrite for tunable terahertz optoelectronics. NPG Asia Materials, 2021, 13, .	3.8	7
76	Time-Domain Terahertz Spectroscopy of SrBi ₂ Ta ₂ O ₉ . Ferroelectrics, 2004, 300, 125-129.	0.3	6
77	Effect of Fe doping on the terahertz conductivity of GaN single crystals. Journal Physics D: Applied Physics, 2010, 43, 145401.	1.3	6
78	Terahertz pulse emission from epitaxial n-InAs in a magnetic field. Journal Physics D: Applied Physics, 2019, 52, 365301.	1.3	6
79	Ultrafast carrier response of Br ⁺ -irradiated In _{0.53} Ga _{0.47} As excited at telecommunication wavelengths. Journal of Applied Physics, 2012, 111, 093721.	1.1	5
80	Infrared and Raman spectroscopy of Li ₂ Ge ₇ O ₁₅ single crystals: spectra of the paraelectric and aristotype phases. Journal of Physics Condensed Matter, 1995, 7, 5681-5700.	0.7	4
81	Broadband microwave-to-terahertz near-field imaging. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	4
82	Microwave and Terahertz Surface Resistance of MgB ₂ Thin Films. Journal of Superconductivity and Novel Magnetism, 2007, 19, 617-623.	0.8	4
83	Changes in spin and lattice dynamics induced by magnetic and structural phase transitions in multiferroic SrMnO_{12} . Physical Review B, 2019, 99, .		
84	Effects of Grain Boundaries on THz Conductivity in the Crystalline States of Ge ₂ Sb ₂ Te ₅ Phase-Change Materials: Correlation with DC Loss. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000411.	1.2	4
85	THz Near-Field Spectroscopy Based on Metal-Dielectric Antennae. , 2006, , .		3
86	Seemingly anisotropic magnetodielectric effect in isotropic EuTiO_3 ceramics. Physical Review B, 2020, 102, .	1.1	3
87	Onset of a superconductor-insulator transition in an ultrathin NbN film under in-plane magnetic field studied by terahertz spectroscopy. Physical Review B, 2022, 105, .	1.1	3
88	Simple device for continuous angle-of-incidence selection in ultrafast experiments. Review of Scientific Instruments, 2005, 76, 043101.	0.6	2
89	Near-field terahertz imaging of ferroelectric domains in barium titanate. Phase Transitions, 2010, 83, 985-993.	0.6	2
90	Dynamics of the proton transport in the Cs ₅ H ₃ (SO ₄) ₄ · xH ₂ O superionic conductor (PCHS). Ionics, 1996, 2, 235-240.	1.2	1

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91	Optical two-photon absorption in GaAs measured by optical pump-terahertz probe spectroscopy. , 0, , .		1
92	<title>Optical rectification at metal surfaces investigated in the terahertz frequency range</title>. , 2006, 6257, 179.		1
93	Study of the ferroelectric phase transition in GeTe using time-domain THz spectroscopy. , 2011, , .		1
94	Unusual features of lattice dynamics in lawsonite near its phase transitions. Scientific Reports, 2022, 12, 6157.	1.6	1
95	Vibrational spectroscopy of Ba _{1-x} R _x F _{2+x} (R = La, Nd) superionic conductors. Ferroelectrics, 2000, 239, 47-54.	0.3	0
96	Photon-assisted ultrafast plasma expansion in GaAs. , 0, , .		0
97	Phase-sensitive time-domain terahertz reflectometry. , 0, , .		0
98	Active optical control of reflectivity in the terahertz range. , 0, , .		0
99	Terahertz radiation generated by optical rectification at metal surfaces. , 0, , .		0
100	A novel broadband probe for near-field imaging and spectroscopy from DC to THz. , 0, , .		0
101	Far-infrared dynamics probed by terahertz pulses. , 0, , .		0
102	Photoionization mechanisms of oxygen probed by terahertz pulses. , 0, , .		0
103	Electric field tuning of the dielectric response of strontium titanate in the THz range. , 2006, , .		0
104	Simultaneous Determination of Dielectric Permittivity and Magnetic Permeability of Bulk Samples by THz Time-Domain Spectroscopy. , 2006, , .		0
105	Optically controllable photonic crystals used as THz modulators. , 2007, , .		0
106	Ultrafast opto-THz modulators based on photonic crystals with GaAs defect. , 2007, , .		0
107	Terahertz near-field spectroscopy and microscopy based on metal-dielectric antenna. , 2007, , .		0
108	Optically tunable photonic crystals used as devices for the THz range. , 2007, , .		0

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109	An Optically Controlled Modulator of Terahertz Radiation Based on 1-D Photonic Crystal. , 2007, , .		0
110	Tunable materials and structures for the THz range. , 2007, , .		0
111	Determination of the influence of dialysis on the human skin water content by means of THz spectroscopy. , 2008, , .		0
112	Modulators of THz radiation based on SrTiO ₃ epitaxial thin films. , 2008, , .		0
113	Tunable SrTiO ₃ /DyScO ₃ heterostructures for applications in the terahertz range. , 2008, , .		0
114	Study of responsiveness of near-field terahertz imaging probes. Proceedings of SPIE, 2008, , .	0.8	0
115	Ultrafast carrier dynamics in microcrystalline silicon studied by time-resolved terahertz spectroscopy. , 2009, , .		0
116	Tunable metamaterials with negative permeability in THz range. , 2009, , .		0
117	Fishnet metamaterials on thin polymer film for terahertz applications. , 2010, , .		0
118	Near-field terahertz imaging of ferroelectric domains in barium titanate. , 2010, , .		0
119	Electric field induced tuning of the dielectric properties of strontium titanate bulk crystals in terahertz frequency range. , 2011, , .		0
120	Terahertz spectroscopy with focused beams: Gouy shift correction for highly accurate refractive index retrieval. , 2011, , .		0
121	Investigation of metamaterials for terahertz frequency range. , 2011, , .		0
122	TiO ₂ microspheres metamaterials with negative permeability in the terahertz bandwidth. , 2012, , .		0
123	Terahertz sensing of supercooled glycerol using a 1D photonic crystal. , 2013, , .		0
124	Resonant terahertz response of TiO ₂ microspheres. Proceedings of SPIE, 2013, , .	0.8	0
125	Electric-field tunable THz metamaterials based on strained SrTiO ₃ films. , 2014, , .		0
126	Spin and lattice vibrations of CaMn ₇ O ₁₂ in the THz range. , 2014, , .		0

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127	Origin of non-drude conductivity in the THz spectra of nanogranular semiconductors. , 2014, , .		0
128	Broadband spectroscopy of H ₂ O molecule confined in nano-cages of crystal lattice: Low-energy dynamics and incipient ferroelectric behavior. , 2015, , .		0
129	Spin and lattice excitations of multiferroic (Ba _{0.2} Sr _{0.8}) ₃ Co ₂ Fe ₂₄ O ₄₁ in the THz range. , 2015, , .		0
130	Terahertz dynamics of nanoconfined water molecules. , 2016, , .		0
131	THz spectroscopic investigations of magnetodielectric coupling in Sr _{0.55} Ba _{0.45} MnO ₃ ceramics. , 2016, , .		0
132	Bulk magnetic terahertz metamaterials based on dielectric microspheres. , 2016, , .		0
133	Spin and lattice dynamics of multiferroic SrMn ₇ O ₁₂ studied by THz and infrared spectroscopies at low temperatures and in magnetic field. , 2019, , .		0
134	Magnetoelectric Excitations in Polar Antiferromagnetic Nickel Tellurates Substituted by Mn and Co. , 2019, , .		0
135	Photoionization Mechanisms of Atmospheric Gases Probed by Terahertz Pulses. , 2006, , .		0
136	Dielectric Tunable Metamaterials with Negative Permeability in Terahertz Range. , 2009, , .		0
137	Quantitative Infrared and Sub-millimetre Spectroscopy of Dielectric Single Crystals, Ceramics and Thin Films. , 1997, , 305-306.		0
138	Anisotropic magnetodielectric effect in isotropic EuTiO ₃ ceramics. , 2020, , .		0