Takayoshi Kobayashi

List of Publications by Year
in descending order

128	2,886	172386	175177
papers	citations	29 h-index	52 g-index

131	131	131	2545
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interfacial Pockels Effect of Solvents with a Larger Static Dielectric Constant than Water and an Ionic Liquid on the Surface of a Transparent Oxide Electrode. Applied Sciences (Switzerland), 2022, 12, 2454.	1.3	1
2	Electric-Field Induced Shift in the Plasmon Resonance Due to the Interfacial Pockels Effect of Water on a Silver Surface. Applied Sciences (Switzerland), 2021, 11, 2152.	1.3	9
3	More Than 50-Fold Enhanced Nonlinear Optical Response of Porphyrin Molecules in Aqueous Solution Induced by Mixing Base and Organic Solvent. Applied Sciences (Switzerland), 2021, 11, 4892.	1.3	2
4	Advanced time-resolved absorption spectroscopy with an ultrashort visible/near IR laser and a multi-channel lock-in detector. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2021, 97, 236-260.	1.6	0
5	Efficient Molecular Aggregation of Rhodamine 6G and Pseudoisocyanine by Light-Induced Force. Applied Sciences (Switzerland), 2020, 10, 3563.	1.3	3
6	Exploring the ultrafast dynamics of a diarylethene derivative using sub-10 fs laser pulses. Physical Chemistry Chemical Physics, 2019, 21, 192-204.	1.3	14
7	Femtosecond electronic relaxation and real-time vibrational dynamics in 2â€²-hydroxychalcone. Physical Chemistry Chemical Physics, 2019, 21, 5344-5358.	1.3	8
8	Solvent Effects in Highly Efficient Light-Induced Molecular Aggregation. Applied Sciences (Switzerland), 2019, 9, 5381.	1.3	3
9	Gray-level co-occurrence matrix analysis of several cell types in mouse brain using resolution-enhanced photothermal microscopy. Journal of Biomedical Optics, 2017, 22, 036011.	1.4	8
10	Fast 3D visualization of endogenous brain signals with high-sensitivity laser scanning photothermal microscopy. Biomedical Optics Express, 2016, 7, 1702.	1.5	18
11	Ultrafast dynamics of ligand and substrate interaction in endothelial nitric oxide synthase under Soret excitation. Biophysical Chemistry, 2016, 214-215, 11-16.	1.5	1
12	DEVELOPMENT OF ULTRASHORT PULSE LASERS AND THEIR APPLICATIONS TO ULTRAFAST SPECTROSCOPY IN THE VISIBLE AND NIR RANGES. Advances in Multi-photon Processes and Spectroscopy, 2016, , 155-210.	0.6	0
13	Ultrafast dynamics of uracil and thymine studied using a sub-10 fs deep ultraviolet laser. Physical Chemistry Chemical Physics, 2016, 18, 17044-17053.	1.3	25
14	Ultrafast Multi-Level Logic Gates with Spin-Valley Coupled Polarization Anisotropy in Monolayer MoS2. Scientific Reports, 2015, 5, 8289.	1.6	34
15	Reduction of distortion in photothermal microscopy and its application to the high-resolution three-dimensional imaging of nonfluorescent tissues. Biomedical Optics Express, 2015, 6, 3217.	1.5	18
16	Application of Ultrashort DUV Pulse Laser to Study the Primary Dynamic Process of Molecules in Vitamin D Biosynthesis. The Review of Laser Engineering, 2015, 43, 703.	0.0	0
17	Sub-10 fs spectroscopy of K-TCNQ crystal for observation of intramolecular vibration modulation in melting of the Peierls dimer. Physical Review B, 2014, 90, .	1.1	8
18	Generation of multi-color carrier-envelope phase locked pulse with continuous color tunability. Optics Communications, 2014, 315, 310-316.	1.0	1

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19	THz Generation and Detection on Dirac Fermions in Topological Insulators. Advanced Optical Materials, 2013, 1, 804-808.	3.6	49
20	Ultrafast electronic relaxation and vibrational dynamics in a polyacetylene derivative. Chemical Physics Letters, 2013, 567, 6-13.	1.2	4
21	Electronic relaxation and coherent phonon dynamics in semiconducting single-walled carbon nanotubes with several chiralities. Physical Review B, 2013, 88, .	1.1	17
22	A new reaction mechanism of Claisen rearrangement induced by few-optical-cycle pulses: Demonstration of nonthermal chemistry by femtosecond vibrational spectroscopy. Pure and Applied Chemistry, 2013, 85, 1991-2004.	0.9	7
23	Terahertz Generation: THz Generation and Detection on Dirac Fermions in Topological Insulators (Advanced Optical Materials 11/2013). Advanced Optical Materials, 2013, 1, 886-886.	3.6	0
24	Development of Ultrafast Spectroscopy and Reaction Mechanisms Studied by the Observation of Ultrashort-Life Species and Transition States. Bulletin of the Chemical Society of Japan, 2013, 86, 167-182.	2.0	8
25	Sub-10-fs deep-ultraviolet light source with stable power and spectrum. Applied Optics, 2012, 51, 6403.	0.9	8
26	Ultrafast spectroscopy with sub-10 fs deep-ultraviolet pulses. Physical Chemistry Chemical Physics, 2012, 14, 6200.	1.3	51
27	ULTRAFAST REAL-TIME VIBRATIONAL DYNAMICS IN J-AGGREGATES. , 2012, , 1-47.		1
28	Generation and Optimization of Femtosecond Pulses by Four-Wave Mixing Process. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 54-65.	1.9	8
29	Electric field-controlled dissociation and association of porphyrin J-aggregates in aqueous solution. Physical Chemistry Chemical Physics, 2011, 13, 17756.	1.3	16
30	Generation of CEP-stabilized sub-3-fs pulses. , 2011, , .		0
31	Real-Time Vibrational Dynamics in Chlorophyll a Studied with a Few-Cycle Pulse Laser. Biophysical Journal, 2011, 101, 995-1003.	0.2	43
32	Observation of breather and soliton in a substituted polythiophene with a degenerate ground state. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 74-79.	0.8	2
33	Femtosecond pulse cleaning and measurement using self-diffraction process. , 2011, , .		0
34	Beat of Frequency Modes with an Artificial Negative Frequency in Spectrogram Analysis. Chemistry Letters, 2010, 39, 1283-1284.	0.7	1
35	Broadband two-dimensional multicolored arrays generation in a sapphire plate. , 2009, , .		0
36	Generation of µJ tunable multicolor femtosecond laser pulses using cascaded four-wave mixing. , 2009, , .		0

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37	Simultaneous measurement of electronic and vibrational dynamics using a few-cycle pulse laser. , 2009, , .		0
38	Parametric interactions and nonlinear Raman processes of vibronic excitons in polydiacetylene studied with a twoâ€opticalâ€cycle laser. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 152-155.	0.8	0
39	Real-time observation of dynamic coupling between the stretching and bending modes in a polythiophene. Chemical Physics Letters, 2009, 481, 204-208.	1.2	8
40	Ultrafast Vibronic Processes in a Ruâ€“Porphyrin Complex. European Journal of Inorganic Chemistry, 2008, 2008, 4856-4860.	1.0	8
41	Spectral Oscillation in Optical Frequency-Resolved Quantum-Beat Spectroscopy With a Few-Cycle Pulse Laser. IEEE Journal of Quantum Electronics, 2008, 44, 1232-1241.	1.0	21
42	Sub-5-fs real-time spectroscopy of transition states in bacteriorhodopsin during retinal isomerization. , 2008, , .		0
43	Time resolution of chirped lattice vibrations in a mixed-valence metal-halogen complex system. Physical Review B, 2007, 75, .	1.1	1
44	Chirped molecular vibration in a stilbene derivative in solution. Chemical Physics, 2007, 341, 336-343.	0.9	7
45	Sub-5-fs Real-time Spectroscopy of Transition States in Bacteriorhodopsin During Retinal Isomerizationâ€. Photochemistry and Photobiology, 2007, 83, 363-369.	1.3	25
46	Generation of frequency tunable polarization entangled photon pairs. Journal of Applied Physics, 2006, 99, 063101.	1.1	9
47	Ultrafast Optical Nonlinearity in Polydiacetylenes Studied by Sub-5-fs Laser. Molecular Crystals and Liquid Crystals, 2006, 446, 193-207.	0.4	0
48	Chirped modulation of molecular vibration in quinoidal thiophene after sub-5fs excitation. Chemical Physics Letters, 2006, 430, 45-50.	1.2	14
49	Confined breather-type excitation in a quinoidal thiophene after sub-5fs pulse excitation. Journal of Chemical Physics, 2006, 125, 044103.	1.2	8
50	Sub-5 fs Spectroscopy of Polydiacetylene. , 2006, , 497-524.		0
51	Quantum key distribution with a heralded single photon source and a photon number resolving detector. , 2006, , .		0
52	Real-Time Charge Oscillation between Monomers in a Dimeric System Associated with Intermolecular Vibration Induced by an Ultrashort Pulse. Journal of Physical Chemistry B, 2005, 109, 74-79.	1.2	3
53	Optical frequency- and vibrational time-resolved two-dimensional spectroscopy by real-time impulsive resonant coherent Raman scattering in polydiacetylene. Physical Review A, 2004, 70, .	1.0	54
54	Phase analysis of vibrational wave packets in the ground and excited states in polydiacetylene. Physical Review B, 2004, 70, .	1.1	23

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55	Four-photonWstate using two-crystal geometry parametric down-conversion. Physical Review A, 2004, 70, .	1.0	29
56	Coherent control of nanoscale localization of ultrafast optical excitation in nanosystems. Physical Review B, 2004, 69, .	1.1	95
57	Origin of transition dipole-moment polarizability and hyperpolarizability in hydrazones. Physical Review B, 2003, 67, .	1.1	22
58	The effect of two-exciton states on the linear absorption of the third molecular level in linear molecular aggregates. Journal of Chemical Physics, 2002, 117, 11347-11351.	1.2	2
59	Real-Time Spectroscopy of Molecular Vibration Using Sub-5-fs Pulses. ACS Symposium Series, 2002, , 171-187.	0.5	0
60	Observation of Herzbergâ^'Teller-type Wave Packet Motion in Porphyrin J-Aggregates Studied by Sub-5-fs Spectroscopy. Journal of Physical Chemistry A, 2002, 106, 3445-3453.	1.1	98
61	Sub-5 fs pulse generation from a noncollinear optical parametric amplifier. Measurement Science and Technology, 2002, 13, 1671-1682.	1.4	48
62	CONTINUOUS VARIABLE TELEPORTATION OF SINGLE PHOTON STATES. , 2002, , .		1
63	Continuous-variable teleportation of single-photon states. Physical Review A, 2001, 65, .	1.0	40
64	Dynamic Intensity Borrowing in Porphyrin J-Aggregates Revealed by Sub-5-fs Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 413-419.	1.2	78
65	Real-time spectroscopy of transition states in bacteriorhodopsin during retinal isomerization. Nature, 2001, 414, 531-534.	13.7	386
66	UlTRAFAST LATTICE RELAXATION DYNAMICS OF EXCITON IN A QUAISI-1-D METAL-HALOGEN COMPLEX. International Journal of Modern Physics B, 2001, 15, 3965-3968.	1.0	1
67	FIRST OBSERVATION OF DYNAMIC INTENSITY BORROWING INDUCED BY COHERENT MOLECULAR VIBRATIONS IN J-AGGREGATES REVEALED BY SUB-5-FS SPECTROSCOPY. International Journal of Modern Physics B, 2001, 15, 3817-3820.	1.0	6
68	Ultrafast relaxation dynamics of neutral soliton pairs in a quasi-one-dimensional halogen-bridged mixed-valence platinum complex [Pt(en)2][Pt(en)2Br2](ClO4)4. Journal of Chemical Physics, 2001, 114, 2369-2376.	1.2	7
69	SUB-5-fs REAL-TIME SPECTROSCOPY of EXCITONIC SYSTEMS. , 2001, , .		0
70	FIRST OBSERVATION OF DYNAMIC INTENSITY BORROWING INDUCED BY COHERENT MOLECULAR VIBRATIONS IN J-AGGREGATES REVEALED BY SUB-5-FS SPECTROSCOPY. , 2001, , .		0
71	ULTRAFAST LATTICE RELAXATION DYNAMICS OF EXCITON IN A QUAISI-1-D METAL-HALOGEN COMPLEX. , 2001, , .		0
72	Dynamical observation of Duschinsky rotation by sub-5-fs real-time spectroscopy. Chemical Physics Letters, 2000, 332, 324-330.	1.2	30

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73	Real-time vibrational mode-coupling associated with ultrafast geometrical relaxation in polydiacetylene induced by sub-5-fs pulses. Chemical Physics Letters, 2000, 321, 385-393.	1.2	95
74	Timeâ€Resolved Fluorescence Spectroscopy of Porphyrin Jâ€Aggregates Using Optical Kerr Gate Methods. Journal of the Chinese Chemical Society, 2000, 47, 859-861.	0.8	9
75	Wave-packet dynamics in a cyanine dye molecule excited with femtosecond chirped pulses. Journal of Chemical Physics, 2000, 113, 7546-7553.	1.2	59
76	EXCITED- AND GROUND-STATE WAVE PACKET DYNAMICS IN ORGANIC MATERIALS INDUCED BY FEMTOSECOND CHIRPED PULSES. , 2000, , .		0
77	DYNAMICAL INTENSITY BORROWING IN PORPHYRIN J-AGGREGATES REVEALED BY SUB-5-FS SPECTROSCOPY. , 2000, , .		0
78	SUB-5FS REAL-TIME SPECTROSCOPY OF GEOMETRICAL RELAXATION PROCESSES IN POLYDIACETYLENES. , 2000, , .		0
79	Ultrafast exciton and excited-exciton dynamics in J-aggregates of three-level porphyrin molecules. Journal of Chemical Physics, 1999, 110, 5844-5850.	1.2	64
80	Report on CLEO/QELS'99. The Review of Laser Engineering, 1999, 27, 553-571.	0.0	0
81	Chain-Length Dependent Stationary and Time-Resolved Spectra of Î±-Oligothiophenes. Journal of Physical Chemistry B, 1998, 102, 3706-3711.	1.2	43
82	Giant Static Dipole Moment in Pseudoisocyanine J-Aggregate with a Hierarchical Structure. Molecular Crystals and Liquid Crystals, 1998, 314, 1-11.	0.3	15
83	Fluorescence from molecules and aggregates in polycrystalline thin films of Î±-oligothiophenes. Journal of Chemical Physics, 1998, 109, 8442-8450.	1.2	37
84	Noncollinearly phase-matched femtosecond optical parametric amplification with a 2000â€‰cmâˆ’1 bandwidth. Applied Physics Letters, 1998, 72, 147-149.	1.5	142
85	ULTRAFAST RELAXATION IN CONJUGATED POLYMERS. , 1998, , 430-488.		2
86	Population Inversion between Uncoupled Atomic States through Cavity Modes. Journal of the Physical Society of Japan, 1998, 67, 1594-1596.	0.7	5
87	Femtosecond Fluorescence Study of Proton-Transfer Process in Thermochromic Crystalline Salicylideneanilines. Journal of Physical Chemistry B, 1997, 101, 10645-10652.	1.2	46
88	Femtosecond Fluorescence Study of the Substitution Effect on the Proton Transfer in Thermochromic Salicylideneaniline Crystals. Journal of Physical Chemistry A, 1997, 101, 644-649.	1.1	109
89	Comparison of Bistable Light Emission of a Thin CdS:Cu Film Measured in Reflection and Transmission Geometry. Optical Review, 1997, 4, 553-555.	1.2	0
90	Femtosecond spectroscopy of a polydiacetylene with extended conjugation to acetylenic side groups. Chemical Physics Letters, 1997, 267, 472-480.	1.2	57

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91	Hierarchical Structure in Oriented J-aggregates. , 1996, , 41-65.		5
92	Femtosecond Nonlinear Optical Response in J-Aggregates: Exciton Dynamics and Stimulated Raman Process. , 1996, , 161-180.		6
93	Hierarchic Structure of J-Aggregates. Molecular Crystals and Liquid Crystals, 1996, 283, 17-24.	0.3	8
94	Visible to nearâ€infrared femtosecond dynamics of photoexcited gap states in substituted polyacetylenes. Journal of Chemical Physics, 1996, 105, 2859-2874.	1.2	29
95	Charge-Transfer Effects in a Strongly Hydrogen-Bonded System:Â Potassium Salt of Acetylenedicarboxylic Acid. The Journal of Physical Chemistry, 1996, 100, 5844-5848.	2.9	7
96	Femtosecond inverse Raman spectrum of molecular J-aggregates. Journal of Raman Spectroscopy, 1995, 26, 553-559.	1.2	11
97	A New Architecture for Optical Data Processing Devices by the Application of Bistability in Luminescence. Optical Review, 1995, 2, 43-46.	1.2	3
98	All-Optical Bistabilities in Reflection and Luminescence of Thin ZnSe Films. Optical Review, 1995, 2, 404-406.	1.2	1
99	Complex electroâ€optic constants of dyeâ€doped polymer films determined with a Machâ€“Zehnder interferometer. Journal of Applied Physics, 1995, 77, 4935-4940.	1.1	21
100	Efficient Femtosecond Optical Parametric Oscillator Tunable in a Blue-Orange Region.. The Review of Laser Engineering, 1995, 23, 922-927.	0.0	0
101	Determination of complex tensor components of electroâ€optic constants of dyeâ€doped polymer films with a Machâ€“Zehnder interferometer. Applied Physics Letters, 1994, 65, 1605-1607.	1.5	24
102	An exciton with a massive hole in a quantum dot. Journal of Applied Physics, 1994, 75, 382-387.	1.1	7
103	Ultrafast Relaxation in Conjugated Polymers: Femtosecond Raman Gain Spectrum of Excitons with 1.5-PS Life in Polydiacetylene. Molecular Crystals and Liquid Crystals, 1994, 256, 129-134.	0.3	0
104	New fabrication method for highly orientedJaggregates dispersed in polymer films. Applied Physics Letters, 1993, 63, 577-579.	1.5	143
105	Ultrafast Responses in Various Conjugated Polymers with Large Optical Nonlinearity. , 1993, , 1-79.		4
106	Ultrafast Response of Polymers with Large Optical Nonlinearity. Molecular Crystals and Liquid Crystals, 1992, 217, 83-88.	0.3	6
107	FEMTOSECOND STUDIES OF PRIMARY PHOTOPROCESSES IN OCTOPUS RHODOPSIN. Photochemistry and Photobiology, 1992, 56, 1003-1011.	1.3	31
108	LIGHT ADAPTATION OF DARK-ADAPTED BACTERIORHODOPSIN STUDIED BY NANOSECOND TIME-RESOLVED ABSORPTION SPECTROSCOPY. Photochemistry and Photobiology, 1992, 56, 1013-1018.	1.3	4

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109	Ultrafast optical Kerr dynamics studied with incoherent light. Journal of Chemical Physics, 1991, 94, 3332-3346.	1.2	89
110	Superradiance quenching by confined acoustic phonons in chemically prepared CdS microcrystallites. Journal of Chemical Physics, 1991, 94, 4131-4140.	1.2	69
111	Opticalâ€heterodyneâ€detected induced phase modulation for the study of femtosecond molecular dynamics. Journal of Chemical Physics, 1991, 95, 937-945.	1.2	47
112	Femtosecond Spectroscopy of Polydiacetylene. Molecular Crystals and Liquid Crystals Incorporating Nonlinear Optics, 1990, 183, 153-156.	0.3	0
113	CLEO '90/IQEC '90 Report IV. Nonlinear optics ultrafast phenomena.. The Review of Laser Engineering, 1990, 18, 529-539.	0.0	0
114	Report on CLEO '89/QELS '89 II. Nonlinear optics, ultrafast phenomena.. The Review of Laser Engineering, 1989, 17, 489-499.	0.0	0
115	Tunneling process in AlAs/GaAs double quantum wells studied by photoluminescence. Journal of Applied Physics, 1988, 63, 5491-5494.	1.1	72
116	New determination method of electroâ€optic constants and relevant nonlinear susceptibilities and its application to doped polymer. Journal of Applied Physics, 1988, 64, 2625-2629.	1.1	54
117	Report on CLEO '88. IV. Ultrafast optics and electronics, atmospheric, space and ocean optics.. The Review of Laser Engineering, 1988, 16, 348-351.	0.0	0
118	Detection of Trace Iodine in Solution by Phase Conjugate Reflection. Spectroscopy Letters, 1987, 20, 633-643.	0.5	3
119	Subpicosecond molecular dynamics studied by degenerate four-wave mixing with incoherent light. Physical Review A, 1987, 36, 1298-1304.	1.0	42
120	New Method for the Measurement of Electro-optic Constant of Polycarbonate Films Doped with 4-Diethylamino-4â€²-Nitrostilbene Molecules. Materials Research Society Symposia Proceedings, 1987, 109, 373.	0.1	0
121	Nanosecond Time-Resolved Photoinduced Absorption oftrans-Polyacetylene. Journal of the Physical Society of Japan, 1987, 56, 768-780.	0.7	29
122	Measurements of femtosecond relaxations in condensed phase using incoherent light.. The Review of Laser Engineering, 1987, 15, 923-929.	0.0	0
123	EFFICIENT PHOTOREDUCTION OF METHYLVIOLOGEN BY METALLOPHTHALOCYANINE SENSITIZERS. Photochemistry and Photobiology, 1986, 44, 125-129.	1.3	26
124	Timeâ€resolved resonance Raman spectrum of chrysene in theS1andT1states. Journal of Chemical Physics, 1986, 85, 1211-1219.	1.2	11
125	Generation of Femtosecond Light Pulses. The Review of Laser Engineering, 1984, 12, 298-305.	0.0	0
126	Effect of pH on the photoreaction cycles of bacteriorhodopsin. FEBS Letters, 1983, 162, 197-200.	1.3	54

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127	Application of Subpicosecond Laser to Chemical Physics. The Review of Laser Engineering, 1981, 9, 619-628.	0.0	0
128	Compressive Creep Behavior of SiC Fiber-Reinforced Mullite Matrix Composites. Ceramic Engineering and Science Proceedings, 0, , 129-136.	0.1	4