Hiroshi Kumagai

List of Publications by Year
in descending order

131	1,073	331670	454955
papers	citations	21 h-index	30 g-index

131	131	131	629
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Room-temperature Molecular Layer Deposition of Organic-inorganic Hybrid Thin Films by Trimethylaluminum/Ethanol Combination. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 568-569.	0.2	0
2	Investigation of the Direction of Myofiber using Multichannel Surface EMG. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 578-579.	0.2	0
3	Basic Study to Verify Possibility for Detection of Human Cardiopulmonary Activity in Sediment Using Current-Induced Magnetic Modulation Spectroscopy. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 532-538.	0.2	0
4	Relationship between Conducting Wave and Muscle Thickness In Multi-channel Surface EMG. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 525-531.	0.2	0
5	Spin Relaxation Prevention Effect of Optically Pumped Atomic Magnetometer Cell by Room Temperature Molecular Layer Deposition of Inorganic-organic Hybrid Film. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 574-575.	0.2	0
6	Development of 100 kHz Optical Pumped Atomic Magnetometer Module for Non-Magnetic Shield. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 509-513.	0.2	0
7	Analysis of Paraffin Thin Film by Spectroscopic Ellipsometer. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 572-573.	0.2	0
8	Development of 8ch Current Induced Magnetic Tomography. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 576-577.	0.2	0
9	Construction of a Gradiometer using Two Scalar-type Optically Pumped Atomic Magnetometers and Measurement of Biological Pseudo-signals. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 553-555.	0.2	0
10	Basic study to verify possibility for detection of human cardiopulmonary activity in sediment using currentâ€induced magnetic modulation spectroscopy. Electronics and Communications in Japan, 2021, 104, e12315.	0.5	0
11	Development of 100ÂkHz optical pumped atomic magnetometer module for nonâ€magnetic shield. Electronics and Communications in Japan, 2021, 104, e12319.	0.5	0
12	Respiration and Heat Shock Protein After Short-Term Heating/Stretch-Fixing on Smooth Muscle Cells. Cardiovascular Engineering and Technology, 2020, 11, 308-315.	1.6	0
13	Evaluation of a combined two-color phase plate forming three-dimensional dark holes in super resolution microscopy. , 2020, , .		0
14	Enhancement of Xe-NMR signals at low magnetic field using optical pumping hyperpolarization. , 2020, , .		0
15	Salted cadaver brain measurement for light attenuation of PDT. , 2020, , .		0
16	Derivation of NARX models by expanding activation functions in neural networks. IEEJ Transactions on Electrical and Electronic Engineering, 2019, 14, 1209-1218.	1.4	2
17	Increase of NMR/MIR signals under ultra-low B fields with hyperpolarized Xe using 1W CW single-frequency Ti:Sapphire laser. , 2019, , .		1
18	Preventing spin relaxation of optically pumped alkali metal atoms by atomically-thin hybrid polymer film coating. , 2019, , .		1

#	Article	IF	Citations
19	Drug contact time dominates a necessary time for myocardial cells necrosis by a photodynamic reaction. , 2019, , .		0
20	Threeâ€Ðimensional Monitoring of Thawing of Biological Tissue Using Electrical Impedance Tomography. Electronics and Communications in Japan, 2018, 101, 24-33.	0.5	1
21	Improvement of spin-exchange optical pumping of xenon-129 using in situ NMR measurement in ultra-low magnetic field. , 2018, , .		0
22	Observation of immunostained microtubules using three-dimensional super-resolution microscope with two-color annular wave plate. , 2018, , .		0
23	Theoretical analysis of lateral resolution given by annular super-resolution phase plate. Proceedings of SPIE, 2017, , .	0.8	0
24	Analysis of Self-excited Oscillation in a Simulated Vascular Access Circuit. IEEJ Transactions on Electronics, Information and Systems, 2017, 137, 565-572.	0.2	0
25	Increase of Nuclear Magnetic Resonance Signal in Ultra-low-field by Hyperpolarization of ¹³¹Xe by Spin-exchange Optical Pumping. IEEJ Transactions on Electronics, Information and Systems, 2017, 137, 604-606.	0.2	0
26	Three Dimensional Monitoring of Thawing of Biological Tissue using Electrical Impedance Tomography. IEEJ Transactions on Electronics, Information and Systems, 2017, 137, 1062-1069.	0.2	0
27	Laser polarized Xe NMR and MRI at ultra-low magnetic fields. Proceedings of SPIE, 2017, , .	0.8	0
28	Fabrication of two-color annular hybrid wave plate for three-dimensional super-resolution microscopy. Proceedings of SPIE, 2016, , .	0.8	0
29	Creation of a three-dimensional spherical fluorescence spot for super-resolution microscopy using a two-color annular hybrid wave plate. Optics Letters, 2015, 40, 1057.	3.3	22
30	Computational fluid dynamics analysis of the pump parameters in the helical flow pump. Journal of Artificial Organs, 2014, 17, 9-15.	0.9	3
31	Coherent time-domain detection of terahertz pulses generated from noncollinear phase-matched, picosecond terahertz parametric oscillator. Applied Physics Express, 2014, 7, 022701.	2.4	1
32	Tunable Picosecond Terahertz-Wave Parametric Oscillators Based on Noncollinear Pump-Enhanced Signal-Resonant Cavity. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8500307-8500307.	2.9	11
33	Comparative study on THz time-domain spectroscopy using 780-nm 1.3-ps laser pulses with different detections of LT-GaAs photoconductive antenna and ZnTe electro-optic sampling. , 2013, , .		0
34	Tunable picosecond THz-wave generation based on trapezoidal MgO:LiNbO₃crystal in novel pentagram-shaped pump-enhancement cavity. Proceedings of SPIE, 2013, , .	0.8	0
35	Study on the Mechanism of Field Adsorption of Helium and Neon above a Single Tungsten Atom with a Pulse Counting Analysis of Field Ions. Hyomen Kagaku, 2013, 34, 409-414.	0.0	1
36	Novel Oxide Multilayer Mirrors at â€œWater-Windowâ€•Wavelengths Fabricated by Atomic Layer Epitaxy. IEEJ Transactions on Electronics, Information and Systems, 2013, 133, 479-483.	0.2	0

#	Article	IF	Citations
37	Time-Domain Measurements of Terahertz Waves Generated from Picosecond Optical Parametric Oscillator. The Review of Laser Engineering, 2013, 41, 125.	0.0	0
38	Coherent electro-optical detection of THz-wave generated from synchronously pumped picosecond THz parametric oscillator. Proceedings of SPIE, 2012, , .	0.8	0
39	Quasi phase matching through periodic step structure: modeling of frequency conversion in consideration of heat influence. , 2012, , .		0
40	Tunable terahertz parametric oscillator synchronously pumped by mode-locked picosecond Ti:Sapphire laser with MgO-doped LiNbO3. Proceedings of SPIE, 2012, , .	0.8	0
41	Novel beam splitter for high-order harmonics with WO3/TiO2 bilayer grown on c-plane sapphire substrate by sequential surface chemical reactions. Proceedings of SPIE, 2012, , .	0.8	0
42	SU-8 ridge-waveguide with holographic grating embedded in nanoimprinted groove. Microelectronic Engineering, 2012, 98, 258-261.	2.4	3
43	Sum-frequency generation of continuous-wave tunable ultraviolet coherent light in BBO-installed external cavity. Proceedings of SPIE, 2012, , .	0.8	1
44	Enhancement Effect of Fundamental Lights with External Cavity on Second Harmonic Generation. IEEJ Transactions on Electronics, Information and Systems, 2012, 132, 1273-1277.	0.2	0
45	Wavelength Tuning Characteristics of Idler Waves in Terahertz-Wave Parametric Oscillator Using Optical Double Resonance. IEEJ Transactions on Electronics, Information and Systems, 2012, 132, 1299-1300.	0.2	0
46	Parametric generation of terahertz wave pumped by picosecond Ti:sapphire laser with MgO-doped LiNbO 3 installed in external enhancement cavity. Proceedings of SPIE, 2011, , .	0.8	1
47	Atomic layer deposition of amorphous TiO 2 /ZnO multilayers for soft x-ray coherent optics. Proceedings of SPIE, 2011, , .	0.8	0
48	70% frequency-doubling efficiency of 0.8-W mode-locked picosecond Ti:sapphire laser with external cavity. , 2011, , .		1
49	Study on periodic twinning of quartz crystal under bending stress. Proceedings of SPIE, 2011, , .	0.8	0
50	A study on fabrication of BaMgF 4 thin film toward frequency-conversion device in UV/VUV region. , 2011, , .		0
51	Low-threshold, quasi-cw terahertz parametric amplification in an external ring cavity with an MgO:LiNbO 3 Crystal. Proceedings of SPIE, 2011, , .	0.8	0
52	Noncascading THz-wave parametric oscillator synchronously pumped by mode-locked picosecond Ti:sapphire laser in doubly-resonant external cavity. Optics Communications, 2011, 284, 4663-4666.	2.1	14
53	Atomic layer epitaxy of TiO 2 /ZnO multilayer optics using ZnO buffer layer for water-window x-ray. , 2011, , .		2
54	Atomic layer epitaxy of ZnO and TiO 2 thin films on c-plane sapphire substrate for novel oxide soft x-ray mirrors. , 2010, , .		0

#	Article	IF	Citations
55	Generation of quasi-continuous wave 389-nm coherent light by frequency doubling of a Ti:sapphire laser for nuclear spin polarization of3He atoms. , 2010, , .		0
56	Recent Progress on Fabrication Technology of Short-Wavelength Soft X-Ray Multilayers and Their. The Review of Laser Engineering, 2010, 38, 976-980.	0.0	0
57	Fabrication of Al 2 O 3 /TiO 2 multilayer mirrors for water-window attosecond pulses. , 2010, , .		0
58	Frequency doubling of a single-frequency 778-nm Ti:Sapphire laser for nuclear spin polarization of 3He atoms. , 2009, , .		0
59	Conversion efficiency of 56% in frequency doubling of single-frequency coherent light from Ti:sapphire laser at 778nm in high-finesse resonant cavity containing BiBO crystal. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 3471-3474.	1.4	3
60	Atomic layer epitaxy of TiO 2 /ZnO multilayers for water-window attosecond optics. , 2009, , .		0
61	Nanosecond 389-nm coherent light source with injection seeding for nuclear spin polarization of³He atoms. Proceedings of SPIE, 2009, , .	0.8	0
62	Development of novel oxide multilayer mirrors at "water-window" wavelengths by atomic layer deposition / atomic layer epitaxy. Transactions of the Materials Research Society of Japan, 2009, 34, 605-608.	0.2	0
63	Design of novel titanium oxide/nickel oxide multilayer mirror for attosecond soft x rays. Transactions of the Materials Research Society of Japan, 2009, 34, 609-612.	0.2	0
64	Optogalvanic spectroscopy using 389nm coherent light source accurately tuned to resonance frequency of 23S->33P of 3He. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 2623-2626.	1.4	0
65	Isotopic separation of silicon atoms by atomic mirror. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 5047-5049.	1.4	1
66	Single-frequency nanosecond-pulsed deep-ultraviolet coherent light source at 252nm for manipulating silicon atoms resonantly. Optics Communications, 2008, 281, 3824-3826.	2.1	1
67	Single-frequency 389-nm CW coherent light source for optical pumping of metastable3He atoms. , 2008, , .		0
68	Fine spectroscopy of semiconductor atoms for controlling nuclear spins. , 2008, , .		1
69	Frequency stabilization of nanosecond deep-ultraviolet coherent light source with injection seeding. Proceedings of SPIE, 2008, , .	0.8	0
70	Novel Optogalvanic Spectroscopy of Semiconductor Atoms with a Frequency-tripled ns Ti:sapphire Laser Injection-seeded by a cw Frequency-scanning Ti:sapphire Laser. The Review of Laser Engineering, 2008, 36, 1020-1023.	0.0	1
71	Development of a single-frequency nanosecond pulsed deep-UV coherent light source for manipulating silicon atoms. , 2007, , .		0
72	Single-frequency stabilization of frequency-tripled nanosecond Ti:sapphire laser injection-seeded for silicon atom optics. , 2007, , .		0

#	Article	IF	Citations
73	Fine frequency tuning in sum-frequency generation of continuous-wave single-frequency coherent light at 252 nm with dual-wavelength enhancement. Optics Letters, 2007, 32, 62.	3.3	5
74	Injection Effects of Nanosecond Pulsed Deep-Ultraviolet Coherent Light Source for Manipulating Atomic Wave of Silicon Atom. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 1346-1347.	0.2	0
75	Development of a single-frequency deep-ultraviolet coherent light source. The Review of Laser Engineering, 2007, 35, 55-56.	0.0	0
76	Characterization of frequency-tripled nanosecond pulsed Ti:sapphire laser injection seeded by a frequency-scanning cw Ti:sapphire laser by use of optogalvanic spectroscopy of silicon atoms. Optics Letters, 2006, 31, 3037.	3.3	10
77	Optogalvanic spectroscopy of silicon atoms. Nuclear Instruments & Methods in Physics Research B, 2004, 215, 419-422.	1.4	6
78	Performance characteristics of external cavities to generate deep-ultraviolet coherent lights resonant to 3p3P14s3P0cyclic transition of28Si. Science and Technology of Advanced Materials, 2004, 5, 589-592.	6.1	2
79	Dynamics of permanent structural transformations in ZBLAN induced by self-channeled plasma filament. Optical Materials, 2004, 26, 57-63.	3.6	6
80	Comparison of Simulations of and Experiments on Femtosecond Laser Ablation of Nickel in Gaseous and Water Environments. Japanese Journal of Applied Physics, 2004, 43, 172-175.	1.5	8
81	Laser cooling for Si atom manipulation with atomic mirror. , 2004, , .		0
82	Fine Spectroscopy of Neutral Silicon Atoms. The Review of Laser Engineering, 2004, 32, 469-474.	0.0	1
83	Efficient frequency doubling of 1-W continuous-wave Ti:sapphire laser with a robust high-finesse external cavity. Applied Optics, 2003, 42, 1036.	2.1	21
84	Efficient sum-frequency generation of continuous-wave single-frequency coherent light at 252 nm with dual wavelength enhancement. Optics Letters, 2003, 28, 1969.	3.3	19
85	Observation of the complex propagation of a femtosecond laser pulse in a dispersive transparent bulk material. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 597.	2.1	54
86	Fabrication of multi-core structures in an optical fiber using plasma self-channeling. Optics Express, 2003, 11, 1780.	3.4	8
87	Toward nano-process applications with laser-cooled silicon atoms. , 2003, , .		2
88	In situ observation of dynamics of plasma formation and refractive index modification in silica glasses excited by a femtosecond laser. , 2003, , .		5
89	High-power regime of femtosecond-laser pulse propagation in silica: Multiple-cone formation. Physical Review E, 2002, 66, 056608.	2.1	24
90	Fabrication of internal diffraction gratings in planar silica plates using low-density plasma formation induced by a femtosecond laser. Nuclear Instruments & Methods in Physics Research B, 2002, 197, 73-82.	1.4	5

#	Article	IF	Citations
91	In situ observation of dynamics of plasma formation and refractive index modification in silica glasses excited by a femtosecond laser. Optics Communications, 2002, 207, 243-253.	2.1	33
92	Simultaneous atomization and ionization of large organic molecules using femtosecond laser ablation. Applied Surface Science, 2002, 197-198, 715-719.	6.1	18
93	Sum-frequency generation of a cw single-frequency-mode coherent light at 252 nm for laser cooling of silicon. , 2001, 4269, 197.		0
94	The growth of Cr4+:YAG and Cr4+:GGG thin films by pulsed laser deposition. Optics Communications, 2001, 187, 373-377.	2.1	17
95	<title>Time-resolved dynamics of plasma self-channeling and bulk modification in silica glasses induced by a high-intensity femtosecond laser</title>. , 2000, 4088, 40.		5
96	Fabrication study of double-cladding structure in optical fibers using plasma channeling induced by a femtosecond laser. , 2000, 3885, 293.		0
97	Development of a high-power deep-ultraviolet continuous-wave coherent light source for laser cooling of silicon atoms. Optics Letters, 2000, 25, 1457.	3.3	38
98	Femtosecond laser micromachining of TiO2 crystal surface for robust optical catalyst. Journal of Applied Physics, 2000, 87, 1604-1609.	2.5	30
99	Pulse duration dependence of metal ablation using a femtosecond titanium sapphire laser. , 2000, 3885, 509.		2
100	Fabrication of double cladding structure in optical multimode fibers using plasma channeling excited by a high-intensity femtosecond laser. Optics Communications, 1999, 168, 287-295.	2.1	30
101	<title>Modification in optical fibers using high-intensity femtosecond lasers</title>. , 1999, , .		0
102	Observation of Self-Channeled Plasma Formation and Bulk Modification in Optical Fibers Using High-Intensity Femtosecond Laser. Japanese Journal of Applied Physics, 1998, 37, L737-L739.	1.5	42
103	<title>Planar laser and nonlinear optical waveguides fabricated by pulsed laser deposition</title>. , 1998, 3343, 796.		1
104	<title>Observation of self-channeling and modification in optical fibers using a high-intensity femtosecond laser</title>. , 1998, , .		2
105	Ultraviolet and blue discretely tunable double-pass fiber Raman laser. Applied Physics Letters, 1997, 70, 3200-3202.	3.3	11
106	Titanium oxide/aluminum oxide multilayer reflectors for â€œwater-windowâ€•wavelengths. Applied Physics Letters, 1997, 70, 2338-2340.	3.3	73
107	Growth and characterization of Nd:YAG epitaxial planar waveguides by pulsed laser deposition. , 1997, , .		0
108	Simple wide-range method for angle measurement with a point fiber-optic output. Applied Optics, 1997, 36, 376.	2.1	3

#	Article	IF	Citations
109	Pulsed laser deposition of carbon nitride thin films in nitrogen gas ambient. Journal of Materials Research, 1997, 12, 3376-3379.	2.6	17
110	A powerful and widely tunable double-pass fiber Raman laser. Optics Communications, 1997, 138, 337-340.	2.1	6
111	Femtosecond optical Kerr studies of photodarkening effect on nonlinear optical properties of CdSxSe1â^'x doped glass. Optics Communications, 1997, 142, 273-278.	2.1	9
112	Characterization of Nd:Y3Al5O12 thin films grown on various substrates by pulsed laser deposition. Applied Physics Letters, 1996, 69, 2977-2979.	3.3	54
113	Effect of Pulse Duration on Ablation Characteristics of Tetrafluoroethylene-hexafluoropropylene Copolymer Film Using Ti:sapphire Laser. Japanese Journal of Applied Physics, 1996, 35, 101-106.	1.5	27
114	A widely tunable (0.54â€“1.01 Î¼m) doubleâ€pass fiber Raman laser. Applied Physics Letters, 1996, 69, 1846-1848.	3.3	16
115	Fabrication of titanium oxide thin films by controlled growth with sequential surface chemical reactions. Thin Solid Films, 1995, 263, 47-53.	1.8	72
116	Crystal Growth of Nd:YAG Laser Films on Various Substrates by Pulsed Laser Deposition. Japanese Journal of Applied Physics, 1995, 34, 6838-6841.	1.5	22
117	Fabrication of Multilayers with Growth Controlled by Sequential Surface Chemical Reactions. Japanese Journal of Applied Physics, 1994, 33, 7086-7089.	1.5	30
118	In situ ellipsometric diagnostics for controlled growth of metal oxides with surface chemical reactions. Applied Surface Science, 1994, 82-83, 481-486.	6.1	27
119	‹title›Surface modification of semiconductors by laser-induced surface electromagnetic wave etching‹/title›. , 1994, , .		2
120	Comparative Study of Al2O3Optical Crystalline Thin Films Grown by Vapor Combinations of Al(CH3)3/N2O and Al(CH3)3/H2O2. Japanese Journal of Applied Physics, 1993, 32, 6137-6140.	1.5	60
121	Spatial Controllability of Periodic Ripple Structures Generated in Laser Etching of n-GaAs. Japanese Journal of Applied Physics, 1992, 31, 4433-4436.	1.5	6
122	Fabrication of Periodic Submicron Dot Structures of N-InP by Laser-Induced Surface Electromagnetic Wave Etching. Japanese Journal of Applied Physics, 1992, 31, L928-L930.	1.5	5
123	Properties of a new highâ€efficiency vacuum ultraviolet fluorine lamp excited by a microwave discharge. Applied Physics Letters, 1991, 59, 2811-2813.	3.3	23
124	Microwave discharge-pumped excimer lamp.. The Review of Laser Engineering, 1990, 18, 456-473.	0.0	0
125	New highâ€efficiency quasiâ€continuous operation of a KrF(Bâ†'X) excimer lamp excited by microwave discharge. Applied Physics Letters, 1989, 54, 2619-2621.	3.3	46
126	A High-Efficiency, High-Repetition-Rate KrF(Bâ†'X) Excimer Lamp Excited by Microwave Discharge. Japanese Journal of Applied Physics, 1989, 28, L2228-L2231.	1.5	11

#	Article	IF	Citations
127	New highâ€efficiency quasiâ€continuous operation of an ArF(Bâ†'X) excimer lamp excited by microwave discharge. Applied Physics Letters, 1989, 55, 1583-1584.	3.3	45
128	Intrinsic efficiency comparison in various lowâ€pressure XeF laser mixtures pumped at high excitation rates and with shortâ€pulse electron beam pumping. Applied Physics Letters, 1988, 52, 1847-1849.	3.3	6
129	Highâ€efficiency extraction study of an electron beam pumped ArF laser amplifier with an atmosphericâ€pressure Arâ€rich mixture. Applied Physics Letters, 1988, 52, 1294-1296.	3.3	8
130	Comparative study of lowâ€pressure rareâ€gas fluoride/chloride lasers excited by a shortâ€pulse electron beam. Journal of Applied Physics, 1988, 64, 1720-1725.	2.5	3
131	Characteristics of an electron beam pumped KrF laser amplifier with an atmosphericâ€pressure Krâ€rich mixture in a strongly saturated region. Applied Physics Letters, 1987, 51, 218-220.	3.3	25