Shunsuke Murai

List of Publications by Year
in descending order

96	2,088	331259 21	264894 42
papers	citations	h-index	g-index

96	96	96	2639
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Plasmonics for solid-state lighting: enhanced excitation and directional emission of highly efficient light sources. Light: Science and Applications, 2013, 2, e66-e66.	7.7	335
2	Random lasers with coherent feedback from highly transparent polymer films embedded with silver nanoparticles. Applied Physics Letters, 2008, 92, .	1.5	127
3	Plasmonically Controlled Lasing Resonance with Metallicâ^'Dielectric Coreâ^'Shell Nanoparticles. Nano Letters, 2011, 11, 1374-1378.	4.5	117
4	Accelerated discovery of cathode materials with prolonged cycle life for lithium-ion battery. Nature Communications, 2014, 5, 4553.	5.8	108
5	Coherent random lasers in weakly scattering polymer films containing silver nanoparticles. Physical Review A, 2009, 79, .	1.0	103
6	Ferroelectric Sr₃Zr₂O₇: Competition between Hybrid Improper Ferroelectric and Antiferroelectric Mechanisms. Advanced Functional Materials, 2018, 28, 1801856.	7.8	89
7	Hybrid Improper Ferroelectricity in (Sr,Ca)₃Sn₂O₇ and Beyond: Universal Relationship between Ferroelectric Transition Temperature and Tolerance Factor in n = 2 Ruddlesdenâ€"Popper Phases. Journal of the American Chemical Society, 2018, 140, 15690-15700.	6.6	74
8	Phase-Selective Distribution of Eu²⁺ and Eu³⁺ in Oxide and Fluoride Crystals in Glass-Ceramics for Warm White-Light-Emitting Diodes. ACS Applied Electronic Materials, 2019, 1, 961-971.	2.0	61
9	High-quality antiferromagnetic EuTiO3 epitaxial thin films on SrTiO3 prepared by pulsed laser deposition and postannealing. Applied Physics Letters, 2009, 94, .	1.5	58
10	Enhanced Light Emission by Magnetic and Electric Resonances in Dielectric Metasurfaces. Advanced Optical Materials, 2020, 8, 1902024.	3.6	56
11	Plasmonic arrays of titanium nitride nanoparticles fabricated from epitaxial thin films. Optics Express, 2016, 24, 1143.	1.7	45
12	Exciton-Polaritons with Magnetic and Electric Character in All-Dielectric Metasurfaces. ACS Photonics, 2020, 7, 1226-1234.	3.2	42
13	Bound States in the Continuum in the Visible Emerging from out-of-Plane Magnetic Dipoles. ACS Photonics, 2020, 7, 2204-2210.	3.2	40
14	Magneto-optical properties of transparent divalent iron phosphate glasses. Applied Physics Letters, 2008, 92, .	1.5	36
15	Enhanced Delayed Fluorescence in Tetracene Crystals by Strong Lightâ€Matter Coupling. Advanced Functional Materials, 2019, 29, 1901317.	7.8	33
16	Scattering-Based Hole Burning in Y₃Al₅O₁₂:Ce³⁺ Monoliths with Hierarchical Porous Structures Prepared via the Solâ€"Gel Route. Journal of Physical Chemistry C, 2011, 115, 17676-17681.	1.5	30
17	Enhanced absorption and emission of Y_3Al_5O_12:Ce^3+ thin layers prepared by epoxide-catalyzed sol-gel method. Optical Materials Express, 2012, 2, 1111.	1.6	30
18	Enhanced photoluminescence and directional white-light generation by plasmonic array. Journal of Applied Physics, 2018, 124, .	1.1	29

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19	Aluminum for Near Infrared Plasmonics: Amplified Upâ€Conversion Photoluminescence from Coreâ€“Shell Nanoparticles on Periodic Lattices. Advanced Optical Materials, 2021, 9, .	3.6	27
20	Plasmonicâ€“Photonic Hybrid Modes Excited on a Titanium Nitride Nanoparticle Array in the Visible Region. ACS Photonics, 2017, 4, 815-822.	3.2	26
21	Demonstration of temperature-plateau superheated liquid by photothermal conversion of plasmonic titanium nitride nanostructures. Nanoscale, 2018, 10, 18451-18456.	2.8	24
22	Collective Mie Exciton-Polaritons in an Atomically Thin Semiconductor. Journal of Physical Chemistry C, 2020, 124, 19196-19203.	1.5	23
23	Random lasing from localized modes in strongly scattering systems consisting of macroporous titania monoliths infiltrated with dye solution. Applied Physics Letters, 2010, 97, .	1.5	21
24	Enhancing upconversion photoluminescence by plasmonic-photonic hybrid mode. Optics Express, 2020, 28, 886.	1.7	21
25	Extreme thermal anisotropy in high-aspect-ratio titanium nitride nanostructures for efficient photothermal heating. Nanophotonics, 2021, 10, 1487-1494.	2.9	18
26	Controlling Exciton Propagation in Organic Crystals through Strong Coupling to Plasmonic Nanoparticle Arrays. ACS Photonics, 2022, 9, 2263-2272.	3.2	18
27	Optical properties of macroporous Y3Al5O12 crystals doped with rare earth ions synthesized via solâ€“gel process from ionic precursors. Optical Materials, 2010, 33, 123-127.	1.7	17
28	Ferromagnetism induced by lattice volume expansion and amorphization in EuTiO₃ thin films. Journal of Materials Research, 2013, 28, 1031-1041.	1.2	17
29	Enhanced Photoluminescence from Organic Dyes Coupled to Periodic Array of Zirconium Nitride Nanoparticles. ACS Photonics, 2018, 5, 3057-3063.	3.2	17
30	Collective plasmonic modes excited in Al nanocylinder arrays in the UV spectral region. Optics Express, 2018, 26, 5970.	1.7	16
31	Intense greenish emission from d0 transition metal ion Ti4+ in oxide glass. Applied Physics Letters, 2007, 90, 051917.	1.5	15
32	Visible and near-infrared photoluminescence enhanced by Ag nanoparticles in Sm3+-doped aluminoborate glass. Optical Materials, 2018, 86, 611-616.	1.7	15
33	Intense blue emission from tantalum-doped silicate glass. Applied Physics Letters, 2006, 89, 061914.	1.5	14
34	Mechanical milling-induced room-temperature ferromagnetic phase in MnO2â€“ZnO system. Applied Physics Letters, 2006, 89, 052501.	1.5	14
35	Faraday effect of bismuth iron garnet thin film prepared by mist CVD method. Japanese Journal of Applied Physics, 2015, 54, 063001.	0.8	14
36	Up-conversion Luminescence Enhanced by the Plasmonic Lattice Resonating at the Transparent Window of Water. ACS Applied Energy Materials, 2021, 4, 2999-3007.	2.5	14

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37	Modified Faraday rotation in a three-dimensional magnetophotonic opal crystal consisting of maghemite/silica composite spheres. Applied Physics Letters, 2012, 101, .	1.5	13
38	Surface-Enhanced Infrared Absorption for the Periodic Array of Indium Tin Oxide and Gold Microdiscs: Effect of in-Plane Light Diffraction. ACS Photonics, 2018, 5, 2602-2608.	3.2	12
39	High-density excitation effect on photoluminescence in ZnO nanoparticles. Journal of Applied Physics, 2010, 107, 124311.	1.1	11
40	Photoluminescence from an emitter layer sandwiched between the stack of metasurfaces. Journal of Applied Physics, 2021, 129, 183101.	1.1	11
41	Random Lasing via Plasmon-Induced Cavitation of Microbubbles. Nano Letters, 2021, 21, 6064-6070.	4.5	11
42	Enhancement of optical birefringence in tellurite glasses containing silver nanoparticles induced via thermal poling. Journal of Non-Crystalline Solids, 2011, 357, 2259-2263.	1.5	10
43	Layered Double Hydroxide Nanosheets on Plasmonic Arrays of Al Nanocylinders for Optical Sensing. ACS Applied Nano Materials, 2020, 3, 5838-5845.	2.4	10
44	Stick-and-play metasurfaces for directional light outcoupling. Applied Physics Letters, 2021, 118, 021110.	1.5	10
45	Photoluminescence decay rate of an emitter layer on an Al nanocylinder array: effect of layer thickness. Journal of the Optical Society of America B: Optical Physics, 2019, 36, E1.	0.9	10
46	Coherent random lasers from weakly scattering polymer films embedded with superfine silver nanoparticles. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S102.	0.8	9
47	Optical Birefringence in Tellurite Glass Containing Silver Nanoparticles Precipitated through Thermal Process. Applied Physics Express, 2009, 2, 102001.	1.1	9
48	Epitaxial Growth of Room-Temperature Ferrimagnetic Semiconductor Thin Films Based on Fe₃O₄-Fe₂TiO₄ Solid Solution. Materials Transactions, 2009, 50, 1076-1080.	0.4	9
49	Atomically smooth and single crystalline indium tin oxide thin film with low optical loss. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2533-2536.	0.8	9
50	Fabrication of cerium-doped yttrium aluminum garnet thin films by a mist CVD method. Journal of Luminescence, 2016, 170, 808-811.	1.5	9
51	Comparison of directionally outcoupled photoluminescences from luminous layers on Si and Al nanocylinder arrays. Journal of Applied Physics, 2019, 125, .	1.1	9
52	Improving the Plasmonic Response of Silver Nanoparticle Arrays via Atomic Layer Deposition Coating and Annealing above the Melting Point. Journal of Physical Chemistry C, 2020, 124, 27687-27693.	1.5	9
53	Broadband scattering by an aluminum nanoparticle array as a white pixel in commercial color printing applications. Optics Express, 2020, 28, 25989.	1.7	9
54	Confinement of ultraviolet light using lattice modes in Al and Si nanocylinder arrays. Optical Materials Express, 2019, 9, 3310.	1.6	9

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55	Electric tuning and switching of the resonant response of nanoparticle arrays with liquid crystals. Journal of Applied Physics, 2022, 131, .	1.1	9
56	Temperature-tunable scattering strength based on the phase transition of liquid crystal infiltrated in well-defined macroporous random media. Optical Materials, 2007, 29, 949-954.	1.7	8
57	Intense visible emissions from d 0 ions-doped silicate glasses. Journal of the Ceramic Society of Japan, 2008, 116, 1147-1149.	0.5	8
58	Ferromagnetic properties with reentrant spinâ€glass behavior in amorphous EuZrO₃ thin film. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3051-3054.	0.8	8
59	Preparation of yttrium iron garnet thin films by mist chemical vapor deposition method and their magneto-optical properties. Japanese Journal of Applied Physics, 2014, 53, 05FB17.	0.8	8
60	Oxidation pathway to the titanium dioxide metasurface for harnessing photoluminescence. Journal of Applied Physics, 2021, 129, 163101.	1.1	8
61	Local Structure of Amorphous <scp><scp>EuOâ€“TiO₂</scp></scp> Thin Films Probed by <scp>X</scp>â€Ray Absorption Fine Structure. Journal of the American Ceramic Society, 2012, 95, 716-720.	1.9	7
62	Ferromagnetic amorphous oxides in the EuO-TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>system studied by the Faraday effect in the visible region and the x-ray magnetic circular dichroism at the Eu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>M</mml:mi><mml:mrow><mml:mn>4</mml:mn><mml:mo>,</mml:mo><mml:mn>5</mml:mn>	1.1	7
63	Evolutionary optimization of light-matter coupling in open plasmonic cavities. Journal of Chemical Physics, 2021, 154, 134110.	1.2	7
64	Temperature sensing of a plasmonic nanocylinder array by a polymer film containing chameleon complex. Journal of the Optical Society of America B: Optical Physics, 2019, 36, E15.	0.9	7
65	Enhanced absorption and photoluminescence from dye-containing thin polymer film on plasmonic array. Optics Express, 2019, 27, 5083.	1.7	7
66	Loss Control with Annealing and Lattice Kerker Effect in Silicon Metasurfaces. Advanced Photonics Research, 2022, 3, .	1.7	7
67	Structural and Magnetic Properties of $hbox{CdFe}_{2}hbox{O}_{4}$ Thin Films Fabricated via Sputtering Method. IEEE Transactions on Magnetics, 2008, 44, 2796-2799.	1.2	6
68	Mesoporous silica layer on plasmonic array: light trapping in a layer with a variable index of refraction. Optical Materials Express, 2016, 6, 2736.	1.6	6
69	Thermal oxidation of TiN nanocylinder arrays: effects of insulator coatings by atomic layer deposition. Optical Materials Express, 2019, 9, 4751.	1.6	6
70	Microstructure and Faraday effect of Tb₂O₃â€Al₂O₃â€SiO₂â€B₂O₃ glasses for fiberâ€based magnetoâ€optical applications. Journal of the American Ceramic Society, 2022, 105, 1198-1209.	1.9	6
71	Enhanced form birefringence of metal nanoparticles with anisotropic shell mediated by localized surface plasmon resonance. Optics Express, 2011, 19, 23581.	1.7	5
72	Plasmonic mesostructures with aligned hotspots on highly oriented mesoporous silica films. Optical Materials Express, 2016, 6, 2824.	1.6	5

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73	Faraday effect of polycrystalline bismuth iron garnet thin film prepared by mist chemical vapor deposition method. Journal of Magnetism and Magnetic Materials, 2017, 422, 100-104.	1.0	5
74	Evidence of the retardation effect on the plasmonic resonances of aluminum nanodisks in the symmetric/asymmetric environment. Optics Express, 2021, 29, 14799.	1.7	5
75	Scattering-based hole burning through volume speckles in a random medium with tunable diffusion constant. Applied Physics Letters, 2008, 93, 151912.	1.5	4
76	Photoluminescence coupled to electric and magnetic surface lattice resonance in periodic arrays of zirconia nanoparticles. Journal of Materials Chemistry C, 2022, 10, 9730-9739.	2.7	4
77	Random Lasing Actions Induced by Silver Nanoprisms. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2009, 56, 645-650.	0.1	3
78	Optical Responses of Localized and Extended Modes in a Mesoporous Layer on Plasmonic Array to Isopropanol Vapor. Journal of Physical Chemistry C, 2020, 124, 5772-5779.	1.5	3
79	Effect of Substrate Strain and Interface on Magnetic Properties of EuTiO₃ Thin Film. Materials Research Society Symposia Proceedings, 2012, 1454, 149-159.	0.1	2
80	Spectral and spatial tailoring of the luminescence by metallic nanoparticles. Journal of the Ceramic Society of Japan, 2014, 122, 852-857.	0.5	2
81	Strong Lightâ€Matter Coupling: Enhanced Delayed Fluorescence in Tetracene Crystals by Strong Lightâ€Matter Coupling (Adv. Funct. Mater. 36/2019). Advanced Functional Materials, 2019, 29, 1970249.	7.8	2
82	Durable BaOâ€“ZnOâ€“P₂O₅ glass with small stressâ€induced birefringence for leadâ€free polarization lightâ€controlling devices. International Journal of Applied Glass Science, 2020, 11, 27-34.	1.0	2
83	Plasmonic Enhancement of Upconversion Photoluminescence from CaF₂: Er³⁺, Yb³⁺ Nanoparticles on TiN Nanoantennas. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2020, 67, 140-145.	0.1	2
84	Enhanced Faraday Effect in Porous Iron Oxide Thin Films Coupled to Localized Surface Plasmon Resonances. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2015, 62, 18-26.	0.1	2
85	Scattering-based hole burning mediated by localized surface plasmon resonance in photoreactive random media containing Ag nanoparticles. Applied Physics Letters, 2011, 98, 121917.	1.5	1
86	Synthesis of Gold-Silica Core-Shell Nanoparticles with Tunable Shell Thickness. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2013, 60, 49-54.	0.1	1
87	Effect of Cylinder Height on Directional Photoluminescence from Highly Luminous Thin Films on Periodic Plasmonic Arrays. MRS Advances, 2017, 2, 173-178.	0.5	1
88	Emerging materials and devices for efficient light generation. Journal of Applied Physics, 2022, 131, .	1.1	1
89	Anisotropic growth of zinc oxide pillars on silver nanoparticles by oblique angle deposition. Journal of the Ceramic Society of Japan, 2013, 121, 710-713.	0.5	0
90	Errataï¼šEnhanced Faraday Effect in Porous Iron Oxide Thin Films Coupled to Localized Surface Plasmon Resonances. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2015, 62, 216_2.	0.1	0

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91	Random Laser Oscillation with Low Threshold and Optical Microresonator Based on Nanostructured Metals. The Review of Laser Engineering, 2016, 44, 527.	0.0	0
92	Optical Response of Mesoporous Silica Layer on Plasmonic Array to Isopropanol Vapor. Ceramic Engineering and Science Proceedings, 0, , 59-68.	0.1	0
93	Tunable Faraday rotation of ferromagnet thin film in whole visible region coupled with aluminum plasmonic arrays. Nanophotonics, 2021, .	2.9	0
94	Plasmonic and Dielectric Metasurfaces for Solid State Lighting. ECS Meeting Abstracts, 2020, MA2020-02, 2740-2740.	0.0	0
95	Fabrication of Flexible Sticker of Si Metasurfaces by a Transfer Process. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, 87-90.	0.1	0
96	Improving Metasurface Performance by Nano Metallurgy Process. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, 63-67.	0.1	0