Satoshi Ishii

List of Publications by Year
in descending order

133 papers	6,430 citations	109321 35 h-index	66911 78 g-index
138 all docs	138 docs citations	138 times ranked	7687 citing authors

#	Article	IF	Citations
1	Searching for better plasmonic materials. Laser and Photonics Reviews, 2010, 4, 795-808.	8.7	1,700
2	Ultra-thin, planar, Babinet-inverted plasmonic metalenses. Light: Science and Applications, 2013, 2, e72-e72.	16.6	576
3	Titanium Nitride Nanoparticles as Plasmonic Solar Heat Transducers. Journal of Physical Chemistry C, 2016, 120, 2343-2348.	3.1	273
4	Ultra-thin ultra-smooth and low-loss silver films on a germanium wetting layer. Optics Express, 2010, 18, 5124.	3.4	237
5	Photocatalytic uphill conversion of natural gas beyond the limitation of thermal reaction systems. Nature Catalysis, 2020, 3, 148-153.	34.4	194
6	Infrared Perfect Absorbers Fabricated by Colloidal Mask Etching of Alâ€“Al₂O₃â€“Al Trilayers. ACS Photonics, 2015, 2, 964-970.	6.6	172
7	Narrowband Wavelength Selective Thermal Emitters by Confined Tamm Plasmon Polaritons. ACS Photonics, 2017, 4, 2212-2219.	6.6	164
8	Subâ€wavelength interference pattern from volume plasmon polaritons in a hyperbolic medium. Laser and Photonics Reviews, 2013, 7, 265-271.	8.7	144
9	Infrared Aluminum Metamaterial Perfect Absorbers for Plasmonâ€Enhanced Infrared Spectroscopy. Advanced Functional Materials, 2015, 25, 6637-6643.	14.9	129
10	Loss-compensated and active hyperbolic metamaterials. Optics Express, 2011, 19, 25242.	3.4	126
11	Examining the Performance of Refractory Conductive Ceramics as Plasmonic Materials: A Theoretical Approach. ACS Photonics, 2016, 3, 43-50.	6.6	126
12	A Janus emitter for passive heat release from enclosures. Science Advances, 2020, 6, .	10.3	116
13	Hot Electron Excitation from Titanium Nitride Using Visible Light. ACS Photonics, 2016, 3, 1552-1557.	6.6	98
14	All-Ceramic Microfibrous Solar Steam Generator: TiN Plasmonic Nanoparticle-Loaded Transparent Microfibers. ACS Sustainable Chemistry and Engineering, 2017, 5, 8523-8528.	6.7	93
15	Hole Array Perfect Absorbers for Spectrally Selective Midwavelength Infrared Pyroelectric Detectors. ACS Photonics, 2016, 3, 1271-1278.	6.6	92
16	MoirÃ© Nanosphere Lithography. ACS Nano, 2015, 9, 6031-6040.	14.6	91
17	Holey-Metal Lenses: Sieving Single Modes with Proper Phases. Nano Letters, 2013, 13, 159-163.	9.1	84
18	Spectrally Selective Midâ€Infrared Thermal Emission from Molybdenum Plasmonic Metamaterial Operated up to 1000 Â°C. Advanced Optical Materials, 2016, 4, 1987-1992.	7.3	79

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19	Metal nanoslit lenses with polarization-selective design. Optics Letters, 2011, 36, 451.	3.3	78
20	Solar water heating and vaporization with silicon nanoparticles at mie resonances. Optical Materials Express, 2016, 6, 640.	3.0	69
21	Broadband enhancement of spontaneous emission from nitrogen-vacancy centers in nanodiamonds by hyperbolic metamaterials. Applied Physics Letters, 2013, 102, 173114.	3.3	68
22	Color-Tunable Resonant Photoluminescence and Cavity-Mediated Multistep Energy Transfer Cascade. ACS Nano, 2016, 10, 7058-7063.	14.6	67
23	Allâ€Ceramic Solarâ€Driven Water Purifier Based on Anodized Aluminum Oxide and Plasmonic Titanium Nitride. Advanced Sustainable Systems, 2019, 3, 1800112.	5.3	67
24	Enhanced Solar Light Absorption and Photoelectrochemical Conversion Using TiN Nanoparticle-Incorporated C₃N₄â€“C Dot Sheets. ACS Applied Materials & Interfaces, 2018, 10, 2460-2468.	8.0	64
25	Radiative cooling for continuous thermoelectric power generation in day and night. Applied Physics Letters, 2020, 117, .	3.3	62
26	Fabrication of Highly Metallic TiN Films by Pulsed Laser Deposition Method for Plasmonic Applications. ACS Photonics, 2018, 5, 814-819.	6.6	60
27	Hybridizing Poly(îµ-caprolactone) and Plasmonic Titanium Nitride Nanoparticles for Broadband Photoresponsive Shape Memory Films. ACS Applied Materials & Interfaces, 2016, 8, 5634-5640.	8.0	59
28	Finite-width plasmonic waveguides with hyperbolic multilayer cladding. Optics Express, 2015, 23, 9681.	3.4	58
29	Tamm plasmon selective thermal emitters. Optics Letters, 2016, 41, 4453.	3.3	58
30	Nonmetallic Materials for Plasmonic Hot Carrier Excitation. Advanced Optical Materials, 2019, 7, 1800603.	7.3	58
31	Plasmonic waveguides cladded by hyperbolic metamaterials. Optics Letters, 2014, 39, 4663.	3.3	56
32	Long-range plasmonic waveguides with hyperbolic cladding. Optics Express, 2015, 23, 31109.	3.4	48
33	Conjugated Polymer Blend Microspheres for Efficient, Long-Range Light Energy Transfer. ACS Nano, 2016, 10, 5543-5549.	14.6	46
34	Whispering Gallery Resonance from Self-Assembled Microspheres of Highly Fluorescent Isolated Conjugated Polymers. Macromolecules, 2015, 48, 3928-3933.	4.8	45
35	Band engineering of ternary metal nitride system Ti_1-x Zr_xN for plasmonic applications. Optical Materials Express, 2016, 6, 29.	3.0	37
36	Optical microresonator arrays of fluorescence-switchable diarylethenes with unreplicable spectral fingerprints. Materials Horizons, 2020, 7, 1801-1808.	12.2	36

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37	Resonant Optical Absorption and Photothermal Process in High Refractive Index Germanium Nanoparticles. Advanced Optical Materials, 2017, 5, 1600902.	7.3	34
38	Narrowâ€Band Thermal Emitter with Titanium Nitride Thin Film Demonstrating High Temperature Stability. Advanced Optical Materials, 2020, 8, 1900982.	7.3	34
39	Broadband Plasmon Resonance Enhanced Third-Order Optical Nonlinearity in Refractory Titanium Nitride Nanostructures. ACS Photonics, 2018, 5, 3452-3458.	6.6	33
40	An Onâ€Chip Quadâ€Wavelength Pyroelectric Sensor for Spectroscopic Infrared Sensing. Advanced Science, 2019, 6, 1900579.	11.2	31
41	Sub-Band Gap Photodetection from the Titanium Nitride/Germanium Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 21965-21972.	8.0	28
42	Aluminum for Near Infrared Plasmonics: Amplified Upâ€Conversion Photoluminescence from Coreâ€“Shell Nanoparticles on Periodic Lattices. Advanced Optical Materials, 2021, 9, .	7.3	27
43	Plasmonicâ€“Photonic Hybrid Modes Excited on a Titanium Nitride Nanoparticle Array in the Visible Region. ACS Photonics, 2017, 4, 815-822.	6.6	26
44	FRET-mediated near infrared whispering gallery modes: studies on the relevance of intracavity energy transfer withQ-factors. Materials Chemistry Frontiers, 2018, 2, 270-274.	5.9	26
45	Demonstration of temperature-plateau superheated liquid by photothermal conversion of plasmonic titanium nitride nanostructures. Nanoscale, 2018, 10, 18451-18456.	5.6	24
46	Marimo-Bead-Supported Coreâ€“Shell Nanocomposites of Titanium Nitride and Chromium-Doped Titanium Dioxide as a Highly Efficient Water-Floatable Green Photocatalyst. ACS Applied Materials & Interfaces, 2020, 12, 31327-31339.	8.0	24
47	Controlling the wave focal structure of metallic nanoslit lenses with liquid crystals. Laser Physics Letters, 2011, 8, 828-832.	1.4	23
48	Proteinâ€Functionalized Indiumâ€Tin Oxide Nanoantenna Arrays for Selective Infrared Biosensing. Advanced Optical Materials, 2017, 5, 1700091.	7.3	23
49	Selective patterned growth of ZnO nanowires/nanosheets and their photoluminescence properties. Optical Materials Express, 2015, 5, 353.	3.0	21
50	Light-promoted conversion of greenhouse gases over plasmonic metalâ€“carbide nanocomposite catalysts. Materials Chemistry Frontiers, 2018, 2, 580-584.	5.9	20
51	Selective thermal emitters with infrared plasmonic indium tin oxide working in the atmosphere. Optical Materials Express, 2019, 9, 2534.	3.0	20
52	MEMS-Based Wavelength-Selective Bolometers. Micromachines, 2019, 10, 416.	2.9	19
53	Optical Detection in a Waveguide Geometry with a Single Metallic Contact. ACS Photonics, 2014, 1, 1089-1092.	6.6	18
54	Extreme thermal anisotropy in high-aspect-ratio titanium nitride nanostructures for efficient photothermal heating. Nanophotonics, 2021, 10, 1487-1494.	6.0	18

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55	Femtosecond time-resolved x-ray diffraction from optical coherent phonons in CdTe(111) crystal. Applied Physics Letters, 2008, 93, .	3.3	17
56	Optical absorption of hyperbolic metamaterial with stochastic surfaces. Optics Express, 2014, 22, 8893.	3.4	17
57	Plasmon-mediated photothermal conversion by TiN nanocubes toward CO oxidation under solar light illumination. RSC Advances, 2016, 6, 110566-110570.	3.6	17
58	Diffractive nanoslit lenses for subwavelength focusing. Optics Communications, 2012, 285, 3368-3372.	2.1	16
59	A MEMS-Based Quad-Wavelength Hybrid Plasmonicâ€“Pyroelectric Infrared Detector. Micromachines, 2019, 10, 413.	2.9	16
60	Characterization of nanodiamonds for metamaterial applications. Applied Physics B: Lasers and Optics, 2011, 105, 191-195.	2.2	15
61	Hydropower generation by transpiration from microporous alumina. Scientific Reports, 2021, 11, 10954.	3.3	15
62	Characterization of Nanomaterials by Locally Determining Their Complex Permittivity with Scattering-Type Scanning Near-Field Optical Microscopy. ACS Applied Nano Materials, 2020, 3, 1250-1262.	5.0	14
63	Self-assembled polycarbazole microspheres as single-component, white-colour resonant photoemitters. RSC Advances, 2016, 6, 52854-52857.	3.6	13
64	Effect of oxygen annealing on the photoresponse of PbSe thin films fabricated by the pulsed laser deposition method. Radiation Effects and Defects in Solids, 2018, 173, 112-117.	1.2	13
65	Confinement effects on the solar thermal heating process of TiN nanoparticle solutions. Physical Chemistry Chemical Physics, 2019, 21, 19915-19920.	2.8	13
66	Unidirectional light propagation through two-layer nanostructures based on optical near-field interactions. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2404.	2.1	12
67	Non-local Optical Topological Transitions and Critical States in Electromagnetic Metamaterials. Scientific Reports, 2016, 5, 17824.	3.3	12
68	Wavelength-selective spin-current generator using infrared plasmonic metamaterials. APL Photonics, 2017, 2, .	5.7	12
69	Silicon-compatible Mg2Si/Si n-p photodiodes with high room temperature infrared responsivity. Materials Science in Semiconductor Processing, 2019, 102, 104577.	4.0	12
70	Quantifying photoinduced carriers transport in excitonâ€“polariton coupling of MoS2 monolayers. Npj 2D Materials and Applications, 2021, 5, .	7.9	12
71	White Light Emission from Black Germanium. ACS Photonics, 2017, 4, 1722-1729.	6.6	11
72	Random Lasing via Plasmon-Induced Cavitation of Microbubbles. Nano Letters, 2021, 21, 6064-6070.	9.1	11

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73	Far-field and near-field monitoring of hybridized optical modes from Au nanoprisms suspended on a graphene/Si nanopillar array. Nanoscale, 2017, 9, 16950-16959.	5.6	10
74	Direct Observation of Photoinduced Charge Separation at Transition-Metal Nitrideâ€“Semiconductor Interfaces. ACS Applied Materials & Interfaces, 2020, 12, 56562-56567.	8.0	10
75	Comparison of directionally outcoupled photoluminescences from luminous layers on Si and Al nanocylinder arrays. Journal of Applied Physics, 2019, 125, .	2.5	9
76	Enhanced photocurrent generation from indiumâ€“tin-oxide/Fe2TiO5 hybrid nanocone arrays. Nano Energy, 2020, 76, 104965.	16.0	9
77	Simultaneous harvesting of radiative cooling and solar heating for transverse thermoelectric generation. Science and Technology of Advanced Materials, 2021, 22, 441-448.	6.1	9
78	Charge partitioning by intertwined metal-oxide nano-architectural networks for the photocatalytic dry reforming of methane. Chem Catalysis, 2022, 2, 321-329.	6.1	9
79	Quantifying the local density of optical states of nanorods by fluorescence lifetime imaging. New Journal of Physics, 2014, 16, 063069.	2.9	8
80	Transparent oxides forming conductor/insulator/conductor heterojunctions for photodetection. Nanotechnology, 2015, 26, 215203.	2.6	8
81	Electrically driven plasmon chip: Active plasmon lens in the visible range. Applied Physics Letters, 2016, 108, .	3.3	8
82	Graphene-Loaded Plasmonic Zirconium Nitride and Gold Nanogroove Arrays for Surface-Charge Modifications. ACS Applied Nano Materials, 2020, 3, 5002-5007.	5.0	8
83	Hot electron physics and applications. Journal of Applied Physics, 2021, 129, .	2.5	8
84	Gires-Tournois resonators as ultra-narrowband perfect absorbers for infrared spectroscopic devices. Optics Express, 2019, 27, A725.	3.4	8
85	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.	2.1	7
86	Enhanced absorption and photoluminescence from dye-containing thin polymer film on plasmonic array. Optics Express, 2019, 27, 5083.	3.4	7
87	Singleâ€Material, Nearâ€Infrared Selective Absorber Based on Refractive Indexâ€Tunable Tamm Plasmon Structure. Advanced Optical Materials, 2022, 10, 2102388.	7.3	7
88	Scattering and absorption from strongly anisotropic nanoparticles. Optics Express, 2013, 21, 23181.	3.4	6
89	Plasmon mediated cathodic photocurrent generation in sol-gel synthesized doped SrTiO3 nanofilms. APL Materials, 2015, 3, .	5.1	6
90	Solar-active titanium-based oxide photocatalysts loaded on TiN array absorbers for enhanced broadband photocurrent generation. Journal of Applied Physics, 2021, 129, .	2.5	6

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91	Direct imaging of visible-light-induced one-step charge separation at the chromium(<scp>iii</scp>) oxideâ€“strontium titanate interface. Journal of Materials Chemistry A, 2022, 10, 752-761.	10.3	6
92	Electric and magnetic resonances in strongly anisotropic particles. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 218.	2.1	5
93	Plasmonic mesostructures with aligned hotspots on highly oriented mesoporous silica films. Optical Materials Express, 2016, 6, 2824.	3.0	5
94	Sunlight absorbing titanium nitride nanoparticles. , 2015, , .		4
95	Optoelectronic characteristics of the Ag-doped Si p-n photodiodes prepared by a facile thermal diffusion process. AIP Advances, 2019, 9, 055024.	1.3	4
96	Photothermal heating and heat transfer analysis of anodic aluminum oxide with high optical absorptance. Nanophotonics, 2022, 11, 3375-3381.	6.0	4
97	Metal nanoslit lenses with polarization-selective design: erratum. Optics Letters, 2011, 36, 1244.	3.3	3
98	Plasmonic-induced self-assembly of WGM cavities via laser cavitation. Optics Express, 2020, 28, 31923.	3.4	3
99	Optical Properties and Optimization of LaB ₆ Thin Films for Photothermal Applications. Advanced Optical Materials, 0, , 2101787.	7.3	3
100	Harvesting Sunlight with Titanium Nitride Nanostructures. , 2018, , .		2
101	Unidirectional light transmiission by two-layer nanostructures interacting via optical near-fields. Applied Physics Express, 2019, 12, 022007.	2.4	2
102	Gold Nanoslit Lenses. , 2011, , .		1
103	MoirÃ© nanosphere lithography: use colloidal moirÃ© patterns as masks. Proceedings of SPIE, 2015, , .	0.8	1
104	Aluminum infrared plasmonic perfect absorbers for wavelength selective devices. Proceedings of SPIE, 2016, , .	0.8	1
105	Metalâ€“insulatorâ€“metal photomonitor for optical waveguides at telecom wavelengths. Applied Physics Express, 2016, 9, 122201.	2.4	1
106	UV-visible light photocurrent enhancement in STO thin films through metal-defect co-doping effect combined with Au plasmons. Materials Express, 2017, 7, 66-71.	0.5	1
107	Photocurrent Generation with Transition Metal Nitrides and Transition Metal Carbides. , 2018, , .		1
108	Metal/Conductive Oxide Plasmonic Structures for Surface-Enhanced Infrared Absorption Spectroscopy. Bunseki Kagaku, 2018, 67, 81-94.	0.2	1

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109	Generating Spin Current from Mid Infrared Plasmonic Metamaterial Absorbers. , 2018, , .		1
110	Growth of SiGe thin films with uniform and non-uniform Si concentration profiles on insulating substrates by high-speed continuous wave laser annealing. Materials Science in Semiconductor Processing, 2021, 134, 106024.	4.0	1
111	Photocurrent generation from TiN nanostructures by visible light. , 2017, , .		1
112	Plasmonic Metasurface Based Ultra-thin Phase Holograms and Planar Micro-lenses. , 2013, , .		1
113	High Temperature Wavelength-Selective Thermal Emitters Based on Metal-Insulator-Metal Structures. Hyomen Kagaku, 2016, 37, 380-385.	0.0	1
114	Development of Active Plasmon Devices Using NEMS Technology. IEEJ Transactions on Sensors and Micromachines, 2015, 135, 439-444.	0.1	1
115	(Invited)ÂHarvesting Sunlight Using Titanium Nitride Nanostructures for Enhanced Visible Photocatalytic Activity and Solar Heating. ECS Meeting Abstracts, 2019, MA2019-02, 1937-1937.	0.0	1
116	Double-Slit Diffraction Experiment in Hyperbolic Media. , 2012, , .		0
117	Volume plasmon polaritons and subwavelength interference in a hyperbolic medium. , 2013, , .		0
118	Non-local optical topological transitions and critical points in metamaterials. , 2013, , .		0
119	Planar Meta-Optics. , 2013, , .		0
120	Diffractive optics with nanoslits. , 2013, , .		0
121	Electrical detection of guided light though an optical waveguide by a single metallic contact. , 2014, , .		0
122	Multilayer Cladding with Hyperbolic Dispersion for Plasmonic Waveguides. , 2015, , .		0
123	Subwavelength optics with hyperbolic metamaterials: Waveguides, scattering, and optical topological transitions. , 2016, , .		0
124	My PhD Study at Purdue University. Hyomen Kagaku, 2016, 37, 238-239.	0.0	0
125	Plasmon-induced Charge Transport at Transition Metal Nitride-Semiconductor Interfaces via In Situ Nanoimaging. , 2021, , .		0
126	Gain-Assisted Hyperbolic Metamaterials. , 2012, , .		0

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127	Holey metallic lens for light focusing. , 2013, , .		0
128	C122 Metal-insulator-metal structure-based high temperature wavelength-selective thermal emitters. The Proceedings of the Thermal Engineering Conference, 2015, 2015, _C122-1_-_C122-2_.	0.0	0
129	Time Domain Modeling of Lasing Dynamics in Hyperbolic Metamaterials. , 2017, , .		0
130	Enhanced Spontaneous Emission of Quantum Emitters in the Vicinity of TiN Thin Films. , 2018, , .		0
131	Optical Excitation of Hot Carriers and Photothermal Conversions with Transition Metal Nitrides and Transition Metal Carbides. The Review of Laser Engineering, 2019, 47, 365.	0.0	0
132	Quantitative imaging of advanced nanostructured materials with scattering-type scanning near field optical microscopy. , 2019, , .		0
133	Solar Water Distillation Using Titanium Nitride Nanostructures. Journal of the Society of Powder Technology, Japan, 2022, 59, 79-82.	0.1	0