

# Satoshi Ishii

## List of Publications by Year in descending order

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133  
papers

6,430  
citations

109321

35  
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66911

78  
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138  
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138  
docs citations

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times ranked

7687  
citing authors

#	ARTICLE	IF	CITATIONS
1	Single-Material, Near-Infrared Selective Absorber Based on Refractive Index-Tunable Tamm Plasmon Structure. <i>Advanced Optical Materials</i> , 2022, 10, 2102388.	7.3	7
2	Direct imaging of visible-light-induced one-step charge separation at the chromium(III)-strontium titanate interface. <i>Journal of Materials Chemistry A</i> , 2022, 10, 752-761.	10.3	6
3	Solar Water Distillation Using Titanium Nitride Nanostructures. <i>Journal of the Society of Powder Technology, Japan</i> , 2022, 59, 79-82.	0.1	0
4	Charge partitioning by intertwined metal-oxide nano-architectural networks for the photocatalytic dry reforming of methane. <i>Chem Catalysis</i> , 2022, 2, 321-329.	6.1	9
5	Photothermal heating and heat transfer analysis of anodic aluminum oxide with high optical absorbance. <i>Nanophotonics</i> , 2022, 11, 3375-3381.	6.0	4
6	Aluminum for Near Infrared Plasmonics: Amplified Up-Conversion Photoluminescence from Core-Shell Nanoparticles on Periodic Lattices. <i>Advanced Optical Materials</i> , 2021, 9, .	7.3	27
7	Extreme thermal anisotropy in high-aspect-ratio titanium nitride nanostructures for efficient photothermal heating. <i>Nanophotonics</i> , 2021, 10, 1487-1494.	6.0	18
8	Quantifying photoinduced carriers transport in exciton-polariton coupling of MoS2 monolayers. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	7.9	12
9	Hot electron physics and applications. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	8
10	Hydropower generation by transpiration from microporous alumina. <i>Scientific Reports</i> , 2021, 11, 10954.	3.3	15
11	Simultaneous harvesting of radiative cooling and solar heating for transverse thermoelectric generation. <i>Science and Technology of Advanced Materials</i> , 2021, 22, 441-448.	6.1	9
12	Random Lasing via Plasmon-Induced Cavitation of Microbubbles. <i>Nano Letters</i> , 2021, 21, 6064-6070.	9.1	11
13	Growth of SiGe thin films with uniform and non-uniform Si concentration profiles on insulating substrates by high-speed continuous wave laser annealing. <i>Materials Science in Semiconductor Processing</i> , 2021, 134, 106024.	4.0	1
14	Plasmon-induced Charge Transport at Transition Metal Nitride-Semiconductor Interfaces via In Situ Nanoimaging. , 2021, , .		0
15	Solar-active titanium-based oxide photocatalysts loaded on TiN array absorbers for enhanced broadband photocurrent generation. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	6
16	Direct Observation of Photoinduced Charge Separation at Transition-Metal Nitride-Semiconductor Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 56562-56567.	8.0	10
17	A Janus emitter for passive heat release from enclosures. <i>Science Advances</i> , 2020, 6, .	10.3	116
18	Optical microresonator arrays of fluorescence-switchable diarylethenes with unreplicable spectral fingerprints. <i>Materials Horizons</i> , 2020, 7, 1801-1808.	12.2	36

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19	Graphene-Loaded Plasmonic Zirconium Nitride and Gold Nanogroove Arrays for Surface-Charge Modifications. ACS Applied Nano Materials, 2020, 3, 5002-5007.	5.0	8
20	Marimo-Bead-Supported Core-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
21	Enhanced photocurrent generation from indium-tin-oxide/Fe <sub>2</sub> TiO <sub>5</sub> hybrid nanocone arrays. Nano Energy, 2020, 76, 104965.	16.0	9
22	Radiative cooling for continuous thermoelectric power generation in day and night. Applied Physics Letters, 2020, 117, .	3.3	62
23	Narrow-Band Thermal Emitter with Titanium Nitride Thin Film Demonstrating High Temperature Stability. Advanced Optical Materials, 2020, 8, 1900982.	7.3	34
24	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
25	Photocatalytic uphill conversion of natural gas beyond the limitation of thermal reaction systems. Nature Catalysis, 2020, 3, 148-153.	34.4	194
26	Plasmonic-induced self-assembly of WGM cavities via laser cavitation. Optics Express, 2020, 28, 31923.	3.4	3
27	Confinement effects on the solar thermal heating process of TiN nanoparticle solutions. Physical Chemistry Chemical Physics, 2019, 21, 19915-19920.	2.8	13
28	A MEMS-Based Quad-Wavelength Hybrid Plasmonic-Pyroelectric Infrared Detector. Micromachines, 2019, 10, 413.	2.9	16
29	MEMS-Based Wavelength-Selective Bolometers. Micromachines, 2019, 10, 416.	2.9	19
30	An On-Chip Quad-Wavelength Pyroelectric Sensor for Spectroscopic Infrared Sensing. Advanced Science, 2019, 6, 1900579.	11.2	31
31	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
32	Silicon-compatible Mg <sub>2</sub> Si/Si n-p photodiodes with high room temperature infrared responsivity. Materials Science in Semiconductor Processing, 2019, 102, 104577.	4.0	12
33	Sub-Band Gap Photodetection from the Titanium Nitride/Germanium Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 21965-21972.	8.0	28
34	Comparison of directionally outcoupled photoluminescences from luminous layers on Si and Al nanocylinder arrays. Journal of Applied Physics, 2019, 125, .	2.5	9
35	Unidirectional light transmission by two-layer nanostructures interacting via optical near-fields. Applied Physics Express, 2019, 12, 022007.	2.4	2
36	All-Ceramic Solar-Driven Water Purifier Based on Anodized Aluminum Oxide and Plasmonic Titanium Nitride. Advanced Sustainable Systems, 2019, 3, 1800112.	5.3	67

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37	Nonmetallic Materials for Plasmonic Hot Carrier Excitation. <i>Advanced Optical Materials</i> , 2019, 7, 1800603.	7.3	58
38	Temperature sensing of a plasmonic nanocylinder array by a polymer film containing chameleon complex. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, E15.	2.1	7
39	Enhanced absorption and photoluminescence from dye-containing thin polymer film on plasmonic array. <i>Optics Express</i> , 2019, 27, 5083.	3.4	7
40	Gires-Tournois resonators as ultra-narrowband perfect absorbers for infrared spectroscopic devices. <i>Optics Express</i> , 2019, 27, A725.	3.4	8
41	Selective thermal emitters with infrared plasmonic indium tin oxide working in the atmosphere. <i>Optical Materials Express</i> , 2019, 9, 2534.	3.0	20
42	(Invited) Harvesting Sunlight Using Titanium Nitride Nanostructures for Enhanced Visible Photocatalytic Activity and Solar Heating. <i>ECS Meeting Abstracts</i> , 2019, MA2019-02, 1937-1937.	0.0	1
43	Optical Excitation of Hot Carriers and Photothermal Conversions with Transition Metal Nitrides and Transition Metal Carbides. <i>The Review of Laser Engineering</i> , 2019, 47, 365.	0.0	0
44	Quantitative imaging of advanced nanostructured materials with scattering-type scanning near field optical microscopy. , 2019, , .		0
45	Light-promoted conversion of greenhouse gases over plasmonic metal-carbide nanocomposite catalysts. <i>Materials Chemistry Frontiers</i> , 2018, 2, 580-584.	5.9	20
46	Enhanced Solar Light Absorption and Photoelectrochemical Conversion Using TiN Nanoparticle-Incorporated $C_3N_4$ Sheets. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 2460-2468.	8.0	64
47	Fabrication of Highly Metallic TiN Films by Pulsed Laser Deposition Method for Plasmonic Applications. <i>ACS Photonics</i> , 2018, 5, 814-819.	6.6	60
48	FRET-mediated near infrared whispering gallery modes: studies on the relevance of intracavity energy transfer with $Q$ -factors. <i>Materials Chemistry Frontiers</i> , 2018, 2, 270-274.	5.9	26
49	Photocurrent Generation with Transition Metal Nitrides and Transition Metal Carbides. , 2018, , .		1
50	Harvesting Sunlight with Titanium Nitride Nanostructures. , 2018, , .		2
51	Demonstration of temperature-plateau superheated liquid by photothermal conversion of plasmonic titanium nitride nanostructures. <i>Nanoscale</i> , 2018, 10, 18451-18456.	5.6	24
52	Effect of oxygen annealing on the photoresponse of PbSe thin films fabricated by the pulsed laser deposition method. <i>Radiation Effects and Defects in Solids</i> , 2018, 173, 112-117.	1.2	13
53	Metal/Conductive Oxide Plasmonic Structures for Surface-Enhanced Infrared Absorption Spectroscopy. <i>Bunseki Kagaku</i> , 2018, 67, 81-94.	0.2	1
54	Generating Spin Current from Mid Infrared Plasmonic Metamaterial Absorbers. , 2018, , .		1

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55	Broadband Plasmon Resonance Enhanced Third-Order Optical Nonlinearity in Refractory Titanium Nitride Nanostructures. <i>ACS Photonics</i> , 2018, 5, 3452-3458.	6.6	33
56	Enhanced Spontaneous Emission of Quantum Emitters in the Vicinity of TiN Thin Films. , 2018, , .		0
57	Plasmonic Photonic Hybrid Modes Excited on a Titanium Nitride Nanoparticle Array in the Visible Region. <i>ACS Photonics</i> , 2017, 4, 815-822.	6.6	26
58	Resonant Optical Absorption and Photothermal Process in High Refractive Index Germanium Nanoparticles. <i>Advanced Optical Materials</i> , 2017, 5, 1600902.	7.3	34
59	UV-visible light photocurrent enhancement in STO thin films through metal-defect co-doping effect combined with Au plasmons. <i>Materials Express</i> , 2017, 7, 66-71.	0.5	1
60	Protein-Functionalized Indium Tin Oxide Nanoantenna Arrays for Selective Infrared Biosensing. <i>Advanced Optical Materials</i> , 2017, 5, 1700091.	7.3	23
61	White Light Emission from Black Germanium. <i>ACS Photonics</i> , 2017, 4, 1722-1729.	6.6	11
62	Far-field and near-field monitoring of hybridized optical modes from Au nanoprisms suspended on a graphene/Si nanopillar array. <i>Nanoscale</i> , 2017, 9, 16950-16959.	5.6	10
63	Wavelength-selective spin-current generator using infrared plasmonic metamaterials. <i>APL Photonics</i> , 2017, 2, .	5.7	12
64	All-Ceramic Microfibrous Solar Steam Generator: TiN Plasmonic Nanoparticle-Loaded Transparent Microfibers. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 8523-8528.	6.7	93
65	Narrowband Wavelength Selective Thermal Emitters by Confined Tamm Plasmon Polaritons. <i>ACS Photonics</i> , 2017, 4, 2212-2219.	6.6	164
66	Photocurrent generation from TiN nanostructures by visible light. , 2017, , .		1
67	Time Domain Modeling of Lasing Dynamics in Hyperbolic Metamaterials. , 2017, , .		0
68	Tamm plasmon selective thermal emitters. <i>Optics Letters</i> , 2016, 41, 4453.	3.3	58
69	Electrically driven plasmon chip: Active plasmon lens in the visible range. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	8
70	Non-local Optical Topological Transitions and Critical States in Electromagnetic Metamaterials. <i>Scientific Reports</i> , 2016, 5, 17824.	3.3	12
71	Plasmon-mediated photothermal conversion by TiN nanocubes toward CO oxidation under solar light illumination. <i>RSC Advances</i> , 2016, 6, 110566-110570.	3.6	17
72	Conjugated Polymer Blend Microspheres for Efficient, Long-Range Light Energy Transfer. <i>ACS Nano</i> , 2016, 10, 5543-5549.	14.6	46

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73	Hot Electron Excitation from Titanium Nitride Using Visible Light. ACS Photonics, 2016, 3, 1552-1557.	6.6	98
74	Aluminum infrared plasmonic perfect absorbers for wavelength selective devices. Proceedings of SPIE, 2016, , .	0.8	1
75	Plasmonic mesostructures with aligned hotspots on highly oriented mesoporous silica films. Optical Materials Express, 2016, 6, 2824.	3.0	5
76	Metal-insulator-metal photomonitor for optical waveguides at telecom wavelengths. Applied Physics Express, 2016, 9, 122201.	2.4	1
77	Subwavelength optics with hyperbolic metamaterials: Waveguides, scattering, and optical topological transitions. , 2016, , .		0
78	Spectrally Selective Mid-Infrared Thermal Emission from Molybdenum Plasmonic Metamaterial Operated up to 1000 Å°C. Advanced Optical Materials, 2016, 4, 1987-1992.	7.3	79
79	My PhD Study at Purdue University. Hyomen Kagaku, 2016, 37, 238-239.	0.0	0
80	Hole Array Perfect Absorbers for Spectrally Selective Midwavelength Infrared Pyroelectric Detectors. ACS Photonics, 2016, 3, 1271-1278.	6.6	92
81	Self-assembled polycarbazole microspheres as single-component, white-colour resonant photoemitters. RSC Advances, 2016, 6, 52854-52857.	3.6	13
82	Color-Tunable Resonant Photoluminescence and Cavity-Mediated Multistep Energy Transfer Cascade. ACS Nano, 2016, 10, 7058-7063.	14.6	67
83	Examining the Performance of Refractory Conductive Ceramics as Plasmonic Materials: A Theoretical Approach. ACS Photonics, 2016, 3, 43-50.	6.6	126
84	Band engineering of ternary metal nitride system Ti <sub>1-x</sub> Zr <sub>x</sub> N for plasmonic applications. Optical Materials Express, 2016, 6, 29.	3.0	37
85	Solar water heating and vaporization with silicon nanoparticles at mie resonances. Optical Materials Express, 2016, 6, 640.	3.0	69
86	Hybridizing Poly( $\mu$ -caprolactone) and Plasmonic Titanium Nitride Nanoparticles for Broadband Photoresponsive Shape Memory Films. ACS Applied Materials & Interfaces, 2016, 8, 5634-5640.	8.0	59
87	Titanium Nitride Nanoparticles as Plasmonic Solar Heat Transducers. Journal of Physical Chemistry C, 2016, 120, 2343-2348.	3.1	273
88	High Temperature Wavelength-Selective Thermal Emitters Based on Metal-Insulator-Metal Structures. Hyomen Kagaku, 2016, 37, 380-385.	0.0	1
89	Long-range plasmonic waveguides with hyperbolic cladding. Optics Express, 2015, 23, 31109.	3.4	48
90	Plasmon mediated cathodic photocurrent generation in sol-gel synthesized doped SrTiO <sub>3</sub> nanofilms. APL Materials, 2015, 3, .	5.1	6

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91	Infrared Aluminum Metamaterial Perfect Absorbers for Plasmon-Enhanced Infrared Spectroscopy. <i>Advanced Functional Materials</i> , 2015, 25, 6637-6643.	14.9	129
92	Infrared Perfect Absorbers Fabricated by Colloidal Mask Etching of Al <sub>2</sub> O <sub>3</sub> Al Trilayers. <i>ACS Photonics</i> , 2015, 2, 964-970.	6.6	172
93	Moiré Nanosphere Lithography. <i>ACS Nano</i> , 2015, 9, 6031-6040.	14.6	91
94	Moiré nanosphere lithography: use colloidal moiré patterns as masks. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
95	Whispering Gallery Resonance from Self-Assembled Microspheres of Highly Fluorescent Isolated Conjugated Polymers. <i>Macromolecules</i> , 2015, 48, 3928-3933.	4.8	45
96	Multilayer Cladding with Hyperbolic Dispersion for Plasmonic Waveguides. , 2015, , .		0
97	Finite-width plasmonic waveguides with hyperbolic multilayer cladding. <i>Optics Express</i> , 2015, 23, 9681.	3.4	58
98	Transparent oxides forming conductor/insulator/conductor heterojunctions for photodetection. <i>Nanotechnology</i> , 2015, 26, 215203.	2.6	8
99	Sunlight absorbing titanium nitride nanoparticles. , 2015, , .		4
100	Selective patterned growth of ZnO nanowires/nanosheets and their photoluminescence properties. <i>Optical Materials Express</i> , 2015, 5, 353.	3.0	21
101	Development of Active Plasmon Devices Using NEMS Technology. <i>IEEJ Transactions on Sensors and Micromachines</i> , 2015, 135, 439-444.	0.1	1
102	C122 Metal-insulator-metal structure-based high temperature wavelength-selective thermal emitters. <i>The Proceedings of the Thermal Engineering Conference</i> , 2015, 2015, _C122-1_-_C122-2_.	0.0	0
103	Quantifying the local density of optical states of nanorods by fluorescence lifetime imaging. <i>New Journal of Physics</i> , 2014, 16, 063069.	2.9	8
104	Electric and magnetic resonances in strongly anisotropic particles. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 218.	2.1	5
105	Unidirectional light propagation through two-layer nanostructures based on optical near-field interactions. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 2404.	2.1	12
106	Optical absorption of hyperbolic metamaterial with stochastic surfaces. <i>Optics Express</i> , 2014, 22, 8893.	3.4	17
107	Optical Detection in a Waveguide Geometry with a Single Metallic Contact. <i>ACS Photonics</i> , 2014, 1, 1089-1092.	6.6	18
108	Plasmonic waveguides cladded by hyperbolic metamaterials. <i>Optics Letters</i> , 2014, 39, 4663.	3.3	56

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109	Electrical detection of guided light through an optical waveguide by a single metallic contact. , 2014, , .		0
110	Volume plasmon polaritons and subwavelength interference in a hyperbolic medium. , 2013, , .		0
111	Non-local optical topological transitions and critical points in metamaterials. , 2013, , .		0
112	Planar Meta-Optics. , 2013, , .		0
113	Ultra-thin, planar, Babinet-inverted plasmonic metalenses. Light: Science and Applications, 2013, 2, e72-e72.	16.6	576
114	Broadband enhancement of spontaneous emission from nitrogen-vacancy centers in nanodiamonds by hyperbolic metamaterials. Applied Physics Letters, 2013, 102, 173114.	3.3	68
115	Subwavelength interference pattern from volume plasmon polaritons in a hyperbolic medium. Laser and Photonics Reviews, 2013, 7, 265-271.	8.7	144
116	Holey-Metal Lenses: Sieving Single Modes with Proper Phases. Nano Letters, 2013, 13, 159-163.	9.1	84
117	Scattering and absorption from strongly anisotropic nanoparticles. Optics Express, 2013, 21, 23181.	3.4	6
118	Diffraction optics with nanoslits. , 2013, , .		0
119	Plasmonic Metasurface Based Ultra-thin Phase Holograms and Planar Micro-lenses. , 2013, , .		1
120	Holey metallic lens for light focusing. , 2013, , .		0
121	Double-Slit Diffraction Experiment in Hyperbolic Media. , 2012, , .		0
122	Diffraction nanoslit lenses for subwavelength focusing. Optics Communications, 2012, 285, 3368-3372.	2.1	16
123	Gain-Assisted Hyperbolic Metamaterials. , 2012, , .		0
124	Loss-compensated and active hyperbolic metamaterials. Optics Express, 2011, 19, 25242.	3.4	126
125	Metal nanoslit lenses with polarization-selective design. Optics Letters, 2011, 36, 451.	3.3	78
126	Metal nanoslit lenses with polarization-selective design: erratum. Optics Letters, 2011, 36, 1244.	3.3	3



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127	Gold Nanoslit Lenses. , 2011, , .		1
128	Characterization of nanodiamonds for metamaterial applications. Applied Physics B: Lasers and Optics, 2011, 105, 191-195.	2.2	15
129	Controlling the wave focal structure of metallic nanoslit lenses with liquid crystals. Laser Physics Letters, 2011, 8, 828-832.	1.4	23
130	Searching for better plasmonic materials. Laser and Photonics Reviews, 2010, 4, 795-808.	8.7	1,700
131	Ultra-thin ultra-smooth and low-loss silver films on a germanium wetting layer. Optics Express, 2010, 18, 5124.	3.4	237
132	Femtosecond time-resolved x-ray diffraction from optical coherent phonons in CdTe(111) crystal. Applied Physics Letters, 2008, 93, .	3.3	17
133	Optical Properties and Optimization of LaB <sub>6</sub> Thin Films for Photothermal Applications. Advanced Optical Materials, 0, , 2101787.	7.3	3