

Shinji Hayashi

List of Publications by Year in descending order

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106
papers

4,127
citations

168829

31
h-index

134545

62
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106
all docs

106
docs citations

106
times ranked

3680
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasmonic mode coupling and thin film sensing in metal-insulator-metal structures. Scientific Reports, 2021, 11, 15093.	1.6	16
2	Fano Approximation as a Fast and Effective Way for Estimating Resonance Characteristics of Surface Plasmon Structures. Plasmonics, 2021, 16, 1001-1011.	1.8	6
3	Anticrossing behavior of surface plasmon polaritons coupled with vibrational modes in planar plasmon structures. , 2021, , .		0
4	Estimation of the resonance characteristics of surface plasmon polariton structures for metal layers with different morphologies. , 2021, , .		0
5	Coupling of Planar Waveguide Modes in All-Dielectric Multilayer Structures: Monitoring the Dependence of Local Electric Fields on the Coupling Strength. Physical Review Applied, 2021, 16, .	1.5	2
6	Surface Enhanced Visible Absorption of Dye Molecules in the Near-Field of Gold Nanoparticles. Scientific Reports, 2020, 10, 3913.	1.6	20
7	Simulation of photochemically induced motion of matter in gradient light fields. Journal of Applied Physics, 2020, 127, 243106.	1.1	8
8	Observation of Fano line shape in directional fluorescence emission mediated by coupled planar waveguide modes and interpretation based on Lorentz reciprocity. AIP Advances, 2020, 10, .	0.6	4
9	Wide-range line shape control of Fano-like resonances in all-dielectric multilayer structures based on enhanced light absorption in photochromic waveguide layers. Journal of Applied Physics, 2020, 127, 073103.	1.1	3
10	Analysis of resonance characteristics of surface plasmon-polariton modes at water-metal interfaces by Fano approximation. Journal of Physics: Conference Series, 2020, 1461, 012115.	0.3	2
11	Fano resonant behaviour of waveguide mode in all-dielectric multilayer structure directly monitored by fluorescence of embedded dye molecules. Journal of Optics (United Kingdom), 2019, 21, 105006.	1.0	5
12	Quantitative analyses of optically induced birefringence in azo dye containing polymers. Journal of Optics (United Kingdom), 2019, 21, 115401.	1.0	9
13	Light-controllable Fano resonance in azo-dye-doped all-dielectric multilayer structure. Journal of Applied Physics, 2019, 125, 223101.	1.1	8
14	Analysis of the resonance characteristics of surface plasmon polariton modes at air-metal interfaces in the ultraviolet, visible and infrared regions. Journal of Physics: Conference Series, 2019, 1368, 022062.	0.3	2
15	Estimation of resonance characteristics of single-layer surface-plasmon sensors in liquid solutions using Fano's approximation in the visible and infrared regions. Computer Optics, 2019, 43, .	1.3	13
16	Plasmonic enhancement of second-harmonic generation of dielectric layer embedded in metal-dielectric-metal structure. Journal of Applied Physics, 2018, 123, .	1.1	4
17	Resolution Enhancement of Plasmonic Sensors by Metal-insulator-Metal Structures. Annalen Der Physik, 2018, 530, 1700411.	0.9	18
18	Light-Tunable Fano Resonance in Metal-Dielectric Multilayer Structures. Springer Series in Optical Sciences, 2018, , 241-260.	0.5	3

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19	Fano resonances in near-field absorption in all-dielectric multilayer structures. Journal of Optics (United Kingdom), 2018, 20, 125003.	1.0	9
20	Coupled-mode theory of field transfer processes in surface plasmon resonance structures. Journal of Physics: Conference Series, 2018, 1092, 012097.	0.3	2
21	Asymmetric surface plasmon resonances revisited as Fano resonances. Physical Review B, 2018, 97, .	1.1	28
22	Polarization effects in light-tunable Fano resonance in metal-dielectric multilayer structures. Physical Review B, 2017, 95, .	1.1	23
23	Line shape engineering of sharp Fano resonance in Al-based metal-dielectric multilayer structure. Journal of Applied Physics, 2017, 122, .	1.1	17
24	Observation of Fano line shapes arising from coupling between surface plasmon polariton and waveguide modes. Applied Physics Letters, 2016, 108, .	1.5	56
25	Extremely narrow resonances, giant sensitivity and field enhancement in low-loss waveguide sensors. Journal of Optics (United Kingdom), 2016, 18, 065004.	1.0	49
26	Plasmonic coupled modes in metal-dielectric multilayer structures: Fano resonance and giant field enhancement. Optics Express, 2016, 24, 20080.	1.7	60
27	Light-tunable Fano resonance in metal-dielectric multilayer structures. Scientific Reports, 2016, 6, 33144.	1.6	35
28	Anticrossing Behavior of Surface Plasmon Polariton Dispersions in Metal-Insulator-Metal Structures. Plasmonics, 2016, 11, 433-440.	1.8	26
29	Fano resonance and plasmon-induced transparency in waveguide-coupled surface plasmon resonance sensors. Applied Physics Express, 2015, 8, 022201.	1.1	86
30	Waveguide-coupled surface plasmon resonance sensor structures: Fano lineshape engineering for ultrahigh-resolution sensing. Journal Physics D: Applied Physics, 2015, 48, 325303.	1.3	81
31	Evanescent-field-coupled guided-mode sensor based on a waveguide grating. Applied Optics, 2015, 54, 4889.	2.1	12
32	Near infrared photoluminescence from bismuth-doped nanoporous silica thin films. Journal of Applied Physics, 2013, 114, 033524.	1.1	6
33	Codoping n- and p-Type Impurities in Colloidal Silicon Nanocrystals: Controlling Luminescence Energy from below Bulk Band Gap to Visible Range. Journal of Physical Chemistry C, 2013, 117, 11850-11857.	1.5	128
34	Second harmonic generation from Ge doped SiO ₂ (Ge _x (SiO ₂) _{1-x}) thin films grown by sputtering. Applied Physics Letters, 2013, 103, 201117.	1.5	10
35	Enhancement of upconversion luminescence of Al ₂ O ₃ : Er ³⁺ , Yb ³⁺ thin films by small assemblies of Au nanorods. Transactions of the Materials Research Society of Japan, 2013, 38, 131-134.	0.2	0
36	Plasmonics: visit the past to know the future. Journal Physics D: Applied Physics, 2012, 45, 433001.	1.3	220

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37	Broadband near-infrared emission from bismuth-doped multilayer films. Journal of Applied Physics, 2012, 112, 073511.	1.1	8
38	Plasmonic effects on strong exciton-photon coupling in metal-insulator-metal microcavities. Physical Review B, 2012, 86, .	1.1	44
39	Ultrafast nonlinear optical responses of bismuth doped silicon-rich silica films. Applied Physics Letters, 2012, 101, 191106.	1.5	5
40	Ultrafast third order nonlinear optical response of donor and acceptor codoped and compensated silicon quantum dots. Applied Physics Letters, 2012, 101, 041112.	1.5	11
41	Three-dimensional structure of (110) porous silicon with in-plane optical birefringence. Journal of Applied Physics, 2012, 111, 084303.	1.1	11
42	Acceptor-related low-energy photoluminescence from boron-doped Si nanocrystals. Journal of Applied Physics, 2011, 110, .	1.1	22
43	Efficient near-infrared luminescence and energy transfer in Nd-Bi codoped zeolites. Materials Research Society Symposia Proceedings, 2011, 1342, 41.	0.1	1
44	Mechanism of enhanced light emission from an emitting layer embedded in metal-insulator-metal structures. Physical Review B, 2010, 82, .	1.1	20
45	Temperature dependence of optical anisotropy of birefringent porous silicon. Applied Physics Letters, 2010, 96, 243102.	1.5	8
46	Resonant photon transport through metal-insulator-metal multilayers consisting of Ag and SiO_2 . Physical Review B, 2010, 82, .	1.1	10
47	Nonlinear optical properties of silicon nanoclusters/nanocrystals doped SiO_2 films: Annealing temperature dependence. Journal of Applied Physics, 2010, 108, .	1.1	29
48	Nonlinear optical properties of Si nanocrystals embedded in SiO_2 prepared by a cosputtering method. Journal of Applied Physics, 2009, 105, .	1.1	21
49	Highly efficient and air-stable near infrared emission in erbium/bismuth codoped zeolites. Applied Physics Letters, 2009, 94, 141106.	1.5	14
50	Enhancement of photoluminescence from silicon nanocrystals by metal nanostructures made by nanosphere lithography. Journal of Applied Physics, 2009, 106, .	1.1	21
51	Quenching-free fluorescence enhancement on nonmetallic particle layers: Rhodamine B on GaP particle layers. Chemical Physics Letters, 2009, 480, 100-104.	1.2	15
52	Molten-Salt Synthesis and Characterization of Nickel-Doped Forsterite Nanocrystals. Journal of the American Ceramic Society, 2009, 92, 962-966.	1.9	19
53	Raman spectral features of longer polyynes HC_2nH ($n=4-8$) in SWNTs. European Physical Journal D, 2009, 52, 79-82.	0.6	18
54	Energy transfer from Si nanocrystals to Er ions near a metal layer. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 47-51.	0.8	1

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55	Large-scale Controllable Synthesis and Characterization of Ytterbium Silicate Nanostructures. Journal of the American Ceramic Society, 2008, 91, 4158-4161.	1.9	12
56	Enhancement of upconversion luminescence of Er doped Al ₂ O ₃ films by Ag island films. Applied Physics Letters, 2008, 92, .	1.5	96
57	Electron spin resonance studies of P and B codoped Si nanocrystals. Applied Physics Letters, 2008, 93, .	1.5	36
58	Raman characterization of Ge distribution in individual Si _{1-x} Ge _x alloy nanowires. Applied Physics Letters, 2008, 93, 203101.	1.5	9
59	Enhancement of photoluminescence from excitons in silicon nanocrystals via coupling to surface plasmon polaritons. Journal of Applied Physics, 2007, 102, 023506.	1.1	23
60	Raman Scattering Studies of Electrically Active Impurities in in Situ B-Doped Silicon Nanowires: Effects of Annealing and Oxidation. Journal of Physical Chemistry C, 2007, 111, 15160-15165.	1.5	32
61	Photosensitization of oxygen molecules by surface-modified hydrophilic porous Si. European Physical Journal D, 2007, 43, 193-196.	0.6	6
62	Enhancement of photoluminescence from Yb and Er co-doped Al ₂ O ₃ films by an asymmetric metal cavity. Applied Physics Letters, 2006, 88, 042101.	1.5	13
63	Surface plasmon polariton mediated photoluminescence from excitons in silicon nanocrystals. Applied Physics Letters, 2006, 89, 101907.	1.5	28
64	Singlet oxygen formation by porous Si in solution. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 1385-1389.	0.8	13
65	Enhancement of 1.54- μ m emission from Er-doped sol-gel SiO ₂ films by Au nanoparticles doping. Journal of Applied Physics, 2005, 98, 024316.	1.1	73
66	Photoluminescence from impurity codoped and compensated Si nanocrystals. Applied Physics Letters, 2005, 87, 211919.	1.5	72
67	POPULATION INVERSION OF ERBIUM ION STATES CAUSED BY ENERGY TRANSFER FROM SILICON NANOCRYSTALS. , 2005, , .		0
68	Coexistence of two different energy transfer processes in SiO ₂ films containing Si nanocrystals and Er. Journal of Applied Physics, 2004, 95, 272-280.	1.1	82
69	Ferromagnetic resonance study of diluted Fe nanogranular films. Journal of Applied Physics, 2004, 95, 8194-8198.	1.1	27
70	Control of photoluminescence properties of Si nanocrystals by simultaneously doping n- and p-type impurities. Applied Physics Letters, 2004, 85, 1158-1160.	1.5	135
71	An arithmetical hierarchy of the law of excluded middle and related principles. , 2004, , .		27
72	Below bulk-band-gap photoluminescence at room temperature from heavily P- and B-doped Si nanocrystals. Journal of Applied Physics, 2003, 94, 1990-1995.	1.1	125

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73	Enhanced optical properties of Si _{1-x} Ge _x alloy nanocrystals in a planar microcavity. Journal of Applied Physics, 2003, 93, 2178-2181.	1.1	3
74	Excitation of Tm ³⁺ by resonant energy transfer from Si nanocrystals. Journal of Applied Physics, 2002, 92, 4001-4006.	1.1	17
75	Structure and electronic properties of carbon onions. Journal of Chemical Physics, 2001, 114, 7477-7482.	1.2	202
76	Photoluminescence from Si Nanocrystals Embedded in SiO ₂ Matrices in a Weak Confinement Regime. Physica Status Solidi (B): Basic Research, 2001, 224, 229-232.	0.7	5
77	Resonant excitation of Er ³⁺ by the energy transfer from Si nanocrystals. Journal of Applied Physics, 2001, 90, 4761-4767.	1.1	106
78	Electron spin resonance study of defects in Si _{1-x} Ge _x alloy nanocrystals embedded in SiO ₂ matrices: Mechanism of luminescence quenching. Journal of Applied Physics, 2001, 89, 4917-4920.	1.1	19
79	Photoluminescence and ESR study of Si _{1-x} Ge _x alloy nanocrystals. Materials Research Society Symposia Proceedings, 2000, 638, 1.	0.1	0
80	Photoluminescence from n-(p-) type impurity doped Si nanocrystals. Materials Research Society Symposia Proceedings, 2000, 638, 1.	0.1	5
81	Breakdown of the k-conservation rule in Si _{1-x} Ge _x alloy nanocrystals: Resonant photoluminescence study. Journal of Applied Physics, 2000, 88, 5772-5776.	1.1	23
82	Photoluminescence from Si nanocrystals dispersed in phosphosilicate glass thin films: Improvement of photoluminescence efficiency. Applied Physics Letters, 1999, 75, 184-186.	1.5	118
83	Decay dynamics of near-infrared photoluminescence from Ge nanocrystals. Applied Physics Letters, 1999, 74, 1558-1560.	1.5	29
84	Single-electron tunneling through Si nanocrystals dispersed in phosphosilicate glass thin films. Journal of Applied Physics, 1999, 86, 3199-3203.	1.1	37
85	Title is missing!. Journal of Nanoparticle Research, 1999, 1, 83-90.	0.8	3
86	Observation of Resonant Photon Tunneling in Photonic Double Barrier Structures. Optical Review, 1999, 6, 204-210.	1.2	32
87	Photoluminescence from B-doped Si nanocrystals. Journal of Applied Physics, 1998, 83, 7953-7957.	1.1	110
88	Current transport properties of SiO ₂ films containing Ge nanocrystals. Journal of Applied Physics, 1998, 83, 1507-1512.	1.1	56
89	Photoluminescence from SiO ₂ films containing Si nanocrystals and Er: Effects of nanocrystalline size on the photoluminescence efficiency of Er ³⁺ . Journal of Applied Physics, 1998, 84, 4525-4531.	1.1	219
90	Excitation of intra-4f shell luminescence of Yb ³⁺ by energy transfer from Si nanocrystals. Applied Physics Letters, 1998, 73, 3108-3110.	1.5	22

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91	Size-Dependence of Phase Transition of CdS Microcrystals. Journal of the Physical Society of Japan, 1997, 66, 1526-1531.	0.7	6
92	1.54 μ m photoluminescence of Er ³⁺ doped into SiO ₂ films containing Si nanocrystals: Evidence for energy transfer from Si nanocrystals to Er ³⁺ . Applied Physics Letters, 1997, 71, 1198-1200.	1.5	526
93	Hopping conduction in SiO ₂ films containing C, Si, and Ge clusters. Applied Physics Letters, 1996, 68, 3749-3751.	1.5	48
94	OPTICAL PROPERTIES OF CARBON CLUSTERS EMBEDDED IN SiO ₂ FILMS. Surface Review and Letters, 1996, 03, 1095-1100.	0.5	2
95	Raman Study of Crystal Structure of Gas-Evaporated MoO ₃ Microcrystals. Journal of the Physical Society of Japan, 1994, 63, 2194-2201.	0.7	20
96	Raman studies of semiconductor alloy microcrystals prepared by rf co-sputtering. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1993, 26, 228-230.	1.0	2
97	Photoluminescence spectra of clusters of group IV elements embedded in SiO ₂ matrices. Zeitschrift für Physik D-Atoms Molecules and Clusters, 1993, 26, 144-146.	1.0	37
98	Phase Transitions in Gas-Evaporated WO ₃ Microcrystals: A Raman Study. Journal of the Physical Society of Japan, 1992, 61, 916-923.	0.7	25
99	Raman Scattering from Acoustic Phonons Confined in Microcrystals: Small Gold and Silver Particles Embedded in SiO ₂ Thin Films. Journal of the Physical Society of Japan, 1992, 61, 754-755.	0.7	18
100	Optical Properties of Microcrystals Embedded in Solid Matrices.. Shinku/Journal of the Vacuum Society of Japan, 1991, 34, 799-806.	0.2	2
101	Analysis of surface oxides of gas-evaporated Si small particles with infrared spectroscopy, high-resolution electron microscopy, and x-ray photoemission spectroscopy. Journal of Applied Physics, 1990, 68, 5300-5308.	1.1	58
102	Raman scattering from microcrystals. Phase Transitions, 1990, 24-26, 641-660.	0.6	14
103	Raman scattering from quantum dots of Ge embedded in SiO ₂ thin films. Applied Physics Letters, 1990, 57, 2692-2694.	1.5	140
104	Evidence for surface-enhanced Raman scattering on nonmetallic surfaces: Copper phthalocyanine molecules on GaP small particles. Physical Review Letters, 1988, 60, 1085-1088.	2.9	121
105	Thermal Annealing of Gas-Evaporated Ge Microcrystals: A Raman and Electron Microscopic Study. Journal of the Physical Society of Japan, 1987, 56, 243-249.	0.7	29
106	Exciton Absorption in Gas-Evaporated CuCl Microcrystals. Journal of the Physical Society of Japan, 1987, 56, 2229-2230.	0.7	15