Kohki Mukai

List of Publications by Year
in descending order

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98 papers	3,059 citations	218677 26 h-index	161849 54 g-index
98 all docs	98 docs citations	98 times ranked	1174 citing authors

#	Article	IF	Citations
1	Improvement of monodispersity and shape symmetry of silica shell for PbS quantum dots by introducing surface silanization and adjusting reverse micelle size. Japanese Journal of Applied Physics, 2022, 61, 015001.	1.5	3
2	Modulation of the optical absorption edge of Îµ- and Îºâ€‰-â€‰Ga2O3 due to Co impurities caused by band structure changes: Work function measurements and first-principle calculations. Journal of Applied Physics, 2020, 127, 065701.	2.5	4
3	Chemical synthesis and band gap control of Ga₂O₃:Co nanocrystals. Japanese Journal of Applied Physics, 2019, 58, SBBK05.	1.5	4
4	A photon generating device composed of a quantum dot and a metamaterial element. Japanese Journal of Applied Physics, 2019, 58, SBBI06.	1.5	4
5	Silica coating of PbS quantum dots and their position control using a nanohole on Si substrate. Japanese Journal of Applied Physics, 2018, 57, 04FH01.	1.5	5
6	Formation of superlattice with aligned plane orientation of colloidal PbS quantum dots. Japanese Journal of Applied Physics, 2018, 57, 04FS02.	1.5	5
7	Improvement of Solar Cell Characteristics Using PbS Quantum Dot Superlattice Prepared by Sedimentation. Journal of Nanomaterials, 2018, 2018, 1-6.	2.7	3
8	All-silicon photon emitter with colloidal PbS quantum dot in tunable microcavity. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 103, 417-422.	2.7	3
9	Superlattice formation of faceted PbS quantum dots with three-dimensionally aligned crystal orientation. Applied Physics Express, 2018, 11, 085601.	2.4	4
10	Controlling the Electron Coupled State in the Superlattice of PbS Quantum Dots by Replacing Ligands. IEEE Nanotechnology Magazine, 2017, 16, 600-605.	2.0	6
11	Fabrication of optical waveguides inside transparent silica xerogels containing PbS quantum dots using a femtosecond laser. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	5
12	Production of Three-dimensional Nickel Microstructures by Electroless Plating on Through-hole-type Polymer Micromold. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2017, 30, 41-48.	0.3	0
13	Large Red Shift of Emission of PbS Quantum-dot Superlattice with Butylamine Ligands. Current Nanoscience, 2017, 13, .	1.2	6
14	Control of electron coupled state in superlattice of PbS quantum dots by replacing ligands. , 2016, , .		0
15	Controlled waveguide coupling for photon emission from colloidal PbS quantum dot using tunable microcavity made of optical polymer and silicon. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 78, 14-18.	2.7	10
16	Position control of PbS quantum dot using nanohole on silicon substrate processed by scanning probe lithography. Japanese Journal of Applied Physics, 2015, 54, 04DJ02.	1.5	12
17	Template method for nano-order positioning and dense packing of quantum dots for optoelectronic device application. Semiconductor Science and Technology, 2015, 30, 044006.	2.0	15
18	Formation of nanohole for positioning of colloidal quantum dot. Japanese Journal of Applied Physics, 2014, 53, 06JF08.	1.5	7

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19	Semiconductor Quantum Dots for Future Optical Applications. Journal of Nanoscience and Nanotechnology, 2014, 14, 2148-2156.	0.9	21
20	Plasmonically Coupled Faraday Effect in Fe- and Au-doped Silicate Glasses Irradiated with Femtosecond Laser. Journal of Laser Micro Nanoengineering, 2014, 9, 132-136.	0.1	2
21	Optical and magneto-optical properties in Fe-doped glasses irradiated with femtosecond laser. Applied Physics B: Lasers and Optics, 2013, 113, 451-456.	2.2	7
22	Thiol-stabilized PbS quantum dots with stable luminescence in the infrared spectral range. Journal of Crystal Growth, 2013, 378, 542-545.	1.5	8
23	Infrared emitting property and spherical symmetry of colloidal PbS quantum dots. Journal of Crystal Growth, 2013, 378, 537-541.	1.5	11
24	Spatially selective modification of optical and magneto-optical properties in Fe- and Au-doped glasses irradiated with femtosecond-laser. Applied Physics A: Materials Science and Processing, 2013, 110, 765-769.	2.3	1
25	Temperature-Controlled Symmetry of Linear Polarization of Photoluminescence from InGaAs-Buried InAs/GaAs Quantum Dots. Japanese Journal of Applied Physics, 2013, 52, 06GG04.	1.5	3
26	Spectroscopic analysis of a nanostructure roughness of plasma-deposited Au films using organic monolayer. Journal of Physics: Conference Series, 2013, 441, 012044.	0.4	0
27	Analysis of Diffusion and Deposition Process of Flowing Metal Ions in Micro-plating Method. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2013, 26, 441-445.	0.3	1
28	Manufacturing of Metal Micro Pillar with High Aspect Ratio using Negative-type Resin Mold. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2013, 26, 473-478.	0.3	1
29	High Hardness of Conductive Micro Fastener Manufactured by Micromolding Method. Transactions of the Materials Research Society of Japan, 2013, 38, 409-413.	0.2	1
30	Plasmonically enhanced Faraday effect in metal and ferrite nanoparticles composite precipitated inside glass. Optics Express, 2012, 20, 28191.	3.4	16
31	Micro-sized Columnar Structures of Ni fabricated by using Negative-type Micromold made of Photocurable Resin. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2012, 25, 487-492.	0.3	4
32	Grazing Incidence X-Ray Diffraction Measurements of InAs/GaAs Quantum Dots Using Equipment Available for Laboratories. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 245-254.	0.5	1
33	Production by Photocurable Resin of Micro Fastener which Realizes Highly Precise Positioning and Conductive Connection of Devices. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2011, 24, 571-575.	0.3	5
34	Production of A Magnetic Micro Capsule based on Photopolymerized Resin Mold and Its Motion in Viscous Liquid. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2010, 23, 407-412.	0.3	6
35	Polarization symmetry of photoluminescence from PbS quantum dots. , 2010, , .		0
36	Grazing Incidence X-ray Diffraction Measurements of Columnar InAs/GaAs Quantum Dot Structures. Japanese Journal of Applied Physics, 2010, 49, 04DH07.	1.5	4

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37	Characterization of Columnar InAs/GaAs Quantum-Dot Structures Using Grazing Incidence X-ray Diffraction. Japanese Journal of Applied Physics, 2009, 48, 04C147.	1.5	2
38	Micromolding for three-dimensional metal microstructures using stereolithography of photopolymerized resin. Microelectronic Engineering, 2009, 86, 1169-1172.	2.4	10
39	Computational Study on the In-Plane Symmetry of Electron Wavefunctions in Self-Assembled InAs/GaAs Quantum Dots. Journal of Nanoscience and Nanotechnology, 2009, 9, 108-114.	0.9	6
40	Polarization Symmetry of Vertical Photoluminescence from Columnar InAs/GaAs Quantum Dots. E-Journal of Surface Science and Nanotechnology, 2009, 7, 537-540.	0.4	4
41	Self-Assembled Quantum Dot Structure Composed of IIIâ€"V Compound Semiconductors. Advances in Materials Research, 2008, , 243-262.	0.2	0
42	Experimental study of a semiconductor laser diode having a Machâ€"Zehnder interferometer in the cavity. Optics and Laser Technology, 2008, 40, 510-516.	4.6	0
43	Ferrite and Copper Electroless Plating of Photopolymerized Resin for Micromolding of Three-Dimensional Structures. Japanese Journal of Applied Physics, 2008, 47, 3232-3235.	1.5	11
44	Suppression of the Polarization Dependence of the Vertical Photoluminescence from InAs/GaAs Quantum Dots by InGaAs Strain-Reducing Layer. Japanese Journal of Applied Physics, 2008, 47, 5057-5061.	1.5	8
45	Electroless and Electrolytic Plating of Ni, Cu, and CoxFe2-xO4 for the Application of Three-Dimensional Micro-Molding. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2008, 21, 53-58.	0.3	8
46	Micromolding of Three-Dimensional Metal Structures by Electroless Plating of Photopolymerized Resin. Japanese Journal of Applied Physics, 2007, 46, 2761-2763.	1.5	13
47	Electroless and Electrolytic Plating of Photopolymerized Resin for Use in the Micro-Molding of Three-Dimensional Nickel Structures. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2007, 20, 285-290.	0.3	7
48	Improvement of electron wavefunction symmetry in InAs/GaAs quantum dots embedded in an InGaAs strain-reducing layer. , 2007, , .		0
49	Photonic dot structure which emits photons horizontally to a built-in waveguide. Journal of Crystal Growth, 2007, 301-302, 984-988.	1.5	2
50	Three-dimensional strain distribution during stacking of self-assembled InGaAs/GaAs quantum dot layers. Journal of Crystal Growth, 2006, 294, 268-272.	1.5	7
51	Theoretical Study on Controllability of Quantum State Energy in an InGaAs/GaAs Quantum Dot Buried in InGaAs. Journal of Nanoscience and Nanotechnology, 2006, 6, 3705-3709.	0.9	2
52	Novel Self-Switching Optical Gate Device with Internal Mode-Locked Pulses. Japanese Journal of Applied Physics, 2004, 43, L680-L682.	1.5	1
53	Nonlinear gain dynamics in quantum-dot optical amplifiers and its application to optical communication devices. IEEE Journal of Quantum Electronics, 2001, 37, 1059-1065.	1.9	112
54	Ultrafast nonlinear processes in quantum-dot optical amplifiers. Optical and Quantum Electronics, 2001, 33, 927-938.	3.3	10

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55	Molecular beam epitaxial growth of InAs self-assembled quantum dots with light-emission at 1.3Î¼m. Journal of Crystal Growth, 2000, 208, 93-99.	1.5	135
56	High characteristic temperature of near-1.3-Î¼m InGaAs/GaAs quantum-dot lasers at room temperature. Applied Physics Letters, 2000, 76, 3349-3351.	3.3	72
57	Performance and physics of quantum-dot lasers with self-assembled columnar-shaped and 1.3-/spl mu/m emitting InGaAs quantum dots. IEEE Journal of Selected Topics in Quantum Electronics, 2000, 6, 462-474.	2.9	49
58	1.3-/spl mu/m CW lasing characteristics of self-assembled InGaAs-GaAs quantum dots. IEEE Journal of Quantum Electronics, 2000, 36, 472-478.	1.9	121
59	Effect of homogeneous broadening of optical gain on lasing spectra in self-assembledInxGa1â^'xAs/GaAsquantum dot lasers. Physical Review B, 2000, 61, 7595-7603.	3.2	272
60	Room-temperature gain and differential gain characteristics of self-assembled InGaAs/GaAs quantum dots for 1.1â€"1.3 Î¼m semiconductor lasers. Applied Physics Letters, 2000, 77, 773-775.	3.3	45
61	Application of spectral-hole burning in the inhomogeneously broadened gain of self-assembled quantum dots to a multiwavelength-channel nonlinear optical device. IEEE Photonics Technology Letters, 2000, 12, 1301-1303.	2.5	70
62	Nonlinear processes responsible for nondegenerate four-wave mixing in quantum-dot optical amplifiers. Applied Physics Letters, 2000, 77, 1753.	3.3	96
63	Suppression of temperature sensitivity of interband emission energy in 1.3-Î¼m-region by an InGaAs overgrowth on self-assembled InGaAs/GaAs quantum dots. Applied Physics Letters, 1999, 74, 3963-3965.	3.3	70
64	Light emission spectra of columnar-shaped self-assembled InGaAs/GaAs quantum-dot lasers: Effect of homogeneous broadening of the optical gain on lasing characteristics. Applied Physics Letters, 1999, 74, 1561-1563.	3.3	106
65	Temperature characteristics of threshold currents of columnar-shaped self-assembled InGaAs/GaAs quantum-dot lasers: Influence of nonradiative recombination centers. Applied Physics Letters, 1999, 75, 656-658.	3.3	20
66	Chapter 8 The Latest News. Semiconductors and Semimetals, 1999, , 325-338.	0.7	1
67	Chapter 3 Metalorganic Vapor Phase Epitaxial Growth of Self-Assembled InGaAs/GaAs Quantum Dots Emitting at 1.3 Î¼m. Semiconductors and Semimetals, 1999, , 155-181.	0.7	15
68	1.3-Î¼m CW lasing of InGaAs-GaAs quantum dots at room temperature with a threshold current of 8 mA. IEEE Photonics Technology Letters, 1999, 11, 1205-1207.	2.5	177
69	Chapter 4 Optical Characterization of Quantum Dots. Semiconductors and Semimetals, 1999, , 183-208.	0.7	1
70	Chapter 5 The Photon Bottleneck Effect in Quantum Dots. Semiconductors and Semimetals, 1999, , 209-239.	0.7	12
71	Temperature characteristics of light emission spectra and threshold currents of columnar-shaped self-assembled InGaAs/GaAs quantum-dot lasers. , 1999, , .		1
72	Self-organized quantum dots and quantum dot lasers (invited). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 794-800.	2.1	37

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73	Lasing with low threshold current and high output power from columnar-shaped InAs/GaAs quantum dots. Electronics Letters, 1998, 34, 1588.	1.0	80
74	Slow Carrier Relaxation among Sublevels in Annealed Self-Formed InGaAs/GaAs Quantum Dots. Japanese Journal of Applied Physics, 1998, 37, 5451-5456.	1.5	28
75	Exciton diamagnetic shifts in self-formed closely stacked InAs/GaAs quantum dots. Physical Review B, 1997, 55, 13155-13160.	3.2	25
76	High photoluminescence efficiency of InGaAs/GaAs quantum dots self-formed by atomic layer epitaxy technique. Applied Physics Letters, 1997, 70, 2416-2418.	3.3	82
77	Temperature dependent lasing characteristics of multi-stacked quantum dot lasers. Applied Physics Letters, 1997, 71, 193-195.	3.3	98
78	Lasing characteristics of self-formed quantum-dot lasers with multistacked dot layer. IEEE Journal of Selected Topics in Quantum Electronics, 1997, 3, 188-195.	2.9	61
79	Effect of phonon bottleneck on quantum-dot laser performance. Applied Physics Letters, 1997, 71, 2791-2793.	3.3	156
80	Growth and optical evaluation of InGaAs/GaAs quantum dots self-formed during alternate supply of precursors. Applied Surface Science, 1997, 112, 102-109.	6.1	24
81	Room temperature CW operation at the ground state of self-formed quantum dot lasers with multi-stacked dot layer. Electronics Letters, 1996, 32, 2023.	1.0	97
82	Emission from discrete levels in selfâ€formed InGaAs/GaAs quantum dots by electric carrier injection: Influence of phonon bottleneck. Applied Physics Letters, 1996, 68, 3013-3015.	3.3	162
83	Phonon bottleneck in self-formedInxGa1â^'xAs/GaAsquantum dots by electroluminescence and time-resolved photoluminescence. Physical Review B, 1996, 54, R5243-R5246.	3.2	111
84	Controlled Quantum Confinement Potentials in Self-Formed InGaAs Quantum Dots Grown by Atomic Layer Epitaxy Technique. Japanese Journal of Applied Physics, 1996, 35, L262-L265.	1.5	26
85	Self-Formed InGaAs Quantum Dot Lasers with Multi-Stacked Dot Layer. Japanese Journal of Applied Physics, 1996, 35, L903-L905.	1.5	48
86	Lasing at three-dimensionally quantum-confined sublevel of self-organized In/sub 0.5/Ga/sub 0.5/As quantum dots by current injection. IEEE Photonics Technology Letters, 1995, 7, 1385-1387.	2.5	139
87	Self-Formed $f In_{0.5}Ga_{0.5}As$ Quantum Dots on GaAs Substrates Emitting at $f 1.3,{mbi {mu}}m$. Japanese Journal of Applied Physics, 1994, 33, L1710-L1712.	1.5	189
88	Dependence of dislocation multiplication on time, temperature, and stress distribution in strained InGaAs/InP quantum wells studied by xâ€ray topography. Applied Physics Letters, 1994, 64, 2836-2838.	3.3	0
89	Interdiffusion process in lattice-matchedInxGa1â^'xAsyP1â^'y/InP and GaAs/AlxGa1â^'xAs quantum wells. Physical Review B, 1994, 50, 2273-2282.	3.2	32
90	Enhancement of thermal stability in In0.53Ga0.47As/InP quantum wells. Journal of Crystal Growth, 1994, 137, 388-392.	1.5	0

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91	Relaxation process in strained InGaAs/InP quantum wells studied by X-ray topography. Journal of Crystal Growth, 1994, 145, 752-757.	1.5	0
92	Interdiffusion process in InGaAs/InP quantum well structures. Journal of Crystal Growth, 1991, 115, 433-438.	1.5	5
93	Self-formed In(Ga)As quantum dot lasers. , 0, , .		0
94	Room temperature lasing at lower-order subband of self-formed InGaAs quantum dot lasers with multi-stacked dot layer. , 0, , .		2
95	Low threshold CW lasing of closely-stacked self-organized InAs/GaAs quantum dots. , 0, , .		0
96	Suppression of temperature sensitivity of interband emission energy by an InGaAs overgrowth on self-assembled InGaAs/GaAs quantum dots. , 0, , .		2
97	Study on chemical synthesis of SnSSe nanosheets and nanocrystals. Japanese Journal of Applied Physics, 0, , .	1.5	0
98	Decrease in crystallization temperature of Î²-Ga₂O₃ in nanowire structure. Japanese Journal of Applied Physics, 0, , .	1.5	1