Eiji Higurashi

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5819549/publications.pdf

Version: 2024-02-01

		257450	265206
237	2,546	24	42
papers	citations	h-index	g-index

237	237	237	1565
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optically induced rotation of anisotropic microâ€objects fabricated by surface micromachining. Applied Physics Letters, 1994, 64, 2209-2210.	3.3	256
2	Low-Temperature Bonding of Laser Diode Chips on Silicon Substrates Using Plasma Activation of Au Films. IEEE Photonics Technology Letters, 2007, 19, 1994-1996.	2.5	108
3	Auâ€“Au Surface-Activated Bonding and Its Application to Optical Microsensors With 3-D Structure. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1500-1505.	2.9	95
4	Optically induced rotation of dissymmetrically shaped fluorinated polyimide micro-objects in optical traps. Journal of Applied Physics, 1997, 82, 2773-2779.	2.5	91
5	Highly accurate and quick bonding of a laser-diode chip onto a planar lightwave circuit. Precision Engineering, 2001, 25, 293-300.	3.4	89
6	Room-Temperature Bonding of Vertical-Cavity Surface-Emitting Laser Chips on Si Substrates Using Au Microbumps in Ambient Air. Applied Physics Express, 0, 1, 112201.	2.4	76
7	Optically induced angular alignment of trapped birefringent micro-objects by linearly polarized light. Physical Review E, 1999, 59, 3676-3681.	2.1	65
8	An integrated laser blood flowmeter. Journal of Lightwave Technology, 2003, 21, 591-595.	4.6	60
9	Optically induced rotation of a trapped micro-object about an axis perpendicular to the laser beam axis. Applied Physics Letters, 1998, 72, 2951-2953.	3.3	49
10	Integrated micro-displacement sensor that measures tilting angle and linear movement of an external mirror. Sensors and Actuators A: Physical, 2007, 138, 269-275.	4.1	43
11	Low-temperature hermetic packaging for microsystems using Auâ€“Au surface-activated bonding at atmospheric pressure. Journal of Micromechanics and Microengineering, 2012, 22, 055026.	2.6	42
12	Comparison of Argon and Oxygen Plasma Treatments for Ambient Room-Temperature Wafer-Scale Auâ€“Au Bonding Using Ultrathin Au Films. Micromachines, 2019, 10, 119.	2.9	42
13	Lithium niobate ridged waveguides with smooth vertical sidewalls fabricated by an ultra-precision cutting method. Optics Express, 2014, 22, 27733.	3.4	40
14	Surface activated bonding of GaAs and SiC wafers at room temperature for improved heat dissipation in high-power semiconductor lasers. Japanese Journal of Applied Physics, 2015, 54, 030207.	1.5	39
15	Passive Alignment and Mounting of LiNbO$_3$ Waveguide Chips on Si Substrates by Low-Temperature Solid-State Bonding of Au. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 652-658.	2.9	37
16	Micro-encoder based on higher-order diffracted light interference. Journal of Micromechanics and Microengineering, 2005, 15, 1459-1465.	2.6	36
17	Optically induced angular alignment of birefringent micro-objects by linear polarization. Applied Physics Letters, 1998, 73, 3034-3036.	3.3	34
18	Air-gap structure between integrated LiNbO_3 optical modulators and micromachined Si substrates. Optics Express, 2011, 19, 15739.	3.4	34

#	Article	IF	Citations
19	Room-Temperature Bonding of Wafers with Smooth Au Thin Films in Ambient Air Using a Surface-Activated Bonding Method. IEICE Transactions on Electronics, 2017, E100.C, 156-160.	0.6	33
20	Integrated microlaser Doppler velocimeter. Journal of Lightwave Technology, 1999, 17, 30-34.	4.6	32
21	Hybrid microlaser encoder. Journal of Lightwave Technology, 2003, 21, 815-820.	4.6	31
22	Void-Free Room-Temperature Silicon Wafer Direct Bonding Using Sequential Plasma Activation. Japanese Journal of Applied Physics, 2008, 47, 2526.	1.5	30
23	Detection of Site-Specific Blood Flow Variation in Humans during Running by a Wearable Laser Doppler Flowmeter. Sensors, 2015, 15, 25507-25519.	3.8	27
24	High-Speed InP/InGaAsSb DHBT on High-Thermal-Conductivity SiC Substrate. IEEE Electron Device Letters, 2018, 39, 807-810.	3.9	27
25	Grasping Force Control for a Robotic Hand by Slip Detection Using Developed Micro Laser Doppler Velocimeter. Sensors, 2018, 18, 326.	3.8	26
26	Transient liquid-phase sintering using silver and tin powder mixture for die bonding. Japanese Journal of Applied Physics, 2016, 55, 04EC14.	1.5	25
27	Shearing force measurement device with a built-in integrated micro displacement sensor. Sensors and Actuators A: Physical, 2015, 221, 1-8.	4.1	24
28	Review of Lowâ€Temperature Bonding Technologies and Their Application in Optoelectronic Devices. Electronics and Communications in Japan, 2016, 99, 63-71.	0.5	24
29	Optical trapping of low-refractive-index microfabricated objects using radiation pressure exerted on their inner walls. Optics Letters, 1995, 20, 1931.	3.3	23
30	Monolithically integrated optical displacement sensor based on triangulation and optical beam deflection. Applied Optics, 1999, 38, 1746.	2.1	23
31	Room-temperature wafer bonding of LiNbO3 and SiO2 using a modified surface activated bonding method. Japanese Journal of Applied Physics, 2018, 57, 06HJ12.	1.5	23
32	Effect of Au Film Thickness and Surface Roughness on Room-Temperature Wafer Bonding and Wafer-Scale Vacuum Sealing by Au-Au Surface Activated Bonding. Micromachines, 2020, 11, 454.	2.9	23
33	Integrated Laser Doppler Blood Flowmeter Designed to Enable Wafer-Level Packaging. IEEE Transactions on Biomedical Engineering, 2010, 57, 2026-2033.	4.2	22
34	Development of a Wireless Sensor for the Measurement of Chicken Blood Flow Using the Laser Doppler Blood Flow Meter Technique. IEEE Transactions on Biomedical Engineering, 2013, 60, 1645-1653.	4.2	22
35	Room-Temperature Gold-Gold Bonding Method Based on Argon and Hydrogen Gas Mixture Atmospheric-Pressure Plasma Treatment for Optoelectronic Device Integration. IEICE Transactions on Electronics, 2016, E99.C, 339-345.	0.6	22
36	Monolithic-integrated microlaser encoder. Applied Optics, 1999, 38, 6866.	2.1	21

#	Article	IF	Citations
37	Thermal conductance of silicon interfaces directly bonded by room-temperature surface activation. Applied Physics Letters, 2015, 106, .	3.3	21
38	Optically driven angular alignment of microcomponents made of in-plane birefringent polyimide film based on optical angular momentum transfer. Journal of Micromechanics and Microengineering, 2001, 11, 140-145.	2.6	20
39	Three-dimensional integrated CMOS image sensors with pixel-parallel A/D converters fabricated by direct bonding of SOI layers. , 2014, , .		19
40	3-D Silicon-on-Insulator Integrated Circuits With NFET and PFET on Separate Layers Using Au/SiO₂Hybrid Bonding. IEEE Transactions on Electron Devices, 2014, 61, 2886-2892.	3.0	19
41	Room-temperature direct bonding of germanium wafers by surface-activated bonding method. Japanese Journal of Applied Physics, 2015, 54, 030213.	1.5	19
42	Low-temperature direct bonding of diamond (100) substrate on Si wafer under atmospheric conditions. Scripta Materialia, 2021, 191, 52-55.	5.2	19
43	Low-Temperature Au-to-Au Bonding for LiNbO3/Si Structure Achieved in Ambient Air. IEICE Transactions on Electronics, 2007, E90-C, 145-146.	0.6	19
44	Fabrication of micro IC probe for LSI testing. Sensors and Actuators A: Physical, 2000, 80, 126-131.	4.1	18
45	Single Si crystal 1024 ch MEMS mirror based on terraced electrodes and a high-aspect ratio torsion spring for 3-D cross-connect switch. , 0, , .		18
46	Pixel-Parallel 3-D Integrated CMOS Image Sensors With Pulse Frequency Modulation A/D Converters Developed by Direct Bonding of SOI Layers. IEEE Transactions on Electron Devices, 2015, 62, 3530-3535.	3.0	18
47	Low-Temperature Direct Bonding of Flip-Chip Mountable VCSELs with Au-Au Surface Activation. IEEJ Transactions on Sensors and Micromachines, 2008, 128, 266-270.	0.1	17
48	(Invited) Low-Temperature Bonding Technologies for Photonics Applications. ECS Transactions, 2013, 50, 351-362.	0.5	17
49	Quarter Video Graphics Array Digital Pixel Image Sensing With a Linear and Wide- Dynamic-Range Response by Using Pixel-Wise 3-D Integration. IEEE Transactions on Electron Devices, 2019, 66, 969-975.	3.0	17
50	Improved single crystalline mirror actuated electrostatically by terraced electrodes with high-aspect ratio torsion spring. , 0, , .		16
51	Room-temperature transfer bonding of lithium niobate thin film on micromachined silicon substrate with Au microbumps. Sensors and Actuators A: Physical, 2017, 264, 274-281.	4.1	16
52	Residual Stress in Lithium Niobate Film Layer of LNOI/Si Hybrid Wafer Fabricated Using Low-Temperature Bonding Method. Micromachines, 2019, 10, 136.	2.9	15
53	An accelerometer incorporating a laser microencoder for a wide measurable range. Sensors and Actuators A: Physical, 2007, 136, 161-167.	4.1	14
54	Integrated micro-displacement sensor that uses beam divergence. Journal of Micromechanics and Microengineering, 2003, 13, 942-947.	2.6	13

#	Article	IF	Citations
55	Low-Temperature Bonding of GaN on Si Using a Nonalloyed Metal Ohmic Contact Layer for GaN-Based Heterogeneous Devices. IEEE Journal of Quantum Electronics, 2012, 48, 182-186.	1.9	13
56	Properties of various plasma surface treatments for low-temperature Auâ€“Au bonding. Japanese Journal of Applied Physics, 2018, 57, 04FC12.	1.5	13
57	Optical Microsensors Integration Technologies for Biomedical Applications. IEICE Transactions on Electronics, 2009, E92-C, 231-238.	0.6	13
58	Achievement of laser fusion of biological cells using UV pulsed dye laser beams. Applied Physics B, Photophysics and Laser Chemistry, 1992, 54, 531-533.	1.5	12
59	Electrical properties of Si-based junctions by SAB. , 2012, , .		12
60	Development and evaluation of a two-axial shearing force sensor consisting of an optical sensor chip and elastic gum frame. Precision Engineering, 2016, 45, 136-142.	3.4	12
61	Surface activated bonding of Au/Cr, Au/Ta and Au/Pt/Ti films after degas annealing for Si/sapphire gas cell. Microelectronic Engineering, 2019, 214, 68-73.	2.4	12
62	De-bondable SiC SiC wafer bonding via an intermediate Ni nano-film. Applied Surface Science, 2019, 465, 591-595.	6.1	12
63	Low-Temperature Solid-State Bonding Using Hydrogen Radical Treated Solder for Optoelectronic and MEMS Packaging. ECS Transactions, 2014, 64, 267-274.	0.5	11
64	Development of a Built-In Micro-Laser Doppler Velocimeter. Journal of Microelectromechanical Systems, 2016, 25, 380-387.	2.5	11
65	Room temperature bonding of aluminum nitride ceramic and semiconductor substrate. Ceramics International, 2020, 46, 25956-25963.	4.8	11
66	Application of thin Au/Ti double-layered films as both low-temperature bonding layer and residual gas gettering material for MEMS encapsulation. Microelectronic Engineering, 2021, 238, 111513.	2.4	11
67	Nanometer-displacement detection of optically trapped metallic particles based on critical angle method for small force detection. Review of Scientific Instruments, 1999, 70, 3068-3073.	1.3	10
68	Heterogeneous GaN-Si integration via plasma activation direct bonding. Journal of Alloys and Compounds, 2021, 852, 156933.	5.5	10
69	Heterogeneous direct bonding of diamond and semiconductor substrates using NH3/H2O2 cleaning. Applied Physics Letters, 2020, 117, 201601.	3.3	10
70	A Three-Dimensional Micro-Electro-Mechanical System (MEMS) Optical Switch Module Using Low-Cost Highly Accurate Polymer Components. Japanese Journal of Applied Physics, 2004, 43, 5824-5827.	1.5	9
71	Evaluation of surface microroughness for surface activated bonding. , 2010, , .		9
72	Heterogeneous integration based on low-temperature bonding for advanced optoelectronic devices. Japanese Journal of Applied Physics, 2018, 57, 04FA02.	1.5	9

#	Article	IF	Citations
73	Ultrathin adhesive layer between LiNbO3 and SiO2 for bonded LNOI waveguide applications. Japanese Journal of Applied Physics, 2019, 58, SJJE06.	1.5	9
74	Low-temperature direct bonding of SiC and Ga2O3 substrates under atmospheric conditions. Journal of Applied Physics, 2021, 130, .	2.5	9
75	Axial and Lateral Displacement Measurements of a Microsphere Based on the Critical-Angle Method. Japanese Journal of Applied Physics, 1998, 37, 4191-4196.	1.5	8
76	Low-power consumption integrated laser Doppler blood flowmeter with a built-in silicon microlens. , 2008, , .		8
77	Demonstration of GaN/LiNbO3 Hybrid Wafer Using Room-Temperature Surface Activated Bonding. ECS Journal of Solid State Science and Technology, 2020, 9, 045005.	1.8	8
78	Integrated microlaser displacement sensor. Journal of Micromechanics and Microengineering, 2002, 12, 286-290.	2.6	7
79	Low-temperature bonding of laser diode chips on Si substrates with oxygen and hydrogen atmospheric-pressure plasma activation. , 2009, , .		7
80	Miniaturization of a Laser Doppler Blood Flow Sensor by Systemâ€inâ€Package Technology: Fusion of an Optical Microelectromechanical Systems Chip and Integrated Circuits. IEEJ Transactions on Electrical and Electronic Engineering, 2010, 5, 137-142.	1.4	7
81	SOI platform and III-V integrated active photonic device by direct bonding for data communication. , 2012, , .		7
82	Quarter Video Graphics Array Full-Digital Image Sensing with Wide Dynamic Range and Linear Output Using Pixel-Wise 3D Integration. , 2018, , .		7
83	Room-temperature pressureless wafer-scale hermetic sealing in air and vacuum using surface activated bonding with ultrathin Au films. Japanese Journal of Applied Physics, 2020, 59, SBBB01.	1.5	7
84	Residue-Free Solder Bumping Using Small AuSn Particles by Hydrogen Radicals. IEICE Transactions on Electronics, 2009, E92-C, 247-251.	0.6	6
85	Use of a simple arm-raising test with a portable laser Doppler blood flow meter to detect dehydration. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2011, 225, 411-419.	1.8	6
86	Useful method to monitor the physiological effects of alcohol ingestion by combination of micro-integrated laser Doppler blood flow meter and arm-raising test. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 759-765.	1.8	6
87	Comparable Accuracy of Micro-Electromechanical Blood Flowmetry-Based Analysis vs. Electrocardiography-Based Analysis in Evaluating Heart Rate Variability. Circulation Journal, 2015, 79, 794-801.	1.6	6
88	128 × 96 Pixel-parallel three-dimensional integrated CMOS image sensors with 16-bit A/D converters: By direct bonding with embedded Au electrodes. , 2015, , .		6
89	Low-temperature direct bonding of InP and diamond substrates under atmospheric conditions. Scientific Reports, 2021, 11, 11109.	3.3	6
90	Review of Low-temperature Bonding Technologies and Their Application in Optoelectronic Devices. IEEJ Transactions on Sensors and Micromachines, 2014, 134, 159-165.	0.1	6

#	Article	IF	Citations
91	Low-temperature LD direct bonding for highly functional optical MEMS. , 2005, , .		5
92	Development of a micro displacement sensor with monolithic-integrated two-dimensionally distributed photodiodes. , 2009, , .		5
93	Low-temperature bonding of laser diode chips using atmospheric-pressure plasma activation of flat topped Au stud bumps with smooth surfaces. , 2012, , .		5
94	Three-dimensional integrated circuits with NFET and PFET on separate layers fabricated by low temperature Au/SiO2 hybrid bonding. , 2013, , .		5
95	Electrical pumping Fabryâ€“Perot lasing of a III-V layer on a highly doped silicon micro rib. Laser Physics Letters, 2014, 11, 115807.	1.4	5
96	Low-temperature GaAs/SiC wafer bonding with Au thin film for high-power semiconductor lasers. , 2014, , .		5
97	Room-temperature wafer bonding with smooth Au thin film in ambient air using Ar RF plasma activation. , 2014, , .		5
98	Development of a miniaturized laser Doppler velocimeter for use as a slip sensor for robot hand control. , 2015, , .		5
99	Demonstration of ultraprecision ductile-mode cutting for lithium niobate microring waveguides. Japanese Journal of Applied Physics, 2016, 55, 110304.	1.5	5
100	Au / SiO₂ Hybrid Bonding with 6-Î¼m-Pitch Au Electrodes for 3D Structured Image Sensors. ECS Transactions, 2016, 75, 103-106.	0.5	5
101	Suppressed Self-Heating in Multi-Finger InP-Based DHBTs with Au Subcollector Fabricated on SiC Substrate by Surface-Activated Bonding. ECS Transactions, 2016, 75, 97-102.	0.5	5
102	Surface activation process of lead-free solder bumps for low temperature bonding. , 0, , .		4
103	Room temperature GaN-GaAs direct bonding by argon-beam surface activation. Proceedings of SPIE, 2007, , .	0.8	4
104	Combined Device of Optical Microdisplacement Sensor and PZT-Actuated Micromirror. , 2007, , .		4
105	Room Temperature Si/Si Wafer Direct Bonding in Air. , 2007, , .		4
106	Miniaturized polarization sensors integrated with wire-grid polarizers. , 2014, , .		4
107	(Invited) Pixel-Parallel CMOS Image Sensors with 16-Bit A/D Converters Developed by 3-D Integration of SOI Layers with Au/SiO2 Hybrid Bonding. ECS Transactions, 2016, 72, 3-6.	0.5	4
108	In-pixel A/D converters with 120-dB dynamic range using event-driven correlated double sampling for stacked SOI image sensors. , 2016, , .		4

#	Article	IF	Citations
109	Hydrogen radical treatment for indium surface oxide removal and re-oxidation behaviour. , 2017, , .		4
110	Evaluation of hydrogen radical treatment for indium surface oxide removal and analysis of re-oxidation behavior. Japanese Journal of Applied Physics, 2018, 57, 02BC01.	1.5	4
111	Surface Activated Bonding of LiNbO3 and GaN at Room Temperature. ECS Transactions, 2018, 86, 207-213.	0.5	4
112	3-Layer Stacking Technology with Pixel-Wise Interconnections for Image Sensors Using Hybrid Bonding of Silicon-on-Insulator Wafers Mediated by Thin Si Layers. , 2022, , .		4
113	<title>Numerical analysis of an optical motor based on the radiation pressure</title>. , 1996, 2882, 333.		3
114	Integrated micro focusing and tracking sensor. Journal of Micromechanics and Microengineering, 1999, 9, 71-77.	2.6	3
115	Low-temperature bonding of a LiNbO 3 waveguide chip to a Si substrate in ambient air for hybrid-integrated optical devices. , 2006, 6376, 16.		3
116	Effect of SAB process on GaN surfaces for low temperature bonding. , 2007, , .		3
117	A micro optical blood flow sensor and its application to detection of avian influenza. , 2009, , .		3
118	Semiconductive properties of heterointegration of INP/INGAAS on high doped silicon wire waveguide for silicon hybrid laser. , 2009, , .		3
119	Micro integrated laser Doppler blood flow sensor and its application to dehydration prevention. , 2009, , .		3
120	Electrical pumping to III-V layer from highly doped silicon micro wire to realize light emission by plasmaassisted bonding technology. , 2010, , .		3
121	Three-dimensional integrated circuits and stacked CMOS image sensors using direct bonding of SOI layers. , 2015, , .		3
122	Low temperature Au-Au surface-activated bonding using nitrogen atmospheric-pressure plasma treatment for optical microsystems. , 2015, , .		3
123	Influence of air exposure time on bonding strength in Au-Au surface activated wafer bonding. , 2015, , .		3
124	Hydrogen radical treatment for surface oxide removal from copper. , 2017, , .		3
125	Surface activated bonding of Au/Ta layers after degas annealing for MEMS packaging. , 2018, , .		3
126	Optical evaluation of nanocomposite metamaterials fabricated by nano-printing technique utilizing silver nanoink. Microelectronic Engineering, 2019, 211, 44-49.	2.4	3

#	Article	IF	Citations
127	A Review of Low-temperature Sealing Technologies using Metal Thin Films and Solders for Sensors and MEMS. IEEJ Transactions on Sensors and Micromachines, 2016, 136, 266-273.	0.1	3
128	Growth Behavior of Au Films on SiO2Film and Direct Transfer for Smoothing Au Surfaces. International Journal of Automation Technology, 2019, 13, 254-260.	1.0	3
129	Gas Absorption in Package Using Au/Pt/Ti Bonding Layer. ECS Transactions, 2020, 98, 211-215.	0.5	3
130	Bonding formation and gas absorption using Au/Pt/Ti layers for vacuum packaging. Microsystems and Nanoengineering, 2022, 8, 2.	7.0	3
131	Room temperature bonding of GaN and diamond substrates via atomic layer. Scripta Materialia, 2022, 215, 114725.	5.2	3
132	Fabrication of microstructure using fluorinated polyimide and silicone-based positive photoresist. Microsystem Technologies, 2000, 6, 165-168.	2.0	2
133	Sequential Activation Process of oxygen RIE and nitrogen Radical for LiTaO3 and Si Wafer Bonding. ECS Transactions, 2006, 3, 91-98.	0.5	2
134	Development and Use of a Micro Optical Blood Flow Sensor Based on Systemin Package (SIP) Technology that Fuses Optical MEMS and Integrated Circuit to Detect Avian Influenza. , 2007, , .		2
135	Low Temperature Bonding for Optical Microsystems Applications. ECS Transactions, 2008, 16, 93-103.	0.5	2
136	Wafer-bonded Ge:Ga blocked-impurity-band far-infrared detectors. , 2010, , .		2
137	Influence of Alcohol Consumption on Blood Flow as Detected Using a Micro Integrated Laser Doppler Blood Flowmeter. , 2010, , .		2
138	Three-Dimensional Integration of Fully Depleted Silicon-on-Insulator Transistor Substrates for CMOS Image Sensors Using Au/SiO2 Hybrid Bonding and XeF2 Etching. ECS Transactions, 2014, 64, 391-396.	0.5	2
139	Contact pressure measurement device with a laser micro-displacement sensor. , 2015, , .		2
140	Hydrogen radical treatment of printed indium solder paste for bump formation. , 2017, , .		2
141	Wafer-scale Au-Au surface activated bonding using atmospheric-pressure plasma. , 2019, , .		2
142	Triple-Stacked Au/SiO₂ Hybrid Bonding With 6-mu m-Pitch Au Electrodes on Silicon-on-Insulator Substrates Using O₂ Plasma Surface Activation for 3-D Integration. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 1904-1911.	2.5	2
143	Formation of smooth Au surfaces produced by multiple thin-film transfer process based on template stripping for low-temperature bonding. , 2020, , .		2
144	Title is missing!. Journal of Japan Institute of Electronics Packaging, 2008, 11, 456-460.	0.1	2

#	Article	IF	Citations
145	Simultaneous Measurement of a Blood Flow and a Contact Pressure. , 2018, , .		2
146	Persistent spectral hole burning in metal-free tetraphenylporphyrindoped polymethylmethacrylate core fiber. Journal of Luminescence, 1993, 56, 125-133.	3.1	1
147	Low-temperature direct flip-chip bonding for integrated micro-systems. , 2005, , .		1
148	Feasibility of SAB using Nano-adhesion Layer for Low Temperature GaN Wafer Bonding. , 2007, , .		1
149	Three-dimensional integration of optical multi-chips using surface-activated bonding for high-density microsystems packaging. , 2008, , .		1
150	Vibrating sensing system based on optical excitation and detection using optical fiber. , 2008, , .		1
151	Integrated micro laser Doppler velocimeter with 3-D structure. , 2010, , .		1
152	Low-temperature sealing for optical microsystem packages using Au-Au surface activated bonding in atmospheric pressure environment. , 2011, , .		1
153	Low-temperature bonding of optical chips using coined Au stud bumps and its application to micro laser Doppler velocimeter. , 2012, , .		1
154	Solid-state bonding using metallic cone layer for interconnection. , 2012, , .		1
155	Low-temperature gold-gold bonding using argon and hydrogen gas mixture atmospheric-pressure plasma treatment for optical microsystems. , 2014, , .		1
156	(Invited) Development of Novel Three-Dimensional Structuring of Integrated Circuits by Using Low Temperature Direct Bonding for CMOS Image Sensors. ECS Transactions, 2014, 61, 87-90.	0.5	1
157	Two axial shearing force measurement device with a micro displacement sensor. , 2014, , .		1
158	Two axial shearing force measurement device with a built-in integrated micro displacement sensor. , 2014, , .		1
159	Three-dimensional integration technology of separate SOI layers for photodetectors and signal processors of CMOS image sensors. , 2016, , .		1
160	Room-Temperature Wafer Bonding Using Al/Ti/Au Layers for Integrated Reflectors in the Ultraviolet Spectral Region. , 2016, , .		1
161	Evaluation of local relative slip in a narrow space in hydrogen gas using MEMS optical encoder. , 2016, , .		1
162	Room-temperature wafer bonding using smooth gold thin films for wafer-level MEMS packaging. , 2016, , .		1

#	Article	IF	Citations
163	Three-Layered Stacking Process by Au/SiO2Hybrid Bonding for 3D Structured Image Sensors. ECS Transactions, 2017, 80, 227-231.	0.5	1
164	Ar+H<inf>2</inf> atmospheric-pressure plasma treatment for Au-Au bonding and influence of air exposure on surface contamination. , 2017, , .		1
165	3-Layered Au/SiO<inf>2</inf> hybrid bonding with 6-Î¼m-pitch au electrodes for 3D structured image sensors. , 2017, , .		1
166	Room-temperature pressureless wafer sealing using ultrathin Au films activated by Ar plasma. , 2019, , .		1
167	Room-temperature bonding of organic films using ultrathin Au intermediate layers for organic integrated optical devices. , 2019, , .		1
168	Triple-Layering Technology for Pixel-Parallel CMOS Image Sensors Developed by Hybrid Bonding of SOI Wafers. , 2019, , .		1
169	Special Section on Microoptomechatronics. IEICE Transactions on Electronics, 2007, E90-C, 1-2.	0.6	1
170	Fabrication and Optical Rotation Characteristics of Anisotropically Shaped Micro-objects Made of Fluorinated Polyimide.. Journal of the Japan Society for Precision Engineering, 1995, 61, 1021-1025.	0.1	1
171	Triple-Stacked Silicon-on-Insulator Integrated Circuits Using Au/SiO₂ Hybrid Bonding. , 2019, , .		1
172	Surface smoothing of Au plated films by template stripping towards low-temperature bonding for 3D integration. , 2021, , .		1
173	Laser-based Microsensors. Sensors Update, 1999, 6, 283-300.	0.5	0
174	Silicon (110) grid for ion beam processing systems. Journal of Micromechanics and Microengineering, 2001, 11, 561-566.	2.6	0
175	Hybrid integrated optical sensor for noninvasive blood flow monitoring. , 0, , .		0
176	Horizontal observation of laser-trapped dielectric particles. , 0, , .		0
177	Hybrid integration technologies for optical micro-systems. , 2004, 5604, 67.		0
178	Surface Activated Flip-Chip Bonding of Laser Chips. , 2005, , 793.		0
179	Low temperature bonding of LiNbO 3 waveguide chips to Si substrates in air. , 2005, 6050, 288.		0
180	Low temperature direct bonding of flip-chip mounting VCSEL to Si substrate. , 2006, , .		0

#	Article	IF	Citations
181	Silicon Wafer Bonding by Modified Surface Activated Bonding Methods. , 2007, , .		0
182	Integration and Packaging Technologies for Small Biomedical Sensors. Journal of the Japan Society for Precision Engineering, 2007, 73, 1190-1194.	0.1	0
183	Heterogeneous integration towards an ultra-compact and thin optical displacement microsensor. , 2009, , .		0
184	Low-temperature bonding of photodiodes on glass substrate using Au stud bumps and its application to microsensors with three-dimensional structure. , 2009, , .		0
185	Silicon/III–V material active layer heterointegrated vertical PIN waveguide photodiode by direct bonding. , 2011, , .		0
186	InP/Si heterogeneous integration by low-temperature bonding using metallic interlayer. , 2012, , .		0
187	Hybrid integration of LiNbO<inf>3</inf> thin films on micromachined Si substrates using room-temperature transfer bonding. , 2012, , .		0
188	Application of nano-imprint technology to grating scale for a rotary microencoder. , 2013, , .		0
189	InGaAsP optical device integration on SOI platform by Ar/O₂plasma assisted bonding. Proceedings of SPIE, 2013, , .	0.8	0
190	Fabrication of miniaturized polarization sensors using flip-chip bonding with atmospheric-pressure plasma activation. , 2014, , .		0
191	Mechanical grinding of Au/SiO<inf>2</inf> hybrid-bonded substrates for 3D integrated image sensors. , 2014, , .		0
192	Advances in Low-Temperature Bonding Technologies for 3D Integration. Japanese Journal of Applied Physics, 2015, 54, 030200.	1.5	0
193	Influence of atmospheric-pressure plasma treatment on surface and electrical properties of photodiode chips. , 2015, , .		0
194	A micro laser Doppler velocimeter designed for a wafer-level packaging process. , 2015, , .		0
195	Development of a three-dimensional integrated image sensor with pixel-parallel signal processing architecture. , 2015, , .		0
196	Al/Au multilayers with different diffusion barrier layers for application as wafer-bonded UV reflectors. , 2016, , .		0
197	Simultaneous molding and low-temperature bonding of Au microstructures for fabrication of micromirrors on non-silicon substrates. , 2016, , .		0
198	Ultra-Small Micro Encoder and Its Application to Doppler Sensor. Journal of the Japan Society for Precision Engineering, 2016, 82, 778-782.	0.1	0

#	Article	IF	Citations
199	Wafer bonding using smooth titanium thin films in air atmosphere. , 2017, , .		0
200	Surface activated wafer bonding of LiNbO<inf>3</inf> and SiO<inf>2</inf>/Si for LNOI on Si. , 2017, , .		0
201	Fabrication and evaluation of molding and bonding tools for Au micromirror formation. , 2017, , .		0
202	A new extremely small sensor for measuring a blood flow and a contact pressure simultaneously. , 2017, , .		0
203	Preparation of pine-like Cu-Ni-P coating and its application in 3D integration. , 2017, , .		0
204	Low Temperature Bonding for 3D Integration. Japanese Journal of Applied Physics, 2018, 57, 02B001.	1.5	0
205	Pixel-Parallel 3D Integrated CMOS Image Sensors Developed by Direct Bonding of SOI Layers for Next-Generation Video Systems. , 2018, , .		0
206	Surface analysis of argon and oxygen plasma-treated gold for room temperature wafer scale gold-gold bonding. , 2018, , .		0
207	Room-Temperature Wafer Bonding Using Smooth Au Thin Films for Integrated Plasmonic Devices. , 2018, , .		0
208	Blood flow sensor with built-in contact pressure and temperature sensor. , 2018, , .		0
209	(Invited) Pixel-Parallel 3-D Integrated CMOS Image Sensors for Next-Generation Video Systems. ECS Transactions, 2018, 85, 163-166.	0.5	0
210	Room-Temperature Wafer Bonding with Titanium Thin Films Based on Formation of Ti/Si Amorphous Layers. , 2019, , .		0
211	Room temperature bonding of smooth Au surface of electroformed Cu substrate in atmospheric air. , 2019, , .		0
212	Triple-Stacked Wafer-to-Wafer Hybrid Bonding for 3D Structured Image Sensors. , 2019, , .		0
213	Low Temperature Copper-Copper Bonding in Ambient Air Using Hydrogen Radical Pretreatment. , 2019, , .		0
214	Direct bonding of diamond and Si substrates using NH₃/H₂O₂ cleaning. , 2021, , .		0
215	5 åŠå°Žä½“ãƒ¬ãƒ¼ã‚¶ãƒ¼ã‚’ç©ºæ°—ä¸å…‰ãƒžã‚¤ã‚¯ãƒãƒ»ãƒŠãƒŽæŽ¥åˆ. Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2000, 69, 5	0.1	0
216	Angular Alignment and Optical Drive of Optically Trapped Micro-Components. The Review of Laser Engineering, 2005, 33, 761-765.	0.0	0

#	Article	IF	Citations
217	Technology for MEMS Commercialization : Current Status and Future Prospects. Journal of the Japan Society for Precision Engineering, 2010, 76, 491-497.	0.1	0
218	Room-Temperature Bonding of GaN to Al Using Ar-Beam Surface Activation. IEEJ Transactions on Sensors and Micromachines, 2010, 130, 369-372.	0.1	0
219	Low-temperature Bonding Technologies and Their Application to Highly Functional Sensors. Journal of Smart Processing, 2012, 1, 106-113.	0.1	0
220	Low-Temperature Bonding Technologies Realizing High-Functional Optical Microsystems and Sensors. Journal of the Japan Society for Precision Engineering, 2013, 79, 719-724.	0.1	0
221	Laser Stimulation of Biological Cell Fusion with Ultraviolet Low Energy Beam. , 1992, , 413-413.		0
222	Optical Manipulation. Optical Manipulation and Micro-Energy Sources.. The Review of Laser Engineering, 1996, 24, 1169-1177.	0.0	0
223	Room-Temperature Wafer Bonding for High-Heat Dissipation Structure in High-Power Semiconductor Devices. Journal of Japan Institute of Electronics Packaging, 2015, 18, 463-468.	0.1	0
224	Higurashi Laboratory, Department of Precision Engineering, School of Engineering, The University of Tokyo. Journal of Japan Institute of Electronics Packaging, 2016, 19, 197-197.	0.1	0
225	Introduction to the Special Edition. Journal of Japan Institute of Electronics Packaging, 2016, 19, 367-367.	0.1	0
226	Investigation of Thermal Resistance Reduction of InP-based Double Heterojunction Bipolar Transistors Fabricated by Wafer Bonding. IEEJ Transactions on Electronics, Information and Systems, 2016, 136, 455-460.	0.2	0
227	Introduction to the Special Edition. Journal of Japan Institute of Electronics Packaging, 2017, 20, 371-371.	0.1	0
228	JIEP from the Viewpoint of Education Activity. Journal of Japan Institute of Electronics Packaging, 2017, 20, P6-P6.	0.1	0
229	Introduction to the Special Edition. Journal of Japan Institute of Electronics Packaging, 2018, 21, 474-474.	0.1	0
230	Progress and Perspective of Optical MEMS Packaging Technology. Journal of Japan Institute of Electronics Packaging, 2018, 21, 558-566.	0.1	0
231	Hematocrit-insensitive Absolute Blood Flow Rate Measurement in 0.5-mm-diameter Flow Channel Using MEMS-based Laser Doppler Velocimeter with Signal Modification for Detecting Beat Frequency from Broad Power Spectrum. Sensors and Materials, 2018, 30, 3009.	0.5	0
232	X-ray Photoelectron Spectroscopy (XPS) Analysis of Oxidation Behavior of Hydrogen-radical-treated Cu Surfaces. IEEJ Transactions on Sensors and Micromachines, 2019, 139, 38-39.	0.1	0
233	Introduction to the Special Edition. Journal of Japan Institute of Electronics Packaging, 2019, 22, 139-139.	0.1	0
234	Investigation of Plasma Treatment Conditions for Wafer-Scale Room-Temperature Bonding Using Ultrathin Au Films in Ambient Air. IEEJ Transactions on Sensors and Micromachines, 2019, 139, 217-218.	0.1	0

#	Article	IF	Citations
235	A Thick-Film Nano-Printing Technique and Its Application Development. Journal of Japan Institute of Electronics Packaging, 2019, 22, 480-484.	0.1	0
236	Fabrication of Multi-stacked Integrated Circuit for High-Performance Image Sensors. Transactions of the Japan Institute of Electronics Packaging, 2020, 13, E20-004-1-E20-004-3.	0.4	0
237	Simple and low-temperature vacuum packaging process by using Au/Ta/Ti metal multilayer. Japanese Journal of Applied Physics, 0, , .	1.5	0