

Shoso Shingubara

List of Publications by Year in descending order

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92
papers

1,873
citations

279798

23
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276875

41
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93
all docs

93
docs citations

93
times ranked

1748
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of Nanomaterials Using Porous Alumina Templates. <i>Journal of Nanoparticle Research</i> , 2003, 5, 17-30.	1.9	310
2	Ordered Two-Dimensional Nanowire Array Formation Using Self-Organized Nanoholes of Anodically Oxidized Aluminum. <i>Japanese Journal of Applied Physics</i> , 1997, 36, 7791-7795.	1.5	138
3	Bottom-Up Fill of Copper in Deep Submicrometer Holes by Electroless Plating. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, C78.	2.2	82
4	Experimental conditions for a highly ordered monolayer of gold nanoparticles fabricated by the Langmuir-Blodgett method. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 2045.	1.6	72
5	Bottom-Up Fill for Submicrometer Copper Via Holes of ULSIs by Electroless Plating. <i>Journal of the Electrochemical Society</i> , 2004, 151, C781.	2.9	70
6	Effects of the Surface Pressure on the Formation of Langmuir-Blodgett Monolayer of Nanoparticles. <i>Langmuir</i> , 2004, 20, 2274-2276.	3.5	68
7	Well-size-controlled Colloidal Gold Nanoparticles Dispersed in Organic Solvents. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 346-349.	1.5	61
8	Adhesion improvement of electroless copper to a polyimide film substrate by combining surface microroughening and imide ring cleavage. <i>Journal of Adhesion Science and Technology</i> , 2002, 16, 1027-1040.	2.6	55
9	Formation of aluminum nanodot array by combination of nanoindentation and anodic oxidation of aluminum. <i>Surface Science</i> , 2003, 532-535, 317-323.	1.9	54
10	Electromigration-induced abrupt changes in electrical resistance associated with void dynamics in aluminum interconnections. <i>Journal of Applied Physics</i> , 1991, 69, 207-212.	2.5	53
11	Formation of a large-scale Langmuir-Blodgett monolayer of alkanethiol-encapsulated gold particles. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001, 19, 115.	1.6	51
12	Formation of electroless barrier and seed layers in a high aspect ratio through-Si vias using Au nanoparticle catalyst for all-wet Cu filling technology. <i>Electrochimica Acta</i> , 2011, 56, 6245-6250.	5.2	49
13	Suppression of native oxide growth in sputtered TaN films and its application to Cu electroless plating. <i>Journal of Applied Physics</i> , 2003, 94, 4697-4701.	2.5	48
14	Atomic-scale defect control on hydrogen-terminated silicon surface at wafer scale. <i>Applied Physics Letters</i> , 2001, 78, 309-311.	3.3	42
15	Electroless Cu deposition on atomic layer deposited Ru as novel seed formation process in through-Si vias. <i>Electrochimica Acta</i> , 2013, 100, 203-211.	5.2	42
16	Adhesion and bactericidal properties of nanostructured surfaces dependent on bacterial motility. <i>RSC Advances</i> , 2020, 10, 5673-5680.	3.6	39
17	Optical spectroscopic studies of the dispersibility of gold nanoparticle solutions. <i>Journal of Applied Physics</i> , 2002, 92, 7486-7490.	2.5	35
18	Self-Organization of a Two-Dimensional Array of Gold Nanodots Encapsulated by Alkanethiol. <i>Japanese Journal of Applied Physics</i> , 1998, 37, 7198-7201.	1.5	31

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19	Fabrication of highly sensitive QCM sensor using AAO nanoholes and its application in biosensing. <i>Sensors and Actuators B: Chemical</i> , 2018, 276, 534-539.	7.8	29
20	Bottom-up copper fill with addition of mercapto alkyl carboxylic acid in electroless plating. <i>Electrochimica Acta</i> , 2006, 51, 2442-2446.	5.2	28
21	Adhesion and Bactericidal Properties of a Wettability-Controlled Artificial Nanostructure. <i>ACS Applied Nano Materials</i> , 2018, 1, 5736-5741.	5.0	26
22	Characterization of sputtered tungsten nitride film and its application to Cu electroless plating. <i>Microelectronic Engineering</i> , 2008, 85, 395-400.	2.4	25
23	Highly adhesive electroless barrier/Cu-seed formation for high aspect ratio through-Si vias. <i>Microelectronic Engineering</i> , 2013, 106, 164-167.	2.4	25
24	Fabrication of nanocone arrays by two step metal assisted chemical etching method. <i>Microelectronic Engineering</i> , 2016, 153, 55-59.	2.4	24
25	Epitaxial Growth of Cu Nanodot Arrays Using an AAO Template on a Si Substrate. <i>Electrochemical and Solid-State Letters</i> , 2006, 9, J13.	2.2	23
26	Vertical Epitaxial Wire-on-Wire Growth of Ge/Si on Si(100) Substrate. <i>Nano Letters</i> , 2009, 9, 1523-1526.	9.1	22
27	Electroless Copper Bath Stability Monitoring with UV-VIS Spectroscopy, pH, and Mixed Potential Measurements. <i>Journal of the Electrochemical Society</i> , 2012, 159, D437-D441.	2.9	22
28	Ferromagnetic nano-conductive filament formed in Ni/TiO ₂ /Pt resistive-switching memory. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 118, 613-619.	2.3	21
29	Electrical properties of self-organized nanostructures of alkanethiol-encapsulated gold particles. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2000, 18, 2653.	1.6	19
30	Preparation of Ultrahigh-Density Magnetic Nanowire Arrays beyond 1 Terabit/Inch ² on Si Substrate Using Anodic Aluminum Oxide Template. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GE01.	1.5	17
31	Formation of Al Dot Hexagonal Array on Si Using Anodic Oxidation and Selective Etching. <i>Japanese Journal of Applied Physics</i> , 2002, 41, L340-L343.	1.5	16
32	Influence of Surface Oxide of Sputtered TaN on Displacement Plating of Cu. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 1843-1846.	1.5	15
33	Effect of Additives on Hole Filling Characteristics of Electroless Copper Plating. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 7000-7001.	1.5	15
34	Wet treatment for preparing atomically smooth Si(100) wafer surface. <i>Applied Surface Science</i> , 2004, 234, 439-444.	6.1	15
35	Adsorption of Pd nanoparticles catalyst in high aspect ratio through-Si vias for electroless deposition. <i>Electrochimica Acta</i> , 2012, 82, 372-377.	5.2	14
36	Highly Adhesive Electroless Cu Layer Formation Using an Ultra Thin Ionized Cluster Beam (ICB)-Pd Catalytic Layer for Sub-100 nm Cu Interconnections. <i>Japanese Journal of Applied Physics</i> , 2003, 42, L1223-L1225.	1.5	13

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37	Effect of electric field concentration using nanopeak structures on the current-voltage characteristics of resistive switching memory. <i>AIP Advances</i> , 2014, 4, .	1.3	12
38	Formation of three-dimensional nano-trees with perpendicular branches by electrodeposition of CuSn alloy. <i>Surface and Coatings Technology</i> , 2016, 294, 83-89.	4.8	12
39	Aluminum-Selective Chemical Vapor Deposition Induced by Hydrogen Desorption on Silicon. <i>Japanese Journal of Applied Physics</i> , 1996, 35, 1010-1013.	1.5	11
40	Detailed analysis of liposome adsorption and its rupture on the liquid-solid interface monitored by LSPR and QCM-D integrated sensor. <i>Sensing and Bio-Sensing Research</i> , 2021, 32, 100415.	4.2	11
41	Morphology dependence of optical reflectance properties for a high-density array of silicon nanowires. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 06JF10.	1.5	10
42	Magnetoresistance of conductive filament in Ni/HfO ₂ /Pt resistive switching memory. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 05ED02.	1.5	10
43	Formation of Ultra-High-Density Ferromagnetic Column Arrays Beyond 1 Tera/inch ² Using Porous Alumina Template. <i>Transactions of the Magnetics Society of Japan</i> , 2004, 4, 231-234.	0.5	10
44	Control of Interdot Space and Dot Size in a Two-Dimensional Gold Nanodot Array. <i>Japanese Journal of Applied Physics</i> , 1999, 38, L473-L476.	1.5	9
45	Dynamic moderation of an electric field using a SiO ₂ switching layer in TaO _x -based ReRAM. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015, 9, 166-170.	2.4	9
46	Antibacterial Property of Si Nanopillar Array Fabricated Using Metal Assisted Etching; Mimic a Cicada Wing. <i>ECS Transactions</i> , 2017, 75, 1-5.	0.5	9
47	Characterization of Electroless-Plated Cu Film over Pd Catalytic Layer Formed by an Ionized Cluster Beam. <i>Journal of the Electrochemical Society</i> , 2005, 152, C684.	2.9	8
48	Bactericidal effect of nanostructures via lytic transglycosylases of <i>Escherichia coli</i> . <i>RSC Advances</i> , 2022, 12, 1645-1652.	3.6	8
49	Preparation of Ultrahigh-Density Magnetic Nanowire Arrays beyond 1 Terabit/Inch ² on Si Substrate Using Anodic Aluminum Oxide Template. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GE01.	1.5	7
50	Scanning Electron Microscope Observation of Heterogeneous Three-Dimensional Nanoparticle Arrays Using DNA. <i>Japanese Journal of Applied Physics</i> , 2001, 40, L521-L523.	1.5	6
51	Highly sensitive quartz crystal microbalance based biosensor using Au dendrite structure. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 02CD01.	1.5	6
52	Effect of additives on preparation of vertical holes in Si substrate using metal-assisted chemical etching. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SDDF06.	1.5	6
53	Formation of MoS ₂ nanostructure arrays using anodic aluminum oxide template. <i>Micro and Nano Engineering</i> , 2020, 9, 100071.	2.9	6
54	Formation and Evaluation of Electroless-Plated Barrier Films for High-Aspect-Ratio Through-Si Vias. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 05ED01.	1.5	6

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55	Scanning Tunneling Microscopy Observation on the Atomic Structures of Step Edges and Etch Pits on a NH ₄ F-Treated Si(111) Surface. Japanese Journal of Applied Physics, 1997, 36, 1420-1423.	1.5	5
56	Resistive switching characteristics of NiO/Ni nanostructure. Microelectronic Engineering, 2012, 98, 367-370.	2.4	5
57	Electroless deposition of barrier and seed layers for via last Cu-TSV metalization. , 2012, , .		4
58	All-wet TSV filling with highly adhesive displacement plated Cu seed layer. , 2015, , .		4
59	Interaction of a void and a grain boundary under a high electric current stress employing three-dimensional molecular dynamics simulation. Applied Surface Science, 1995, 91, 220-226.	6.1	3
60	Formation and Evaluation of Electroless-Plated Barrier Films for High-Aspect-Ratio Through-Si Vias. Japanese Journal of Applied Physics, 2011, 50, 05ED01.	1.5	3
61	Evaluation of the interdiffusion properties of Cu and electroless-plated CoWB barrier films formed on silicon substrate. Japanese Journal of Applied Physics, 2018, 57, 07MB02.	1.5	3
62	Nano-Honeycomb Electrode-Based QCM Sensor and Its Application for PPI Detection. IEEE Sensors Journal, 2019, 19, 4025-4030.	4.7	3
63	Effect of a metal interlayer under Au catalyst for the preparation of microscale holes in Si substrate by metal-assisted chemical etching. Japanese Journal of Applied Physics, 2019, 58, SAAE07.	1.5	3
64	Molecular dynamics simulation of void electromigration under a high-density electric current stress in an aluminum interconnection. Electronics and Communications in Japan, 1995, 78, 82-95.	0.2	2
65	Resistance oscillations induced by DC electromigration. AIP Conference Proceedings, 1996, , .	0.4	2
66	Evaluation of crystal structure of porous Si nanowires prepared by metal assisted etching. Materials Research Society Symposia Proceedings, 2012, 1439, 1-4.	0.1	2
67	Control of Crystal Orientation and Diameter of Silicon Nanowire Using Anodic Aluminum Oxide Template. Japanese Journal of Applied Physics, 2013, 52, 06GF06.	1.5	2
68	Multiprobe resistance monitoring of Blech pattern during electromigration testing. , 1999, , .		1
69	Fabrication of Two- and Three-Dimensional Structures of Nanoparticles Using Lb Method and DNA Hybridization. Materials Research Society Symposia Proceedings, 2001, 704, 451.	0.1	1
70	Temperature dependence of resistance of conductive filament formed in NiO layer in resistive switching memory. , 2013, , .		1
71	ZnO Nanostructure Based QCM Sensor to Detect Ethanol at Room Temperature Fabricated by All Wet Process. Proceedings (mdpi), 2017, 1, 397.	0.2	1
72	Time-Lapse imaging of bactericidal effect on nanostructural surface. , 2019, , .		1

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73	Effect of etching solution concentration on preparation of Si holes by metal-assisted chemical etching. Japanese Journal of Applied Physics, 0, , .	1.5	1
74	Effect of Au electrode on the resistance change response of HfOx-based ReRAM device under voltage pulse trains. Japanese Journal of Applied Physics, 0, , .	1.5	1
75	Fabrication of Two- and Three-Dimensional Structures of Nanoparticles Using LB Method and DNA Hybridization. Materials Research Society Symposia Proceedings, 2001, 707, 451.	0.1	0
76	Electroplating of ZnO Nanowires Using Nanohole Arrays of Anodized Aluminum Oxide and Effects of Thermal Annealing. Materials Research Society Symposia Proceedings, 2006, 957, 1.	0.1	0
77	Homoepitaxial Growth of Vertical Si Nanowires on Si(100) Substrate using Anodic Aluminum Oxide Template. Materials Research Society Symposia Proceedings, 2007, 1058, 1.	0.1	0
78	Control of Crystal Orientation of Epitaxial Si nanowires on Si Substrate Using AAO template. Materials Research Society Symposia Proceedings, 2011, 1350, 1.	0.1	0
79	Low temperature through-Si via fabrication using electroless deposition. , 2012, , .		0
80	DNAâ€“Gold Conjugates: Formation of 1D and 2D Gold Nanoparticle Arrays by Divalent DNAâ€“Gold Nanoparticle Conjugates (Small 15/2012). Small, 2012, 8, 2445-2445.	10.0	0
81	Evaluation of morphology and crystal structure of Si nanowires prepared by singlestep metal assisted etching. , 2012, , .		0
82	Hydrogen effect on characteristics of the resistive switching memory. , 2012, , .		0
83	Temperature dependence of magnetoresistance characteristics of the on-state of resistive random access memory with ferromagnetic electrode. , 2015, , .		0
84	Oxidation of CuSn alloy nanotree and application for gas sensors. Japanese Journal of Applied Physics, 2016, 55, 06GH08.	1.5	0
85	Magnetic Conductive Filament Formed in the ReRAM Device with Ferromagnetic Electrode. ECS Transactions, 2017, 75, 65-71.	0.5	0
86	Multilevel resistance switching phenomena observed in the Cu (Ti)/HfO$_2$/Au device. , 2017, , .		0
87	Fabricating a Highly Sensitive QCM Sensor Using AAO Nanoholes and Its Application for Biosensing. Proceedings (mdpi), 2017, 1, 495.	0.2	0
88	Study on Effect of Hf Layer Thickness on Ti/Hf/HfO 2/Au ReRAM Device. , 2018, , .		0
89	Study of MacEtch using Additives for Preparation of TSV. , 2019, , .		0
90	Low cost TSV fabrication technologies using anisotropic Si wet etching and conformal electroless plating of barrier and seed metals. , 2021, , .		0

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91	G1001-5-1 Measurements of Thermal Expansion Coefficient at Low Temperatures Using Electronic Speckle Pattern Interferometry. The Proceedings of the JSME Annual Meeting, 2009, 2009.5, 109-110.	0.0	0
92	OS7-1-3 Fabrication of vertically aligned Si nanowire arrays using metal catalyst and porous aluminum. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2012, 2012.4, 7-8.	0.0	0