Katsuhisa Murakami

List of Publications by Year
in descending order

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75	813	567281 15	552781 26
papers	citations	h-index	g-index

75	75	75	890
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Field Emission from Atomically Thin Edges of Reduced Graphene Oxide. ACS Nano, 2011, 5, 4945-4952.	14.6	139
2	Direct synthesis of large area graphene on insulating substrate by gallium vapor-assisted chemical vapor deposition. Applied Physics Letters, 2015, 106, .	3.3	46
3	Improvement in electron emission from carbon nanotube cathodes after Ar plasma treatment. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1342.	1.6	44
4	Transport Properties of Pt Nanowires Fabricated by Beam-Induced Deposition. Japanese Journal of Applied Physics, 2005, 44, 5683-5686.	1.5	39
5	High-performance planar-type electron source based on a graphene-oxide-semiconductor structure. Applied Physics Letters, 2019, 114, 213501.	3.3	29
6	Damage and strain in single-layer graphene induced by very-low-energy electron-beam irradiation. Applied Physics Letters, 2013, 102, .	3.3	28
7	Characteristics of nano electron source fabricated using beam assisted process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1266.	1.6	26
8	Graphene-oxide-semiconductor planar-type electron emission device. Applied Physics Letters, 2016, 108, .	3.3	25
9	Highly Monochromatic Electron Emission from Graphene/Hexagonal Boron Nitride/Si Heterostructure. ACS Applied Materials & Interfaces, 2020, 12, 4061-4067.	8.0	24
10	Laser surface treatment of carbon nanotube cathodes for field emission displays with large diagonal size. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 765.	1.6	23
11	Observation of fringelike electron-emission pattern in field emission from Pt field emitter fabricated by electron-beam-induced deposition. Journal of Vacuum Science & Technology B, 2007, 25, 1310.	1.3	22
12	Nanoscale Characterization of TiO₂ Films Grown by Atomic Layer Deposition on RuO₂ Electrodes. ACS Applied Materials & Interfaces, 2014, 6, 2486-2492.	8.0	21
13	Mechanism of Highly Efficient Electron Emission from a Graphene/Oxide/Semiconductor Structure. ACS Applied Electronic Materials, 2020, 2, 2265-2273.	4.3	18
14	KrF laser surface treatment of carbon nanotube cathodes with and without reactive ion etching. Journal of Vacuum Science & Technology B, 2007, 25, 557.	1.3	17
15	Current Voltage Characteristics through Grains and Grain Boundaries of High-k Dielectric Thin Films Measured by Tunneling Atomic Force Microscopy. AIP Conference Proceedings, 2011, , .	0.4	17
16	Improvement of emission efficiency of nanocrystalline silicon planar cathodes. Journal of Vacuum Science & Technology B, 2008, 26, 864-867.	1.3	15
17	Electron emission properties of graphene-oxide-semiconductor planar-type electron emission devices. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	1.2	15
18	Fabrication of Nano Electron Source Using Beam-Assisted Process. Japanese Journal of Applied Physics, 2003, 42, 4037-4040.	1.5	13

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19	Superposition of fringelike-electron-emission pattern from radical-oxygen-gas exposed Pt field emitter fabricated by electron-beam-induced deposition. Journal of Vacuum Science & Technology B, 2009, 27, 721-724.	1.3	13
20	Nano electron source fabricated by beam-induced deposition and its unique feature. Microelectronic Engineering, 2015, 132, 74-82.	2.4	13
21	A highly sensitive evaluation method for the determination of different current conduction mechanisms through dielectric layers. Journal of Applied Physics, 2011, 110, .	2.5	12
22	TiO₂-Based Metal-Insulator-Metal Structures for Future DRAM Storage Capacitors. ECS Transactions, 2013, 50, 79-87.	0.5	12
23	Optimization of Pt tip field emitter array fabricated using focused ion and electron beams. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1598.	1.6	11
24	Field enhanced surface treatment of needle-shaped TiO[sub 2] cathode for improvement in field emission. Journal of Vacuum Science & Technology B, 2009, 27, 775.	1.3	10
25	Electron emission from LiNbO3 crystal excited by ultraviolet laser. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2B27-C2B29.	1.2	10
26	Low-power-consumption, high-current-density, and propellantless cathode using graphene-oxide-semiconductor structure array. Acta Astronautica, 2020, 174, 48-54.	3.2	10
27	Surface treatment of carbon nanotube cathodes with glass fillers using KrF excimer laser for field-emission displays. Journal of Vacuum Science & Technology B, 2006, 24, 1013.	1.3	9
28	Relationship between field-emission characteristics and defects measured by Raman scattering in carbon-nanotube cathodes treated by plasma and laser. Journal of Vacuum Science & Technology B, 2008, 26, 760-763.	1.3	9
29	Influence of parasitic capacitances on conductive AFM I-V measurements and approaches for its reduction. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	1.2	9
30	Low-temperature growth of graphene using interfacial catalysis of molten gallium and diluted methane chemical vapor deposition. Applied Physics Express, 2015, 8, 095102.	2.4	9
31	Effects of carbon nanotube diameters of the screen printed cathode on the field emission characteristics. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2C41-C2C44.	1.2	8
32	Synthesis of graphene nanoribbons from amyloid templates by gallium vapor-assisted solid-phase graphitization. Applied Physics Letters, 2014, 104, 243101.	3.3	8
33	Cysteine-containing oligopeptide Î²-sheets as redispersants for agglomerated metal nanoparticles. Journal of Materials Chemistry A, 2015, 3, 17612-17619.	10.3	8
34	Origin of Monochromatic Electron Emission From Planar-Type Graphene/ h -BN/ n -Si Devices. Physical Review Applied, 2021, 15, .	3.8	8
35	Effect of thermal annealing on emission characteristics of nanoelectron source fabricated using beam-assisted process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 759.	1.6	7
36	Fabrication and electron field-emission properties of titanium oxide nanowire on glass substrate. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2B24-C2B26.	1.2	7

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37	Influence of gas atmosphere during laser surface treatment of CNT cathode. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 762.	1.6	6
38	Effect of aging on field emission lifetime for carbon nanotube cathodes. Journal of Vacuum Science & Technology B, 2009, 27, 761.	1.3	6
39	Study on time resolution of single event TOF-RBS measurement. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2019-2022.	1.4	6
40	Electron wave interference induced by electrons emitted from Pt field emitter fabricated by focused-ion-beam-induced deposition. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2A9-C2A12.	1.2	6
41	Fabrication of a high-density emitter array for electrospray thrusters using field emitter array process. Japanese Journal of Applied Physics, 2019, 58, SEEG04.	1.5	6
42	Observation of electron emission pattern from nanosplit emitter fabricated using beam assisted process. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 735.	1.6	5
43	Improved field-emission characteristics of a multiwalled carbon-nanotube cathode by argon plasma pretreatment and krypton-fluoride laser irradiation. Journal of Vacuum Science & Technology B, 2007, 25, 566.	1.3	4
44	Evaluation of emission uniformity of nanocrystalline silicon planar cathodes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2C49-C2C52.	1.2	4
45	Three dimensional measurement of nanostructures by single event TOF-RBS with nuclear nano probe. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 2233-2236.	1.4	4
46	Beam-induced graphitic carbon cage transformation from sumanene aggregates. Applied Physics Letters, 2014, 104, 043107.	3.3	4
47	Current conduction mechanism of MIS devices using multidimensional minimization system program. Microelectronics Reliability, 2015, 55, 1028-1034.	1.7	4
48	Transmission-Electron-Microscopy Observation of Pt Pillar Fabricated by Electron-Beam-Induced Deposition. Japanese Journal of Applied Physics, 2009, 48, 06FF12.	1.5	3
49	In situ transmission electron microscopy observation of electron-beam-deposited Pt field emitter during field emission and field evaporation. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2C13-C2C15.	1.2	3
50	Effect of ultraviolet light irradiation on electron field emission from titanium-oxide nanostructures. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 02B110.	1.2	3
51	Growth of bridging carbon nanofibers in cracks formed by heat-treating iron oxide thin sheets in acetylene gas. AIP Advances, 2013, 3, 042127.	1.3	3
52	In-situ visualization of local magnetic fields using low-energy electron beam in scanning electron microscope. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 06FC02.	1.2	2
53	Synthesis of graphene nanoribbons from amyloid fibrils by solid-phase graphitization using liquid gallium catalyst. Materials Research Society Symposia Proceedings, 2014, 1658, 82.	0.1	2
54	Evaluation of electron emission properties of graphene-oxide-silicon planar type cold cathode for an electron microscope. , 2018, , .		2

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55	Fabrication of nano-capillary emitter arrays for ionic liquid electrospray thrusters. Japanese Journal of Applied Physics, 2021, 60, SCCF07.	1.5	2
56	Electron Transport Properties of Pt Nanoarch Fabricated by Electron-Beam-Induced Deposition. Japanese Journal of Applied Physics, 2011, 50, 06GG14.	1.5	1
57	Fabrication of Electrospray Thrusters with a High-Density Emitter Array Utilizing Minimal-Fab System. , 2018, , .		1
58	Electron Transport Properties of Pt Nanoarch Fabricated by Electron-Beam-Induced Deposition. Japanese Journal of Applied Physics, 2011, 50, 06GG14.	1.5	1
59	Microscope equipped with graphene-oxide-semiconductor electron source. , 2021, , .		1
60	Laser surface treatment of CNT cathodes for large diagonal FEDs. , 0, , .		0
61	Influence of gas atmosphere during laser surface treatment of CNT cathode. , 0, , .		0
62	Effect of thermal annealing on emission characteristics of nano electron source fabricated using beam assisted process. , 0, , .		0
63	Observation of electron emission pattern from nano-split emitter fabricated using beam assisted process. , 0, , .		0
64	Improvement of emission efficiency of nanocrystalline silicon planar cathodes. , 2007, , .		0
65	Emission uniformity of nanocrystalline silicon based metal-oxide-semiconductor cathodes. , 2009, , .		0
66	Graphitic cage transformation by electron-beam-induced catalysis with alkali-halide nanocrystals. Japanese Journal of Applied Physics, 2016, 55, 055102.	1.5	0
67	Annealing effect on electron emission properties of graphene-oxide-semiconductor planar-type electron emission devices. , 2017, , .		0
68	Process technology for volcano-structured double-gate Spindt-type field emitter arrays. , 2017, , .		0
69	Graphene-oxide-semiconductor planar-type electron emission device and its applications. , 2018, , .		0
70	Improvement of Electron Emission Efficiency of Graphene-Oxide-Semiconductor Planar-Type Electron Sources for Nanosatellite Neutralizers. , 2018, , .		0
71	10.1063/1.4863739.1. , 2014, , .		0
72	Development of High-performance Electron Sources and Its Application. Vacuum and Surface Science, 2020, 63, 7-12.	0.1	0

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73	Planar type electron emission device using atomic layered materials and it applications. , 2021, , .		0
74	>Oxygen Resistance Investigation of Graphene-Oxide-Semiconductor Planar-Type Electron Sources for Low Earth Orbit Applications. , 2021, , .		0
75	Direct Synthesis of Graphene on an Insulating Substrate and Its Device Application. Vacuum and Surface Science, 2022, 65, 184-189.	0.1	0