

# Megumi Akai-Kasaya

## List of Publications by Year in descending order

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79  
papers

1,376  
citations

411340

20  
h-index

406436

35  
g-index

79  
all docs

79  
docs citations

79  
times ranked

1766  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance of reservoir computing in a random network of single-walled carbon nanotubes complexed with polyoxometalate. <i>Neuromorphic Computing and Engineering</i> , 2022, 2, 014003.	2.8	29
2	Physical Implementation of Reservoir Computing through Electrochemical Reaction. <i>Advanced Science</i> , 2022, 9, e2104076.	5.6	44
3	Heuristic model for configurable polymer wire synaptic devices. <i>Nonlinear Theory and Its Applications IEICE</i> , 2022, 13, 379-384.	0.4	0
4	Noise sensitivity of physical reservoir computing in a ring array of atomic switches. <i>Nonlinear Theory and Its Applications IEICE</i> , 2022, 13, 373-378.	0.4	1
5	Digital implementation of a multilayer perceptron based on stochastic computing with online learning function. <i>Nonlinear Theory and Its Applications IEICE</i> , 2022, 13, 324-329.	0.4	0
6	Smart hardware architecture with random weight elimination and weight balancing algorithms. <i>Nonlinear Theory and Its Applications IEICE</i> , 2022, 13, 336-342.	0.4	0
7	A 1-Msps 500-Node FORCE Learning Accelerator for Reservoir Computing. <i>Journal of Signal Processing</i> , 2022, 26, 103-106.	0.2	1
8	(Invited) Neuromorphic Devices and Systems Using Carbon Nanotubes. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 778-778.	0.0	0
9	Long- and Short-Term Conductance Control of Artificial Polymer Wire Synapses. <i>Polymers</i> , 2021, 13, 312.	2.0	7
10	Simple Reservoir Computing Capitalizing on the Nonlinear Response of Materials: Theory and Physical Implementations. <i>Physical Review Applied</i> , 2021, 15, .	1.5	31
11	Adsorption and Light Emission of a Racemic Mixture of [7]thiaheterohelicene-2,13-carboxaldehyde on Au(111), Cu(001), and NiAl(110) Surfaces Investigated Using a Scanning Tunneling Microscope. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9419-9427.	1.5	8
12	Reservoir Computing on Atomic Switch Arrays with High Precision and Excellent Memory Characteristics. <i>Journal of Signal Processing</i> , 2021, 25, 123-126.	0.2	3
13	Evolving Conductive Polymer Neural Networks on Wetware. , 2021, , 583-607.		0
14	Hardware-oriented deep reinforcement learning for edge computing. <i>Nonlinear Theory and Its Applications IEICE</i> , 2021, 12, 526-544.	0.4	1
15	Applying a Molecular Device to Stochastic Computing Operation for a Hardware AI System Design. <i>Journal of Signal Processing</i> , 2021, 25, 221-225.	0.2	0
16	Coulomb blockade transport emerged in quasi one-dimensional PEDOT: PSS fiber. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 835, 012017.	0.3	1
17	Evolving conductive polymer neural networks on wetware. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 060601.	0.8	14
18	Spontaneous spike signals originated from redox-active molecules functionalised on carbon nanotubes. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SIIB18.	0.8	5

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19	Towards Physical Biomimetic and Neuromorphic Device Consisting of Nanomaterial. <i>Vacuum and Surface Science</i> , 2019, 62, 356-362.	0.0	0
20	A molecular neuromorphic network device consisting of single-walled carbon nanotubes complexed with polyoxometalate. <i>Nature Communications</i> , 2018, 9, 2693.	5.8	100
21	Room-temperature discrete-charge-fluctuation dynamics of a single molecule adsorbed on a carbon nanotube. <i>Nanoscale</i> , 2017, 9, 10674-10683.	2.8	25
22	Single walled carbon nanotube-based stochastic resonance device with molecular self-noise source. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	16
23	Nanoscale Dehydrogenation Observed by Tip-Enhanced Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18162-18168.	1.5	22
24	Coulomb-Blockade in Low-Dimensional Organic Conductors. <i>Advances in Atom and Single Molecule Machines</i> , 2017, , 111-134.	0.0	1
25	Anomalous hexagonal superstructure of aluminum oxide layer grown on NiAl(110) surface. <i>Nanotechnology</i> , 2016, 27, 455708.	1.3	3
26	Raman mapping investigation of single-walled carbon nanotube bending in bottom-contact field-effect-transistor devices. <i>Journal of Applied Physics</i> , 2016, 120, 094302.	1.1	0
27	Detection of Light Emission from (S)-PTCDI Molecules Adsorbed on Au(111) and NiAl(110) Surfaces Induced by a Scanning Tunneling Microscope. <i>Journal of Physical Chemistry C</i> , 2016, 120, 3964-3977.	1.5	15
28	Nanoscale analysis of multiwalled carbon nanotube by tip-enhanced Raman spectroscopy. <i>Carbon</i> , 2016, 99, 642-648.	5.4	31
29	Coulomb Blockade in a Two-Dimensional Conductive Polymer Monolayer. <i>Physical Review Letters</i> , 2015, 115, 196801.	2.9	15
30	Simple mass-production method of substrate-free powders for applications of the Morpho-colored materials. , 2015, , .		4
31	Self-Assembly Formation of M-Type Enantiomer of 2,13-Bis(hydroxymethyl)[7]-thiaheterohelicene Molecules on Au(111) Surface Investigated by STM/CITS. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21434-21442.	1.5	14
32	Advantages of flattened electrode in bottom contact single-walled carbon nanotube field-effect transistor. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	7
33	Simulation analysis on the optical role of the number of randomly arranged nano-trees on theMorphobutterfly's scale. , 2013, , .		3
34	Isotropic charge transport in highly ordered regioregular poly(3-hexylthiophene) monolayer. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 425303.	1.3	4
35	High-throughput reproduction of the Morpho butterfly's specific high contrast blue. , 2012, , .		7
36	Controlled chain polymerisation and chemical soldering for single-molecule electronics. <i>Nanoscale</i> , 2012, 4, 3013.	2.8	68

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37	Verification of thermal effect produced by irradiation for scanning tunneling microscope combined with brilliant hard X-rays from synchrotron radiation. <i>Current Applied Physics</i> , 2012, 12, S52-S56.	1.1	7
38	Direct Observation of X-ray Induced Atomic Motion Using Scanning Tunneling Microscope Combined with Synchrotron Radiation. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2873-2881.	0.9	4
39	Charge-Carrier Injection into Pentacene Thin Film Formed on Si(111) Probed by STM Spectroscopy. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2867-2872.	0.9	0
40	STM-induced light emission from thin films of perylene derivatives on the HOPG and Au substrates. <i>Nanoscale Research Letters</i> , 2011, 6, 347.	3.1	19
41	Electrical conduction of organic ultrathin films evaluated by an independently driven double-tip scanning tunneling microscope. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 434002.	0.7	1
42	Numerical Analysis on the Optical Role of Nano-Randomness on the Morpho Butterfly's Scale. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2785-2792.	0.9	52
43	Enhanced Red-Light Emission by Local Plasmon Coupling of Au Nanorods in an Organic Light-Emitting Diode. <i>Applied Physics Express</i> , 2011, 4, 032105.	1.1	28
44	Formation and electrical transport properties of pentacene nanorod crystal. <i>Nanotechnology</i> , 2010, 21, 365601.	1.3	3
45	Enhanced fluorescence by surface plasmon coupling of Au nanoparticles in an organic electroluminescence diode. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	145
46	Reproduction of Morpho Butterfly's Color by Dielectric Multilayer Structure. <i>Journal of the Vacuum Society of Japan</i> , 2009, 52, 218-223.	0.3	2
47	Reproduction, mass production, and control of the Morpho butterfly's blue. , 2009, , .		32
48	Correlated growth of organic material tris (8-hydroxyquinoline) aluminum (Alq3) and its relation to optical properties. <i>Journal of Applied Physics</i> , 2009, 106, 096101.	1.1	2
49	Electrochromic properties of poly(3,4-dihydroxybenzylidene)oxaniline. <i>Electrochemistry</i> , 2009, 77, 894-898.	0.6	0
50	Nanoscale elemental identification by synchrotron radiation-based scanning tunneling microscopy. <i>Surface and Interface Analysis</i> , 2008, 40, 1033-1036.	0.8	12
51	Direction-controlled growth of polydiacetylene on artificial silicon oxide templates. <i>Surface and Interface Analysis</i> , 2008, 40, 1037-1041.	0.8	2
52	Spatially resolved detection of plasmon-enhanced fluorescence using scanning tunneling microscopy. <i>Surface and Interface Analysis</i> , 2008, 40, 1050-1053.	0.8	7
53	High-mobility organic single crystal transistors with submicrometer channels. <i>Applied Physics Letters</i> , 2008, 93, 023303.	1.5	14
54	Reproduction of Morpho Butterfly's Blue and its Optimization of Characteristics. <i>Journal of the Society of Powder Technology, Japan</i> , 2008, 45, 180-186.	0.0	1

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55	Study for noise reduction in synchrotron radiation based scanning tunneling microscopy by developing insulator-coat tip. <i>Surface Science</i> , 2007, 601, 5294-5299.	0.8	18
56	Local-plasmon-enhanced up-conversion fluorescence from copper phthalocyanine. <i>Chemical Physics Letters</i> , 2007, 448, 232-236.	1.2	53
57	Development of the Technology for Mass Production of Morpho-blue by Nanoimprint Lithography. <i>Hyomen Kagaku</i> , 2007, 28, 414-420.	0.0	1
58	Development of a scanning tunneling microscope for in situ experiments with a synchrotron radiation hard-X-ray microbeam. <i>Journal of Synchrotron Radiation</i> , 2006, 13, 216-220.	1.0	45
59	Control of conduction of iodine-doped poly(3-octylthiophene) thin films by double-tip scanning tunneling microscopy. <i>Chemical Physics Letters</i> , 2006, 419, 250-253.	1.2	2
60	Tunneling-current-induced light emission from individual carbon nanotubes. <i>Surface Science</i> , 2006, 600, L15-L19.	0.8	16
61	Scanning Tunneling Microscopy Combined with Hard X-ray Microbeam of High Brilliance from Synchrotron Radiation Source. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 1913-1916.	0.8	8
62	Polaron Injection into One-Dimensional Polydiacetylene Nanowire. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 2049-2052.	0.8	13
63	Application of Simple Mechanical Polishing to Fabrication of Nanogap Flat Electrodes. <i>Japanese Journal of Applied Physics</i> , 2006, 45, L145-L147.	0.8	18
64	Quantum point-contact switches using silver particles. <i>Applied Physics Letters</i> , 2006, 88, 023107.	1.5	7
65	Tunneling-Current-Induced Light Emission from Copper Phthalocyanine Thin Films. <i>E-Journal of Surface Science and Nanotechnology</i> , 2006, 4, 559-562.	0.1	6
66	Significant increase in conductivity of polydiacetylene thin film induced by iodine doping. <i>Surface Science</i> , 2005, 591, L273-L279.	0.8	35
67	Structural Study of Initial Growth of Nickel on Ytria-Stabilized Zirconia by Coaxial Impact-Collision Ion Scattering Spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 2630-2633.	0.8	0
68	Construction of Independently Driven Double-Tip Scanning Tunneling Microscope. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L120-L122.	0.8	40
69	Structure of Atomically Smoothed LiNbO <sub>3</sub> (0001) Surface. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 2057-2060.	0.8	18
70	Conductivity Measurement of Polydiacetylene Thin Films by Double-Tip Scanning Tunneling Microscopy. <i>Journal of Physical Chemistry B</i> , 2004, 108, 16353-16356.	1.2	61
71	Electronic Structure of a Polydiacetylene Nanowire Fabricated on Highly Ordered Pyrolytic Graphite. <i>Physical Review Letters</i> , 2003, 91, 255501.	2.9	72
72	Scanning tunneling microscopy observation of binary monolayers of 10,12-ticosadiynoic acid and stearic acid deposited by horizontal lifting method. <i>Surface Science</i> , 2001, 476, L254-L258.	0.8	6

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73	Scanning tunneling microscopy and molecular orbital calculation of pentacene molecules adsorbed on the Si(100)2Å-1 surface. Surface Science, 1998, 400, 367-374.	0.8	56
74	Scanning tunneling microscopy and molecular orbital calculation of organic molecules adsorbed on the Si(100)2Å-1 surface. Surface Science, 1998, 406, 302-311.	0.8	15
75	Scanning tunneling microscopy and molecular orbital calculation of thymine and adenine molecules adsorbed on the Si(100)2 Å- 1 surface. Surface Science, 1996, 357-358, 195-201.	0.8	15
76	Adsorption Structure of Copper-Phthalocyanine Molecules on a \$f Si(100)2imes 1\$ Surface Observed by Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 1996, 35, L405-L407.	0.8	21
77	Scanning tunneling microscopy observation and theoretical calculation of the adsorption of adenine on Si(100)2 Å- 1 surfaces. Surface Science, 1995, 342, 215-223.	0.8	24
78	Valence Band Density of States of the Iron Silicides Studied by Soft X-Ray Emission Spectroscopy. Journal of the Physical Society of Japan, 1994, 63, 4097-4101.	0.7	8
79	Study of iron silicide formation on Si(111) by soft x-ray emission spectroscopy. Applied Surface Science, 1994, 75, 110-114.	3.1	7