

# Megumi Akai-Kasaya

## List of Publications by Year in descending order

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79  
papers

1,376  
citations

361296  
20  
h-index

360920  
35  
g-index

79  
all docs

79  
docs citations

79  
times ranked

1558  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced fluorescence by surface plasmon coupling of Au nanoparticles in an organic electroluminescence diode. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	145
2	A molecular neuromorphic network device consisting of single-walled carbon nanotubes complexed with polyoxometalate. <i>Nature Communications</i> , 2018, 9, 2693.	5.8	100
3	Electronic Structure of a Polydiacetylene Nanowire Fabricated on Highly Ordered Pyrolytic Graphite. <i>Physical Review Letters</i> , 2003, 91, 255501.	2.9	72
4	Controlled chain polymerisation and chemical soldering for single-molecule electronics. <i>Nanoscale</i> , 2012, 4, 3013.	2.8	68
5	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
6	Scanning tunneling microscopy and molecular orbital calculation of pentacene molecules adsorbed on the Si(100)2Å <sup>-1</sup> surface. <i>Surface Science</i> , 1998, 400, 367-374.	0.8	56
7	Local-plasmon-enhanced up-conversion fluorescence from copper phthalocyanine. <i>Chemical Physics Letters</i> , 2007, 448, 232-236.	1.2	53
8	Numerical Analysis on the Optical Role of Nano-Randomness on the &lt;&gt;Morpho&lt;&gt; Butterfly's Scale. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 2785-2792.	0.9	52
9	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
10	Physical Implementation of Reservoir Computing through Electrochemical Reaction. <i>Advanced Science</i> , 2022, 9, e2104076.	5.6	44
11	Construction of Independently Driven Double-Tip Scanning Tunneling Microscope. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L120-L122.	0.8	40
12	Significant increase in conductivity of polydiacetylene thin film induced by iodine doping. <i>Surface Science</i> , 2005, 591, L273-L279.	0.8	35
13	Reproduction, mass production, and control of the Morpho butterfly's blue. , 2009, , .		32
14	Nanoscale analysis of multiwalled carbon nanotube by tip-enhanced Raman spectroscopy. <i>Carbon</i> , 2016, 99, 642-648.	5.4	31
15	Simple Reservoir Computing Capitalizing on the Nonlinear Response of Materials: Theory and Physical Implementations. <i>Physical Review Applied</i> , 2021, 15, .	1.5	31
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	Scanning tunneling microscopy observation and theoretical calculation of the adsorption of adenine on Si(100)2 Å <sup>-1</sup> surfaces. <i>Surface Science</i> , 1995, 342, 215-223.	0.8	24
20	Nanoscale Dehydrogenation Observed by Tip-Enhanced Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 18162-18168.	1.5	22
21	Adsorption Structure of Copper-Phthalocyanine Molecules on a Si(100)2 Å <sup>-1</sup> Surface Observed by Scanning Tunneling Microscopy. <i>Japanese Journal of Applied Physics</i> , 1996, 35, L405-L407.	0.8	21
22	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
23	Structure of Atomically Smoothed LiNbO <sub>3</sub> (0001) Surface. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 2057-2060.	0.8	18
24	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
25	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
26	Tunneling-current-induced light emission from individual carbon nanotubes. <i>Surface Science</i> , 2006, 600, L15-L19.	0.8	16
27	Single walled carbon nanotube-based stochastic resonance device with molecular self-noise source. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	16
28	Scanning tunneling microscopy and molecular orbital calculation of thymine and adenine molecules adsorbed on the Si(100)2 Å <sup>-1</sup> surface. <i>Surface Science</i> , 1996, 357-358, 195-201.	0.8	15
29	Scanning tunneling microscopy and molecular orbital calculation of organic molecules adsorbed on the Si(100)2 Å <sup>-1</sup> surface. <i>Surface Science</i> , 1998, 406, 302-311.	0.8	15
30	Coulomb Blockade in a Two-Dimensional Conductive Polymer Monolayer. <i>Physical Review Letters</i> , 2015, 115, 196801.	2.9	15
31	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
32	High-mobility organic single crystal transistors with submicrometer channels. <i>Applied Physics Letters</i> , 2008, 93, 023303.	1.5	14
33	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
34	Evolving conductive polymer neural networks on wetware. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 060601.	0.8	14
35	Polaron Injection into One-Dimensional Polydiacetylene Nanowire. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 2049-2052.	0.8	13
36	Nanoscale elemental identification by synchrotron radiation based scanning tunneling microscopy. <i>Surface and Interface Analysis</i> , 2008, 40, 1033-1036.	0.8	12

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37	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
38	Scanning Tunneling Microscopy Combined with Hard X-ray Microbeam of High Brilliance from Synchrotron Radiation Source. Japanese Journal of Applied Physics, 2006, 45, 1913-1916.	0.8	8
39	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. Journal of Physical Chemistry C, 2021, 125, 9419-9427.	1.5	8
40	Study of iron silicide formation on Si(111) by soft x-ray emission spectroscopy. Applied Surface Science, 1994, 75, 110-114.	3.1	7
41	Quantum point-contact switches using silver particles. Applied Physics Letters, 2006, 88, 023107.	1.5	7
42	Spatially resolved detection of plasmon-enhanced fluorescence using scanning tunneling microscopy. Surface and Interface Analysis, 2008, 40, 1050-1053.	0.8	7
43	High-throughput reproduction of the Morpho butterfly's specific high contrast blue. , 2012, , .		7
44	Verification of thermal effect produced by irradiation for scanning tunneling microscope combined with brilliant hard X-rays from synchrotron radiation. Current Applied Physics, 2012, 12, S52-S56.	1.1	7
45	Advantages of flattened electrode in bottom contact single-walled carbon nanotube field-effect transistor. Applied Physics Letters, 2014, 105, .	1.5	7
46	Long- and Short-Term Conductance Control of Artificial Polymer Wire Synapses. Polymers, 2021, 13, 312.	2.0	7
47	Scanning tunneling microscopy observation of binary monolayers of 10,12-ticosadiynoic acid and stearic acid deposited by horizontal lifting method. Surface Science, 2001, 476, L254-L258.	0.8	6
48	Tunneling-Current-Induced Light Emission from Copper Phthalocyanine Thin Films. E-Journal of Surface Science and Nanotechnology, 2006, 4, 559-562.	0.1	6
49	Spontaneous spike signals originated from redox-active molecules functionalised on carbon nanotubes. Japanese Journal of Applied Physics, 2019, 58, SIIB18.	0.8	5
50	Direct Observation of X-ray Induced Atomic Motion Using Scanning Tunneling Microscope Combined with Synchrotron Radiation. Journal of Nanoscience and Nanotechnology, 2011, 11, 2873-2881.	0.9	4
51	Isotropic charge transport in highly ordered regioregular poly(3-hexylthiophene) monolayer. Journal Physics D: Applied Physics, 2013, 46, 425303.	1.3	4
52	Simple mass-production method of substrate-free powders for applications of the Morpho-colored materials. , 2015, , .		4
53	Formation and electrical transport properties of pentacene nanorod crystal. Nanotechnology, 2010, 21, 365601.	1.3	3
54	Simulation analysis on the optical role of the number of randomly arranged nano-trees on theMorphobutterfly's scale. , 2013, , .		3

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55	Anomalous hexagonal superstructure of aluminum oxide layer grown on NiAl(110) surface. Nanotechnology, 2016, 27, 455708.	1.3	3
56	Reservoir Computing on Atomic Switch Arrays with High Precision and Excellent Memory Characteristics. Journal of Signal Processing, 2021, 25, 123-126.	0.2	3
57	Control of conduction of iodine-doped poly(3-octylthiophene) thin films by double-tip scanning tunneling microscopy. Chemical Physics Letters, 2006, 419, 250-253.	1.2	2
58	Polymerization-direction-controlled growth of polydiacetylene on artificial silicon oxide templates. Surface and Interface Analysis, 2008, 40, 1037-1041.	0.8	2
59	Reproduction of Morpho Butterfly's Color by Dielectric Multilayer Structure. Journal of the Vacuum Society of Japan, 2009, 52, 218-223.	0.3	2
60	Correlated growth of organic material tris (8-hydroxyquinoline) aluminum (Alq3) and its relation to optical properties. Journal of Applied Physics, 2009, 106, 096101.	1.1	2
61	Reproduction of Morpho Butterfly's Blue and its Optimization of Characteristics. Journal of the Society of Powder Technology, Japan, 2008, 45, 180-186.	0.0	1
62	Electrical conduction of organic ultrathin films evaluated by an independently driven double-tip scanning tunneling microscope. Journal of Physics Condensed Matter, 2011, 23, 434002.	0.7	1
63	Coulomb blockade transport emerged in quasi one-dimensional PEDOT: PSS fiber. IOP Conference Series: Materials Science and Engineering, 2020, 835, 012017.	0.3	1
64	Hardware-oriented deep reinforcement learning for edge computing. Nonlinear Theory and Its Applications IEICE, 2021, 12, 526-544.	0.4	1
65	Development of the Technology for Mass Production of Morpho-blue by Nanoimprint Lithography. Hyomen Kagaku, 2007, 28, 414-420.	0.0	1
66	Coulomb-Blockade in Low-Dimensional Organic Conductors. Advances in Atom and Single Molecule Machines, 2017, , 111-134.	0.0	1
67	Noise sensitivity of physical reservoir computing in a ring array of atomic switches. Nonlinear Theory and Its Applications IEICE, 2022, 13, 373-378.	0.4	1
68	A 1-Msps 500-Node FORCE Learning Accelerator for Reservoir Computing. Journal of Signal Processing, 2022, 26, 103-106.	0.2	1
69	Structural Study of Initial Growth of Nickel on Ytria-Stabilized Zirconia by Coaxial Impact-Collision Ion Scattering Spectroscopy. Japanese Journal of Applied Physics, 2005, 44, 2630-2633.	0.8	0
70	Electrochromic properties of poly(3-octylthiophene) thin films. Electrochemistry, 2009, 77, 894-898.	0.6	0
71	Charge-Carrier Injection into Pentacene Thin Film Formed on Si(111) Probed by STM Spectroscopy. Journal of Nanoscience and Nanotechnology, 2011, 11, 2867-2872.	0.9	0
72	Raman mapping investigation of single-walled carbon nanotube bending in bottom-contact field-effect-transistor devices. Journal of Applied Physics, 2016, 120, 094302.	1.1	0

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73	Evolving Conductive Polymer Neural Networks on Wetware. , 2021, , 583-607.		0
74	Towards Physical Biomimetic and Neuromorphic Device Consisting of Nanomaterial. Vacuum and Surface Science, 2019, 62, 356-362.	0.0	0
75	Applying a Molecular Device to Stochastic Computing Operation for a Hardware AI System Design. Journal of Signal Processing, 2021, 25, 221-225.	0.2	0
76	Heuristic model for configurable polymer wire synaptic devices. Nonlinear Theory and Its Applications IEICE, 2022, 13, 379-384.	0.4	0
77	Digital implementation of a multilayer perceptron based on stochastic computing with online learning function. Nonlinear Theory and Its Applications IEICE, 2022, 13, 324-329.	0.4	0
78	Smart hardware architecture with random weight elimination and weight balancing algorithms. Nonlinear Theory and Its Applications IEICE, 2022, 13, 336-342.	0.4	0
79	(Invited) Neuromorphic Devices and Systems Using Carbon Nanotubes. ECS Meeting Abstracts, 2022, MA2022-01, 778-778.	0.0	0