

Akira Saito

List of Publications by Year in descending order

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85
papers

1,556
citations

331670

21
h-index

345221

36
g-index

86
all docs

86
docs citations

86
times ranked

1484
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstitching interferometry for x-ray reflective optics. Review of Scientific Instruments, 2003, 74, 2894-2898.	1.3	149
2	Fabrication of elliptical mirror at nanometer-level accuracy for hard x-ray focusing by numerically controlled plasma chemical vaporization machining. Review of Scientific Instruments, 2003, 74, 4549-4553.	1.3	99
3	Material design and structural color inspired by biomimetic approach. Science and Technology of Advanced Materials, 2011, 12, 064709.	6.1	85
4	Element Array by Scanning X-ray Fluorescence Microscopy after Cis-Diamminedichloro-Platinum(II) Treatment. Cancer Research, 2005, 65, 4998-5002.	0.9	64
5	Nearly diffraction-limited line focusing of a hard-X-ray beam with an elliptically figured mirror. Journal of Synchrotron Radiation, 2002, 9, 313-316.	2.4	62
6	Conductivity Measurement of Polydiacetylene Thin Films by Double-Tip Scanning Tunneling Microscopy. Journal of Physical Chemistry B, 2004, 108, 16353-16356.	2.6	61
7	Two-dimensional Submicron Focusing of Hard X-rays by Two Elliptical Mirrors Fabricated by Plasma Chemical Vaporization Machining and Elastic Emission Machining. Japanese Journal of Applied Physics, 2003, 42, 7129-7134.	1.5	57
8	Numerical Analysis on the Optical Role of Nano-Randomness on the <I>Morpho</I> Butterfly's Scale. Journal of Nanoscience and Nanotechnology, 2011, 11, 2785-2792.	0.9	52
9	Reproduction of the Morpho blue by nanocasting lithography. Journal of Vacuum Science & Technology B, 2006, 24, 3248.	1.3	51
10	Wave-optical evaluation of interference fringes and wavefront phase in a hard-x-ray beam totally reflected by mirror optics. Applied Optics, 2005, 44, 6927.	2.1	46
11	Development of a scanning tunneling microscope for in situ experiments with a synchrotron radiation hard-X-ray microbeam. Journal of Synchrotron Radiation, 2006, 13, 216-220.	2.4	45
12	Construction of Independently Driven Double-Tip Scanning Tunneling Microscope. Japanese Journal of Applied Physics, 2005, 44, L120-L122.	1.5	40
13	Significant increase in conductivity of polydiacetylene thin film induced by iodine doping. Surface Science, 2005, 591, L273-L279.	1.9	35
14	Surface study of a Ag electrode on a solid electrolyte used as oxygen sensor. Applications of Surface Science, 1983, 16, 365-372.	1.0	33
15	Reproduction of the Morpho butterfly's blue: arbitration of contradicting factors. , 2004, , .		32
16	Reproduction, mass production, and control of the Morpho butterfly's blue. , 2009, , .		32
17	Nanoscale analysis of multiwalled carbon nanotube by tip-enhanced Raman spectroscopy. Carbon, 2016, 99, 642-648.	10.3	31
18	Formation of amorphous sapphire by a femtosecond laser pulse induced micro-explosion. Applied Surface Science, 2009, 255, 9745-9749.	6.1	28

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19	Enhanced Red-Light Emission by Local Plasmon Coupling of Au Nanorods in an Organic Light-Emitting Diode. Applied Physics Express, 2011, 4, 032105.	2.4	28
20	XPS for in situ observation of an Ag electrode on a solid electrolyte used as oxygen sensor. Chemical Physics Letters, 1983, 94, 250-252.	2.6	24
21	Layer matching epitaxy of NiO thin films on atomically stepped sapphire (0001) substrates. Scientific Reports, 2015, 5, 14385.	3.3	24
22	Efficiency of Noble Metal Electrodes for Zirconia Oxygen Sensors in Detecting Oxygen at Lower Temperatures. Bulletin of the Chemical Society of Japan, 1982, 55, 2273-2274.	3.2	22
23	Nanoscale Dehydrogenation Observed by Tip-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 18162-18168.	3.1	22
24	Structural changes in femtosecond laser modified regions inside fused silica. Journal of Optics (United Kingdom), 2010, 12, 124007.	2.2	21
25	Force Microscopy Study of SrTiO ₃ (001) Surfaces with Single Atomic-Layer Steps. Japanese Journal of Applied Physics, 1999, 38, 3946-3948.	1.5	20
26	STM-induced light emission from thin films of perylene derivatives on the HOPG and Au substrates. Nanoscale Research Letters, 2011, 6, 347.	5.7	19
27	Structure of Atomically Smoothed LiNbO ₃ (0001) Surface. Japanese Journal of Applied Physics, 2004, 43, 2057-2060.	1.5	18
28	Application of Simple Mechanical Polishing to Fabrication of Nanogap Flat Electrodes. Japanese Journal of Applied Physics, 2006, 45, L145-L147.	1.5	18
29	Wave-optical analysis of submicron focus of hard x-ray beams by reflective optics. , 2002, 4782, 271.		17
30	Optimization of reproduced Morpho -blue coloration. Proceedings of SPIE, 2007, , .	0.8	17
31	Tunneling-current-induced light emission from individual carbon nanotubes. Surface Science, 2006, 600, L15-L19.	1.9	16
32	Morpho -blue reproduced by nanocasting lithography. , 2006, , .		16
33	Detection of Light Emission from (S)-PTCDI Molecules Adsorbed on Au(111) and NiAl(110) Surfaces Induced by a Scanning Tunneling Microscope. Journal of Physical Chemistry C, 2016, 120, 3964-3977.	3.1	15
34	High-mobility organic single crystal transistors with submicrometer channels. Applied Physics Letters, 2008, 93, 023303.	3.3	14
35	Self-Assembly Formation of M-Type Enantiomer of 2,13-Bis(hydroxymethyl)[7]-thiaheterohelicene Molecules on Au(111) Surface Investigated by STM/CITS. Journal of Physical Chemistry C, 2015, 119, 21434-21442.	3.1	14
36	Structural Analysis of Bismuth Nanowire by X-Ray Standing Wave Method. Japanese Journal of Applied Physics, 2003, 42, 2408-2411.	1.5	13

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37	Polaron Injection into One-Dimensional Polydiacetylene Nanowire. Japanese Journal of Applied Physics, 2006, 45, 2049-2052.	1.5	13
38	Nanoscale elemental identification by synchrotron-radiation-based scanning tunneling microscopy. Surface and Interface Analysis, 2008, 40, 1033-1036.	1.8	12
39	Rapid and sensitive XAFS using a tunable X-ray undulator at BL10XU of SPring-8. Journal of Synchrotron Radiation, 2000, 7, 89-94.	2.4	10
40	Submicron focusing of hard x-ray beam by elliptically figured mirrors for scanning x-ray microscopy. , 2002, , .		10
41	Demonstration of a diffraction-based optical diffuser inspired by the Morpho butterfly. Optics Express, 2021, 29, 30927.	3.4	10
42	Aspheric Surface Fabrication in nm-level Accuracy by Numerically Controlled Plasma Chemical Vaporization Machining (CVM) and Elastic Emission Machining (EEM). , 2002, 4782, 265.		9
43	Fabrication technology of hard x-ray aspherical mirror optics and application to nanospectroscopy. , 2004, , .		9
44	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.	1.5	8
45	Fabrication Process of Large-area <i>Morpho</i>-color Flexible Film via Flexible Nano-imprint Mold. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2018, 31, 113-119.	0.3	8
46	Elucidating the mystery of <i>Morpho</i>-blue using in-plane randomness: toward simple nanofabrication. Japanese Journal of Applied Physics, 2020, 59, 052009.	1.5	8
47	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.	3.1	8
48	Normal-incidence x-ray standing-wave analysis of Si(111) $\sqrt{3}\times\sqrt{3}$ Au structure. Physical Review B, 1998, 58, 3541-3544.	3.2	7
49	High-throughput reproduction of the Morpho butterfly's specific high contrast blue. , 2012, , .		7
50	Advantages of flattened electrode in bottom contact single-walled carbon nanotube field-effect transistor. Applied Physics Letters, 2014, 105, .	3.3	7
51	Synthesis of high-pressure phases of silica by laser-induced optical breakdown. Applied Physics A: Materials Science and Processing, 2011, 104, 903-906.	2.3	6
52	Tunneling-Current-Induced Light Emission from Copper Phthalocyanine Thin Films. E-Journal of Surface Science and Nanotechnology, 2006, 4, 559-562.	0.4	6
53	Stark Effect in CH ₃ OH Submillimeter Lasers. Japanese Journal of Applied Physics, 1980, 19, 2527-2528.	1.5	5
54	Measurements of the Flow in Backshroud/Casing Clearance of Precessing Centrifugal Impeller. International Journal of Rotating Machinery, 1997, 3, 259-268.	0.8	5

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55	Structural Characterization of Femtosecond Laser Modified Regions Inside Sapphire. Journal of Nanoscience and Nanotechnology, 2011, 11, 2931-2936.	0.9	5
56	Replication of large-area Morpho-color material using flexible mold. , 2018, , .		5
57	Study of stereochemical crystallization of racemic mixtures of [5] and [7]thiaheterohelicene molecules on Ag(111) surface by scanning tunneling microscopy and Raman scattering spectroscopy. Applied Surface Science, 2022, 589, 152860.	6.1	5
58	Development of a figure correction method having spatial resolution close to 0.1 mm. , 2004, 5193, 105.		4
59	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
60	Simple mass-production method of substrate-free powders for applications of the Morpho-colored materials. , 2015, , .		4
61	Daylight window based on the nano-disorder inspired by Morpho butterfliesâ€™ coloration. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 1532.	2.1	4
62	Scanning Tunneling Microscopy Observation of Langmuirâ€™Blodgett Diacetylene Compound Films Deposited by Schaefer's Method. Japanese Journal of Applied Physics, 2002, 41, 2187-2188.	1.5	3
63	Center of Excellence for Atomically Controlled Fabrication Technology. Journal of Nanoscience and Nanotechnology, 2011, 11, 2763-2776.	0.9	3
64	Simulation analysis on the optical role of the number of randomly arranged nano-trees on the Morphobutterfly's scale. , 2013, , .		3
65	Anomalous hexagonal superstructure of aluminum oxide layer grown on NiAl(110) surface. Nanotechnology, 2016, 27, 455708.	2.6	3
66	Morpho-colored flexible film fabricated by simple mass-production method. , 2017, , .		3
67	Fabrication of the Elliptical Mirror for Synchrotron hard X-ray by Plasma Chemical Vaporization Machining and Elastic Emission Machining and the Evaluation of the Focusing Performances.. Journal of the Japan Society for Precision Engineering, 2002, 68, 1347-1350.	0.1	3
68	Control of conduction of iodine-doped poly(3-octylthiophene) thin films by double-tip scanning tunneling microscopy. Chemical Physics Letters, 2006, 419, 250-253.	2.6	2
69	Polymerizationâ€™directionâ€™controlled growth of polydiacetylene on artificial silicon oxide templates. Surface and Interface Analysis, 2008, 40, 1037-1041.	1.8	2
70	Wave-optical evaluation of reflected X-ray intensity and wavefront distribution in total reflection hard X-ray by mirror optics.. Journal of the Japan Society for Precision Engineering, 2003, 69, 997-1001.	0.1	2
71	Novel optical applications inspired by the <i>Morpho</i> butterflyâ€™s coloration: technology transfer from reflection to transmission. Japanese Journal of Applied Physics, 0, , .	1.5	2
72	Characterization of Sb Atomic-Layer-Doped Si(100) Crystal by X-Ray Standing Wave Method. Japanese Journal of Applied Physics, 1993, 32, 1772-1774.	1.5	1

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73	Roughening Surface of Layered Manganite $\text{La}_{0.5}\text{Sr}_{1.5}\text{MnO}_4$ by Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 2008, 47, 6456-6458.	1.5	1
74	X-ray STM: Nanoscale elemental analysis & Observation of atomic track. Microscopy (Oxford, England), 2014, 63, i14.2-i15.	1.5	1
75	Biomimetics of Optical Nanostructures. Series in Optics and Optoelectronics, 2012, , 55-116.	0.0	1
76	Modeling and Simulation of Structural Colors. Series in Optics and Optoelectronics, 2012, , 191-242.	0.0	1
77	Development of the Technology for Mass Production of Morpho-blue by Nanoimprint Lithography. Hyomen Kagaku, 2007, 28, 414-420.	0.0	1
78	Optical analysis on the Morpho butterfly's in-plane randomness using three-dimensional FDTD simulations. , 2020, , .		1
79	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.	1.5	0
80	<l>A Special Section on</l> Atomically Controlled Fabrication Technology. Journal of Nanoscience and Nanotechnology, 2011, 11, 2761-2762.	0.9	0
81	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
82	Principle, Control & Applications Learned from the Mystery of <i>Morpho</i>-butterfly's Structural Coloration. Journal of the Japan Society for Precision Engineering, 2015, 81, 410-414.	0.1	0
83	Ecological color devices by biomimetic nanostructures. , 2015, , .		0
84	X-Ray Standing Wave Method. , 2018, , 849-853.		0
85	New Relationship between Structural Color Materials and Nanoimprint Lithography. Vacuum and Surface Science, 2020, 63, 580-585.	0.1	0