Takao Ishida

List of Publications by Year
in descending order

127 papers	5,302 citations	87723 38 h-index	85405 71 g-index
127 all docs	127 docs citations	127 times ranked	5890 citing authors

#	Article	IF	Citations
1	Morphological Change and Mobility Enhancement in PEDOT:PSS by Adding Coâ€solvents. Advanced Materials, 2013, 25, 2831-2836.	11.1	380
2	Structures and properties of electronâ€beamâ€evaporated indium tin oxide films as studied by xâ€ray photoelectron spectroscopy and workâ€function measurements. Journal of Applied Physics, 1993, 73, 4344-4350.	1.1	249
3	High-Resolution X-ray Photoelectron Spectra of Organosulfur Monolayers on Au(111):Â S(2p) Spectral Dependence on Molecular Species. Langmuir, 1999, 15, 6799-6806.	1.6	248
4	High Resolution X-ray Photoelectron Spectroscopy Measurements of Octadecanethiol Self-Assembled Monolayers on Au(111). Langmuir, 1998, 14, 2092-2096.	1.6	243
5	Recent Progress on PEDOT-Based Thermoelectric Materials. Materials, 2015, 8, 732-750.	1.3	194
6	Mechanism of carrier transport in highly efficient solar cells having indium tin oxide/Si junctions. Journal of Applied Physics, 1991, 69, 1736-1743.	1.1	181
7	Transport Mechanisms in Metallic and Semiconducting Single-Wall Carbon Nanotube Networks. ACS Nano, 2010, 4, 4027-4032.	7.3	172
8	Local Solvation Shell Measurement in Water Using a Carbon Nanotube Probe. Journal of Physical Chemistry B, 2000, 104, 6091-6094.	1.2	157
9	Evidence for Cleavage of Disulfides in the Self-Assembled Monolayer on Au(111). Langmuir, 1997, 13, 3261-3265.	1.6	150
10	Fabrication of Densely Packed Titania Nanosheet Films on Solid Surface by Use of Langmuirâ^'Blodgett Deposition Method without Amphiphilic Additives. Langmuir, 2005, 21, 6590-6595.	1.6	144
11	Polymer thermoelectric modules screen-printed on paper. RSC Advances, 2014, 4, 28802-28806.	1.7	143
12	A solution-processed TiS₂/organic hybrid superlattice film towards flexible thermoelectric devices. Journal of Materials Chemistry A, 2017, 5, 564-570.	5.2	130
13	Electrical Conduction of Conjugated Molecular SAMs Studied by Conductive Atomic Force Microscopy. Journal of Physical Chemistry B, 2002, 106, 5886-5892.	1.2	129
14	Molecular Packing of Semifluorinated Alkanethiol Self-Assembled Monolayers on Gold:Â Influence of Alkyl Spacer Length. Langmuir, 2001, 17, 1913-1921.	1.6	124
15	Structural Effects on Electrical Conduction of Conjugated Molecules Studied by Scanning Tunneling Microscopy. Journal of Physical Chemistry B, 2000, 104, 11680-11688.	1.2	120
16	Experimental Studies on the Anisotropic Thermoelectric Properties of Conducting Polymer Films. ACS Macro Letters, 2014, 3, 948-952.	2.3	118
17	Structure and Growth of Hexyl Azobenzene Thiol SAMs on Au(111). Langmuir, 1998, 14, 3264-3271.	1.6	99
18	Lateral Electrical Conduction in Organic Monolayer. Journal of Physical Chemistry B, 1999, 103, 1686-1690.	1.2	99

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19	Flexible thermoelectric foil for wearable energy harvesting. Nano Energy, 2016, 30, 840-845.	8.2	96
20	Zinc oxide/nâ€Si junction solar cells produced by sprayâ€pyrolysis method. Journal of Applied Physics, 1995, 77, 1301-1307.	1.1	95
21	Properties of indium tin oxide films prepared by the electron beam evaporation method in relation to characteristics of indium tin oxide/silicon oxide/silicon junction solar cells. Journal of Applied Physics, 1992, 72, 5288-5293.	1.1	84
22	Thermoelectric power enhancement of PEDOT:PSS in high-humidity conditions. Applied Physics Express, 2014, 7, 031601.	1.1	78
23	STM Observation of Alkyl-Chain-Assisted Self-Assembled Monolayers of Pyridine-Coordinated Porphyrin Rhodium Chlorides. Langmuir, 2004, 20, 5454-5459.	1.6	71
24	High-resolution imaging of organic monolayers using noncontact AFM. Applied Surface Science, 2000, 157, 244-250.	3.1	70
25	Surface-Conditioning Effect of Gold Substrates on Octadecanethiol Self-Assembled Monolayer Growth. Langmuir, 1997, 13, 4638-4643.	1.6	68
26	Increases in photovoltage of â€˜indium tin oxide/silicon oxide/matâ€texturednâ€siliconâ€™â€™ junction solar cells by silicon preoxidation and annealing processes. Journal of Applied Physics, 1993, 74, 4756-4761.	1.1	62
27	Long-Range Electron Transport of Ruthenium-Centered Multilayer Films via a Stepping-Stone Mechanism. ACS Nano, 2012, 6, 1988-1999.	7.3	62
28	Electrochromic Carbon Electrodes: Controllable Visible Color Changes in Metallic Singleâ€Wall Carbon Nanotubes. Advanced Materials, 2011, 23, 2811-2814.	11.1	58
29	Thermoelectric power generation using nonwoven fabric module impregnated with conducting polymer PEDOT:PSS. Synthetic Metals, 2017, 225, 41-48.	2.1	58
30	Delicate Surface Reaction of Dialkyl Sulfide Self-Assembled Monolayers on Au(111). Langmuir, 2000, 16, 1703-1710.	1.6	57
31	Palladium-Mediated Stepwise Assembly of Three-Dimensional Organized Multiporphyrin Arrays Directly on Solid Substrates. Langmuir, 2002, 18, 10237-10242.	1.6	55
32	Adsorption Processes of Self-Assembled Monolayers Made from Terphenyl Thiols. Langmuir, 2001, 17, 7459-7463.	1.6	45
33	Self-assembled monolayer and multilayer formation using redox-active Ru complex with phosphonic acids on silicon oxide surface. Applied Surface Science, 2009, 255, 8824-8830.	3.1	45
34	Measurement of in-plane thermal conductivity in polymer films. AIP Advances, 2016, 6, .	0.6	45
35	Alkyl Chain Length Effect on Growth Kinetics of n-Alkanethiol Self-Assembled Monolayers on Gold Studied by X-Ray Photoelectron Spectroscopy. Japanese Journal of Applied Physics, 1996, 35, L1710-L1713.	0.8	44
36	Structure of SAMs generated from functionalized thiols on gold. Thin Solid Films, 1998, 327-329, 150-155.	0.8	43

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37	Annealing Effect of Self-Assembled Monolayers Generated from Terphenyl Derivatized Thiols on Au(111). Langmuir, 2002, 18, 83-92.	1.6	43
38	Nanometer-scale patterning of self-assembled monolayer films on native silicon oxide. Applied Physics Letters, 1998, 73, 1976-1978.	1.5	41
39	Dependence of Photovoltages of Sprayâ€Deposited Indium Tin Oxide/Silicon Oxide/Silicon Junction Solar Cells on Spray Solvents. Journal of the Electrochemical Society, 1994, 141, 1357-1361.	1.3	38
40	Molecular arrangement and electrical conduction of self-assembled monolayers made from terphenyl thiols. Surface Science, 2002, 514, 187-193.	0.8	37
41	Atomic Force Microscopy of Single-Walled Carbon Nanotubes Using Carbon Nanotube Tip. Japanese Journal of Applied Physics, 2000, 39, 3707-3710.	0.8	35
42	Photoinduced Dedoping of Conducting Polymers: An Approach to Precise Control of the Carrier Concentration and Understanding Transport Properties. ACS Applied Materials & Interfaces, 2016, 8, 2054-2060.	4.0	35
43	The Effect of Pile-Up and Contact Area on Hardness Test by Nanoindentation. Japanese Journal of Applied Physics, 2004, 43, 4602-4605.	0.8	34
44	Fabrication of Steady Junctions Consisting of Î±,Ï‰-Bis(thioacetate) Oligo(p-phenylene vinylene)s in Nanogap Electrodes. Journal of the American Chemical Society, 2006, 128, 13720-13726.	6.6	34
45	Nanoscale Reversible Molecular Extraction from a Self-Assembled Monolayer on Gold(111) by a Scanning Tunneling Microscope. Langmuir, 1998, 14, 7197-7202.	1.6	32
46	Mechanism of carrier transport through a siliconâ€oxide layer for ã€ˆindiumâ€tinâ€oxide/siliconâ€oxide/siliconã€‰ solar cells. Journal of Applied Physics, 1995, 78, 3931-3939.	1.1	31
47	Characterization of Fluorocarbon Monolayer Surfaces for Direct Force Measurements. Langmuir, 2000, 16, 2722-2730.	1.6	28
48	Self-assembled monolayer on diamond-like carbon surface: formation and friction measurements. Tribology International, 2003, 36, 285-290.	3.0	27
49	Thermoelectric Efficiency of Organometallic Complex Wires via Quantum Resonance Effect and Long-Range Electric Transport Property. Journal of the American Chemical Society, 2013, 135, 16545-16552.	6.6	27
50	Insertion process and electrical conduction of conjugated molecules inn-alkanethiol self-assembled monolayers on Au(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1437-1442.	0.9	26
51	Alkyl Chain Length Effect on Tribological Behavior of Alkanethiol Self-Assembled Monolayers on Au. Japanese Journal of Applied Physics, 2003, 42, 4734-4738.	0.8	25
52	Structural and surface property study of sputter deposited transparent conductive Nb-doped titanium oxide films. Thin Solid Films, 2011, 519, 1934-1942.	0.8	23
53	Self-Aligned Formation of Sub 1 nm Gaps Utilizing Electromigration during Metal Deposition. ACS Applied Materials & Interfaces, 2013, 5, 12869-12875.	4.0	23
54	Fixation and Systematic Dilution of Rotaxane Molecules on Self-Assembled Monolayers. Langmuir, 2003, 19, 2115-2123.	1.6	22

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55	Conductive Probe AFM Measurements of Conjugated Molecular Wires. Annals of the New York Academy of Sciences, 2003, 1006, 164-186.	1.8	21
56	Phase separation of a self-assembled monolayer made from hydrocarbon-fluorocarbon disulfide. Applied Physics A: Materials Science and Processing, 1998, 66, S1257-S1260.	1.1	20
57	Lubricity and chemical reactivity of ionic liquid used for sliding metals under high-vacuum conditions. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2009, 223, 1083-1090.	1.0	20
58	Tribological properties of self-assembled monolayers covalently bonded to Si. Applied Surface Science, 2008, 255, 3040-3045.	3.1	19
59	Electric-dipole layer on Au(111) surfaces. Applied Physics A: Materials Science and Processing, 2001, 72, S181-S184.	1.1	18
60	Synthesis of oligo(para-phenylenevinylene) methyl thiols for self-assembled monolayers on gold surfaces. Synthetic Metals, 2004, 140, 139-149.	2.1	18
61	Intermolecular electrical conductance in self-assembled monolayers. Applied Physics A: Materials Science and Processing, 1998, 66, S1241-S1244.	1.1	14
62	Surface Potential Switching by Metal Ion Complexation/Decomplexation Using Bipyridinethiolate Monolayers on Gold. Journal of Physical Chemistry B, 2006, 110, 9195-9203.	1.2	14
63	Polymer thermoelectric devices prepared by thermal lamination. Synthetic Metals, 2017, 225, 64-69.	2.1	14
64	Reduction of specific contact resistance between the conducting polymer PEDOT:PSS and a metal electrode by addition of a second solvent during film formation and a post-surface treatment. Synthetic Metals, 2018, 246, 289-296.	2.1	14
65	Identification of Materials using Direct Force Modulation Technique with Magnetic AFM Cantilever. Japanese Journal of Applied Physics, 1997, 36, 3868-3871.	0.8	13
66	Heat-Induced Phase Separation of Self-Assembled Monolayers of a Fluorocarbon-Hydrocarbon Asymmetric Disulfide on a Au(111) Surface. Japanese Journal of Applied Physics, 1997, 36, 3909-3912.	0.8	13
67	Nanowire formation in self-assembled monolayers from fluorocarbonâ€“hydrocarbon on Au(111). Applied Surface Science, 1998, 130-132, 786-791.	3.1	13
68	Monte Carlo simulation of phase-separated self-assembled films. Applied Surface Science, 1998, 130-132, 792-796.	3.1	13
69	Lateral Conduction Model for Intermolecular Interaction of Self-Assembled Monolayers. Japanese Journal of Applied Physics, 1999, 38, 3892-3896.	0.8	13
70	Stability of Terphenyl Self-Assembled Monolayers Exposed under UV Irradiation. Langmuir, 2002, 18, 10496-10499.	1.6	13
71	Molecular Nanostamp Based on One-Dimensional Porphyrin Polymers. ACS Applied Materials & Interfaces, 2013, 5, 6879-6885.	4.0	13
72	Tribological Behavior of Terphenyl Self-Assembled Monolayer Studied by a Pin-on-Plate Method and Friction Force Microscopy. Japanese Journal of Applied Physics, 2004, 43, 4619-4623.	0.8	11

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73	Damage-free surface treatment of carbon nanotubes and self-assembled monolayer devices using a neutral beam process for fusing topâ€“down and bottomâ€“up processes. Journal Physics D: Applied Physics, 2008, 41, 024006.	1.3	11
74	Electrical conduction and thermoelectric properties of tetrathiafulvalene-tetracyanoquinodimethane cast films prepared with N,N-dimethylacetamide. Synthetic Metals, 2017, 230, 12-17.	2.1	11
75	Tribological behavior of self-assembled double layer measured by a pin-on-plate method. Applied Surface Science, 2005, 242, 287-294.	3.1	10
76	An accurate method to determine the through-plane electrical conductivity and to study transport properties in film samples. Organic Electronics, 2016, 38, 264-270.	1.4	10
77	Mechanism of photocurrent and photovoltage in solar cells using n-silicon electrodes in non-aqueous solutions. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1991, 312, 57-67.	0.3	9
78	Solvent Effect on Domain Formation of 4-Mercaptopyridine Self-Assembled Monolayers on Au(111) Substrate by Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 1998, 37, 3620-3625.	0.8	9
79	Low-damage atomic layer modification of self-assembled monolayer using neutral beam process. Applied Physics Letters, 2006, 89, 123122.	1.5	9
80	Tailoring of a smooth polycrystalline gold surface as a suitable anchoring site for a self-assembled monolayer. Thin Solid Films, 1999, 339, 142-147.	0.8	8
81	Scanning Tunneling Microscopy Observation of Apparent Molecular Motion Induced by Polarity Change of Electric Fields. Japanese Journal of Applied Physics, 2003, 42, 5342-5346.	0.8	8
82	Conductance Changes of Conjugated 2,2'-Bipyridine Dithiol Derivatives Bound between Nanogap Electrodes by Complexation with Pd(II). Japanese Journal of Applied Physics, 2008, 47, 7369-7371.	0.8	8
83	Synthesis and thermopower of poly(3-methoxythiophene-2,5-diyl-co-3,4-ethylenedioxythiophene-2,5-diyl)/tosylate. Polymer, 2015, 66, 38-42.	1.8	8
84	Humidity control in a closed system utilizing conducting polymers. RSC Advances, 2018, 8, 12540-12546.	1.7	8
85	Formation and evaluation of self-assembled monolayers derived from conjugated silylthiophene derivatives. Applied Surface Science, 1999, 144-145, 445-450.	3.1	7
86	Monolayer Nitridation of Si(001) Surfaces. Japanese Journal of Applied Physics, 2002, 41, 2459-2462.	0.8	7
87	STM-based molecular detection of â€œcatch-and-releaseâ€•of protons for bipyridine bound to phenyleneâ€“ethynylene thiol. Chemical Communications, 2004, , 1626-1627.	2.2	7
88	Electrochemical Behavior of Sequentially Assembled Homo and Heterolayer Molecular Films Based on Dinuclear Ruthenium Complexes. Electrochimica Acta, 2016, 204, 235-244.	2.6	7
89	Extracting Carrier Mobility in Conducting Polymers Using a Photoinduced Charge Transfer Reaction. Journal of Physical Chemistry C, 2018, 122, 15922-15928.	1.5	7
90	Low dimensional structure formation in self-assembled monolayers on Au(111). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 154, 219-225.	2.3	6

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91	Field Effect of Self-Assembled Organic Multilayer in Nanogap Electrode; Current Oscillation Behaviour at Room Temperature. Japanese Journal of Applied Physics, 2005, 44, L465-L468.	0.8	6
92	Effects of Fe cations in ruthenium-complex multilayers fabricated by a layer-by-layer method. Physical Chemistry Chemical Physics, 2016, 18, 9005-9012.	1.3	6
93	Alkyl-Chain-Length Dependence of Frictional Properties of Alkyl-Substituted Phthalocyanines Physisorbed on Graphite Surfaces. Japanese Journal of Applied Physics, 2005, 44, 5403-5408.	0.8	5
94	Fabrication of sub-1Ânm gap electrodes using metal-mask patterning and conductivity measurements of molecules in nanoscale spaces. RSC Advances, 2017, 7, 53503-53508.	1.7	5
95	Control of anisotropic conduction of carbon nanotube sheets and their use as planar-type thermoelectric conversion materials. Science and Technology of Advanced Materials, 2021, 22, 272-279.	2.8	5
96	Differentiation of field-induced and native oxide using selective formation of self-assembled monolayer. Applied Surface Science, 1999, 144-145, 425-429.	3.1	4
97	Modification of alkanethiol self-assembled monolayers on Au by single-ion irradiation. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 1097-1101.	0.6	4
98	Self-limiting formation of silicon-nitride monolayer on Si(111) surface using N2/H2 mixture gas. Surface Science, 2001, 486, L524-L528.	0.8	4
99	Conductivity Measurements of Stilbene-Based Molecules Incorporated into Self-Assembled Monolayers by Conducting Probe Atomic Force Microscopy. Japanese Journal of Applied Physics, 2004, 43, 4511-4516.	0.8	4
100	Characterization and protonation behavior of bipyridine thiol self-assembled monolayer on Au(111) studied using X-ray photoelectron spectroscopy and scanning tunneling microscopy. Surface Science, 2007, 601, 68-75.	0.8	4
101	Influence of the surface free energy of silane-coupled mica substrate on the fixing and straightening of DNA. Thin Solid Films, 2009, 517, 4425-4431.	0.8	4
102	Photoresponse enhancement by mixing of an alcohol-soluble C60 derivative into a ruthenium complex monolayer. Physical Chemistry Chemical Physics, 2013, 15, 16586.	1.3	4
103	Dynamic pattern formation of liquid crystals using binary self-assembled monolayers on an ITO surface under DC voltage. Physical Chemistry Chemical Physics, 2014, 16, 25008-25013.	1.3	4
104	Potential Tuning of Nanoarchitectures Based on Phthalocyanine Nanopillars: Construction of Effective Photocurrent Generation Systems. ACS Applied Materials & Interfaces, 2015, 7, 19098-19103.	4.0	4
105	Formation of accurate 1-nm gaps using the electromigration method during metal deposition. Applied Physics Express, 2016, 9, 035201.	1.1	4
106	Self-Assembled Monolayers for Molecular Nanoelectronics. Springer Series in Chemical Physics, 2003, , 91-106.	0.2	4
107	Recovery of self-assembled monolayer on Au(111). Applied Surface Science, 1999, 144-145, 414-418.	3.1	3
108	Nanoscopic imaging of mechanical properties of metal films with magnetic-force-controlled AFM. Surface Science, 1999, 433-435, 567-574.	0.8	3

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109	Scanning Tunneling Microscopy Study of Imaging Change Induced by Electric Field Change of Bipyridine Derivatives in Self-Assembled Monolayers. Japanese Journal of Applied Physics, 2004, 43, 4561-4565.	0.8	3
110	Scanning Tunneling Microscopy Observations of Proton and Metal Cation Catching Behavior of Embedded Bipyridine Thiols in Alkanethiol Self-Assembled Monolayers on Au(111). Japanese Journal of Applied Physics, 2006, 45, 6028-6032.	0.8	3
111	Controllable modification of self-assembled monolayer surface by using N2 neutral beam process. Journal of Applied Physics, 2009, 105, 094320.	1.1	3
112	Co-adsorption process of molecules in relation to formation of one dimensional structures in the self-assembled monolayers on Au(111). Applied Surface Science, 1999, 144-145, 439-444.	3.1	2
113	Immobilization of Ï€-conjugated molecules on Au using dendrimer-based templates. Current Applied Physics, 2006, 6, 723-727.	1.1	2
114	Single-Molecule Behaviors of Conjugated 2,2'-Bipyridine Derivative Inserted in Matrix Layer Using Dendrimer-Based Template. Japanese Journal of Applied Physics, 2006, 45, L332-L334.	0.8	2
115	Study of crescent shaped alignment marks applicable to self-alignment of micro-parts with and without positive and negative poles. Microsystem Technologies, 2012, 18, 1843-1848.	1.2	2
116	A Challenge to Single Molecular Devices Using Self-assembled Monolayers.. Hyomen Kagaku, 2003, 24, 83-89.	0.0	2
117	Crescent shaped patterns for self-alignment of micro-parts: Part II — Self-alignment demonstration and conductivity evaluation. , 2014, , .		1
118	Evaluation of Fluorinated Selfâ€Assembled Monolayer by Photoelectron and Near Edge Xâ€Ray Absorption Fine Structure Spectroscopy. Electronics and Communications in Japan, 2015, 98, 35-40.	0.3	1
119	Thermoelectric materials-based on organic semiconductors. , 2021, , 333-345.		1
120	712 A Novel Design of Two-dimensional Modified Patterns for Self-alignment Based on A Capillary Effect. The Proceedings of Ibaraki District Conference, 2010, 2010.18, 199-200.	0.0	1
121	Evaluation of Fluorinated Self-assembled Monolayer by Using Photoelectron and Near Edge X-ray Absorption Fine Structure Spectroscopies. IEEJ Transactions on Electronics, Information and Systems, 2014, 134, 468-472.	0.1	1
122	FORMATION OF SELF-ASSEMBLED MONOLAYERS ON GOLD SURFACES BY LUMINESCENT OLIGO (PARA-PHENYLENE-VINYLENE)-METHANETHIOL. International Journal of Nanoscience, 2003, 02, 239-244.	0.4	0
123	CONSTRUCTION OF MOLECULAR SENSORS FOR PROTONS USING Ï€-CONJUGATED MOLECULES. International Journal of Nanoscience, 2005, 04, 475-481.	0.4	0
124	Self-alignment observation and conductivity evaluation in micro chips integration with square binding pattern. Microsystem Technologies, 2015, 21, 1203-1208.	1.2	0
125	Organic Thermoelectric Materials for Wearable Thermoelectric Devices. Seikei-Kakou, 2015, 28, 18-21.	0.0	0
126	SPM Measurements of Electric Properties of Organic Molecules. , 2007, , 776-787.		0

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127	Thickness optimization of the output power and effective thermoelectric figure of merit of thin thermoelectric generator. Japanese Journal of Applied Physics, 2022, 61, 080903.	0.8	0