Tsuyoshi Akiyama

List of Publications by Year
in descending order

112	2,866	186265 28	189892 50
papers	citations	h-index	g-index

112	112	112	2462
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Linkage and Solvent Dependence of Photoinduced Electron Transfer in Zincporphyrin-C60Dyads. Journal of the American Chemical Society, 1996, 118, 11771-11782.	13.7	389
2	Efficient Photocurrent Generation in Novel Self-Assembled Multilayers Comprised of [60]Fullereneâ^'Cationic Homooxacalix[3]arene Inclusion Complex and Anionic Porphyrin Polymer. Journal of the American Chemical Society, 2001, 123, 4855-4856.	13.7	182
3	Metal-Enhanced Fluorescence Platforms Based on Plasmonic Ordered Copper Arrays: Wavelength Dependence of Quenching and Enhancement Effects. ACS Nano, 2013, 7, 9997-10010.	14.6	157
4	Synthesis and Photophysical Property of Porphyrin-Linked Fullerene. Chemistry Letters, 1995, 24, 265-266.	1.3	99
5	Organic Photoelectrochemical Cell Mimicking Photoinduced Multistep Electron Transfer in Photosynthesis: Interfacial Structure and Photoelectrochemical Properties of Self-Assembled Monolayers of Porphyrin-Linked Fullerenes on Gold Electrodes. Bulletin of the Chemical Society of Japan, 1999, 72, 485-502.	3.2	97
6	Photocurrent enhancement in a porphyrin-gold nanoparticle nanostructure assisted by localized plasmon excitation. Chemical Communications, 2006, , 395-397.	4.1	91
7	Facile Fabrication of Photoelectrochemical Assemblies Consisting of Gold Nanoparticles and a Tris(2,2â€˜-bipyridine)ruthenium(II)â^'Viologen Linked Thiol. Langmuir, 2001, 17, 5714-5716.	3.5	76
8	Synthesis and Self-Assembly of Porphyrin-linked Fullerene on Gold Surface Using S-Au Linkage. Chemistry Letters, 1996, 25, 907-908.	1.3	73
9	Effects of Silver Nanoparticles on Photoelectrochemical Responses of Organic Dyes. Journal of Physical Chemistry C, 2009, 113, 11830-11835.	3.1	68
10	Control of electron transfer and its utilization. Pure and Applied Chemistry, 1997, 69, 1951-1956.	1.9	66
11	Solar cells using iodine-doped polythiopheneâ€“porphyrin polymer films. Solar Energy Materials and Solar Cells, 2006, 90, 1322-1330.	6.2	65
12	Structures and photovoltaic properties of copper oxides/fullerene solar cells. Journal of Physics and Chemistry of Solids, 2011, 72, 1206-1211.	4.0	62
13	Enormous enhancement in photocurrent generation using electrochemically fabricated goldnanostructures. Chemical Communications, 2010, 46, 306-308.	4.1	60
14	Fabrication and Characterization of ZnO/Cu₂O Solar Cells Prepared by Electrodeposition. Applied Physics Express, 2013, 6, 086503.	2.4	57
15	Plasmon-Enhanced Photocurrent Generation from Self-Assembled Monolayers of Phthalocyanine by Using Gold Nanoparticle Films. Langmuir, 2009, 25, 3887-3893.	3.5	56
16	Microstructures and photovoltaic properties of C₆₀based solar cells with copper oxides, CuInS₂, phthalocyanines, porphyrin, PVK, nanodiamond, germanium and exciton diffusion blocking layers. Materials Technology, 2013, 28, 21-39.	3.0	52
17	Structural Characterization and Photoelectrochemical Properties of the Self-Assembled Monolayers of Tris(2,2â€˜-bipyridine)ruthenium(II)â^'Viologen Linked Compounds Formed on the Gold Surface. Langmuir, 2002, 18, 8666-8671.	3.5	49
18	A Photoelectronic Switching Device Using a Mixed Self-Assembled Monolayer. Journal of Physical Chemistry B, 2005, 109, 3944-3948.	2.6	45

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19	Particle size dependence of the surface-enhanced Raman scattering properties of densely arranged two-dimensional assemblies of Au(core)â€“Ag(shell) nanospheres. Physical Chemistry Chemical Physics, 2015, 17, 21182-21189.	2.8	45
20	Molecular logic devices using mixed self-assembled monolayers. Thin Solid Films, 2006, 499, 354-358.	1.8	40
21	Development of Plasmonic Cu₂O/Cu Composite Arrays as Visible- and Near-Infrared-Light-Driven Plasmonic Photocatalysts. Langmuir, 2017, 33, 5685-5695.	3.5	40
22	Fabrication and Characterization of TiO2/CH3NH3PbI3-based Photovoltaic Devices. Chemistry Letters, 2014, 43, 916-918.	1.3	37
23	Preparation of Molecular Assemblies of Porphyrin-Linked Alkanethiol on Gold Surface and Their Redox Properties. Chemistry Letters, 1994, 23, 1447-1450.	1.3	36
24	Electropolymerized Polythiophene Photoelectrodes with Density-Controlled Gold Nanoparticles. Langmuir, 2012, 28, 9155-9160.	3.5	36
25	Densely arranged two-dimensional silver nanoparticle assemblies with optical uniformity over vast areas as excellent surface-enhanced Raman scattering substrates. Physical Chemistry Chemical Physics, 2013, 15, 15802.	2.8	36
26	Construction of gold nanoparticle-ruthenium (II) tris(2,2â€²-bipyridine) self-assembled multistructures and their photocurrent responses. Thin Solid Films, 2001, 393, 273-277.	1.8	34
27	Fabrication of porphyrinâ€“titanium oxideâ€“fullerene assemblies on an ITO electrode and their photocurrent responses. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 169, 137-141.	4.7	32
28	Particle-size effects on the photocurrent efficiency of nanostructured assemblies consisting of gold nanoparticles and a ruthenium complexâ€“viologen linked thiol. Journal of Electroanalytical Chemistry, 2003, 550-551, 303-307.	3.8	28
29	Microstructures and Photovoltaic Properties of Polysilane-Based Solar Cells. Japanese Journal of Applied Physics, 2013, 52, 04CR07.	1.5	27
30	Gold nanoparticleâ€“porphyrin self-assembled multistructures for photoelectric conversion. Thin Solid Films, 2003, 438-439, 70-74.	1.8	25
31	Enhanced Absorption and Emission in a Copper Phthalocyanineâ€“Gold Nanoparticle System Assisted by Localized Surface Plasmon. Chemistry Letters, 2009, 38, 326-327.	1.3	23
32	Effects of spacer-chain length on the photoelectrochemical responses of monolayer assemblies with ruthenium tris(2,2â€²-bipyridine) - viologen linked disulfides. Thin Solid Films, 1999, 350, 223-227.	1.8	21
33	Step-by-Step Fabrication of Porphyrinâ^'Fullerene Supramolecular Assemblies and Their Photoelectrochemical Properties. Journal of Physical Chemistry C, 2008, 112, 7015-7020.	3.1	20
34	Precise Control of Localized Surface Plasmon Wavelengths Is Needed for Effective Enhancement of Tripletâ€“Triplet Annihilation-Based Upconversion Emission. ACS Photonics, 2018, 5, 5025-5037.	6.6	20
35	Solid-State Solar Cells Consisting of Polythiophene-Porphyrin Composite Films. Japanese Journal of Applied Physics, 2005, 44, 2799-2802.	1.5	19
36	Fabrication of Densely Packed Gold Nanoparticle Films and Their Fluorescence Enhancement Effect. Japanese Journal of Applied Physics, 2008, 47, 3063.	1.5	19

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37	Shape Control of Fullerene Microparticles by Using Ethylenediamine. Chemistry Letters, 2008, 37, 932-933.	1.3	19
38	Fabrication and characterization of tetracyanoquinodimethane/phthalocyanine solar cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 877-881.	3.5	18
39	Fabrication and characterization of fullerene-based solar cells containing phthalocyanine and naphthalocyanine dimers. Synthetic Metals, 2013, 177, 48-51.	3.9	18
40	Microstructures, optical and photoelectric conversion properties of spherical silicon solar cells with anti-reflection SnO_x:F thin films. Japanese Journal of Applied Physics, 2014, 53, 05FJ03.	1.5	18
41	Efficient Photocurrent Enhancement from Porphyrin Molecules on Plasmonic Copper Arrays: Beneficial Utilization of Copper Nanoanntenae on Plasmonic Photoelectric Conversion Systems. ACS Applied Materials & Interfaces, 2017, 9, 750-762.	8.0	18
42	Selective Formation and Structural Properties of Rhombic Dodecahedral [70]Fullerene Microparticles Formed by Reaction with Aliphatic Diamines. Langmuir, 2010, 26, 4274-4280.	3.5	17
43	Structural Characterization and Photocurrent Properties ofcis-di(thiocyanato)-bis(4,4'-dicarboxy-2,2'-bipyridine) Ruthenium(II) Monolayers on the Gold Surfaces. Japanese Journal of Applied Physics, 2005, 44, 2795-2798.	1.5	16
44	Photocurrent generation properties of electrochemically polymerized terthiophene-linked fullerene film. Synthetic Metals, 2009, 159, 965-968.	3.9	16
45	Photocurrent enhancement of porphyrin molecules over a wide-wavelength region based on combined use of silver nanoprisms with different aspect ratios. Journal of Materials Chemistry C, 2015, 3, 11439-11448.	5.5	16
46	Fabrication and Photoelectrochemical Properties of Polythiophene-Porphyrin Composite Films. Japanese Journal of Applied Physics, 2004, 43, 2306-2310.	1.5	15
47	Facile Fabrication of Morphology-Controlled Gold Nanoparticle Architectures by Electrolyte-Induced Agglomeration and Their Photoelectrochemical Applications. Langmuir, 2005, 21, 793-796.	3.5	15
48	Fabrication of a Novel Photoelectric Conversion Device Consisting of a Poly-3-dodecylthiophene Film and C60Fullereneâ€“Ethylenediamine Nanoparticles. Chemistry Letters, 2007, 36, 934-935.	1.3	15
49	Open-shell singlet diradicaloid difluoreno[4,3-b:3â€²,4â€²-d]furan and its radical cation and dianion. Chemical Communications, 2020, 56, 5881-5884.	4.1	14
50	Novel Photoelectrochemical Cell Using a Self-Assembled Monolayer of a Ruthenium (II) Tris(2,2'-bipyridine) Thiol Derivative. Japanese Journal of Applied Physics, 2002, 41, 4737-4738.	1.5	13
51	Bi-directional photocurrent generation dependent on the wavelength of irradiation of a mixed monolayer assembly. Photochemical and Photobiological Sciences, 2004, 3, 26.	2.9	13
52	Characterization and Evaluation of Role of Porphyrin Moiety inmeso-Tetrathienylporphyrinâ€“Polythiophene Composite Film. Japanese Journal of Applied Physics, 2007, 46, 2632-2635.	1.5	13
53	Structural Characterization and Photoelectrochemical Properties of Gold Nanoparticle Multistructures Prepared by Layer-by-Layer Deposition. Japanese Journal of Applied Physics, 2009, 48, 04C132.	1.5	13
54	Facile Fabrication and Photocurrent Generation Properties of Electrochemically Polymerized Fullereneâ€“Poly(ethylene dioxythiophene) Composite Films. Japanese Journal of Applied Physics, 2009, 48, 04C172.	1.5	13

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55	Preparation and characterization of porphyrinâ€“polythiophene stacked films as prepared by electrochemical method under stirring condition. Thin Solid Films, 2008, 516, 2502-2506.	1.8	12
56	Preparation and Photoelectrochemical Properties of a Self-Assembled Monolayer of a Ruthenium Tris(2,2â€²-bipyridine)-viologen 1:2 Linked Compound. Chemistry Letters, 2000, 29, 668-669.	1.3	11
57	A Z-scheme type photoelectrochemical cell consisting of porphyrin-containing polymer and dye-sensitized TiO2electrodes. Photochemical and Photobiological Sciences, 2010, 9, 1085-1087.	2.9	11
58	Fabrication and characterization of PCBM:P3HT:silicon phthalocyanine bulk heterojunction solar cells with inverted structures. Japanese Journal of Applied Physics, 2014, 53, 05FJ08.	1.5	11
59	Facile Fabrication and Photovoltaic Application of [60]Fullerene Assembly Films Formed by Reaction between Fullerene and Amines. Bulletin of the Chemical Society of Japan, 2014, 87, 1335-1342.	3.2	11
60	Fabrication and photoelectrochemical properties of electron donorâ€“acceptor assemblies via titanium oxide interlayers. Thin Solid Films, 2003, 438-439, 230-234.	1.8	10
61	Fabrication of a Photoelectrochemical Cell Using a Self-Assembled Monolayer of Tris(2,2'-bipyrisine)ruthenium(II)-Viologen Linked Thiol on Multistructured Gold Nanoparticles. Japanese Journal of Applied Physics, 2004, 43, 2372-2375.	1.5	10
62	Facile Solubilization and Photovoltaic Application of C60 Fullereneâ€“Ethylenediamine Adduct. Chemistry Letters, 2013, 42, 177-179.	1.3	10
63	C₆₀â€“ethylenediamine adduct thin film as a buffer layer for inverted-type organic solar cells. RSC Advances, 2014, 4, 34950.	3.6	10
64	A double-driven photoelectrochemical cell. Synthetic Metals, 2003, 139, 511-514.	3.9	9
65	Facile Fabrication and Photolectrochemical Properties of Porphyrinâ€“Fullerene Assemblies by Self-Assembly and Surface Solâ€“Gel Processes. Japanese Journal of Applied Physics, 2006, 45, 3758-3761.	1.5	9
66	Photocurrent enhancement tuned with plasmonic resonance in self-assembled monolayers fabricated on regularly arrayed gold nanostructures. Photochemical and Photobiological Sciences, 2012, 11, 318-322.	2.9	9
67	Facile Fabrication of Gold Nanoparticleâ€“Titanium Oxide Alternate Assemblies by Surface Solâ€“Gel Process. Japanese Journal of Applied Physics, 2007, 46, 2490-2492.	1.5	8
68	Effects of Film Thickness on the Photocurrent Generation from Polythiopheneâ€“Fullerene Thin Films Containing Silver Nanoparticles. Japanese Journal of Applied Physics, 2012, 51, 02BK04.	1.5	8
69	Fabrication of dense two-dimensional assemblies over vast areas comprising gold(core)â€”silver(shell) nanoparticles and their surface-enhanced Raman scattering properties. Photochemical and Photobiological Sciences, 2013, 13, 82-91.	2.9	8
70	Effect of gold nanoparticle in holeâ€transport layer on inverted organic thinâ€film solar cell performance. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 1645-1650.	1.8	8
71	Extraordinary enhancement of porphyrin photocurrent utilizing plasmonic silver arrays. Nanoscale, 2016, 8, 15467-15472.	5.6	8
72	Time-dependent non-linear size change of C60-ethylenediamine adduct particles in formation process. Journal of Nanoparticle Research, 2018, 20, 1.	1.9	8

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73	Silver-Nanoparticle-Assisted Photocurrent Generation in Polythiopheneâ€“Fullerene Thin Films. Japanese Journal of Applied Physics, 2011, 50, 04DK22.	1.5	7
74	Facile Fabrication and Raman Scattering Enhancement Properties of Mixed Gold and Silver Nanoparticle Layers. E-Journal of Surface Science and Nanotechnology, 2012, 10, 157-160.	0.4	7
75	Mixing Effect of Gold and Silver Nanoparticles on Enhancement in Performance of Organic Thin-Film Solar Cells. Japanese Journal of Applied Physics, 2013, 52, 122301.	1.5	7
76	Photochemical half-cells using mixture films of fullerene-ethylenediamine adduct microparticles and polythiophene. Journal of Physics: Conference Series, 2013, 433, 012010.	0.4	7
77	Effect of annealing on photovoltaic properties and microstructure of conventional and inverted organic solar cells using active bilayer based on liquid-crystal semiconducting polymer and fullerene. International Journal of Energy Research, 2014, 38, 1541-1550.	4.5	7
78	Effects of Hole Transport Layer on Photoelectrochemical Responses from Polythiopheneâ€“Porphyrin Composite Polymer Electrode. Applied Physics Express, 2010, 3, 122301.	2.4	6
79	Fabrication of C₆₀ assembly films via an fullerene-amine addition reaction by using stepwise immersion. Journal of Physics: Conference Series, 2013, 433, 012007.	0.4	6
80	Formation of Thin Films of Densely Packed [60]Fullereneâ€“Diaminoethane Adduct Microparticles at a Liquid/Liquid Interface and Their Photoelectrochemical Applications. Chemistry Letters, 2015, 44, 489-491.	1.3	6
81	Incorporation Effect of Silver Nanoparticles on Inverted Type Bulk-Heterojunction Organic Solar Cells. Japanese Journal of Applied Physics, 2013, 52, 04CR13.	1.5	5
82	Low-temperature synthesis of titanium oxide/gold nanoparticle composite powders using a combination of the solâ€“gel process and ultraviolet light irradiation. Journal of Sol-Gel Science and Technology, 2016, 78, 692-697.	2.4	5
83	Cathode buffer composed of fullereneâ€“ethylenediamine adduct for an organic solar cell. Japanese Journal of Applied Physics, 2017, 56, 021601.	1.5	5
84	Doping effects of transition metal elements to titanium dioxide for perovskite solar cells. AIP Conference Proceedings, 2017, , .	0.4	5
85	Fabrication and photocatalytic behavior of titanium oxideâ€“gold nanoparticles composite ultrathin films prepared using surface solâ€“gel process. Journal of Sol-Gel Science and Technology, 2020, 93, 563-569.	2.4	5
86	Enhanced Photocurrent Generation in Selfâ€Assembled Monolayers Formed at Plasmonic Gold Nanostructures. Macromolecular Symposia, 2008, 270, 171-176.	0.7	4
87	Fabrication and characterization of copper oxides/fullerene solar cells prepared by an electrodeposition method. Journal of the Ceramic Society of Japan, 2011, 119, 402-404.	1.1	4
88	Effects of capping layers on the photoelectrochemical property of silver nanoparticle-modified indiumâ€“tin-oxide electrode. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 221, 239-243.	3.9	4
89	Effects of Au nanoparticle addition to hole transfer layer in organic solar cells based on copper naphthalocyanine and fullerene. Progress in Natural Science: Materials International, 2014, 24, 179-183.	4.4	4
90	Fabrication and characterization of organic solar cells using titanylphthalocyanine as hole transport layer. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2861-2864.	1.8	4

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91	Fabrication and Photocurrent Generation Properties of Insoluble Hierarchical Polythiophene Thin Films Prepared by Sequential Electrochemical Polymerization. Bulletin of the Chemical Society of Japan, 2016, 89, 700-704.	3.2	4
92	Morphological change of crystalline polymer films by annealing: substrateâ€•and heating/coolingâ€•rateâ€•dependent surface roughness. Surface and Interface Analysis, 2017, 49, 577-583.	1.8	4
93	Effect of gold nanoparticles in titanium oxide layer on the photovoltaic performance of inverted-type organic thin-film solar cells. Molecular Crystals and Liquid Crystals, 2017, 653, 50-56.	0.9	3
94	Insertion effect of spin-coated films of C60-ethylenediamine adduct on organic thin-film solar cells. AIP Conference Proceedings, 2018, , .	0.4	3
95	Fabrication and surface-enhanced Raman scattering properties of two-dimensional gold and silver nanoparticle mixed assemblies by liquidâ€“liquid interfacial precipitation method. Applied Physics Express, 2020, 13, 055001.	2.4	3
96	An Influence of Monomeric Porphyrin Structure on the Electropolymerized Photoactive Electrode for Polymer Solar Cells. Molecular Crystals and Liquid Crystals, 2011, 538, 10-14.	0.9	2
97	Organic Solar Cells Based on Electrodeposited Polyaniline Films. Japanese Journal of Applied Physics, 2012, 51, 04DK10.	1.5	2
98	Preparation and Photovoltaic Application of Fullereneâ€“Porphyrin Composite Micropowder. Chemistry Letters, 2013, 42, 694-696.	1.3	2
99	Electrochemical fabrication of hierarchical thin films consisting of different polythiophenes and change in photoelectric conversion properties with film thickness. Japanese Journal of Applied Physics, 2022, 61, 061008.	1.5	2
100	Dye fluorescence enhancement by plasmonic nanostructured goldâ€“titania film composites obtained by the combination of electrodeposition and surface sol-gel process. Journal of Sol-Gel Science and Technology, 2022, 104, 666-672.	2.4	2
101	Characterization of Copper Phthalocyanine Nanoparticles Formed by Laser Ablation in Poor Solvents. E-Journal of Surface Science and Nanotechnology, 2008, 6, 312-316.	0.4	1
102	Electrochemical Modulation of the Optical Property of Polythiophene-Gold Nanorod Composite Films. Molecular Crystals and Liquid Crystals, 2011, 539, 1/[341]-4/[344].	0.9	1
103	Tuning Optical Properties of Two-Dimensional Ordered Arrays of Silica/Gold and Silver Core/Shell Structured Nanoparticles in Near-Infrared Region. Japanese Journal of Applied Physics, 2012, 51, 04DH04.	1.5	1
104	Retardation of solâ€“gel titanium oxide with imprinted grating structure. Optical Engineering, 2017, 56, 017108.	1.0	1
105	Fabrication and electrochemical properties of insoluble fullerene-diamine adduct thin-films as buffer layer by alternate immersion process. AIP Conference Proceedings, 2017, , .	0.4	1
106	One-pot synthesis of visible-light-responsive titanium oxide photocatalyst with embedded silver nanoparticles. Journal of Sol-Gel Science and Technology, 2021, 98, 281-287.	2.4	1
107	Preparation of silver-nanoparticle-loaded C60-ethylenediamine adduct microparticles and their application to photoelectric conversion. Applied Physics Express, 2021, 14, 067003.	2.4	1
108	Fabrication and surface-enhanced Raman scattering properties of thin-film assemblies of classified silver nanoparticles. Japanese Journal of Applied Physics, 2021, 60, 027002.	1.5	1

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109	Fabrication and Photocurrent Generation of Multilayer Assemblies Consisting of Silver-nanoparticles, Polydiacetylene, and Polyions. Japanese Journal of Applied Physics, 2011, 50, 04DH15.	1.5	0
110	Selective implantation of gold nanoparticles onto the surface on one side of a self-standing polymer film. RSC Advances, 2014, 4, 62375-62379.	3.6	0
111	Effect of Gold and Silver Nanoparticle in Poly(3,4-Ethylenedioxythiophene)-Poly(Styrene Sulfonate) layer on Inverted-Type Organic Thin-Film Solar Cells. Transactions of the Materials Research Society of Japan, 2015, 40, 331-334.	0.2	0
112	Fabrication and photovoltaic properties of an invert-type organic thin-film solar cells incorporation of phosphorescent material into electron transport layer. AIP Conference Proceedings, 2019, , .	0.4	0