Kohshin Takahashi

List of Publications by Year
in descending order

102 papers	3,075 citations	186265 28 h-index	168389 53 g-index
102 all docs	102 docs citations	102 times ranked	3659 citing authors

#	Article	IF	Citations
1	High-performance carbon counter electrode for dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2003, 79, 459-469.	6.2	641
2	Characterization of Inverted-Type Organic Solar Cells with a ZnO Layer as the Electron Collection Electrode by ac Impedance Spectroscopy. ACS Applied Materials & Interfaces, 2009, 1, 2107-2110.	8.0	166
3	Highly durable inverted-type organic solar cell using amorphous titanium oxide as electron collection electrode inserted between ITO and organic layer. Solar Energy Materials and Solar Cells, 2008, 92, 1476-1482.	6.2	159
4	Inverted type bulk-heterojunction organic solar cell using electrodeposited titanium oxide thin films as electron collector electrode. Thin Solid Films, 2009, 517, 3766-3769.	1.8	94
5	Photovoltaic Properties of Porphyrin Thin Films Mixed witho-Chloranil. Bulletin of the Chemical Society of Japan, 1993, 66, 733-738.	3.2	92
6	Mechanistic Insights into UV-Induced Electron Transfer from PCBM to Titanium Oxide in Inverted-Type Organic Thin Film Solar Cells Using AC Impedance Spectroscopy. ACS Applied Materials & Interfaces, 2010, 2, 2254-2260.	8.0	91
7	Simple synthesis of water-soluble conducting polyaniline. Synthetic Metals, 1998, 96, 161-163.	3.9	89
8	Inverted bulk-heterojunction organic solar cell using chemical bath deposited titanium oxide as electron collection layer. Organic Electronics, 2010, 11, 1136-1140.	2.6	88
9	Relation between carrier mobility and cell performance in bulk heterojunction solar cells consisting of soluble polythiophene and fullerene derivatives. Applied Physics Letters, 2005, 87, 132105.	3.3	73
10	The benefits of ionic liquids for the fabrication of efficient and stable perovskite photovoltaics. Chemical Engineering Journal, 2021, 411, 128461.	12.7	70
11	Longâ€lived excited state of C60 in C60/phthalocyanine heterojunction solar cell. Applied Physics Letters, 1996, 68, 427-429.	3.3	63
12	Ionic liquid-assisted growth of methylammonium lead iodide spherical nanoparticles by a simple spin-coating method and photovoltaic properties of perovskite solar cells. RSC Advances, 2015, 5, 77495-77500.	3.6	60
13	Three-layer organic solar cell with high-power conversion efficiency of 3.5%. Solar Energy Materials and Solar Cells, 2000, 61, 403-416.	6.2	58
14	Improved Reproducibility and Intercalation Control of Efficient Planar Inorganic Perovskite Solar Cells by Simple Alternate Vacuum Deposition of PbI₂ and CsI. ACS Omega, 2017, 2, 4464-4469.	3.5	49
15	Ionic Liquid-Assisted MAPbI₃ Nanoparticle-Seeded Growth for Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 21194-21206.	8.0	47
16	Characterization of water-soluble externally HCl-doped conducting polyaniline. Synthetic Metals, 2002, 128, 27-33.	3.9	44
17	Characterization of ZnS-layer-inserted bulk-heterojunction organic solar cells by ac impedance spectroscopy. Journal of Applied Physics, 2009, 105, 124513.	2.5	44
18	Metal Oxide Compact Electron Transport Layer Modification for Efficient and Stable Perovskite Solar Cells. Materials, 2020, 13, 2207.	2.9	42

#	Article	IF	Citations
19	Efficient Smallâ€Molecule Photovoltaic Cells Using a Crystalline Diindenoperylene Film as a Nanostructured Template. Advanced Materials, 2013, 25, 6069-6075.	21.0	39
20	Effect of UV light irradiation on photovoltaic characteristics of inverted polymer solar cells containing solâ€“gel zinc oxide electron collection layer. Organic Electronics, 2013, 14, 649-656.	2.6	38
21	Efficient organic solar cells by penetration of conjugated polymers into perylene pigments. Journal of Applied Physics, 2004, 96, 6878-6883.	2.5	37
22	Activated Carbon Counter Electrode for Dye-sensitized Solar Cell. Electrochemistry, 2003, 71, 944-946.	1.4	35
23	Flexible inverted polymer solar cells on polyethylene terephthalate substrate containing zinc oxide electron-collection-layer prepared by novel solâ€“gel method and low-temperature treatments. Organic Electronics, 2012, 13, 1136-1140.	2.6	35
24	Annealing effects on CsPbI₃-based planar heterojunction perovskite solar cells formed by vacuum deposition method. Japanese Journal of Applied Physics, 2017, 56, 04CS11.	1.5	35
25	Enhanced Photocurrent in Al/Porphyrin Schottky Barrier Cell with Heterodimer Consisting of Metal-Free Porphyrin and Zinc Porphyrin. Journal of Physical Chemistry B, 1999, 103, 4868-4875.	2.6	32
26	Viscosity effect of ionic liquid-assisted controlled growth of CH3NH3PbI3 nanoparticle-based planar perovskite solar cells. Organic Electronics, 2017, 48, 147-153.	2.6	30
27	Photocurrent from photocorrosion of aluminum electrode in porphyrin/Al Schottky-barrier cells. Applied Physics Letters, 1997, 71, 674-676.	3.3	29
28	Interface engineering of compact-TiOx in planar perovskite solar cells using low-temperature processable high-mobility fullerene derivative. Solar Energy Materials and Solar Cells, 2018, 178, 1-7.	6.2	29
29	Organic solid-state solar cells with a mixture of monomeric porphyrins for light-harvesting and regioregular polythiophene for charge transport. Synthetic Metals, 2001, 123, 91-94.	3.9	28
30	Porphyrin dye-sensitization of polythiophene in a conjugated polymer/TiO2 pâ€“n hetero-junction solar cell. Synthetic Metals, 2005, 155, 51-55.	3.9	28
31	Enhanced Photovoltaic Performance of Perovskite Solar Cells via Modification of Surface Characteristics Using a Fullerene Interlayer. Chemistry Letters, 2015, 44, 1735-1737.	1.3	28
32	Flexible inverted polymer solar cells containing an amorphous titanium oxide electron collection electrode. Organic Electronics, 2011, 12, 113-118.	2.6	25
33	Enhanced Photocurrent Quantum Yield by Electronic Interaction between Zinc Porphyrin and Rhodamine B Molecules in Al/Dye/Au Sandwich-Type Solar Cell. Journal of Physical Chemistry B, 1997, 101, 991-997.	2.6	24
34	Sensitization Effect of Porphyrin Dye on the Photocurrent of Al/Polythiophene Schottky-Barrier Cells. Journal of Physical Chemistry B, 2003, 107, 1646-1652.	2.6	24
35	Fullerene acceptor for improving open-circuit voltage in inverted organic photovoltaic devices without accompanying decrease in short-circuit current density. Applied Physics Letters, 2012, 100, 063303.	3.3	23
36	Photoelectrochemical Properties of Thin Films of Zinc Porphyrin Derivatives with Pyridyl Group. Bulletin of the Chemical Society of Japan, 1989, 62, 386-391.	3.2	22

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37	Enhanced photocurrent by Schottky-barrier solar cell composed of regioregular polythiophene with merocyanine dye. Synthetic Metals, 2002, 130, 177-183.	3.9	22
38	Performance Enhancement by Blending an Electron Acceptor in TiO2/polyphenylenevinylene/Au Solid-state Solar Cells. Chemistry Letters, 2004, 33, 1042-1043.	1.3	22
39	Synthesis and Characterization of Thieno[3,4-<i>b</i>]thiophene-Based Copolymers Bearing 4-Substituted Phenyl Ester Pendants: Facile Fine-Tuning of HOMO Energy Levels. Macromolecules, 2011, 44, 6659-6662.	4.8	22
40	Factors contributing to degradation of organic photovoltaic cells. Organic Electronics, 2020, 76, 105448.	2.6	22
41	Mechanistic Investigation into the Light Soaking Effect Observed in Inverted Polymer Solar Cells Containing Chemical Bath Deposited Titanium Oxide. Journal of Physical Chemistry C, 2015, 119, 5274-5280.	3.1	21
42	Catalytic epoxidation of cyclohexene by covalently linked manganese porphyrinâ€“viologen complex. Journal of Molecular Catalysis A, 1998, 130, 285-295.	4.8	20
43	The Fluorescence Properties of (2-Nitro-5,10,15,20- tetraphenylporphyrinato)zinc. Bulletin of the Chemical Society of Japan, 1992, 65, 1475-1481.	3.2	19
44	Efficiency Increase by Insertion of Electrodeposited CuSCN Layer into ITO/Organic Solid Interface in Bulk Hetero-junction Solar Cells Consisting of Polythiophene and Fullerene. Chemistry Letters, 2007, 36, 762-763.	1.3	19
45	Thermal Control of PbI₂ Film Growth for Two-Step Planar Perovskite Solar Cells. Crystal Growth and Design, 2019, 19, 5320-5325.	3.0	18
46	Enhanced Quantum Yield in Porphyrin Solar Cell with Redox Chain for Electron Transfer. Chemistry Letters, 1994, 23, 2001-2004.	1.3	17
47	Merocyanine Dye-Sensitization of Polythiophene in a Conjugated Polymer/TiO2pâ€“n Hetero-Junction Solar Cell. Bulletin of the Chemical Society of Japan, 2003, 76, 2277-2283.	3.2	16
48	Effect of the solvent used to prepare the photoactive layer on the performance of inverted bulk heterojunction polymer solar cells. Japanese Journal of Applied Physics, 2014, 53, 02BE06.	1.5	15
49	Thieno[3,4-b]thiopheneâ€“benzo[1,2-b:4,5-bâ€²]dithiophene-based polymers bearing optically pure 2-ethylhexyl pendants: Synthesis and application in polymer solar cells. Polymer, 2015, 56, 171-177.	3.8	14
50	Photoinduced electron transfer from porphyrin to C60 in a C60|porphyrin double-layer photoelectrochemical cell. Journal of Electroanalytical Chemistry, 1997, 426, 85-90.	3.8	13
51	Dioxygen-activated reductive epoxidation of cyclohexene using Mn(III) porphyrin as catalyst and hexylviologen as electron mediator. Journal of Molecular Catalysis A, 1999, 138, 145-153.	4.8	13
52	Performance Enhancement by Blending Merocyanine Photosensitizer in TiO2/Polythiophen Solid-state Solar Cells. Chemistry Letters, 2005, 34, 714-715.	1.3	13
53	Low-Temperature Processed TiOx Electron Transport Layer for Efficient Planar Perovskite Solar Cells. Nanomaterials, 2020, 10, 1676.	4.1	13
54	Electrocatalytic Epoxidation of Cyclohexene by Manganese(III) Porphyrin Using Electron Mediator. Bulletin of the Chemical Society of Japan, 1994, 67, 847-853.	3.2	12

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55	The Photovoltaic Mechanism of a Polythiophene/Perylene Pigment Two-Layer Solar Cell. Bulletin of the Chemical Society of Japan, 2004, 77, 2185-2188.	3.2	12
56	Identifying Molecular Orientation in a Bulk Heterojunction Film by Infrared Reflection Absorption Spectroscopy. ACS Omega, 2018, 3, 5678-5684.	3.5	12
57	Performance Improvement by Inserting an Electrodeposited ZnO into ITO/Organic Solid Interface in Organic Solid-state Solar Cells. Chemistry Letters, 2005, 34, 768-769.	1.3	11
58	Shape-controlled CH₃NH₃PbI₃ nanoparticles for planar heterojunction perovskite solar cells. Japanese Journal of Applied Physics, 2016, 55, 02BF05.	1.5	11
59	Enhanced Quantum Yield in Porphyrin Heterodimer Solar Cells. Chemistry Letters, 1993, 22, 613-616.	1.3	10
60	Highly selective epoxidation of cyclohexene by reductive activation of molecular dioxygen using hexylviologen as catalyst. Journal of Molecular Catalysis A, 1999, 148, 183-187.	4.8	10
61	Degradation mechanism for planar heterojunction perovskite solar cells. Japanese Journal of Applied Physics, 2016, 55, 04ES07.	1.5	10
62	Mechanism of Light-Soaking Effect in Inverted Polymer Solar Cells with Open-Circuit Voltage Increase. ACS Omega, 2017, 2, 1617-1624.	3.5	10
63	Study on Properties of Low-Temperature-Prepared Zinc Oxide-Based Inverted Organic Solar Cells and Improvement of their Photodurability. ACS Applied Energy Materials, 2021, 4, 6385-6390.	5.1	10
64	Photocurrent increment in organic solar cell with mixed solid of merocyanine and zinc porphyrin. Thin Solid Films, 1998, 333, 256-263.	1.8	9
65	Synthesis of seleno[3,4-c]pyrrole-4,6-dione-based polymers for polymer solar cells. Synthetic Metals, 2012, 162, 1707-1712.	3.9	9
66	Study of planar heterojunction perovskite photovoltaic cells using compact titanium oxide by chemical bath deposition. Japanese Journal of Applied Physics, 2015, 54, 08KF02.	1.5	9
67	Synthesis of Thieno[3,4-<i>b</i>]thiophene-Based Donor Molecules with Phenyl Ester Pendants for Organic Solar Cells: Control of Photovoltaic Properties via Single Substituent Replacement. ChemistrySelect, 2016, 1, 703-709.	1.5	9
68	Influence of coating steps of perovskite on low-temperature amorphous compact TiO<i> _x </i> upon the morphology, crystallinity, and photovoltaic property correlation in planar perovskite solar cells. Japanese Journal of Applied Physics, 2018, 57, 03EJ06.	1.5	8
69	Contribution of Electricâ€Fieldâ€Induced Metalâ€Free Porphyrin Dication to Photocurrent in Mixed Solid of Metalâ€Free Porphyrin and oâ€Chloranil/Al Schottkyâ€Barrier Cell. Journal of the Electrochemical Society, 1999, 146, 1717-1723.	2.9	7
70	Factors affecting the photovoltaic behavior of inverted polymer solar cells using various indium tin oxide electrodes modified by amines with simple chemical structures. Thin Solid Films, 2015, 591, 49-54.	1.8	7
71	Electrocatalytic activity of electrodeposited cobalt oxide films to produce oxygen gas from water. Journal of Electroanalytical Chemistry, 2015, 740, 14-20.	3.8	7
72	The Fluorescence Quenching of Zinc Porphyrins with the Ï‰-[4-(4-Pyridyl)pyridinio]alkyl Group. Bulletin of the Chemical Society of Japan, 1989, 62, 3069-3074.	3.2	6

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73	Spectral Cosensitization in Organic Solar Cell with Mixed Film of Zinc Porphyrin and Merocyanine. Chemistry Letters, 1994, 23, 269-272.	1.3	6
74	Oxygen reduction at negatively charged iron porphyrins heat-treated and bridged by alkaline-earth metal ions. Electrochimica Acta, 2010, 55, 6042-6048.	5.2	6
75	High performance photoanodic catalyst prepared from an active organic photovoltaic cell â€“ high potential gain from visible light. Chemical Communications, 2019, 55, 12491-12494.	4.1	6
76	Study on photo-degradation of inverted organic solar cells caused by generation of potential barrier between PEDOT:PSS and PBDB-Ts. Sustainable Energy and Fuels, 2021, 5, 3092-3096.	4.9	6
77	Photoelectrochemical Properties of Thin Films of Cadmium, Zinc, and Magnesium Porphyrins with Pyridyl Group. Bulletin of the Chemical Society of Japan, 1990, 63, 3315-3316.	3.2	5
78	Electrochemical characteristics of viologen carboxylic acid derivatives assembled onto Au electrode as a synthetic receptor for electron-rich compounds. Electrochimica Acta, 2001, 46, 2527-2535.	5.2	5
79	Electrocatalytic Activity of Electropolymerized Meldola's Blue toward Oxidation of Dopamine. Electrochemistry, 2006, 74, 32-41.	1.4	5
80	Flexible inverted polymer solar cells fabricated in air at low temperatures. Japanese Journal of Applied Physics, 2016, 55, 086501.	1.5	5
81	Interpenetrating heterojunction photovoltaic cells based on C60 nano-crystallized thin films. Organic Electronics, 2016, 38, 107-114.	2.6	4
82	Planar heterojunction type perovskite solar cells based on TiOxcompact layer fabricated by chemical bath deposition. , 2016, , .		4
83	Thin film deposition method for ZnO nanosheets using low-temperature microwave-excited atmospheric pressure plasma jet. Thin Solid Films, 2019, 674, 58-63.	1.8	4
84	Epoxidation of cyclohexene with active oxygen species produced by reducing dioxygen in the presence of Brâˆ' ion. Journal of the Chemical Society Perkin Transactions II, 1999, , 1335-1342.	0.9	3
85	Effect of Microstructure and Crystalline Orientation of Pt Single- or Pt/Ru Bilayer-Electrodes on the Work Function and Leakage Current of SrTiO3Capacitors. Japanese Journal of Applied Physics, 2008, 47, 6374-6379.	1.5	3
86	Influence of 4â€fluorophenyl pendants in thieno[3,4â€b]thiopheneâ€benzo[1,2â€b:4,5â€bâ€²]dithiopheneâ€based polymers on the performance of photovoltaics. Journal of Polymer Science Part A, 2015, 53, 1586-1593.	2.3	3
87	Nanopore analysis of blended organic semiconducting films to clarify photovoltaic performance. Organic Electronics, 2019, 66, 76-80.	2.6	3
88	Selective Extraction of Nonfullerene Acceptors from Bulk-Heterojunction Layer in Organic Solar Cells for Detailed Analysis of Microstructure. Materials, 2021, 14, 2107.	2.9	3
89	Electrostatic incorporation of alizarin red S into poly[1-methyl-3-(pyrrol-1-ylmethyl)pyridinium] films. Electrochimica Acta, 2002, 47, 1713-1719.	5.2	2
90	Development of bifacial inverted polymer solar cells using a conductivity-controlled transparent PEDOT:PSS and a striped Au electrode on the hole collection side. Japanese Journal of Applied Physics, 2014, 53, 02BE07.	1.5	2

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91	Insertion of interlayers in efficient polymer-based organic solar cells for control of phase separation. Japanese Journal of Applied Physics, 2016, 55, 02BF03.	1.5	2
92	Electron Transfer Rate of Indigotetrasulfonate Ion Changed with Protonation of 4-Aminothiophenol Monolayer-modified Electrode. Electrochemistry, 1999, 67, 843-849.	1.4	2
93	Charge Transport Properties of Polythionine Films Dependent on Electrode Potential and Solution pH. Electrochemistry, 2000, 68, 17-23.	1.4	1
94	Electron transfer rate of redox ion controlled by electrostatic interaction with bilayer films assembled using thiolateâ€"copper ionâ€"carboxylate bridges. Electrochimica Acta, 2003, 48, 589-597.	5.2	1
95	Voltammetric and Impedance Study of Interaction of Indigo Ion with Thiol Monolayers having Terminal Amino Groups Modified Gold Electrode. Electrochemistry, 2006, 74, 59-64.	1.4	1
96	Efficient small-molecule photovoltaic cells using nanostructured template. Proceedings of SPIE, 2014, , .	0.8	1
97	Insertion effects of interlayers for efficient polymer-based organic solar cells. Japanese Journal of Applied Physics, 2015, 54, 08KF05.	1.5	1
98	Photoelectrochemical Cell Sensitized by Porphyrin Heterodimer. Electrochemistry, 1994, 62, 607-613.	0.3	1
99	Electrocatalytic Oxidation of NADH at Polythionine-modified Electrodes as Studied by Rotating Disk Voltammetry. Electrochemistry, 2001, 69, 165-170.	1.4	1
100	Dioxygen-activated Reductive Epoxidation of Cyclohexene Using Mn(III) Porphyrin-viologen Catalytic Systems.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1998, 1998, 581-590.	0.1	0
101	Planar heterojunction perovskite solar cells fabricated by wet process. , 2017, , .		0
102	Effects of optical interference and optimized crystallinity in organic photovoltaic cells with a low-bandgap small molecule fabricated by dry process. Japanese Journal of Applied Physics, 2019, 58, SBBG12.	1.5	0