Yasuhiro Tachibana

List of Publications by Year
in descending order

85 papers	8,372 citations	81743 39 h-index	74018 75 g-index
88 all docs	88 docs citations	88 times ranked	9947 citing authors

#	Article	IF	Citations
1	Artificial photosynthesis for solar water-splitting. Nature Photonics, 2012, 6, 511-518.	15.6	1,790
2	Subpicosecond Interfacial Charge Separation in Dye-Sensitized Nanocrystalline Titanium Dioxide Films. The Journal of Physical Chemistry, 1996, 100, 20056-20062.	2.9	815
3	Parameters Influencing Charge Recombination Kinetics in Dye-Sensitized Nanocrystalline Titanium Dioxide Films. Journal of Physical Chemistry B, 2000, 104, 538-547.	1.2	613
4	Electron Injection and Recombination in Dye Sensitized Nanocrystalline Titanium Dioxide Films:â€‰ A Comparison of Ruthenium Bipyridyl and Porphyrin Sensitizer Dyes. Journal of Physical Chemistry B, 2000, 104, 1198-1205.	1.2	433
5	Charge Recombination Kinetics in Dye-Sensitized Nanocrystalline Titanium Dioxide Films under Externally Applied Bias. Journal of Physical Chemistry B, 1998, 102, 1745-1749.	1.2	334
6	Dye-Sensitized Solar Cells Based on WO₃. Langmuir, 2010, 26, 19148-19152.	1.6	329
7	Dye-sensitized nanocrystalline TiO2 solar cells based on novel coumarin dyes. Solar Energy Materials and Solar Cells, 2003, 77, 89-103.	3.0	248
8	Dye Regeneration Kinetics in Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2012, 134, 16925-16928.	6.6	235
9	Quantitative Analysis of Light-Harvesting Efficiency and Electron-Transfer Yield in Ruthenium-Dye-Sensitized Nanocrystalline TiO2Solar Cells. Chemistry of Materials, 2002, 14, 2527-2535.	3.2	230
10	Origin of surface trap states in CdS quantum dots: relationship between size dependent photoluminescence and sulfur vacancy trap states. Physical Chemistry Chemical Physics, 2015, 17, 2850-2858.	1.3	204
11	Charge Separation in Solid-State Dye-Sensitized Heterojunction Solar Cells. Journal of the American Chemical Society, 1999, 121, 7445-7446.	6.6	195
12	Application of the Tris(acetylacetonato)iron(III)/(II) Redox Couple in pâ€Type Dyeâ€Sensitized Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 3758-3762.	7.2	184
13	Dye-Sensitized Nanocrystalline TiO2 Solar Cells Based on Ruthenium(II) Phenanthroline Complex Photosensitizers. Langmuir, 2001, 17, 5992-5999.	1.6	177
14	Modulation of the Rate of Electron Injection in Dye-Sensitized Nanocrystalline TiO2Films by Externally Applied Bias. Journal of Physical Chemistry B, 2001, 105, 7424-7431.	1.2	171
15	Near-Infrared Absorbing Cu₁₂Sb₄S₁₃ and Cu₃SbS₄ Nanocrystals: Synthesis, Characterization, and Photoelectrochemistry. Journal of the American Chemical Society, 2013, 135, 11562-11571.	6.6	155
16	CdS Quantum Dots Sensitized TiO2Sandwich Type Photoelectrochemical Solar Cells. Chemistry Letters, 2007, 36, 88-89.	0.7	147
17	Wafer-Scale Synthesis of Semiconducting SnO Monolayers from Interfacial Oxide Layers of Metallic Liquid Tin. ACS Nano, 2017, 11, 10974-10983.	7.3	122
18	Comment on â€œMeasurement of Ultrafast Photoinduced Electron Transfer from Chemically Anchored Ruâˆ'Dye Molecules into Empty Electronic States in a Colloidal Anatase TiO2Filmâ€. Journal of Physical Chemistry B, 1998, 102, 3649-3650.	1.2	114

#	Article	IF	Citations
19	Developing sustainable, high-performance perovskites in photocatalysis: design strategies and applications. Chemical Society Reviews, 2021, 50, 13692-13729.	18.7	97
20	Electron injection kinetics for the nanocrystalline TiO2 films sensitised with the dye (Bu4N)2Ru(dcbpyH)2(NCS)2. Chemical Physics, 2002, 285, 127-132.	0.9	95
21	Performance improvement of CdS quantum dots sensitized TiO₂solar cells by introducing a dense TiO₂blocking layer. Journal Physics D: Applied Physics, 2008, 41, 102002.	1.3	93
22	Synthesis and characterisation of famatinite copper antimony sulfide nanocrystals. Journal of Materials Chemistry, 2012, 22, 11466.	6.7	93
23	Efficient panchromatic sensitization of nanocrystalline TiO2films by Î²-diketonato ruthenium polypyridyl complexes. New Journal of Chemistry, 2002, 26, 966-968.	1.4	86
24	Transient luminescence studies of electron injection in dye sensitised nanocrystalline TiO2 films. Journal of Photochemistry and Photobiology A: Chemistry, 2001, 142, 215-220.	2.0	82
25	Dominating Energy Losses in NiO pâ€Type Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1401387.	10.2	75
26	Improved Photovoltages for p-Type Dye-Sensitized Solar Cells Using CuCrO₂ Nanoparticles. Journal of Physical Chemistry C, 2014, 118, 16375-16379.	1.5	72
27	Indium tin oxide as a semiconductor material in efficient p-type dye-sensitized solar cells. NPG Asia Materials, 2016, 8, e305-e305.	3.8	71
28	Photo-excitation intensity dependent electron and hole injections from lead iodide perovskite to nanocrystalline TiO₂ and spiro-OMeTAD. Chemical Communications, 2016, 52, 673-676.	2.2	63
29	Charge Recombination Kinetics at an in Situ Chemical Bath-Deposited CdS/Nanocrystalline TiO₂ Interface. Journal of Physical Chemistry C, 2009, 113, 6852-6858.	1.5	59
30	Enhancement of Phosphorescence and Unimolecular Behavior in the Solid State by Perfect Insulation of Platinumâ€“Acetylide Polymers. Journal of the American Chemical Society, 2014, 136, 14714-14717.	6.6	58
31	Highly efficient polypyridyl-ruthenium(II) photosensitizers with chelating oxygen donor ligands: Î²-diketonato-bis(dicarboxybipyridine)ruthenium. Inorganica Chimica Acta, 2000, 310, 169-174.	1.2	55
32	Controlling surface reactions of CdS nanocrystals: photoluminescence activation, photoetching and photostability under light irradiation. Nanotechnology, 2007, 18, 465702.	1.3	54
33	Investigations on anodic photocurrent loss processes in dye sensitized solar cells: comparison between nanocrystalline SnO2 and TiO2 films. Chemical Physics Letters, 2002, 364, 297-302.	1.2	52
34	Sub-picosecond Equilibration of Excitation Energy in Isolated Photosystem II Reaction Centers Revisited:â€‰ Time-Dependent Anisotropy. The Journal of Physical Chemistry, 1996, 100, 10469-10478.	2.9	45
35	The Excitation Wavelength and Solvent Dependance of the Kinetics of Electron Injection in Ru(dcbpy)₂(NCS)₂ Sensitized Nanocrystalline TiO₂ Films. Zeitschrift Fur Physikalische Chemie, 1999, 212, 93-98.	1.4	44
36	Dye-Anchoring Functional Groups on the Performance of Dye-Sensitized Solar Cells: Comparison between Alkoxysilyl and Carboxyl Groups. Journal of Physical Chemistry C, 2014, 118, 28425-28434.	1.5	43

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37	Semiconductor Quantum Dot Sensitized Solar Cells Based on Ferricyanide/Ferrocyanide Redox Electrolyte Reaching an Open Circuit Photovoltage of 0.8 V. ACS Applied Materials & Interfaces, 2016, 8, 13957-13965.	4.0	42
38	Optical simulation of transmittance into a nanocrystalline anatase TiO2 film for solar cell applications. Solar Energy Materials and Solar Cells, 2007, 91, 201-206.	3.0	40
39	Tuning of the fluorescence wavelength of CdTe quantum dots with 2 nm resolution by size-selective photoetching. Nanotechnology, 2009, 20, 215302.	1.3	40
40	Photoinduced Formation of Polythiophene/TiO2Nanohybrid Heterojunction Films for Solar Cell Applications. Journal of Physical Chemistry C, 2008, 112, 4767-4775.	1.5	38
41	Identifying an Optimum Perovskite Solar Cell Structure by Kinetic Analysis: Planar, Mesoporous Based, or Extremely Thin Absorber Structure. ACS Applied Energy Materials, 2018, 1, 3722-3732.	2.5	36
42	Monodisperse and size-tunable PbS colloidal quantum dots via heterogeneous precursors. Journal of Materials Chemistry C, 2017, 5, 2182-2187.	2.7	34
43	Dye-sensitized solar cells based on nanocrystalline TiO2 sensitized with a novel pyridylquinoline ruthenium(ii) complex. New Journal of Chemistry, 2002, 26, 963-965.	1.4	31
44	Concerted Ion Migration and Diffusionâ€Induced Degradation in Leadâ€Free Ag₃BiI₆ Rudorffite Solar Cells under Ambient Conditions. Solar Rrl, 2021, 5, 2100077.	3.1	28
45	Polyacrylic acid coating of highly luminescent CdS nanocrystals for biological labeling applications. Journal of Colloid and Interface Science, 2008, 324, 257-260.	5.0	23
46	Light Intensity Dependence of Performance of Lead Halide Perovskite Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2017, 30, 577-582.	0.1	23
47	Insulated conjugated bimetallopolymer with sigmoidal response by dual self-controlling system as a biomimetic material. Nature Communications, 2020, 11, 408.	5.8	23
48	The Performanceâ€Determining Role of Lewis Bases in Dyeâ€Sensitized Solar Cells Employing Copperâ€Bisphenanthroline Redox Mediators. Advanced Energy Materials, 2020, 10, 2002067.	10.2	22
49	Electron Injection Dynamics at the SILAR Deposited CdS Quantum Dot/TiO2 Interface. Journal of Physical Chemistry C, 2015, 119, 20357-20362.	1.5	21
50	Solutionâ€Processable, Solid State Donorâ€"Acceptor Materials for Singlet Fission. Advanced Energy Materials, 2018, 8, 1801720.	10.2	21
51	Photodeposition of Pt on composite films of Nafion and conducting polymer and O2 reduction using the composite film-coated electrode. Electrochimica Acta, 2004, 50, 749-754.	2.6	17
52	One-step Preparation and Photosensitivity of Size-quantized Cadmium Chalcogenide Nanoparticles Deposited on Porous Zinc Oxide Film Electrodes. Chemistry Letters, 2007, 36, 712-713.	0.7	15
53	Photoelectrochemistry of p-type Cu2O semiconductor electrode in ionic liquid. Research on Chemical Intermediates, 2006, 32, 575-583.	1.3	14
54	Fluoreneâ€"Thiophene Copolymer Wire on TiO₂: Mechanism Achieving Long Charge Separated State Lifetimes. Journal of Physical Chemistry C, 2017, 121, 25672-25681.	1.5	14

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55	Primary photocatalytic water reduction and oxidation at an anatase TiO2 and Pt-TiO2 nanocrystalline electrode revealed by quantitative transient absorption studies. Applied Catalysis B: Environmental, 2021, 296, 120226.	10.8	13
56	Organic conducting wire formation on a TiO2 nanocrystalline structure: towards long-lived charge separated systems. Chemical Communications, 2009, , 4360.	2.2	12
57	Liquid Crystallinity as a Selfâ€Assembly Motif for Highâ€Efficiency, Solutionâ€Processed, Solidâ€State Singlet Fission Materials. Advanced Energy Materials, 2019, 9, 1901069.	10.2	11
58	Hetero Faceâ€toâ€Face Porphyrin Array with Cooperative Effects of Coordination and Hostâ€"Guest Complexation. Chemistry - an Asian Journal, 2017, 12, 1900-1904.	1.7	10
59	Excitation Wavelength Dependent Interfacial Charge Transfer Dynamics in a CH₃NH₃PbI₃ Perovskite Film. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2018, 31, 633-642.	0.1	10
60	Complementary Color Tuning by HCl via Phosphorescence-to-Fluorescence Conversion on Insulated Metallopolymer Film and Its Light-Induced Acceleration. Polymers, 2020, 12, 244.	2.0	10
61	Synthesis of Insulated Heteroaromatic Platinumâ€"Acetylide Complexes with Color-Tunable Phosphorescence in Solution and Solid States. Journal of Organic Chemistry, 2020, 85, 3082-3091.	1.7	8
62	Organic/inorganic hybrid electrochromic devices based on photoelectrochemically formed polypyrrole/TiO2 nanohybrid films. Journal of Materials Chemistry, 2012, , .	6.7	7
63	Tantalum Oxide as an Efficient Alternative Electron Transporting Layer for Perovskite Solar Cells. Nanomaterials, 2022, 12, 780.	1.9	6
64	Conducting Pattern Formation of Electrochemically Polymerized Thiophene in an Organopolysilane Film Imaged by Ultra-Violet Light. Chemistry Letters, 1994, 23, 1119-1122.	0.7	5
65	Novel Offset Printing without a Developing Process Utilizing the UV-Photodecomposition of Polysilane. Bulletin of the Chemical Society of Japan, 1998, 71, 2005-2009.	2.0	5
66	Electrocatalytic Activity of Pt and Ru Photodeposited Polyaniline Electrodes for Methanol Oxidation. Electrochemistry, 2007, 75, 39-44.	0.6	4
67	Electron Injection from a CdS Quantum Dot to a TiO₂ Conduction Band as an Efficiency Limiting Process: Comparison of QD Depositions between SILAR and Linker Assisted Attachment. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 357-362.	0.1	4
68	Functional metal oxide ceramics as electron transport medium in photovoltaics and photo-electrocatalysis. , 2020, , 207-273.		4
69	Influence of Hole Mobility on Charge Separation and Recombination Dynamics at Lead Halide Perovskite and Spiro-OMeTAD Interface. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2019, 32, 727-733.	0.1	3
70	The catalytic decomposition of carbon dioxide on zincâ€exchanged Yâ€zeolite at low temperatures. Journal of Chemical Technology and Biotechnology, 2021, 96, 2675-2680.	1.6	3
71	Interfacial electron transfer mechanisms in bithiophene sensitized TiO2 based solar cells. Transactions of the Materials Research Society of Japan, 2008, 33, 161-164.	0.2	3
72	Investigation of the Effect of Pt Location in Catalyst Layer on Fuel Cell Performance Using Pt-photodeposited Polyaniline-Nafion Composite Film. Electrochemistry, 2005, 73, 1021-1025.	0.6	3

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73	Surface Modification of Photoluminescent CdS Nanocrystals Inducing Spontaneous Phase Transfer Reaction. Chemistry Letters, 2005, 34, 1300-1301.	0.7	2
74	Pattern Coloring of UV-Light Imaged Polysilane Films Using Electrochemical Deposition of Pigment Micelle. Chemistry Letters, 1996, 25, 167-168.	0.7	1
75	Quantum dot sensitized solar cells. , 2008, , .		1
76	Photoinduced Charge Carrier Dynamics of Metal Chalcogenide Semiconductor Quantum Dot Sensitized TiO₂ Film for Photovoltaic Application. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2021, 34, 271-278.	0.1	1
77	Charge separation at the modified surface of cuprous oxide thin film. , 2005, , .		0
78	Addition of Capacitor Property into Polymer Electrolyte Fuel Cell by Using Composite of Conducting Polymer and Pt-deposited Carbon. Electrochemistry, 2006, 74, 394-396.	0.6	0
79	Preparation and Characteristic Control of Conducting Polymer/Metal Oxide Nano-Hybrid Films for Solar Energy Conversion. Ceramic Engineering and Science Proceedings, 0, , 35-49.	0.1	0
80	Interfacial Electron Transfer Reactions in CdS Quantum Dot Sensitized TiO2 Nanocrystalline Electrodes. , 0, , 239-264.		0
81	Photo-induced electron transfer reactions at semiconductor quantum dot interfaces. , 2011, , .		0
82	åŠå°Žä½“é‡åãƒ‰ãƒƒãƒˆå¢—æ„Ÿå¤ªé™½é›»æ±ã®é–‹ç™º. Electrochemistry, 2011, 79, 112-115.	0.6	0
83	Optical properties of a conjugated-polymer-sensitised solar cell: the effect of interfacial structure. Physical Chemistry Chemical Physics, 2015, 17, 14489-14494.	1.3	0
84	Parameters controlling electron injection kinetics in ruthenium bipyridyl dye sensitised titanium dioxide nanocrystalline films. , 2000, , .		0
85	Photoselective Excitation of P680 ?. , 1995, , 607-610.		0