Takurou N Murakami

List of Publications by Year
in descending order

69 papers	15,036 citations	172457 29 h-index	110387 64 g-index
70 all docs	70 docs citations	70 times ranked	17297 citing authors

#	Article	IF	Citations
1	Efficient Hybrid Solar Cells Based on Meso-Superstructured Organometal Halide Perovskites. Science, 2012, 338, 643-647.	12.6	9,249
2	Fabrication of thin film dye sensitized solar cells with solar to electric power conversion efficiency over 10%. Thin Solid Films, 2008, 516, 4613-4619.	1.8	1,702
3	Highly Efficient Dye-Sensitized Solar Cells Based on Carbon Black Counter Electrodes. Journal of the Electrochemical Society, 2006, 153, A2255.	2.9	824
4	Counter electrodes for DSC: Application of functional materials as catalysts. Inorganica Chimica Acta, 2008, 361, 572-580.	2.4	561
5	Optical Transitions in Hybrid Perovskite Solar Cells: Ellipsometry, Density Functional Theory, and Quantum Efficiency Analyses for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub>< Physical Review Applied, 2016, 5, .	3.8	322
6	Hysteresis-free perovskite solar cells made of potassium-doped organometal halide perovskite. Scientific Reports, 2017, 7, 12183.	3.3	229
7	The photocapacitor: An efficient self-charging capacitor for direct storage of solar energy. Applied Physics Letters, 2004, 85, 3932-3934.	3.3	218
8	Low temperature preparation of mesoporous TiO2 films for efficient dye-sensitized photoelectrode by chemical vapor deposition combined with UV light irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 164, 187-191.	3.9	149
9	A high-voltage dye-sensitized photocapacitor of a three-electrode system. Chemical Communications, 2005, , 3346.	4.1	148
10	Highly Efficient 17.6% Tinâ€“Lead Mixed Perovskite Solar Cells Realized through Spike Structure. Nano Letters, 2018, 18, 3600-3607.	9.1	114
11	Strain Relaxation and Light Management in Tinâ€“Lead Perovskite Solar Cells to Achieve High Efficiencies. ACS Energy Letters, 2019, 4, 1991-1998.	17.4	114
12	Efficient Nonsintering Type Dye-sensitized Photocells Based on Electrophoretically Deposited TiO2Layers. Chemistry Letters, 2002, 31, 1250-1251.	1.3	110
13	Efficiency Enhancement of ZnO-Based Dye-Sensitized Solar Cells by Low-Temperature TiCl₄ Treatment and Dye Optimization. Journal of Physical Chemistry C, 2013, 117, 10949-10956.	3.1	80
14	Crystallization Dynamics of Organolead Halide Perovskite by Real-Time X-ray Diffraction. Nano Letters, 2015, 15, 5630-5634.	9.1	77
15	Surface modification of polystyrene and poly(methyl methacrylate) by active oxygen treatment. Colloids and Surfaces B: Biointerfaces, 2003, 29, 171-179.	5.0	72
16	Dye Aggregation Effect on Interfacial Electron-Transfer Dynamics in Zinc Phthalocyanine-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 17205-17212.	3.1	70
17	Investigation of Interfacial Charge Transfer in Solution Processed Cs₂SnI₆ Thin Films. Journal of Physical Chemistry C, 2017, 121, 13092-13100.	3.1	66
18	UV Light-assisted Chemical Vapor Deposition of TiO2for Efficiency Development at Dye-sensitized Mesoporous Layers on Plastic Film Electrodes. Chemistry Letters, 2003, 32, 1076-1077.	1.3	62

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19	Unraveling the Function of an MgO Interlayer in Both Electrolyte and Solid-State SnO₂ Based Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2012, 116, 22840-22846.	3.1	57
20	Crystalline Si photovoltaic modules based on TiO₂-coated cover glass against potential-induced degradation. RSC Advances, 2014, 4, 44291-44295.	3.6	57
21	Kinetic study of Nafion degradation by Fenton reaction. Journal of Power Sources, 2011, 196, 2615-2620.	7.8	52
22	Structural Effect of Donor in Organic Dye on Recombination in Dye-Sensitized Solar Cells with Cobalt Complex Electrolyte. Langmuir, 2014, 30, 2274-2279.	3.5	44
23	Recombination inhibitive structure of organic dyes for cobalt complex redox electrolytes in dye-sensitised solar cells. Journal of Materials Chemistry A, 2013, 1, 792-798.	10.3	40
24	Water-based Dye-sensitized Solar Cells: Interfacial Activation of TiO2Mesopores in Contact with Aqueous Electrolyte for Efficiency Development. Chemistry Letters, 2003, 32, 1154-1155.	1.3	37
25	Improvement of TiO₂/Dye/Electrolyte Interface Conditions by Positional Change of Alkyl Chains in Modified Panchromatic Ru Complex Dyes. Chemistry - A European Journal, 2013, 19, 1028-1034.	3.3	37
26	Development of Nextâ€Generation Organicâ€Based Solar Cells: Studies on Dyeâ€Sensitized and Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1802967.	19.5	36
27	Adjustment of Conduction Band Edge of Compact TiO₂ Layer in Perovskite Solar Cells Through TiCl₄ Treatment. ACS Applied Materials & Interfaces, 2017, 9, 36708-36714.	8.0	35
28	Carbazole dye with phosphonic acid anchoring groups for long-term heat stability of dye-sensitized solar cells. Electrochimica Acta, 2014, 131, 174-183.	5.2	34
29	Light Energy Conversion and Storage with Soft Carbonaceous Materials that Solidify Mesoscopic Electrochemical Interfaces. Chemistry Letters, 2007, 36, 480-487.	1.3	33
30	Modification of PS films by combined treatment of ozone aeration and UV irradiation in aqueous ammonia solution for the introduction of amine and amide groups on their surface. Applied Surface Science, 2005, 249, 425-432.	6.1	30
31	A Sodium Chloride Modification of SnO₂ Electron Transport Layers to Enhance the Performance of Perovskite Solar Cells. ACS Omega, 2021, 6, 17880-17889.	3.5	29
32	Fabrication and Efficiency Enhancement of Water-based Dye-Sensitized Solar Cells by Interfacial Activation of TiO₂ Mesopores. Electrochemistry, 2004, 72, 310-316.	1.4	24
33	Synthesis and photo-electrochemical properties of novel thienopyrazine and quinoxaline derivatives, and their dye-sensitized solar cell performance. Organic Electronics, 2012, 13, 3097-3101.	2.6	24
34	Initial photooxidation mechanism leading to reactive radical formation of polythiophene derivatives. Polymer Journal, 2015, 47, 26-30.	2.7	23
35	An Alkyloxyphenyl Group as a Sterically Hindered Substituent on a Triphenylamine Donor Dye for Effective Recombination Inhibition in Dye-Sensitized Solar Cells. Langmuir, 2016, 32, 1178-1183.	3.5	22
36	Electron Injection Efficiency in Ru-Dye Sensitized TiO₂ in the Presence of Room Temperature Ionic Liquid Solvents Probed by Femtosecond Transient Absorption Spectroscopy: Effect of Varying Anions. Journal of Physical Chemistry C, 2012, 116, 20213-20219.	3.1	21

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37	Crown Ether-Substituted Carbazole Dye for Dye-Sensitized Solar Cells: Controlling the Local Ion Concentration at the TiO₂/Dye/Electrolyte Interface. Journal of Physical Chemistry C, 2014, 118, 16749-16759.	3.1	21
38	Influence of the non-conjugated 5-position substituent of 1,3,5-triaryl-2-pyrazoline-based photosensitizers on the photophysical properties and performance of a dye-sensitized solar cell. RSC Advances, 2016, 6, 13964-13970.	3.6	21
39	Immobilization and enzymatic activity of glucose oxidase on polystyrene surface modified with ozone aeration and UV irradiation in distilled water and/or aqueous ammonia solution. Colloids and Surfaces B: Biointerfaces, 2006, 48, 67-71.	5.0	19
40	Near-infrared (NIR) imaging analysis of polylactic acid (PLA) nanocomposite by multiple-perturbation two-dimensional (2D) correlation spectroscopy. Journal of Molecular Structure, 2014, 1069, 171-175.	3.6	15
41	Decomposition of Aromatic Compounds by Active Oxygen Generator. Chemistry Letters, 2000, 29, 1312-1313.	1.3	13
42	Porous Films from TiO[sub 2] (Anatase) with Bimodal Morphology. Electrochemical and Solid-State Letters, 2007, 10, A85.	2.2	12
43	Effect of TiCl4 Treatment on Porous ZnO Photoelectrodes for Dye-sensitized Solar Cells. Chemistry Letters, 2011, 40, 162-164.	1.3	11
44	Novel Cobalt Complexes as a Dopant for Hole-transporting Material in Perovskite Solar Cells. Electrochemistry, 2017, 85, 226-230.	1.4	11
45	Rapid dissociation of merocyanine dye aggregates by reduced pressure in mixed Langmuir-Blodgett films. Journal of Applied Physics, 2004, 96, 5528-5533.	2.5	10
46	An Increase in Energy Conversion Efficiency by Decreasing Cobalt Redox Electrolyte Diffusion Resistance in Dye-sensitized Solar Cells. Chemistry Letters, 2013, 42, 453-454.	1.3	10
47	EFFECTS OF TiO₂ PARTICLE SIZE ON THE PERFORMANCE OF DYE-SENSITIZED SOLAR CELLS USING IONIC LIQUID ELECTROLYTES. Nano, 2014, 09, 1440010.	1.0	9
48	Response to â€œComment on â€˜The photocapacitor: An efficient self-charging capacitor for direct storage of solar energyâ€™â€•[Appl. Phys. Lett. 86, 196101 (2005)]. Applied Physics Letters, 2005, 86, 196102.	3.3	8
49	Highly Efficient Dopant-Free Cyano-Substituted Spiro-Type Hole-Transporting Materials for Perovskite Solar Cells. ACS Applied Energy Materials, 2022, 5, 6633-6641.	5.1	8
50	Modulation of Electron Injection Dynamics of Ruâ€Based Dye/TiO₂ System in the Presence of Three Different Organic Solvents: Role of Solvent Dipole Moment and Donor Number. ChemPhysChem, 2015, 16, 1657-1662.	2.1	7
51	Synthesis of Oligo(thienylene-vinylene) by Regiocontrolled Deprotonative Cross-Coupling. Organic Letters, 2016, 18, 650-653.	4.6	7
52	CH₃NH₃I Post-treatment of Organometal Halide Perovskite Crystals for Photovoltaic Performance Enhancement. Chemistry Letters, 2018, 47, 1399-1401.	1.3	7
53	Optimum Particle Size of ZnO for Dye-sensitized Solar Cells. Chemistry Letters, 2013, 42, 810-812.	1.3	6
54	<i>In Situ</i> Grown Nanocrystalline Si Recombination Junction Layers for Efficient Perovskiteâ€“Si Monolithic Tandem Solar Cells: Toward a Simpler Multijunction Architecture. ACS Applied Materials & Interfaces, 2022, 14, 33505-33514.	8.0	6

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55	Fabrication of dye-sensitized plastic film electrodes for flexible solar cells based on electrophoretic deposition techniques. , 2004, 5215, 219.		5
56	Hot-injection and ultrasonic irradiation syntheses of Cs2SnI6 quantum dot using Sn long-chain amino-complex. Journal of Nanoparticle Research, 2020, 22, 1.	1.9	5
57	Germanium ion doping of CsPbI₃ to obtain inorganic perovskite solar cells with low temperature processing. Japanese Journal of Applied Physics, 2022, 61, 020904.	1.5	5
58	Preparation of Porous Diopside Microspheres from Spherical Silica Gels Impregnated with Ca(NO3)2 and MgCl2. Journal of the Ceramic Society of Japan, 2004, 112, 133-137.	1.3	3
59	Solution-processed tBu4-ZnPc:C61bulk heterojunction organic photovoltaic cells. Japanese Journal of Applied Physics, 2016, 55, 032301.	1.5	3
60	Ultra-thin Cadmium Sulfide Electron-transporting Layer for Planar Perovskite Solar Cell. Chemistry Letters, 2018, 47, 1350-1353.	1.3	3
61	Effect of aromatic nitrogen heterocycle treatment on the performance of perovskite solar cells. Japanese Journal of Applied Physics, 2018, 57, 08RE08.	1.5	3
62	Two-Dimensional Raman Correlation Analysis of Diseased Esophagus in a Rat. Applied Physics Express, 2010, 3, 077001.	2.4	2
63	Effect of surface modification of titanium substrate by anodic oxidation on hydrothermally synthesized PZT poly-crystalline film. , 2008, , .		1
64	Organic-Inorganic Hybrid Perovskites. Springer Series in Optical Sciences, 2018, , 471-493.	0.7	1
65	Transparent Conductive Oxides. Springer Series in Optical Sciences, 2018, , 495-541.	0.7	1
66	Organic Semiconductors. Springer Series in Optical Sciences, 2018, , 427-469.	0.7	1
67	Modification of optical characteristics in langmuir-blodgett films of merocyanine dye by reduced pressure treatment. Molecular Crystals and Liquid Crystals, 2004, 425, 265-271.	0.9	0
68	Effect of Tween 20 Concentration on Macropore Formation in Spherical Diopside Particles. Journal of the Japan Society of Colour Material, 2015, 88, 2-7.	0.1	0
69	è‰²ç´ å¢—æ„Ÿå¤ªé™½é›»æ±ã«ãŠã'ã‚‹ã‚«ãƒ¼ãƒœãƒ³ç´ æã®å¿œç”¨. Journal of the Japan Society of Colour Material, 2009, 82, 357-36	0.1	0