Masato M Maitani

List of Publications by Year
in descending order

67 papers	1,658 citations	361045 20 h-index	301761 39 g-index
69 all docs	69 docs citations	69 times ranked	2696 citing authors

#	Article	IF	Citations
1	Hysteresis-free perovskite solar cells made of potassium-doped organometal halide perovskite. Scientific Reports, 2017, 7, 12183.	1.6	229
2	Modulations of various alkali metal cations on organometal halide perovskites and their influence on photovoltaic performance. Nano Energy, 2018, 45, 184-192.	8.2	142
3	Improved Solid-State Dye Solar Cells with Polypyrrole using a Carbon-Based Counter Electrode. Chemistry Letters, 2001, 30, 1054-1055.	0.7	97
4	Enhancement of Photoexcited Charge Transfer by {001} Facet-Dominating TiO2 Nanoparticles. Journal of Physical Chemistry Letters, 2011, 2, 2655-2659.	2.1	77
5	Study of SERS Chemical Enhancement Factors Using Buffer Layer Assisted Growth of Metal Nanoparticles on Self-Assembled Monolayers. Journal of the American Chemical Society, 2009, 131, 6310-6311.	6.6	62
6	Enhancement of Fixed-bed Flow Reactions under Microwave Irradiation by Local Heating at the Vicinal Contact Points of Catalyst Particles. Scientific Reports, 2019, 9, 222.	1.6	62
7	Facile synthesis of bimetallic Cuâ€“Ag nanoparticles under microwave irradiation and their oxidation resistance. Nanotechnology, 2013, 24, 265602.	1.3	61
8	Controlling Gold Atom Penetration through Alkanethiolate Self-Assembled Monolayers on Au{111} by Adjusting Terminal Group Intermolecular Interactions. Journal of the American Chemical Society, 2006, 128, 13710-13719.	6.6	60
9	Crossed-Nanowire Molecular Junctions: A New Multispectroscopy Platform for Conductionâˆ'Structure Correlations. Nano Letters, 2010, 10, 2897-2902.	4.5	51
10	Elucidating the Structureâ€“Property Relationships of Donorâ€“Ï€â€“Acceptor Dyes for Dyeâ€Sensitized Solar Cells (DSSCs) through Rapid Library Synthesis by a Oneâ€Pot Procedure. Chemistry - A European Journal, 2014, 20, 10685-10694.	1.7	48
11	Effects of Embedded Dipole Layers on Electrostatic Properties of Alkanethiolate Self-Assembled Monolayers. Journal of Physical Chemistry C, 2017, 121, 15815-15830.	1.5	45
12	Smelting Magnesium Metal using a Microwave Pidgeon Method. Scientific Reports, 2017, 7, 46512.	1.6	37
13	Microwave Effects on Coâ€“Pi Cocatalysts Deposited on Î±-Fe₂O₃ for Application to Photocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2017, 9, 10349-10354.	4.0	36
14	Catalytic reactions enhanced under microwave-induced local thermal non-equilibrium in a coreâ€“shell, carbon-filled zeolite@zeolite. Journal of Catalysis, 2015, 323, 1-9.	3.1	34
15	Rapid Synthesis of Thiopheneâ€Based, Organic Dyes for Dyeâ€Sensitized Solar Cells (DSSCs) by a Oneâ€Pot, Fourâ€Component Coupling Approach. Chemistry - A European Journal, 2015, 21, 9742-9747.	1.7	29
16	Electromagnetic and Heat-Transfer Simulation of the Catalytic Dehydrogenation of Ethylbenzene under Microwave Irradiation. Industrial & Engineering Chemistry Research, 2017, 56, 7685-7692.	1.8	27
17	Moth olfactory trichoid sensilla exhibit nanoscale-level heterogeneity in surface lipid properties. Arthropod Structure and Development, 2010, 39, 1-16.	0.8	26
18	Microwave-enhanced photocatalysis on CdS quantum dots - Evidence of acceleration of photoinduced electron transfer. Scientific Reports, 2015, 5, 11308.	1.6	25

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19	Low-temperature annealing of mesoscopic TiO 2 films by interfacial microwave heating applied to efficiency improvement of dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2016, 147, 198-202.	3.0	21
20	Alternate Layered Nanostructures of Metal Oxides by a Click Reaction. Angewandte Chemie - International Edition, 2012, 51, 5452-5455.	7.2	20
21	Microwave sintering of Ag-nanoparticle thin films on a polyimide substrate. AIP Advances, 2015, 5, .	0.6	20
22	In situ temperature measurements of reaction spaces under microwave irradiation using photoluminescent probes. Physical Chemistry Chemical Physics, 2016, 18, 13173-13179.	1.3	20
23	Nascent Metal Atom Condensation in Self-Assembled Monolayer Matrices: Coverage-Driven Morphology Transitions from Buried Adlayers to Electrically Active Metal Atom Nanofilaments to Overlayer Clusters during Aluminum Atom Deposition on Alkanethiolate/Gold Monolayers. Journal of the American Chemical Society, 2009, 131, 8016-8029.	6.6	19
24	Quasi-gel-state ionic liquid electrolyte with alkyl-pyrazolium iodide for dye-sensitized solar cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 996-1001.	1.7	19
25	Influence of co-existing alcohol on charge transfer of H2 evolution under visible light with dye-sensitized nanocrystalline TiO2. Applied Catalysis B: Environmental, 2013, 140-141, 406-411.	10.8	19
26	Influence of co-existing species on charge transfer in dye-sensitized nanocrystalline oxide semiconductors in aqueous suspension for H2 evolution under visible light. Applied Catalysis B: Environmental, 2014, 147, 770-778.	10.8	19
27	Sequential Coupling Approach to the Synthesis of Nickel(II) Complexes with N-aryl-2-amino Phenolates. ACS Combinatorial Science, 2012, 14, 545-550.	3.8	17
28	Collaborational effect of heterolytic layered configuration for enhancement of microwave heating. Chemical Communications, 2013, 49, 10841.	2.2	17
29	Synthesis of EDOT-containing organic dyes via one-pot, four-component Suzukiâ€“Miyaura coupling and the evaluation of their photovoltaic properties. Tetrahedron, 2014, 70, 8690-8695.	1.0	17
30	Rapid Synthesis of Dâ€Aâ€²â€Ï€â€A Dyes through a Oneâ€Pot Threeâ€Component Suzukiâ€“Miyaura Coupling and an Evaluation of their Photovoltaic Properties for Use in Dyeâ€Sensitized Solar Cells. Chemistry - A European Journal, 2016, 22, 2507-2514.	1.7	17
31	High integrity metal/organic device interfaces via low temperature buffer layer assisted metal atom nucleation. Applied Physics Letters, 2010, 96, .	1.5	16
32	Effects of energetics with {001} facet-dominant anatase TiO2 scaffold on electron transport in CH3NH3PbI3 perovskite solar cells. Electrochimica Acta, 2019, 300, 445-454.	2.6	16
33	Synthesis and Evaluation of Thiopheneâ€Based Organic Dyes ContainÂing a Rigid and Nonplanar Donor with Secondary Electron Donors for Use in Dyeâ€Sensitized Solar Cells. European Journal of Organic Chemistry, 2016, 2016, 508-517.	1.2	15
34	Physical Insight to Microwave Special Effects: Nonequilibrium Local Heating and Acceleration of Electron Transfer. Journal of the Japan Petroleum Institute, 2018, 61, 98-105.	0.4	15
35	Rigidochromic Phosphorescence of [Ir(2â€phenylpyridine)₂(2,2â€²â€bipyridine)]⁺ in C16TMA⁺: Layered Silicate and Its FÃ¶rster Resonance Energy Transfer. European Journal of Inorganic Chemistry, 2013, 2013, 2324-2329.	1.0	13
36	Precise Control of Photoinduced Electron Transfer in Alternate Layered Nanostructures of Titanium Oxideâ€“Tungsten Oxide. Journal of Physical Chemistry C, 2014, 118, 22968-22974.	1.5	12

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37	Electron transport properties in dye-sensitized solar cells with {001} facet-dominant TiO₂ nanoparticles. Physical Chemistry Chemical Physics, 2017, 19, 22129-22140.	1.3	12
38	Dâ€"Ï€â€"A Dyes that Contain New Hydantoin Anchoring Groups for Dyeâ€Sensitized Solar Cells. Asian Journal of Organic Chemistry, 2018, 7, 458-464.	1.3	12
39	Construction of Highly Hierarchical Layered Structure Consisting of Titanate Nanosheets, Tungstate Nanosheets, Ru(bpy)₃²⁺, and Pt(terpy) for Vectorial Photoinduced Z-Scheme Electron Transfer. ACS Applied Materials & Interfaces, 2018, 10, 37150-37162.	4.0	12
40	Remote Control of Electron Transfer Reaction by Microwave Irradiation: Kinetic Demonstration of Reduction of Bipyridine Derivatives on Surface of Nickel Particle. Journal of Physical Chemistry Letters, 2019, 10, 3390-3394.	2.1	12
41	Issues and Challenges in Vapor-Deposited Top Metal Contacts for Molecule-Based Electronic Devices. Topics in Current Chemistry, 2011, 312, 239-273.	4.0	11
42	Injection-Locked Magnetron Using a Cross-Domain Analyzer. IEEE Microwave and Wireless Components Letters, 2016, 26, 966-968.	2.0	11
43	Local Thermal Nonequilibrium on Solid and Liquid Interface Generated in a Microwave Magnetic Field. Chemistry Letters, 2012, 41, 1409-1411.	0.7	9
44	The pH-depending enhancement of electron transfer by {001} facet-dominating TiO2 nanoparticles for photocatalytic H2 evolution under visible irradiation. Catalysis Science and Technology, 2014, 4, 871.	2.1	9
45	Microwave assisted synthesis of high-surface area WO₃ particles decorated with mosaic patterns via hydrochloric acid treatment of Bi₂W₂O₉. RSC Advances, 2015, 5, 77839-77846.	1.7	8
46	Enhancement of anodic current attributed to oxygen evolution on Î±-Fe2O3 electrode by microwave oscillating electric field. Scientific Reports, 2016, 6, 35554.	1.6	8
47	Microwave Application to Efficient Annealing Process of CH₃NH₃PbI₃ Perovskite Crystalline Films. Electrochemistry, 2017, 85, 236-240.	0.6	8
48	Drastic Microwave Heating of Percolated Pt Metal Nanoparticles Supported on Al2O3 Substrate. Processes, 2020, 8, 72.	1.3	8
49	Dye-sensitized H2 Evolution over TiO2 and SnO2 Nanoparticles Depending on Electron Donors. Chemistry Letters, 2012, 41, 423-424.	0.7	7
50	Chemical Reaction under Highly Precise Microwave Irradiation. Journal of Microwave Power and Electromagnetic Energy, 2014, 48, 89-103.	0.4	7
51	Specific electronic absorptions of alternate layered nanostructures of two metal oxides synthesized via a thiolâ€"ene click reaction. RSC Advances, 2016, 6, 73830-73841.	1.7	7
52	Controlling the Schottky Barrier at the Pt/TiO₂ Interface by Intercalation of a Self-Assembled Monolayer with Oriented Dipole Moments. Journal of Physical Chemistry C, 2021, 125, 13984-13989.	1.5	7
53	Influence of Coexisting Electron Donor Species on Charge Transfer in Dye-Sensitized Nanocrystalline TiO2 for H2 Evolution under Visible Light. Bulletin of the Chemical Society of Japan, 2012, 85, 1268-1276.	2.0	6
54	Electron Transfer from Excited [Ir(2-phenylpyridyl)3] through a Coexisting Electron Relay in Zeolite. European Journal of Inorganic Chemistry, 2014, 2014, 1470-1476.	1.0	6

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55	Visible-light-induced electron transfer between alternating stacked layers of tungstate and titanate mediated by excitation of intercalated dye molecules. Physical Chemistry Chemical Physics, 2014, 16, 872-875.	1.3	6
56	Self-oriented TiO₂ nanosheets in films for enhancement of electron transport in nanoporous semiconductor networks. Materials Chemistry Frontiers, 2017, 1, 2094-2102.	3.2	6
57	Crystalline orientation control using self-assembled TiO₂ nanosheet scaffold to improve CH₃NH₃PbI₃ perovskite solar cells. Japanese Journal of Applied Physics, 2017, 56, 08MC17.	0.8	6
58	Dye-sensitized Solar Cells Based on 1,3-Dithiol-2-ylidene Derivatives: Substituent and Ï€-Spacer Effects on the Efficiency. Chemistry Letters, 2014, 43, 296-298.	0.7	5
59	Distance-depending Photoinduced Electron Transfer at Two-dimensional Interface in Alternate Stacked Structures of Tantalate Nanosheets and Tungstate Nanosheets. Chemistry Letters, 2016, 45, 1111-1113.	0.7	4
60	Hetero-epitaxial growth control of single-crystalline anatase TiO₂ nanosheets predominantly exposing the {001} facet on oriented crystalline substrates. CrystEngComm, 2017, 19, 4734-4741.	1.3	4
61	Methanol decomposition reaction using Pd/C as solid catalyst under highly precise microwave irradiation. , 2012, , .		2
62	Effects of {001} Facet of Anatase TiO₂ Single-crystalline Nanosheets on Photoexcited Electron Transfer from Near-infrared Dye-sensitizer. Chemistry Letters, 2017, 46, 1624-1627.	0.7	2
63	Direct In-junction Characterization of Molecular Switching Devices Based on Self-Assembled Monolayer Embedded in Nanowire Junction. , 2007, , .		0
64	In-Situ Inelastic Electron Tunneling Spectroscopy of Bistable Molecular Junction Devices. Device Research Conference, IEEE Annual, 2007, , .	0.0	0
65	Catalysis of polyoxometalates under microwave irradiation and their dielectric properties. , 2016, , .		0
66	7. Chemical reactions on the interfaces of solids under microwaves. , 2017, , 113-126.		0
67	Kinetics of Photoinduced Electron Transfer in Alternately Stacked Eu³⁺:LaNb₂O₇^{â€“} and W₂O₇^{2â€“} Nanosheets As Demonstrated by fâ€“f Radiative Transition of Doped Eu³⁺. Journal of Physical Chemistry C, 2019, 123, 30029-30038.	1.5	0