

# Masato M Maitani

## List of Publications by Year in descending order

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67  
papers

1,658  
citations

361413  
20  
h-index

302126  
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.	3.3	229
2	Modulations of various alkali metal cations on organometal halide perovskites and their influence on photovoltaic performance. Nano Energy, 2018, 45, 184-192.	16.0	142
3	Improved Solid-State Dye Solar Cells with Polypyrrole using a Carbon-Based Counter Electrode. Chemistry Letters, 2001, 30, 1054-1055.	1.3	97
4	Enhancement of Photoexcited Charge Transfer by {001} Facet-Dominating TiO <sub>2</sub> Nanoparticles. Journal of Physical Chemistry Letters, 2011, 2, 2655-2659.	4.6	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.	13.7	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.	3.3	62
7	Facile synthesis of bimetallic Cu-Ag nanoparticles under microwave irradiation and their oxidation resistance. Nanotechnology, 2013, 24, 265602.	2.6	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.	13.7	60
9	Crossed-Nanowire Molecular Junctions: A New Multispectroscopy Platform for Conduction-Structure Correlations. Nano Letters, 2010, 10, 2897-2902.	9.1	51
10	Elucidating the Structure-Property Relationships of Donor-Acceptor Dyes for Dye-Sensitized Solar Cells (DSSCs) through Rapid Library Synthesis by a One-Pot Procedure. Chemistry - A European Journal, 2014, 20, 10685-10694.	3.3	48
11	Effects of Embedded Dipole Layers on Electrostatic Properties of Alkanethiolate Self-Assembled Monolayers. Journal of Physical Chemistry C, 2017, 121, 15815-15830.	3.1	45
12	Smelting Magnesium Metal using a Microwave Pidgeon Method. Scientific Reports, 2017, 7, 46512.	3.3	37
13	Microwave Effects on Co-Pi Cocatalysts Deposited on $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> for Application to Photocatalytic Oxygen Evolution. ACS Applied Materials & Interfaces, 2017, 9, 10349-10354.	8.0	36
14	Catalytic reactions enhanced under microwave-induced local thermal non-equilibrium in a core-shell, carbon-filled zeolite@zeolite. Journal of Catalysis, 2015, 323, 1-9.	6.2	34
15	Rapid Synthesis of Thiophene-Based, Organic Dyes for Dye-Sensitized Solar Cells (DSSCs) by a One-Pot, Four-Component Coupling Approach. Chemistry - A European Journal, 2015, 21, 9742-9747.	3.3	29
16	Electromagnetic and Heat-Transfer Simulation of the Catalytic Dehydrogenation of Ethylbenzene under Microwave Irradiation. Industrial & Engineering Chemistry Research, 2017, 56, 7685-7692.	3.7	27
17	Moth olfactory trichoid sensilla exhibit nanoscale-level heterogeneity in surface lipid properties. Arthropod Structure and Development, 2010, 39, 1-16.	1.4	26
18	Microwave-enhanced photocatalysis on CdS quantum dots - Evidence of acceleration of photoinduced electron transfer. Scientific Reports, 2015, 5, 11308.	3.3	25

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19	Low-temperature annealing of mesoscopic TiO <sub>2</sub> films by interfacial microwave heating applied to efficiency improvement of dye-sensitized solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 147, 198-202.	6.2	21
20	Alternate Layered Nanostructures of Metal Oxides by a Click Reaction. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 5452-5455.	13.8	20
21	Microwave sintering of Ag-nanoparticle thin films on a polyimide substrate. <i>AIP Advances</i> , 2015, 5, .	1.3	20
22	In situ temperature measurements of reaction spaces under microwave irradiation using photoluminescent probes. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13173-13179.	2.8	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. <i>Journal of the American Chemical Society</i> , 2009, 131, 8016-8029.	13.7	19
24	Quasi-gel-state ionic liquid electrolyte with alkyl-pyrazolium iodide for dye-sensitized solar cells. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 996-1001.	3.5	19
25	Influence of co-existing alcohol on charge transfer of H <sub>2</sub> evolution under visible light with dye-sensitized nanocrystalline TiO <sub>2</sub> . <i>Applied Catalysis B: Environmental</i> , 2013, 140-141, 406-411.	20.2	19
26	Influence of co-existing species on charge transfer in dye-sensitized nanocrystalline oxide semiconductors in aqueous suspension for H <sub>2</sub> evolution under visible light. <i>Applied Catalysis B: Environmental</i> , 2014, 147, 770-778.	20.2	19
27	Sequential Coupling Approach to the Synthesis of Nickel(II) Complexes with N-aryl-2-amino Phenolates. <i>ACS Combinatorial Science</i> , 2012, 14, 545-550.	3.8	17
28	Collaborational effect of heterolytic layered configuration for enhancement of microwave heating. <i>Chemical Communications</i> , 2013, 49, 10841.	4.1	17
29	Synthesis of EDOT-containing organic dyes via one-pot, four-component Suzuki–Miyaura coupling and the evaluation of their photovoltaic properties. <i>Tetrahedron</i> , 2014, 70, 8690-8695.	1.9	17
30	Rapid Synthesis of Dye-Sensitized Solar Cells through a One-Pot Three-Component Suzuki–Miyaura Coupling and an Evaluation of their Photovoltaic Properties for Use in Dye-Sensitized Solar Cells. <i>Chemistry - A European Journal</i> , 2016, 22, 2507-2514.	3.3	17
31	High integrity metal/organic device interfaces via low temperature buffer layer assisted metal atom nucleation. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	16
32	Effects of energetics with {001} facet-dominant anatase TiO <sub>2</sub> scaffold on electron transport in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Electrochimica Acta</i> , 2019, 300, 445-454.	5.2	16
33	Synthesis and Evaluation of Thiophene-Based Organic Dyes Containing a Rigid and Nonplanar Donor with Secondary Electron Donors for Use in Dye-Sensitized Solar Cells. <i>European Journal of Organic Chemistry</i> , 2016, 2016, 508-517.	2.4	15
34	Physical Insight to Microwave Special Effects: Nonequilibrium Local Heating and Acceleration of Electron Transfer. <i>Journal of the Japan Petroleum Institute</i> , 2018, 61, 98-105.	0.6	15
35	Rigidochromic Phosphorescence of [Ir(2-phenylpyridine) <sub>2</sub> (2,2'-bipyridine)] <sup>+</sup> in C16TMA: Layered Silicate and Its Förster Resonance Energy Transfer. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 2324-2329.	2.0	13
36	Precise Control of Photoinduced Electron Transfer in Alternate Layered Nanostructures of Titanium Oxide–Tungsten Oxide. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22968-22974.	3.1	12

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37	Electron transport properties in dye-sensitized solar cells with {001} facet-dominant TiO <sub>2</sub> nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22129-22140.	2.8	12
38	Dye-sensitized Solar Cells. <i>Asian Journal of Organic Chemistry</i> , 2018, 7, 458-464.	2.7	12
39	Construction of Highly Hierarchical Layered Structure Consisting of Titanate Nanosheets, Tungstate Nanosheets, Ru(bpy) <sub>3</sub> <sup>2+</sup> , and Pt(terpy) for Vectorial Photoinduced Z-Scheme Electron Transfer. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 37150-37162.	8.0	12
40	Remote Control of Electron Transfer Reaction by Microwave Irradiation: Kinetic Demonstration of Reduction of Bipyridine Derivatives on Surface of Nickel Particle. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3390-3394.	4.6	12
41	Issues and Challenges in Vapor-Deposited Top Metal Contacts for Molecule-Based Electronic Devices. <i>Topics in Current Chemistry</i> , 2011, 312, 239-273.	4.0	11
42	Injection-Locked Magnetron Using a Cross-Domain Analyzer. <i>IEEE Microwave and Wireless Components Letters</i> , 2016, 26, 966-968.	3.2	11
43	Local Thermal Nonequilibrium on Solid and Liquid Interface Generated in a Microwave Magnetic Field. <i>Chemistry Letters</i> , 2012, 41, 1409-1411.	1.3	9
44	The pH-depending enhancement of electron transfer by {001} facet-dominating TiO <sub>2</sub> nanoparticles for photocatalytic H <sub>2</sub> evolution under visible irradiation. <i>Catalysis Science and Technology</i> , 2014, 4, 871.	4.1	9
45	Microwave assisted synthesis of high-surface area WO <sub>3</sub> particles decorated with mosaic patterns via hydrochloric acid treatment of Bi <sub>2</sub> WO <sub>9</sub> . <i>RSC Advances</i> , 2015, 5, 77839-77846.	3.6	8
46	Enhancement of anodic current attributed to oxygen evolution on Ir-Fe <sub>2</sub> O <sub>3</sub> electrode by microwave oscillating electric field. <i>Scientific Reports</i> , 2016, 6, 35554.	3.3	8
47	Microwave Application to Efficient Annealing Process of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Crystalline Films. <i>Electrochemistry</i> , 2017, 85, 236-240.	1.4	8
48	Drastic Microwave Heating of Percolated Pt Metal Nanoparticles Supported on Al <sub>2</sub> O <sub>3</sub> Substrate. <i>Processes</i> , 2020, 8, 72.	2.8	8
49	Dye-sensitized H <sub>2</sub> Evolution over TiO <sub>2</sub> and SnO <sub>2</sub> Nanoparticles Depending on Electron Donors. <i>Chemistry Letters</i> , 2012, 41, 423-424.	1.3	7
50	Chemical Reaction under Highly Precise Microwave Irradiation. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2014, 48, 89-103.	0.8	7
51	Specific electronic absorptions of alternate layered nanostructures of two metal oxides synthesized via a thiol-ene click reaction. <i>RSC Advances</i> , 2016, 6, 73830-73841.	3.6	7
52	Controlling the Schottky Barrier at the Pt/TiO <sub>2</sub> Interface by Intercalation of a Self-Assembled Monolayer with Oriented Dipole Moments. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13984-13989.	3.1	7
53	Influence of Coexisting Electron Donor Species on Charge Transfer in Dye-Sensitized Nanocrystalline TiO <sub>2</sub> for H <sub>2</sub> Evolution under Visible Light. <i>Bulletin of the Chemical Society of Japan</i> , 2012, 85, 1268-1276.	3.2	6
54	Electron Transfer from Excited [Ir(2-phenylpyridyl) <sub>3</sub> ] through a Coexisting Electron Relay in Zeolite. <i>European Journal of Inorganic Chemistry</i> , 2014, 2014, 1470-1476.	2.0	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. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 872-875.	2.8	6
56	Self-oriented TiO <sub>2</sub> nanosheets in films for enhancement of electron transport in nanoporous semiconductor networks. <i>Materials Chemistry Frontiers</i> , 2017, 1, 2094-2102.	5.9	6
57	Crystalline orientation control using self-assembled TiO <sub>2</sub> nanosheet scaffold to improve CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite solar cells. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 08MC17.	1.5	6
58	Dye-sensitized Solar Cells Based on 1,3-Dithiol-2-ylidene Derivatives: Substituent and ï€-Spacer Effects on the Efficiency. <i>Chemistry Letters</i> , 2014, 43, 296-298.	1.3	5
59	Distance-depending Photoinduced Electron Transfer at Two-dimensional Interface in Alternate Stacked Structures of Tantalate Nanosheets and Tungstate Nanosheets. <i>Chemistry Letters</i> , 2016, 45, 1111-1113.	1.3	4
60	Hetero-epitaxial growth control of single-crystalline anatase TiO <sub>2</sub> nanosheets predominantly exposing the {001} facet on oriented crystalline substrates. <i>CrystEngComm</i> , 2017, 19, 4734-4741.	2.6	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 TiO <sub>2</sub> Single-crystalline Nanosheets on Photoexcited Electron Transfer from Near-infrared Dye-sensitizer. <i>Chemistry Letters</i> , 2017, 46, 1624-1627.	1.3	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. <i>Device Research Conference, IEEE Annual</i> , 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 Eu <sup>3+</sup> :LaNb <sub>2</sub> O <sub>7</sub> and W <sub>2</sub> O <sub>7</sub> Nanosheets As Demonstrated by f Radiative Transition of Doped Eu <sup>3+</sup> . <i>Journal of Physical Chemistry C</i> , 2019, 123, 30029-30038.	3.1	0