

Thomas Moehl

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79
papers

15,880
citations

47
h-index

82
g-index

82
ext. papers

17,114
ext. citations

12.2
avg, IF

6.44
L-index

#	Paper	IF	Citations
79	Lead iodide perovskite sensitized all-solid-state submicron thin film mesoscopic solar cell with efficiency exceeding 9%. <i>Scientific Reports</i> , 2012 , 2, 591	4.9	5719
78	Understanding the rate-dependent $J-V$ hysteresis, slow time component, and aging in CH ₃ NH ₃ PbI ₃ perovskite solar cells: the role of a compensated electric field. <i>Energy and Environmental Science</i> , 2015 , 8, 995-1004	35.4	998
77	Effect of Annealing Temperature on Film Morphology of Organic/Inorganic Hybrid Perovskite Solid-State Solar Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 3250-3258	15.6	773
76	Passivating surface states on water splitting hematite photoanodes with alumina overlayers. <i>Chemical Science</i> , 2011 , 2, 737-743	9.4	675
75	Impedance spectroscopic analysis of lead iodide perovskite-sensitized solid-state solar cells. <i>ACS Nano</i> , 2014 , 8, 362-73	16.7	617
74	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. <i>Nature Photonics</i> , 2014 , 8, 250-255	33.9	567
73	Ionic polarization-induced current-voltage hysteresis in CH ₃ NH ₃ PbX ₃ perovskite solar cells. <i>Nature Communications</i> , 2016 , 7, 10334	17.4	500
72	A cobalt complex redox shuttle for dye-sensitized solar cells with high open-circuit potentials. <i>Nature Communications</i> , 2012 , 3, 631	17.4	498
71	Influence of the donor size in D- π -A organic dyes for dye-sensitized solar cells. <i>Journal of the American Chemical Society</i> , 2014 , 136, 5722-30	16.4	381
70	An organic D- π -A dye for record efficiency solid-state sensitized heterojunction solar cells. <i>Nano Letters</i> , 2011 , 11, 1452-6	11.5	308
69	Cyclopentadithiophene bridged donor-acceptor dyes achieve high power conversion efficiencies in dye-sensitized solar cells based on the tris-cobalt bipyridine redox couple. <i>ChemSusChem</i> , 2011 , 4, 591-4	8.3	307
68	Nanowire perovskite solar cell. <i>Nano Letters</i> , 2015 , 15, 2120-6	11.5	282
67	Revealing and accelerating slow electron transport in amorphous molybdenum sulphide particles for hydrogen evolution reaction. <i>Chemical Communications</i> , 2013 , 49, 8985-7	5.8	231
66	Efficient screen printed perovskite solar cells based on mesoscopic TiO ₂ /Al ₂ O ₃ /NiO/carbon architecture. <i>Nano Energy</i> , 2015 , 17, 171-179	17.1	225
65	Factors determining the photovoltaic performance of a CdSe quantum dot sensitized solar cell: the role of the linker molecule and of the counter electrode. <i>Nanotechnology</i> , 2008 , 19, 424007	3.4	225
64	Covalent Immobilization of a Molecular Catalyst on Cu ₂ O Photocathodes for CO ₂ Reduction. <i>Journal of the American Chemical Society</i> , 2016 , 138, 1938-46	16.4	220
63	Electrochemical Characterization of TiO ₂ Blocking Layers for Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16408-16418	3.8	181

62	Yttrium-substituted nanocrystalline TiO ₂ photoanodes for perovskite based heterojunction solar cells. <i>Nanoscale</i> , 2014 , 6, 1508-14	7.7	151
61	High-efficiency dye-sensitized solar cell with three-dimensional photoanode. <i>Nano Letters</i> , 2011 , 11, 4579-84	11.5	135
60	Blue-coloured highly efficient dye-sensitized solar cells by implementing the diketopyrrolopyrrole chromophore. <i>Scientific Reports</i> , 2013 , 3, 2446	4.9	130
59	Light energy conversion by mesoscopic PbS quantum dots/TiO ₂ heterojunction solar cells. <i>ACS Nano</i> , 2012 , 6, 3092-9	16.7	125
58	Efficient and selective carbon dioxide reduction on low cost protected Cu ₂ O photocathodes using a molecular catalyst. <i>Energy and Environmental Science</i> , 2015 , 8, 855-861	35.4	119
57	Photovoltaic behaviour of lead methylammonium triiodide perovskite solar cells down to 80 K. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 11762-11767	13	118
56	Working Principles of Perovskite Photodetectors: Analyzing the Interplay Between Photoconductivity and Voltage-Driven Energy-Level Alignment. <i>Advanced Functional Materials</i> , 2015 , 25, 6936-6947	15.6	114
55	Stabilized Solar Hydrogen Production with CuO/CdS Heterojunction Thin Film Photocathodes. <i>Chemistry of Materials</i> , 2017 , 29, 1735-1743	9.6	112
54	Temperature dependence of transport properties of spiro-MeOTAD as a hole transport material in solid-state dye-sensitized solar cells. <i>ACS Nano</i> , 2013 , 7, 2292-301	16.7	101
53	High-efficiency solid-state dye-sensitized solar cells: fast charge extraction through self-assembled 3D fibrous network of crystalline TiO ₂ nanowires. <i>ACS Nano</i> , 2010 , 4, 7644-50	16.7	99
52	Strong Photocurrent Amplification in Perovskite Solar Cells with a Porous TiO ₂ Blocking Layer under Reverse Bias. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3931-6	6.4	96
51	New pyrido[3,4-b]pyrazine-based sensitizers for efficient and stable dye-sensitized solar cells. <i>Chemical Science</i> , 2014 , 5, 206-214	9.4	93
50	Energy and hole transfer between dyes attached to titania in cosensitized dye-sensitized solar cells. <i>Journal of the American Chemical Society</i> , 2011 , 133, 10662-7	16.4	92
49	Effects of ZnO film growth route and nanostructure on electron transport and recombination in dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 2079-2088	13	85
48	Effect of Interfacial Engineering in Solid-State Nanostructured Sb ₂ S ₃ Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2013 , 3, 29-33	21.8	79
47	Understanding the Impact of Bromide on the Photovoltaic Performance of CH ₃ NH ₃ PbI ₃ Solar Cells. <i>Advanced Materials</i> , 2015 , 27, 7221-8	24	70
46	Extended Light Harvesting with Dual Cu ₂ O-Based Photocathodes for High Efficiency Water Splitting. <i>Advanced Energy Materials</i> , 2018 , 8, 1702323	21.8	69
45	Stable and Efficient Perovskite Solar Cells Based on Titania Nanotube Arrays. <i>Small</i> , 2015 , 11, 5533-9	11	69

44	Ligand Engineering for the Efficient Dye-Sensitized Solar Cells with Ruthenium Sensitizers and Cobalt Electrolytes. <i>Inorganic Chemistry</i> , 2016 , 55, 6653-9	5.1	65
43	Investigation of (Leaky) ALD TiO Protection Layers for Water-Splitting Photoelectrodes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43614-43622	9.5	65
42	Photocorrosion-resistant Sb ₂ Se ₃ photocathodes with earth abundant MoS _x hydrogen evolution catalyst. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 23139-23145	13	61
41	Loading of mesoporous titania films by CH ₃ NH ₃ PbI ₃ perovskite, single step vs. sequential deposition. <i>Chemical Communications</i> , 2015 , 51, 4603-6	5.8	61
40	Mesoporous TiO ₂ Beads Offer Improved Mass Transport for Cobalt-Based Redox Couples Leading to High Efficiency Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2014 , 4, 1400168	21.8	60
39	Investigation of electrodeposited cobalt sulphide counter electrodes and their application in next-generation dye sensitized solar cells featuring organic dyes and cobalt-based redox electrolytes. <i>Journal of Power Sources</i> , 2015 , 275, 80-89	8.9	59
38	Influence of Donor Groups of Organic Dyes on Open-Circuit Voltage in Solid-State Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 1572-1578	3.8	59
37	Molecular Engineering of Organic Dyes for Improved Recombination Lifetime in Solid-State Dye-Sensitized Solar Cells. <i>Chemistry of Materials</i> , 2013 , 25, 1519-1525	9.6	58
36	Photovoltaic and Amplified Spontaneous Emission Studies of High-Quality Formamidinium Lead Bromide Perovskite Films. <i>Advanced Functional Materials</i> , 2016 , 26, 2846-2854	15.6	57
35	A durable SWCNT/PET polymer foil based metal free counter electrode for flexible dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19609-19615	13	52
34	Porphyrin Sensitizers Bearing a Pyridine-Type Anchoring Group for Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14975-82	9.5	51
33	Tridentate cobalt complexes as alternative redox couples for high-efficiency dye-sensitized solar cells. <i>Chemical Science</i> , 2013 , 4, 454-459	9.4	50
32	4,9-Dihydro-4,4,9,9-tetrahexyl-s-indaceno[1,2-b:5,6-b']dithiophene as a spacer of donor-acceptor dye and its photovoltaic performance with liquid and solid-state dye-sensitized solar cells. <i>Organic Letters</i> , 2014 , 16, 106-9	6.2	39
31	Passivation of ZnO Nanowire Guests and 3D Inverse Opal Host Photoanodes for Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2014 , 4, 1400217	21.8	37
30	High Open-Circuit Voltages: Evidence for a Sensitizer-Induced TiO ₂ Conduction Band Shift in Ru(II)-Dye Sensitized Solar Cells. <i>Chemistry of Materials</i> , 2013 , 25, 4497-4502	9.6	37
29	Toward Higher Photovoltage: Effect of Blocking Layer on Cobalt Bipyridine Pyrazole Complexes as Redox Shuttle for Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16799-16805	3.8	33
28	Stable and tunable phosphonic acid dipole layer for band edge engineering of photoelectrochemical and photovoltaic heterojunction devices. <i>Energy and Environmental Science</i> , 2019 , 12, 1901-1909	35.4	32
27	Molecular gelation of ionic liquid/ulfolane mixtures, a solid electrolyte for high performance dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 15972-15977	13	32

26	Doping saturation in dye-sensitized solar cells based on ZnO:Ga nanostructured photoanodes. <i>Electrochimica Acta</i> , 2011 , 56, 6503-6509	6.7	30
25	Probing the solid-liquid interface with tender x rays: A new ambient-pressure x-ray photoelectron spectroscopy endstation at the Swiss Light Source. <i>Review of Scientific Instruments</i> , 2020 , 91, 023103	1.7	24
24	Relaxation of photogenerated carriers in P3HT:PCBM organic blends. <i>ChemSusChem</i> , 2009 , 2, 314-20	8.3	24
23	Influence of cations of the electrolyte on the performance and stability of dye sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012 , 22, 24424		22
22	Robust High-performance Dye-sensitized Solar Cells Based on Ionic Liquid-sulfolane Composite Electrolytes. <i>Scientific Reports</i> , 2015 , 5, 18158	4.9	20
21	Acetylene-bridged dyes with high open circuit potential for dye-sensitized solar cells. <i>RSC Advances</i> , 2014 , 4, 35251	3.7	20
20	Thiadiazolo[3,4-c]pyridine Acceptor Based Blue Sensitizers for High Efficiency Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 17090-17099	3.8	20
19	A New Heteroleptic Ruthenium Sensitizer for Transparent Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2012 , 2, 1503-1509	21.8	20
18	deconvolution of photovoltaic and electrocatalytic performance in ALD TiO protected water splitting photocathodes. <i>Chemical Science</i> , 2018 , 9, 6062-6067	9.4	19
17	Long-Range EConjugation in Phenothiazine-containing Donor-Acceptor Dyes for Application in Dye-Sensitized Solar Cells. <i>ChemSusChem</i> , 2015 , 8, 3859-68	8.3	19
16	Sb2S3/TiO2 Heterojunction Photocathodes: Band Alignment and Water Splitting Properties. <i>Chemistry of Materials</i> , 2020 , 32, 7247-7253	9.6	18
15	Triarylamine-based hydrido-carboxylate rhenium(i) complexes as photosensitizers for dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 7534-7543	3.6	17
14	Operando Analysis of Semiconductor Junctions in Multi-Layered Photocathodes for Solar Water Splitting by Impedance Spectroscopy. <i>Advanced Energy Materials</i> , 2021 , 11, 2003569	21.8	17
13	Tandem Cuprous Oxide/Silicon Microwire Hydrogen-Evolving Photocathode with Photovoltage Exceeding 1.3 V. <i>ACS Energy Letters</i> , 2019 , 4, 2287-2294	20.1	16
12	Unraveling the Dual Character of Sulfur Atoms on Sensitizers in Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26827-26833	9.5	12
11	Electron Kinetics in Dye Sensitized Solar Cells Employing Anatase with (101) and (001) Facets. <i>Electrochimica Acta</i> , 2015 , 160, 296-305	6.7	11
10	Consistency of photoelectrochemistry and photoelectrochemical microwave reflection demonstrated with p- and n-type layered semiconductors like MoS2. <i>Journal of Electroanalytical Chemistry</i> , 2007 , 609, 31-41	4.1	11
9	Optoelectronic properties of SnO2 / TiO2 junctions. <i>Superlattices and Microstructures</i> , 2006 , 39, 376-380	2.8	10

8	Resistance-based analysis of limiting interfaces in multilayer water splitting photocathodes by impedance spectroscopy. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 2067-2075	5.8	9
7	Photoelectrochemical studies on the n-MoS ₂ /cysteine interaction. <i>Journal of Applied Electrochemistry</i> , 2006 , 36, 1341-1346	2.6	9
6	Operando electrochemical study of charge carrier processes in water splitting photoanodes protected by atomic layer deposited TiO ₂ . <i>Sustainable Energy and Fuels</i> , 2019 , 3, 3085-3092	5.8	8
5	Dye Regeneration Dynamics by Electron Donors on Mesoscopic TiO ₂ Films. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 3420-3425	3.8	7
4	Co-adsorbing effect of bile acids containing bulky amide groups at 3-position on the photovoltaic performance in dye-sensitized solar cells. <i>Solar Energy</i> , 2019 , 189, 94-102	6.8	4
3	Preparation and characterization of high-entropy alloy (TaNb) _{1-x} (ZrHfTi) _x superconducting films. <i>Physical Review Research</i> , 2020 , 2,	3.9	4
2	Sulfur-Treatment Passivates Bulk Defects in Sb ₂ Se ₃ Photocathodes for Water Splitting. <i>Advanced Functional Materials</i> , 2112184	15.6	3
1	Effect of Interfacial Engineering in Solid-State Nanostructured Sb ₂ S ₃ Heterojunction Solar Cells (Adv. Energy Mater. 1/2013). <i>Advanced Energy Materials</i> , 2013 , 3, 28-28	21.8	2