Thomas Moehl

List of Publications by Year in Descending Order

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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	Operando Analysis of Semiconductor Junctions in Multi-Layered Photocathodes for Solar Water Splitting by Impedance Spectroscopy. *Advanced Energy Materials*, **2021**, 11, 2003569	21.8	17
78	Probing the solid-liquid interface with tender x rays: A new ambient-pressure x-ray photoelectron spectroscopy endstation at the Swiss Light Source. *Review of Scientific Instruments*, **2020**, 91, 023103	1.7	24
77	Preparation and characterization of high-entropy alloy (TaNb)1−(ZrHfTi)x superconducting films. *Physical Review Research*, **2020**, 2,	3.9	4
76	Sb2S3/TiO2 Heterojunction Photocathodes: Band Alignment and Water Splitting Properties. *Chemistry of Materials*, **2020**, 32, 7247-7253	9.6	18
75	Tandem Cuprous Oxide/Silicon Microwire Hydrogen-Evolving Photocathode with Photovoltage Exceeding 1.3 V. *ACS Energy Letters*, **2019**, 4, 2287-2294	20.1	16
74	Operando electrochemical study of charge carrier processes in water splitting photoanodes protected by atomic layer deposited TiO2. *Sustainable Energy and Fuels*, **2019**, 3, 3085-3092	5.8	8
73	Resistance-based analysis of limiting interfaces in multilayer water splitting photocathodes by impedance spectroscopy. *Sustainable Energy and Fuels*, **2019**, 3, 2067-2075	5.8	9
72	Stable and tunable phosphonic acid dipole layer for band edge engineering of photoelectrochemical and photovoltaic heterojunction devices. *Energy and Environmental Science*, **2019**, 12, 1901-1909	35.4	32
71	Triarylamine-based hydrido-carboxylate rhenium(i) complexes as photosensitizers for dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2019**, 21, 7534-7543	3.6	17
70	Co-adsorbing effect of bile acids containing bulky amide groups at 3Ḃposition on the photovoltaic performance in dye-sensitized solar cells. *Solar Energy*, **2019**, 189, 94-102	6.8	4
69	Extended Light Harvesting with Dual Cu2O-Based Photocathodes for High Efficiency Water Splitting. *Advanced Energy Materials*, **2018**, 8, 1702323	21.8	69
68	deconvolution of photovoltaic and electrocatalytic performance in ALD TiO protected water splitting photocathodes. *Chemical Science*, **2018**, 9, 6062-6067	9.4	19
67	Stabilized Solar Hydrogen Production with CuO/CdS Heterojunction Thin Film Photocathodes. *Chemistry of Materials*, **2017**, 29, 1735-1743	9.6	112
66	Photocorrosion-resistant Sb2Se3 photocathodes with earth abundant MoSx hydrogen evolution catalyst. *Journal of Materials Chemistry A*, **2017**, 5, 23139-23145	13	61
65	Investigation of (Leaky) ALD TiO Protection Layers for Water-Splitting Photoelectrodes. *ACS Applied Materials & Interfaces*, **2017**, 9, 43614-43622	9.5	65
64	Photovoltaic and Amplified Spontaneous Emission Studies of High-Quality Formamidinium Lead Bromide Perovskite Films. *Advanced Functional Materials*, **2016**, 26, 2846-2854	15.6	57
63	Ligand Engineering for the Efficient Dye-Sensitized Solar Cells with Ruthenium Sensitizers and Cobalt Electrolytes. *Inorganic Chemistry*, **2016**, 55, 6653-9	5.1	65

62	Covalent Immobilization of a Molecular Catalyst on Cu2O Photocathodes for CO2 Reduction. *Journal of the American Chemical Society*, **2016**, 138, 1938-46	16.4	220
61	Ionic polarization-induced current-voltage hysteresis in CH3NH3PbX3 perovskite solar cells. *Nature Communications*, **2016**, 7, 10334	17.4	500
60	Unraveling the Dual Character of Sulfur Atoms on Sensitizers in Dye-Sensitized Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 26827-26833	9.5	12
59	Nanowire perovskite solar cell. *Nano Letters*, **2015**, 15, 2120-6	11.5	282
58	Porphyrin Sensitizers Bearing a Pyridine-Type Anchoring Group for Dye-Sensitized Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 14975-82	9.5	51
57	Photovoltaic behaviour of lead methylammonium triiodide perovskite solar cells down to 80 K. *Journal of Materials Chemistry A*, **2015**, 3, 11762-11767	13	118
56	Efficient screen printed perovskite solar cells based on mesoscopic TiO2/Al2O3/NiO/carbon architecture. *Nano Energy*, **2015**, 17, 171-179	17.1	225
55	Efficient and selective carbon dioxide reduction on low cost protected Cu2O photocathodes using a molecular catalyst. *Energy and Environmental Science*, **2015**, 8, 855-861	35.4	119
54	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. *Journal of Power Sources*, **2015**, 275, 80-89	8.9	59
53	Robust High-performance Dye-sensitized Solar Cells Based on Ionic Liquid-sulfolane Composite Electrolytes. *Scientific Reports*, **2015**, 5, 18158	4.9	20
52	Stable and Efficient Perovskite Solar Cells Based on Titania Nanotube Arrays. *Small*, **2015**, 11, 5533-9	11	69
51	Working Principles of Perovskite Photodetectors: Analyzing the Interplay Between Photoconductivity and Voltage-Driven Energy-Level Alignment. *Advanced Functional Materials*, **2015**, 25, 6936-6947	15.6	114
50	Understanding the Impact of Bromide on the Photovoltaic Performance of CH3 NH3 PbI3 Solar Cells. *Advanced Materials*, **2015**, 27, 7221-8	24	70
49	Long-Range Conjugation in Phenothiazine-containing Donor-Acceptor Dyes for Application in Dye-Sensitized Solar Cells. *ChemSusChem*, **2015**, 8, 3859-68	8.3	19
48	Understanding the rate-dependent J–V hysteresis, slow time component, and aging in CH3NH3PbI3 perovskite solar cells: the role of a compensated electric field. *Energy and Environmental Science*, **2015**, 8, 995-1004	35.4	998
47	Loading of mesoporous titania films by CH3NH3PbI3 perovskite, single step vs. sequential deposition. *Chemical Communications*, **2015**, 51, 4603-6	5.8	61
46	Electron Kinetics in Dye Sensitized Solar Cells Employing Anatase with (101) and (001) Facets. *Electrochimica Acta*, **2015**, 160, 296-305	6.7	11
45	Effect of Annealing Temperature on Film Morphology of Organic–Inorganic Hybrid Pervoskite Solid-State Solar Cells. *Advanced Functional Materials*, **2014**, 24, 3250-3258	15.6	773

44	Influence of the donor size in D-π-A organic dyes for dye-sensitized solar cells. *Journal of the American Chemical Society*, **2014**, 136, 5722-30	16.4	381
43	Passivation of ZnO Nanowire Guests and 3D Inverse Opal Host Photoanodes for Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1400217	21.8	37
42	Toward Higher Photovoltage: Effect of Blocking Layer on Cobalt Bipyridine Pyrazole Complexes as Redox Shuttle for Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16799-16805	3.8	33
41	4,9-Dihydro-4,4,9,9-tetrahexyl-s-indaceno[1,2-b:5,6-b']dithiophene as a π-spacer of donor-π-acceptor dye and its photovoltaic performance with liquid and solid-state dye-sensitized solar cells. *Organic Letters*, **2014**, 16, 106-9	6.2	39
40	Yttrium-substituted nanocrystalline TiO_2 photoanodes for perovskite based heterojunction solar cells. *Nanoscale*, **2014**, 6, 1508-14	7.7	151
39	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. *Nature Photonics*, **2014**, 8, 250-255	33.9	567
38	Impedance spectroscopic analysis of lead iodide perovskite-sensitized solid-state solar cells. *ACS Nano*, **2014**, 8, 362-73	16.7	617
37	Electrochemical Characterization of TiO2 Blocking Layers for Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16408-16418	3.8	181
36	Strong Photocurrent Amplification in Perovskite Solar Cells with a Porous TiO2 Blocking Layer under Reverse Bias. *Journal of Physical Chemistry Letters*, **2014**, 5, 3931-6	6.4	96
35	Acetylene-bridged dyes with high open circuit potential for dye-sensitized solar cells. *RSC Advances*, **2014**, 4, 35251	3.7	20
34	Dye Regeneration Dynamics by Electron Donors on Mesoscopic TiO2 Films. *Journal of Physical Chemistry C*, **2014**, 118, 3420-3425	3.8	7
33	Molecular gelation of ionic liquid-sulfolane mixtures, a solid electrolyte for high performance dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 15972-15977	13	32
32	Thiadiazolo[3,4-c]pyridine Acceptor Based Blue Sensitizers for High Efficiency Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 17090-17099	3.8	20
31	Mesoporous TiO2 Beads Offer Improved Mass Transport for Cobalt-Based Redox Couples Leading to High Efficiency Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1400168	21.8	60
30	A durable SWCNT/PET polymer foil based metal free counter electrode for flexible dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 19609-19615	13	52
29	New pyrido[3,4-b]pyrazine-based sensitizers for efficient and stable dye-sensitized solar cells. *Chemical Science*, **2014**, 5, 206-214	9.4	93
28	Temperature dependence of transport properties of spiro-MeOTAD as a hole transport material in solid-state dye-sensitized solar cells. *ACS Nano*, **2013**, 7, 2292-301	16.7	101
27	Blue-coloured highly efficient dye-sensitized solar cells by implementing the diketopyrrolopyrrole chromophore. *Scientific Reports*, **2013**, 3, 2446	4.9	130

26	Revealing and accelerating slow electron transport in amorphous molybdenum sulphide particles for hydrogen evolution reaction. *Chemical Communications*, **2013**, 49, 8985-7	5.8	231
25	High Open-Circuit Voltages: Evidence for a Sensitizer-Induced TiO2 Conduction Band Shift in Ru(II)-Dye Sensitized Solar Cells. *Chemistry of Materials*, **2013**, 25, 4497-4502	9.6	37
24	Effects of ZnO film growth route and nanostructure on electron transport and recombination in dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2013**, 1, 2079-2088	13	85
23	Effect of Interfacial Engineering in Solid-State Nanostructured Sb2S3 Heterojunction Solar Cells (Adv. Energy Mater. 1/2013). *Advanced Energy Materials*, **2013**, 3, 28-28	21.8	2
22	Molecular Engineering of Organic Dyes for Improved Recombination Lifetime in Solid-State Dye-Sensitized Solar Cells. *Chemistry of Materials*, **2013**, 25, 1519-1525	9.6	58
21	Tridentate cobalt complexes as alternative redox couples for high-efficiency dye-sensitized solar cells. *Chemical Science*, **2013**, 4, 454-459	9.4	50
20	Effect of Interfacial Engineering in Solid-State Nanostructured Sb2S3 Heterojunction Solar Cells. *Advanced Energy Materials*, **2013**, 3, 29-33	21.8	79
19	A cobalt complex redox shuttle for dye-sensitized solar cells with high open-circuit potentials. *Nature Communications*, **2012**, 3, 631	17.4	498
18	Lead iodide perovskite sensitized all-solid-state submicron thin film mesoscopic solar cell with efficiency exceeding 9%. *Scientific Reports*, **2012**, 2, 591	4.9	5719
17	Influence of cations of the electrolyte on the performance and stability of dye sensitized solar cells. *Journal of Materials Chemistry*, **2012**, 22, 24424		22
16	Light energy conversion by mesoscopic PbS quantum dots/TiO2 heterojunction solar cells. *ACS Nano*, **2012**, 6, 3092-9	16.7	125
15	Influence of Donor Groups of Organic D-A Dyes on Open-Circuit Voltage in Solid-State Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2012**, 116, 1572-1578	3.8	59
14	A New Heteroleptic Ruthenium Sensitizer for Transparent Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2012**, 2, 1503-1509	21.8	20
13	Energy and hole transfer between dyes attached to titania in cosensitized dye-sensitized solar cells. *Journal of the American Chemical Society*, **2011**, 133, 10662-7	16.4	92
12	Passivating surface states on water splitting hematite photoanodes with alumina overlayers. *Chemical Science*, **2011**, 2, 737-743	9.4	675
11	An organic D-A dye for record efficiency solid-state sensitized heterojunction solar cells. *Nano Letters*, **2011**, 11, 1452-6	11.5	308
10	Cyclopentadithiophene bridged donor-acceptor dyes achieve high power conversion efficiencies in dye-sensitized solar cells based on the tris-cobalt bipyridine redox couple. *ChemSusChem*, **2011**, 4, 591-4	8.3	307
9	High-efficiency dye-sensitized solar cell with three-dimensional photoanode. *Nano Letters*, **2011**, 11, 4579-84	11.5	135

8	Doping saturation in dye-sensitized solar cells based on ZnO:Ga nanostructured photoanodes. *Electrochimica Acta*, **2011**, 56, 6503-6509	6.7	30
7	High-efficiency solid-state dye-sensitized solar cells: fast charge extraction through self-assembled 3D fibrous network of crystalline TiO2 nanowires. *ACS Nano*, **2010**, 4, 7644-50	16.7	99
6	Relaxation of photogenerated carriers in P3HT:PCBM organic blends. *ChemSusChem*, **2009**, 2, 314-20	8.3	24
5	Factors determining the photovoltaic performance of a CdSe quantum dot sensitized solar cell: the role of the linker molecule and of the counter electrode. *Nanotechnology*, **2008**, 19, 424007	3.4	225
4	Consistency of photoelectrochemistry and photoelectrochemical microwave reflection demonstrated with p- and n-type layered semiconductors like MoS2. *Journal of Electroanalytical Chemistry*, **2007**, 609, 31-41	4.1	11
3	Optoelectronic properties of SnO2 / TiO2 junctions. *Superlattices and Microstructures*, **2006**, 39, 376-380	2.8	10
2	Photoelectrochemical studies on the n-MoS2□ysteine interaction. *Journal of Applied Electrochemistry*, **2006**, 36, 1341-1346	2.6	9
1	Sulfur-Treatment Passivates Bulk Defects in Sb 2 Se 3 Photocathodes for Water Splitting. *Advanced Functional Materials*,2112184	15.6	3