Thomas Moehl

List of Publications by Year
in descending order

81 papers	18,313 citations	46918 47 h-index	58464 82 g-index
82 all docs	82 docs citations	82 times ranked	19044 citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal orientation-dependent etching and trapping in thermally-oxidised Cu₂O photocathodes for water splitting. Energy and Environmental Science, 2022, 15, 2002-2010.	15.6	20
2	Sulfur Treatment Passivates Bulk Defects in Sb₂Se₃ Photocathodes for Water Splitting. Advanced Functional Materials, 2022, 32, .	7.8	18
3	Operando Analysis of Semiconductor Junctions in Multiâ€Layered Photocathodes for Solar Water Splitting by Impedance Spectroscopy. Advanced Energy Materials, 2021, 11, 2003569.	10.2	36
4	Tuning the selectivity of biomass oxidation over oxygen evolution on NiOâ€“OH electrodes. Green Chemistry, 2021, 23, 8061-8068.	4.6	20
5	Sb₂S₃/TiO₂ Heterojunction Photocathodes: Band Alignment and Water Splitting Properties. Chemistry of Materials, 2020, 32, 7247-7253.	3.2	34
6	Probing the solidâ€“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.	0.6	45
7	Preparation and characterization of high-entropy alloy <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>TaNb</ superconducting films. Physical Review Research, 2020, 2, .	1.3	13
8	Co-adsorbing effect of bile acids containing bulky amide groups at 3Î²-position on the photovoltaic performance in dye-sensitized solar cells. Solar Energy, 2019, 189, 94-102.	2.9	4
9	Tandem Cuprous Oxide/Silicon Microwire Hydrogen-Evolving Photocathode with Photovoltage Exceeding 1.3 V. ACS Energy Letters, 2019, 4, 2287-2294.	8.8	25
10	<i>Operando</i>electrochemical study of charge carrier processes in water splitting photoanodes protected by atomic layer deposited TiO₂. Sustainable Energy and Fuels, 2019, 3, 3085-3092.	2.5	11
11	Resistance-based analysis of limiting interfaces in multilayer water splitting photocathodes by impedance spectroscopy. Sustainable Energy and Fuels, 2019, 3, 2067-2075.	2.5	12
12	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.	15.6	41
13	Triarylamine-based hydrido-carboxylate rhenium(i) complexes as photosensitizers for dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2019, 21, 7534-7543.	1.3	19
14	Extended Light Harvesting with Dual Cu₂Oâ€Based Photocathodes for High Efficiency Water Splitting. Advanced Energy Materials, 2018, 8, 1702323.	10.2	93
15	<i>Operando</i> deconvolution of photovoltaic and electrocatalytic performance in ALD TiO₂ protected water splitting photocathodes. Chemical Science, 2018, 9, 6062-6067.	3.7	22
16	Stabilized Solar Hydrogen Production with CuO/CdS Heterojunction Thin Film Photocathodes. Chemistry of Materials, 2017, 29, 1735-1743.	3.2	140
17	Photocorrosion-resistant Sb₂Se₃photocathodes with earth abundant MoS_xhydrogen evolution catalyst. Journal of Materials Chemistry A, 2017, 5, 23139-23145.	5.2	83
18	Investigation of (Leaky) ALD TiO₂ Protection Layers for Water-Splitting Photoelectrodes. ACS Applied Materials & Interfaces, 2017, 9, 43614-43622.	4.0	84

#	Article	IF	Citations
19	Unraveling the Dual Character of Sulfur Atoms on Sensitizers in Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 26827-26833.	4.0	16
20	Robust High-performance Dye-sensitized Solar Cells Based on Ionic Liquid-sulfolane Composite Electrolytes. Scientific Reports, 2016, 5, 18158.	1.6	29
21	Photovoltaic and Amplified Spontaneous Emission Studies of Highâ€Quality Formamidinium Lead Bromide Perovskite Films. Advanced Functional Materials, 2016, 26, 2846-2854.	7.8	66
22	Ligand Engineering for the Efficient Dye-Sensitized Solar Cells with Ruthenium Sensitizers and Cobalt Electrolytes. Inorganic Chemistry, 2016, 55, 6653-6659.	1.9	80
23	Covalent Immobilization of a Molecular Catalyst on Cu₂O Photocathodes for CO₂ Reduction. Journal of the American Chemical Society, 2016, 138, 1938-1946.	6.6	272
24	Ionic polarization-induced currentâ€"voltage hysteresis in CH3NH3PbX3 perovskite solar cells. Nature Communications, 2016, 7, 10334.	5.8	602
25	Stable and Efficient Perovskite Solar Cells Based on Titania Nanotube Arrays. Small, 2015, 11, 5533-5539.	5.2	80
26	Working Principles of Perovskite Photodetectors: Analyzing the Interplay Between Photoconductivity and Voltageâ€Driven Energyâ€Level Alignment. Advanced Functional Materials, 2015, 25, 6936-6947.	7.8	129
27	Understanding the Impact of Bromide on the Photovoltaic Performance of CH₃NH₃PbI₃ Solar Cells. Advanced Materials, 2015, 27, 7221-7228.	11.1	73
28	Longâ€Range Ï€â€Conjugation in Phenothiazineâ€containing Donorâ€"Acceptor Dyes for Application in Dyeâ€Sensitized Solar Cells. ChemSusChem, 2015, 8, 3859-3868.	3.6	21
29	Understanding the rate-dependent Jâ€"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.	15.6	1,150
30	Loading of mesoporous titania films by CH₃NH₃PbI₃ perovskite, single step <i>vs.</i> sequential deposition. Chemical Communications, 2015, 51, 4603-4606.	2.2	64
31	Electron Kinetics in Dye Sensitized Solar Cells Employing Anatase with (101) and (001) Facets. Electrochimica Acta, 2015, 160, 296-305.	2.6	13
32	Nanowire Perovskite Solar Cell. Nano Letters, 2015, 15, 2120-2126.	4.5	321
33	Porphyrin Sensitizers Bearing a Pyridine-Type Anchoring Group for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 14975-14982.	4.0	60
34	Photovoltaic behaviour of lead methylammonium triiodide perovskite solar cells down to 80 K. Journal of Materials Chemistry A, 2015, 3, 11762-11767.	5.2	135
35	Efficient screen printed perovskite solar cells based on mesoscopic TiO2/Al2O3/NiO/carbon architecture. Nano Energy, 2015, 17, 171-179.	8.2	261
36	Efficient and selective carbon dioxide reduction on low cost protected Cu₂O photocathodes using a molecular catalyst. Energy and Environmental Science, 2015, 8, 855-861.	15.6	142

#	Article	IF	Citations
37	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.	4.0	64
38	Mesoporous TiO₂ Beads Offer Improved Mass Transport for Cobaltâ€Based Redox Couples Leading to High Efficiency Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1400168.	10.2	65
39	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.	5.2	53
40	New pyrido[3,4-b]pyrazine-based sensitizers for efficient and stable dye-sensitized solar cells. Chemical Science, 2014, 5, 206-214.	3.7	102
41	Effect of Annealing Temperature on Film Morphology of Organicâ€“Inorganic Hybrid Pervoskite Solidâ€State Solar Cells. Advanced Functional Materials, 2014, 24, 3250-3258.	7.8	850
42	Influence of the Donor Size in Dâˆ'Ï€â€“A Organic Dyes for Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2014, 136, 5722-5730.	6.6	417
43	Passivation of ZnO Nanowire Guests and 3D Inverse Opal Host Photoanodes for Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1400217.	10.2	37
44	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.	1.5	35
45	4,9-Dihydro-4,4,9,9-tetrahexyl-<i>s</i>-indaceno[1,2-<i>b</i>:5,6-<i>b</i>â€²]dithiophene as a Ï€-Spacer of Donorâˆ'Ï€â€“Acceptor Dye and Its Photovoltaic Performance with Liquid and Solid-State Dye-Sensitized Solar Cells. Organic Letters, 2014, 16, 106-109.	2.4	40
46	Yttrium-substituted nanocrystalline TiO₂photoanodes for perovskite based heterojunction solar cells. Nanoscale, 2014, 6, 1508-1514.	2.8	162
47	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. Nature Photonics, 2014, 8, 250-255.	15.6	648
48	Impedance Spectroscopic Analysis of Lead Iodide Perovskite-Sensitized Solid-State Solar Cells. ACS Nano, 2014, 8, 362-373.	7.3	663
49	Electrochemical Characterization of TiO₂ Blocking Layers for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16408-16418.	1.5	201
50	Strong Photocurrent Amplification in Perovskite Solar Cells with a Porous TiO₂ Blocking Layer under Reverse Bias. Journal of Physical Chemistry Letters, 2014, 5, 3931-3936.	2.1	104
51	Acetylene-bridged dyes with high open circuit potential for dye-sensitized solar cells. RSC Advances, 2014, 4, 35251.	1.7	23
52	Dye Regeneration Dynamics by Electron Donors on Mesoscopic TiO₂ Films. Journal of Physical Chemistry C, 2014, 118, 3420-3425.	1.5	10
53	Molecular gelation of ionic liquidâ€“sulfolane mixtures, a solid electrolyte for high performance dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 15972-15977.	5.2	33
54	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.	1.5	24

#	Article	IF	Citations
55	Temperature Dependence of Transport Properties of Spiro-MeOTAD as a Hole Transport Material in Solid-State Dye-Sensitized Solar Cells. ACS Nano, 2013, 7, 2292-2301.	7.3	107
56	Blue-Coloured Highly Efficient Dye-Sensitized Solar Cells by Implementing the Diketopyrrolopyrrole Chromophore. Scientific Reports, 2013, 3, 2446.	1.6	143
57	Revealing and accelerating slow electron transport in amorphous molybdenum sulphide particles for hydrogen evolution reaction. Chemical Communications, 2013, 49, 8985.	2.2	279
58	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.	3.2	37
59	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.	5.2	90
60	Effect of Interfacial Engineering in Solidâ€State Nanostructured Sb₂S₃ Heterojunction Solar Cells (Adv. Energy Mater. 1/2013). Advanced Energy Materials, 2013, 3, 28-28.	10.2	4
61	Molecular Engineering of Organic Dyes for Improved Recombination Lifetime in Solid-State Dye-Sensitized Solar Cells. Chemistry of Materials, 2013, 25, 1519-1525.	3.2	66
62	Tridentate cobalt complexes as alternative redox couples for high-efficiency dye-sensitized solar cells. Chemical Science, 2013, 4, 454-459.	3.7	56
63	Effect of Interfacial Engineering in Solidâ€State Nanostructured Sb₂S₃ Heterojunction Solar Cells. Advanced Energy Materials, 2013, 3, 29-33.	10.2	85
64	A cobalt complex redox shuttle for dye-sensitized solar cells with high open-circuit potentials. Nature Communications, 2012, 3, 631.	5.8	554
65	Lead Iodide Perovskite Sensitized All-Solid-State Submicron Thin Film Mesoscopic Solar Cell with Efficiency Exceeding 9%. Scientific Reports, 2012, 2, 591.	1.6	6,763
66	Influence of cations of the electrolyte on the performance and stability of dye sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 24424.	6.7	23
67	Light Energy Conversion by Mesoscopic PbS Quantum Dots/TiO₂ Heterojunction Solar Cells. ACS Nano, 2012, 6, 3092-3099.	7.3	132
68	Influence of Donor Groups of Organic Dâˆ'Ï€â€"A Dyes on Open-Circuit Voltage in Solid-State Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2012, 116, 1572-1578.	1.5	69
69	A New Heteroleptic Ruthenium Sensitizer for Transparent Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2012, 2, 1503-1509.	10.2	22
70	High-Efficiency Dye-Sensitized Solar Cell with Three-Dimensional Photoanode. Nano Letters, 2011, 11, 4579-4584.	4.5	143
71	Energy and Hole Transfer between Dyes Attached to Titania in Cosensitized Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2011, 133, 10662-10667.	6.6	96
72	Passivating surface states on water splitting hematite photoanodes with alumina overlayers. Chemical Science, 2011, 2, 737-743.	3.7	763

#	Article	IF	Citations
73	An Organic D-Ï€-A Dye for Record Efficiency Solid-State Sensitized Heterojunction Solar Cells. Nano Letters, 2011, 11, 1452-1456.	4.5	322
74	Cyclopentadithiophene Bridged Donorâ€“Acceptor Dyes Achieve High Power Conversion Efficiencies in Dyeâ€Sensitized Solar Cells Based on the <i>tris</i>â€Cobalt Bipyridine Redox Couple. ChemSusChem, 2011, 4, 591-594.	3.6	327
75	Doping saturation in dye-sensitized solar cells based on ZnO:Ga nanostructured photoanodes. Electrochimica Acta, 2011, 56, 6503-6509.	2.6	36
76	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, 7644-7650.	7.3	105
77	Relaxation of Photogenerated Carriers in P3HT:PCBM Organic Blends. ChemSusChem, 2009, 2, 314-320.	3.6	27
78	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.	1.3	237
79	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.	1.9	13
80	Photoelectrochemical studies on the n-MoS2â€“Cysteine interaction. Journal of Applied Electrochemistry, 2006, 36, 1341-1346.	1.5	10
81	Optoelectronic properties of SnO2 / TiO2 junctions. Superlattices and Microstructures, 2006, 39, 376-380.	1.4	10