Jacques-E Moser

List of Publications by Year
in descending order

69 papers	12,198 citations	53660 45 h-index	95083 68 g-index
71 all docs	71 docs citations	71 times ranked	11159 citing authors

#	Article	IF	Citations
1	Electrochemical Impedance Spectroscopic Analysis of Dye-Sensitized Solar Cells. Journal of Physical Chemistry B, 2005, 109, 14945-14953.	1.2	1,855
2	Dye-sensitized solar cells for efficient power generation under ambient lighting. Nature Photonics, 2017, 11, 372-378.	15.6	871
3	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. Nature Photonics, 2014, 8, 250-255.	15.6	648
4	A New Ionic Liquid Electrolyte Enhances the Conversion Efficiency of Dye-Sensitized Solar Cells. Journal of Physical Chemistry B, 2003, 107, 13280-13285.	1.2	607
5	A cobalt complex redox shuttle for dye-sensitized solar cells with high open-circuit potentials. Nature Communications, 2012, 3, 631.	5.8	554
6	High Molar Extinction Coefficient Heteroleptic Ruthenium Complexes for Thin Film Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2006, 128, 4146-4154.	6.6	538
7	An organic redox electrolyte to rival triiodide/iodide in dye-sensitized solar cells. Nature Chemistry, 2010, 2, 385-389.	6.6	510
8	Significant Improvement of Dyeâ€Sensitized Solar Cell Performance by Small Structural Modification in Ï€â€Conjugated Donorâ€“Acceptor Dyes. Advanced Functional Materials, 2012, 22, 1291-1302.	7.8	404
9	CoII(dbbip)22+ Complex Rivals Tri-iodide/Iodide Redox Mediator in Dye-Sensitized Photovoltaic Cells. Journal of Physical Chemistry B, 2001, 105, 10461-10464.	1.2	402
10	Charge Separation and Efficient Light Energy Conversion in Sensitized Mesoscopic Solar Cells Based on Binary Ionic Liquids. Journal of the American Chemical Society, 2005, 127, 6850-6856.	6.6	383
11	A Solvent-Free, SeCN-/(SeCN)3- Based Ionic Liquid Electrolyte for High-Efficiency Dye-Sensitized Nanocrystalline Solar Cells. Journal of the American Chemical Society, 2004, 126, 7164-7165.	6.6	364
12	Cooperative Effect of Adsorbed Cations and Iodide on the Interception of Back Electron Transfer in the Dye Sensitization of Nanocrystalline TiO2. Journal of Physical Chemistry B, 2000, 104, 1791-1795.	1.2	341
13	An Alternative Efficient Redox Couple for the Dye-Sensitized Solar Cell System. Chemistry - A European Journal, 2003, 9, 3756-3763.	1.7	304
14	Long-Lived Photoinduced Charge Separation and Redox-Type Photochromism on Mesoporous Oxide Films Sensitized by Molecular Dyads. Journal of the American Chemical Society, 1999, 121, 1324-1336.	6.6	253
15	Real-Time Observation of Photoinduced Adiabatic Electron Transfer in Strongly Coupled Dye/Semiconductor Colloidal Systems with a 6 fs Time Constant. Journal of Physical Chemistry B, 2002, 106, 6494-6499.	1.2	239
16	Copper Bipyridyl Redox Mediators for Dye-Sensitized Solar Cells with High Photovoltage. Journal of the American Chemical Society, 2016, 138, 15087-15096.	6.6	239
17	Enhanced Electron Collection Efficiency in Dye-Sensitized Solar Cells Based on Nanostructured TiO₂ Hollow Fibers. Nano Letters, 2010, 10, 1632-1638.	4.5	234
18	11% efficiency solid-state dye-sensitized solar cells with copper(II/I) hole transport materials. Nature Communications, 2017, 8, 15390.	5.8	229

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19	Rationale for Kinetic Heterogeneity of Ultrafast Light-Induced Electron Transfer from Ru(II) Complex Sensitizers to Nanocrystalline TiO2. Journal of the American Chemical Society, 2005, 127, 12150-12151.	6.6	213
20	A molecular photosensitizer achieves a Voc of 1.24â€‰V enabling highly efficient and stable dye-sensitized solar cells with copper(II/I)-based electrolyte. Nature Communications, 2021, 12, 1777.	5.8	196
21	Charge Separation in Solid-State Dye-Sensitized Heterojunction Solar Cells. Journal of the American Chemical Society, 1999, 121, 7445-7446.	6.6	195
22	Stable, Highâ€Efficiency Ionicâ€Liquidâ€Based Mesoscopic Dyeâ€Sensitized Solar Cells. Small, 2007, 3, 2094-2102.	5.2	191
23	Ion Coordinating Sensitizer for High Efficiency Mesoscopic Dye-Sensitized Solar Cells:â€‰ Influence of Lithium Ions on the Photovoltaic Performance of Liquid and Solid-State Cells. Nano Letters, 2006, 6, 769-773.	4.5	161
24	Molecular Engineering of a Fluorene Donor for Dye-Sensitized Solar Cells. Chemistry of Materials, 2013, 25, 2733-2739.	3.2	154
25	Comprehensive control of voltage loss enables 11.7% efficient solid-state dye-sensitized solar cells. Energy and Environmental Science, 2018, 11, 1779-1787.	15.6	148
26	The Effect of Hole Transport Material Pore Filling on Photovoltaic Performance in Solidâ€State Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2011, 1, 407-414.	10.2	130
27	Amphiphilic Ruthenium Sensitizer with 4,4â€˜-Diphosphonic Acid-2,2â€˜-bipyridine as Anchoring Ligand for Nanocrystalline Dye Sensitized Solar Cells. Journal of Physical Chemistry B, 2004, 108, 17553-17559.	1.2	105
28	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
29	Femtosecond Dynamics of Interfacial and Intermolecular Electron Transfer at Eosin-Sensitized Metal Oxide Nanoparticles. Journal of Physical Chemistry B, 2003, 107, 3215-3224.	1.2	98
30	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
31	Dissociation of Charge Transfer States and Carrier Separation in Bilayer Organic Solar Cells: A Time-Resolved Electroabsorption Spectroscopy Study. Journal of the American Chemical Society, 2015, 137, 8192-8198.	6.6	86
32	Ligand Engineering for the Efficient Dye-Sensitized Solar Cells with Ruthenium Sensitizers and Cobalt Electrolytes. Inorganic Chemistry, 2016, 55, 6653-6659.	1.9	80
33	Butyronitrile-Based Electrolyte for Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2011, 133, 13103-13109.	6.6	75
34	A Close Look at Charge Generation in Polymer:Fullerene Blends with Microstructure Control. Journal of the American Chemical Society, 2015, 137, 2908-2918.	6.6	75
35	The fate of electronâ€"hole pairs in polymer:fullerene blends for organic photovoltaics. Nature Communications, 2016, 7, 12556.	5.8	68
36	Engineering of thiocyanate-free Ru(ii) sensitizers for high efficiency dye-sensitized solar cells. Chemical Science, 2013, 4, 2423.	3.7	67

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37	Extraordinarily Efficient Conduction in a Redoxâ€Active Ionic Liquid. ChemPhysChem, 2011, 12, 145-149.	1.0	65
38	Effect of Extended Ï€-Conjugation of the Donor Structure of Organic Dâ€"Aâ˜Ï€â€"A Dyes on the Photovoltaic Performance of Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16486-16493.	1.5	63
39	Towards Compatibility between Ruthenium Sensitizers and Cobalt Electrolytes in Dyeâ€Sensitized Solar Cells. Angewandte Chemie - International Edition, 2013, 52, 8731-8735.	7.2	61
40	Phenanthreneâ€Fusedâ€Quinoxaline as a Key Building Block for Highly Efficient and Stable Sensitizers in Copperâ€Electrolyteâ€Based Dyeâ€Sensitized Solar Cells. Angewandte Chemie - International Edition, 2020, 59, 9324-9329.	7.2	59
41	Influence of Iodide Concentration on the Efficiency and Stability of Dyeâ€Sensitized Solar Cell Containing Nonâ€Volatile Electrolyte. ChemPhysChem, 2009, 10, 1834-1838.	1.0	54
42	Influence of the Anchoring Modes on the Electronic and Photovoltaic Properties of Dâ˜Ï€â€"A Dyes. Journal of Physical Chemistry C, 2012, 116, 16876-16884.	1.5	53
43	Photoinduced Interfacial Electron Injection Dynamics in Dye-Sensitized Solar Cells under Photovoltaic Operating Conditions. Journal of Physical Chemistry Letters, 2012, 3, 3786-3790.	2.1	52
44	Position-Dependent Extension of Ï€-Conjugation in D-Ï€-A Dye Sensitizers and the Impact on the Charge-Transfer Properties. Journal of Physical Chemistry C, 2013, 117, 13805-13815.	1.5	50
45	Unravelling the Potential for Dithienopyrrole Sensitizers in Dye-Sensitized Solar Cells. Chemistry of Materials, 2013, 25, 2642-2648.	3.2	49
46	Effect of Coordination Sphere Geometry of Copper Redox Mediators on Regeneration and Recombination Behavior in Dye-Sensitized Solar Cell Applications. ACS Applied Energy Materials, 2018, 1, 4950-4962.	2.5	49
47	Application of Cu(ii) and Zn(ii) coproporphyrins as sensitizers for thin film dye sensitized solar cells. Energy and Environmental Science, 2010, 3, 956.	15.6	37
48	Dynamics of Photoinduced Interfacial Electron Transfer and Charge Transport in Dye-Sensitized Mesoscopic Semiconductors. Chimia, 2007, 61, 631.	0.3	35
49	Dynamics of Interfacial Charge Transfer States and Carriers Separation in Dye-Sensitized Solar Cells: A Time-Resolved Terahertz Spectroscopy Study. Journal of Physical Chemistry C, 2015, 119, 26266-26274.	1.5	31
50	Blue Photosensitizer with Copper(II/I) Redox Mediator for Efficient and Stable Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2020, 30, 2004804.	7.8	30
51	Kinetics of the Regeneration by Iodide of Dye Sensitizers Adsorbed on Mesoporous Titania. Journal of Physical Chemistry C, 2014, 118, 17108-17115.	1.5	26
52	Later rather than sooner. Nature Materials, 2005, 4, 723-724.	13.3	25
53	Liquid State and Zombie Dye Sensitized Solar Cells with Copper Bipyridine Complexes Functionalized with Alkoxy Groups. Journal of Physical Chemistry C, 2020, 124, 7071-7081.	1.5	24
54	Temperature-Dependent Ordering Phenomena of a Polyiodide System in a Redox-Active Ionic Liquid. Journal of Physical Chemistry C, 2012, 116, 7989-7992.	1.5	23

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55	Dynamics of Photocarrier Separation in MAPbI₃ Perovskite Multigrain Films under a Quasistatic Electric Field. Journal of Physical Chemistry C, 2016, 120, 19595-19602.	1.5	22
56	Ultrafast charge separation dynamics in opaque, operational dye-sensitized solar cells revealed by femtosecond diffuse reflectance spectroscopy. Scientific Reports, 2016, 6, 24465.	1.6	22
57	Effect of Posttreatment of Titania Mesoscopic Films by TiCl₄ in Solid-State Dye-Sensitized Solar Cells: A Time-Resolved Spectroscopy Study. Journal of Physical Chemistry C, 2012, 116, 26721-26727.	1.5	20
58	Conduction Through Viscoelastic Phase in a Redoxâ€Active Ionic Liquid at Reduced Temperatures. Advanced Materials, 2012, 24, 781-784.	11.1	17
59	Investigation of Interfacial Charge Separation at PbS QDs/(001) TiO₂Nanosheets Heterojunction Solar Cell. Particle and Particle Systems Characterization, 2015, 32, 483-488.	1.2	17
60	Phenanthreneâ€Fusedâ€Quinoxaline as a Key Building Block for Highly Efficient and Stable Sensitizers in Copperâ€Electrolyteâ€Based Dyeâ€Sensitized Solar Cells. Angewandte Chemie, 2020, 132, 9410-9415.	1.6	17
61	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
62	Charge separation and carrier dynamics in donor-acceptor heterojunction photovoltaic systems. Structural Dynamics, 2017, 4, 061503.	0.9	13
63	Lateral Intermolecular Electronic Interactions of Diketopyrrolopyrrole Dâˆ’Ï€â€“A Solar Dye Sensitizers Adsorbed on Mesoporous Alumina. Journal of Physical Chemistry C, 2018, 122, 19348-19358.	1.5	9
64	A tandem redox system with a cobalt complex and 2-azaadamantane-<i>N</i>-oxyl for fast dye regeneration and open circuit voltages exceeding 1 V. Journal of Materials Chemistry A, 2019, 7, 10998-11006.	5.2	8
65	On the kinetics and mechanism of light-induced electron transfer at the semiconductor/electrolyte interface. Solar Energy Materials and Solar Cells, 1995, 38, 343-345.	3.0	7
66	Donor Effect on the Photoinduced Interfacial Charge Transfer Dynamics of Dâˆ’Ï€â€“A Diketopyrrolopyrrole Dye Sensitizers Adsorbed on Titanium Dioxide. Journal of Physical Chemistry C, 2018, 122, 19359-19369.	1.5	7
67	Electron donor-acceptor distance dependence of the dynamics of light-induced interfacial charge transfer in the dye-sensitization of nanocrystalline oxide semiconductors. , 2006, , .		3
68	Using the Stark effect to understand charge generation in organic solar cells. Proceedings of SPIE, 2015, , .	0.8	1
69	Conductivity in Dye-Sensitized TiO2 probed by Optical-Pump THz-Probe Spectroscopy. , 2010, , .		0