# Jacques-E Moser

## List of Publications by Citations



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|---|---|---|---|
| 69 papers | 10,768 citations | 43 h-index | 71 g-index |
| 71 ext. papers | 11,524 ext. citations | 11.1 avg, IF | 6.02 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 69 | Electrochemical impedance spectroscopic analysis of dye-sensitized solar cells. *Journal of Physical Chemistry B*, **2005**, 109, 14945-53 | 3.4 | 1732 |
| 68 | Dye-sensitized solar cells for efficient power generation under ambient lighting. *Nature Photonics*, **2017**, 11, 372-378 | 33.9 | 653 |
| 67 | A New Ionic Liquid Electrolyte Enhances the Conversion Efficiency of Dye-Sensitized Solar Cells. *Journal of Physical Chemistry B*, **2003**, 107, 13280-13285 | 3.4 | 569 |
| 66 | Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. *Nature Photonics*, **2014**, 8, 250-255 | 33.9 | 567 |
| 65 | High molar extinction coefficient heteroleptic ruthenium complexes for thin film dye-sensitized solar cells. *Journal of the American Chemical Society*, **2006**, 128, 4146-54 | 16.4 | 512 |
| 64 | A cobalt complex redox shuttle for dye-sensitized solar cells with high open-circuit potentials. *Nature Communications*, **2012**, 3, 631 | 17.4 | 498 |
| 63 | An organic redox electrolyte to rival triiodide/iodide in dye-sensitized solar cells. *Nature Chemistry*, **2010**, 2, 385-9 | 17.6 | 474 |
| 62 | CoII(dbbip)22+ Complex Rivals Tri-iodide/Iodide Redox Mediator in Dye-Sensitized Photovoltaic Cells. *Journal of Physical Chemistry B*, **2001**, 105, 10461-10464 | 3.4 | 376 |
| 61 | Significant Improvement of Dye-Sensitized Solar Cell Performance by Small Structural Modification in π-Conjugated Donor–Acceptor Dyes. *Advanced Functional Materials*, **2012**, 22, 1291-1302 | 15.6 | 366 |
| 60 | 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, 6850-6 | 16.4 | 358 |
| 59 | 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, 7164-5 | 16.4 | 336 |
| 58 | 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 | 3.4 | 322 |
| 57 | An alternative efficient redox couple for the dye-sensitized solar cell system. *Chemistry - A European Journal*, **2003**, 9, 3756-63 | 4.8 | 284 |
| 56 | 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 | 16.4 | 231 |
| 55 | Enhanced electron collection efficiency in dye-sensitized solar cells based on nanostructured TiO(2) hollow fibers. *Nano Letters*, **2010**, 10, 1632-8 | 11.5 | 221 |
| 54 | 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 | 3.4 | 207 |
| 53 | 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, 12150-1 | 16.4 | 201 |

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| 52 | Stable, high-efficiency ionic-liquid-based mesoscopic dye-sensitized solar cells. *Small*, **2007**, 3, 2094-102 | 11 | 182 |
| 51 | 11% efficiency solid-state dye-sensitized solar cells with copper(II/I) hole transport materials. *Nature Communications*, **2017**, 8, 15390 | 17.4 | 181 |
| 50 | Charge Separation in Solid-State Dye-Sensitized Heterojunction Solar Cells. *Journal of the American Chemical Society*, **1999**, 121, 7445-7446 | 16.4 | 179 |
| 49 | Copper Bipyridyl Redox Mediators for Dye-Sensitized Solar Cells with High Photovoltage. *Journal of the American Chemical Society*, **2016**, 138, 15087-15096 | 16.4 | 174 |
| 48 | Ion coordinating sensitizer for high efficiency mesoscopic dye-sensitized solar cells: influence of lithium ions on the photovoltaic performance of liquid and solid-state cells. *Nano Letters*, **2006**, 6, 769-73 | 11.5 | 154 |
| 47 | Molecular Engineering of a Fluorene Donor for Dye-Sensitized Solar Cells. *Chemistry of Materials*, **2013**, 25, 2733-2739 | 9.6 | 136 |
| 46 | The Effect of Hole Transport Material Pore Filling on Photovoltaic Performance in Solid-State Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2011**, 1, 407-414 | 21.8 | 124 |
| 45 | Comprehensive control of voltage loss enables 11.7% efficient solid-state dye-sensitized solar cells. *Energy and Environmental Science*, **2018**, 11, 1779-1787 | 35.4 | 112 |
| 44 | Amphiphilic Ruthenium Sensitizer with 4,4‐Diphosphonic Acid-2,2‐bipyridine as Anchoring Ligand for Nanocrystalline Dye Sensitized Solar Cells. *Journal of Physical Chemistry B*, **2004**, 108, 17553-17559 | 3.4 | 100 |
| 43 | Femtosecond Dynamics of Interfacial and Intermolecular Electron Transfer at Eosin-Sensitized Metal Oxide Nanoparticles. *Journal of Physical Chemistry B*, **2003**, 107, 3215-3224 | 3.4 | 94 |
| 42 | 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 |
| 41 | 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 |
| 40 | 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, 8192-8 | 16.4 | 74 |
| 39 | A close look at charge generation in polymer:fullerene blends with microstructure control. *Journal of the American Chemical Society*, **2015**, 137, 2908-18 | 16.4 | 68 |
| 38 | A molecular photosensitizer achieves a V of 1.24 V enabling highly efficient and stable dye-sensitized solar cells with copper(II/I)-based electrolyte. *Nature Communications*, **2021**, 12, 1777 | 17.4 | 67 |
| 37 | Butyronitrile-based electrolyte for dye-sensitized solar cells. *Journal of the American Chemical Society*, **2011**, 133, 13103-9 | 16.4 | 66 |
| 36 | Ligand Engineering for the Efficient Dye-Sensitized Solar Cells with Ruthenium Sensitizers and Cobalt Electrolytes. *Inorganic Chemistry*, **2016**, 55, 6653-9 | 5.1 | 65 |
| 35 | Engineering of thiocyanate-free Ru(II) sensitizers for high efficiency dye-sensitized solar cells. *Chemical Science*, **2013**, 4, 2423 | 9.4 | 65 |

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| 34 | Extraordinarily efficient conduction in a redox-active ionic liquid. *ChemPhysChem*, **2011**, 12, 145-9 | 3.2 | 61 |
| 33 | The fate of electron-hole pairs in polymer:fullerene blends for organic photovoltaics. *Nature Communications*, **2016**, 7, 12556 | 17.4 | 57 |
| 32 | Towards compatibility between ruthenium sensitizers and cobalt electrolytes in dye-sensitized solar cells. *Angewandte Chemie - International Edition*, **2013**, 52, 8731-5 | 16.4 | 57 |
| 31 | Photoinduced Interfacial Electron Injection Dynamics in Dye-Sensitized Solar Cells under Photovoltaic Operating Conditions. *Journal of Physical Chemistry Letters*, **2012**, 3, 3786-90 | 6.4 | 49 |
| 30 | Effect of Extended π-Conjugation of the Donor Structure of Organic D-π-A Dyes on the Photovoltaic Performance of Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2014**, 118, 16486-16493 | 3.8 | 47 |
| 29 | Unravelling the Potential for Dithienopyrrole Sensitizers in Dye-Sensitized Solar Cells. *Chemistry of Materials*, **2013**, 25, 2642-2648 | 9.6 | 47 |
| 28 | Influence of iodide concentration on the efficiency and stability of dye-sensitized solar cell containing non-volatile electrolyte. *ChemPhysChem*, **2009**, 10, 1834-8 | 3.2 | 47 |
| 27 | Influence of the Anchoring Modes on the Electronic and Photovoltaic Properties of D-π-A Dyes. *Journal of Physical Chemistry C*, **2012**, 116, 16876-16884 | 3.8 | 44 |
| 26 | Position-Dependent Extension of π-Conjugation in D-π-A Dye Sensitizers and the Impact on the Charge-Transfer Properties. *Journal of Physical Chemistry C*, **2013**, 117, 13805-13815 | 3.8 | 35 |
| 25 | 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 | 6.1 | 34 |
| 24 | Application of Cu(II) and Zn(II) coproporphyrins as sensitizers for thin film dye sensitized solar cells. *Energy and Environmental Science*, **2010**, 3, 956 | 35.4 | 33 |
| 23 | Dynamics of Photoinduced Interfacial Electron Transfer and Charge Transport in Dye-Sensitized Mesoscopic Semiconductors. *Chimia*, **2007**, 61, 631-634 | 1.3 | 33 |
| 22 | Phenanthrene-Fused-Quinoxaline as a Key Building Block for Highly Efficient and Stable Sensitizers in Copper-Electrolyte-Based Dye-Sensitized Solar Cells. *Angewandte Chemie - International Edition*, **2020**, 59, 9324-9329 | 16.4 | 30 |
| 21 | 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 | 3.8 | 25 |
| 20 | Temperature-Dependent Ordering Phenomena of a Polyiodide System in a Redox-Active Ionic Liquid. *Journal of Physical Chemistry C*, **2012**, 116, 7989-7992 | 3.8 | 21 |
| 19 | Kinetics of the Regeneration by Iodide of Dye Sensitizers Adsorbed on Mesoporous Titania. *Journal of Physical Chemistry C*, **2014**, 118, 17108-17115 | 3.8 | 19 |
| 18 | Ultrafast charge separation dynamics in opaque, operational dye-sensitized solar cells revealed by femtosecond diffuse reflectance spectroscopy. *Scientific Reports*, **2016**, 6, 24465 | 4.9 | 18 |
| 17 | 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 | 3.8 | 18 |

# List of Publications

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|---|---|---|---|
| 16 | 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 | 3.8 | 17 |
| 15 | Conduction through viscoelastic phase in a redox-active ionic liquid at reduced temperatures. *Advanced Materials*, **2012**, 24, 781-4 | 24 | 16 |
| 14 | Dynamics of Photocarrier Separation in MAPbI3 Perovskite Multigrain Films under a Quasistatic Electric Field. *Journal of Physical Chemistry C*, **2016**, 120, 19595-19602 | 3.8 | 15 |
| 13 | Blue Photosensitizer with Copper(II/I) Redox Mediator for Efficient and Stable Dye-Sensitized Solar Cells. *Advanced Functional Materials*, **2020**, 30, 2004804 | 15.6 | 13 |
| 12 | Investigation of Interfacial Charge Separation at PbS QDs/(001) TiO2 Nanosheets Heterojunction Solar Cell. *Particle and Particle Systems Characterization*, **2015**, 32, 483-488 | 3.1 | 12 |
| 11 | 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 |
| 10 | Charge separation and carrier dynamics in donor-acceptor heterojunction photovoltaic systems. *Structural Dynamics*, **2017**, 4, 061503 | 3.2 | 8 |
| 9 | Towards Compatibility between Ruthenium Sensitizers and Cobalt Electrolytes in Dye-Sensitized Solar Cells. *Angewandte Chemie*, **2013**, 125, 8893-8897 | 3.6 | 8 |
| 8 | Lateral Intermolecular Electronic Interactions of Diketopyrrolopyrrole D-A Solar Dye Sensitizers Adsorbed on Mesoporous Alumina. *Journal of Physical Chemistry C*, **2018**, 122, 19348-19358 | 3.8 | 7 |
| 7 | Phenanthrene-Fused-Quinoxaline as a Key Building Block for Highly Efficient and Stable Sensitizers in Copper-Electrolyte-Based Dye-Sensitized Solar Cells. *Angewandte Chemie*, **2020**, 132, 9410-9415 | 3.6 | 6 |
| 6 | Donor Effect on the Photoinduced Interfacial Charge Transfer Dynamics of D-A Diketopyrrolopyrrole Dye Sensitizers Adsorbed on Titanium Dioxide. *Journal of Physical Chemistry C* , **2018**, 122, 19359-19369 | 3.8 | 6 |
| 5 | 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 | 6.4 | 6 |
| 4 | A tandem redox system with a cobalt complex and 2-azaadamantane-N-oxyl for fast dye regeneration and open circuit voltages exceeding 1 V. *Journal of Materials Chemistry A*, **2019**, 7, 10998-11006 | 13 | 5 |
| 3 | Electron donor-acceptor distance dependence of the dynamics of light-induced interfacial charge transfer in the dye-sensitization of nanocrystalline oxide semiconductors **2006**, | | 3 |
| 2 | Solar Energy Conversion588-644 | | 3 |
| 1 | Using the Stark effect to understand charge generation in organic solar cells **2015**, | | 1 |