Attila J Mozer

List of Publications by Year
in descending order

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88 papers	5,258 citations	87888 38 h-index	82547 72 g-index
89 all docs	89 docs citations	89 times ranked	6567 citing authors

#	Article	IF	Citations
1	Highly efficient photocathodes for dye-sensitized tandem solar cells. Nature Materials, 2010, 9, 31-35.	27.5	585
2	Bimolecular Recombination Coefficient as a Sensitive Testing Parameter for Low-Mobility Solar-Cell Materials. Physical Review Letters, 2005, 94, 176806.	7.8	297
3	Charge carrier mobility in regioregular poly(3-hexylthiophene) probed by transient conductivity techniques: A comparative study. Physical Review B, 2005, 71, .	3.2	249
4	Dye Regeneration Kinetics in Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2012, 134, 16925-16928.	13.7	235
5	Porphyrins for dye-sensitised solar cells: new insights into efficiency-determining electron transfer steps. Chemical Communications, 2012, 48, 4145.	4.1	215
6	Time-dependent mobility and recombination of the photoinduced charge carriers in conjugated polymer/fullerene bulk heterojunction solar cells. Physical Review B, 2005, 72, .	3.2	209
7	Charge transport and recombination in bulk heterojunction solar cells studied by the photoinduced charge extraction in linearly increasing voltage technique. Applied Physics Letters, 2005, 86, 112104.	3.3	184
8	Znâ"Zn Porphyrin Dimer-Sensitized Solar Cells: Toward 3-D Light Harvesting. Journal of the American Chemical Society, 2009, 131, 15621-15623.	13.7	177
9	Sustained solar hydrogen generation using a dye-sensitised NiO photocathode/BiVO4 tandem photo-electrochemical device. Energy and Environmental Science, 2012, 5, 9472.	30.8	167
10	Charge carrier mobility and lifetime versus composition of conjugated polymer/fullerene bulk-heterojunction solar cells. Organic Electronics, 2006, 7, 229-234.	2.6	161
11	Dye-Sensitized Solar Cell with Integrated Tripletâ€"Triplet Annihilation Upconversion System. Journal of Physical Chemistry Letters, 2013, 4, 2073-2078.	4.6	158
12	Dye regeneration and charge recombination in dye-sensitized solar cells with ferrocene derivatives as redox mediators. Energy and Environmental Science, 2012, 5, 7090.	30.8	156
13	Negative electric field dependence of charge carrier drift mobility in conjugated, semiconducting polymers. Chemical Physics Letters, 2004, 389, 438-442.	2.6	146
14	Carbon nanotube/graphene nanocomposite as efficient counter electrodes in dye-sensitized solar cells. Nanotechnology, 2012, 23, 085201.	2.6	135
15	A Comparison of Five Experimental Techniques to Measure Charge Carrier Lifetime in Polymer/Fullerene Solar Cells. Advanced Energy Materials, 2015, 5, 1401345.	19.5	115
16	Aqueous Dyeâ€Sensitized Solar Cell Electrolytes Based on the Ferricyanideâ€"Ferrocyanide Redox Couple. Advanced Materials, 2012, 24, 1222-1225.	21.0	110
17	The origin of open circuit voltage of porphyrin-sensitised TiO2 solar cells. Chemical Communications, 2008, , 4741.	4.1	97
18	Injection Limitations in a Series of Porphyrin Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 3276-3279.	3.1	94

#	Article	IF	Citations
19	Charge carrier mobility, bimolecular recombination and trapping in polycarbazole copolymer:fullerene (PCDTBT:PCBM) bulk heterojunction solar cells. Organic Electronics, 2012, 13, 2639-2646.	2.6	92
20	Novel Regiospecific MDMOâ^'PPV Copolymer with Improved Charge Transport for Bulk Heterojunction Solar Cells. Journal of Physical Chemistry B, 2004, 108, 5235-5242.	2.6	86
21	Conjugated polymer photovoltaic devices and materials. Comptes Rendus Chimie, 2006, 9, 568-577.	0.5	84
22	An intermediate band dye-sensitised solar cell using tripletâ€“triplet annihilation. Physical Chemistry Chemical Physics, 2015, 17, 24826-24830.	2.8	77
23	Nanoelectrodes: energy conversion and storage. Materials Today, 2009, 12, 20-27.	14.2	61
24	Significantly Reduced Bimolecular Recombination in a Novel Siloleâ€Based Polymer: Fullerene Blend. Advanced Energy Materials, 2011, 1, 1062-1067.	19.5	61
25	Enhanced Performance of Dye Sensitized Solar Cells Utilizing Platinum Electrodeposit Counter Electrodes. Journal of the Electrochemical Society, 2008, 155, K124.	2.9	60
26	Synthesis and characterization of peryleneâ€“bithiopheneâ€“triphenylamine triads: studies on the effect of alkyl-substitution in p-type NiO based photocathodes. Journal of Materials Chemistry, 2012, 22, 7366.	6.7	60
27	Mesoporous anatase single crystals for efficient Co(2+/3+)-based dye-sensitized solar cells. Nano Energy, 2015, 11, 557-567.	16.0	54
28	Coexistence of Femtosecond- and Nonelectron-Injecting Dyes in Dye-Sensitized Solar Cells: Inhomogeniety Limits the Efficiency. Journal of Physical Chemistry C, 2011, 115, 22084-22088.	3.1	53
29	Improved performance of porphyrin-based dye sensitised solar cells by phosphinic acid surface treatment. Energy and Environmental Science, 2009, 2, 1069.	30.8	49
30	Perylene Sensitization of Fullerenes for Improved Performance in Organic Photovoltaics. Advanced Energy Materials, 2011, 1, 861-869.	19.5	49
31	Double injection as a technique to study charge carrier transport and recombination in bulk-heterojunction solar cells. Applied Physics Letters, 2005, 87, 222110.	3.3	45
32	Photodegradation in Encapsulated Siloleâ€Based Polymer: PCBM Solar Cells Investigated using Transient Absorption Spectroscopy and Charge Extraction Measurements. Advanced Energy Materials, 2013, 3, 1473-1483.	19.5	45
33	Efficient dye-sensitized solar cells based on a 2-thiophen-2-yl-vinyl-conjugated ruthenium photosensitizer and a conjugated polymer hole conductor. Applied Physics Letters, 2006, 89, 043509.	3.3	43
34	Enhanced Electron Lifetime of CdSe/CdS Quantum Dot (QD) Sensitized Solar Cells Using ZnSe Coreâ€“Shell Structure with Efficient Regeneration of Quantum Dots. Journal of Physical Chemistry C, 2015, 119, 2297-2307.	3.1	43
35	Significant Performance Improvement of Porphyrin-Sensitized TiO₂ Solar Cells under White Light Illumination. Journal of Physical Chemistry C, 2011, 115, 317-326.	3.1	42
36	Sodium Fluoride-Assisted Modulation of Anodized TiO₂ Nanotube for Dye-Sensitized Solar Cells Application. ACS Applied Materials & Interfaces, 2011, 3, 1585-1593.	8.0	42

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37	Non-Langevin bimolecular recombination in a silole-based polymer:PCBM solar cell measured by time-resolved charge extraction and resistance-dependent time-of-flight techniques. Energy and Environmental Science, 2012, 5, 5241-5245.	30.8	42
38	Recombination of photogenerated and injected charge carriers in Ï€-conjugated polymer/fullerene blends. Thin Solid Films, 2006, 511-512, 224-227.	1.8	40
39	Bimolecular Recombination in a Low Bandgap Polymer:PCBM Blend Solar Cell with a High Dielectric Constant. Journal of Physical Chemistry C, 2016, 120, 7033-7043.	3.1	34
40	Remarkable synergistic effects in a mixed porphyrin dye-sensitized TiO2 film. Applied Physics Letters, 2011, 98, .	3.3	33
41	Microsecond Dye Regeneration Kinetics in Efficient Solid State Dye-Sensitized Solar Cells Using a Photoelectrochemically Deposited PEDOT Hole Conductor. Journal of the American Chemical Society, 2010, 132, 9543-9545.	13.7	30
42	Enhanced performance of dye-sensitized solar cells using carbazole-substituted di-chromophoric porphyrin dyes. Journal of Materials Chemistry A, 2014, 2, 16963-16977.	10.3	30
43	Enhancement of dye regeneration kinetics in dichromophoric porphyrinâ€“carbazole triphenylamine dyes influenced by more exposed radical cation orbitals. Chemical Science, 2016, 7, 3506-3516.	7.4	29
44	The effect of molecule size and shape on free charge generation, transport and recombination in all-thiophene dendrimer:fullerene bulk heterojunctions. Organic Electronics, 2010, 11, 573-582.	2.6	26
45	Disorder engineering of undoped TiO₂nanotube arrays for highly efficient solar-driven oxygen evolution. Physical Chemistry Chemical Physics, 2015, 17, 5642-5649.	2.8	24
46	Flexible and Compressible Goretexâ"PEDOT Membrane Electrodes for Solid-State Dye-Sensitized Solar Cells. Langmuir, 2010, 26, 1452-1455.	3.5	23
47	Comparison of inorganic electron transport layers in fully roll-to-roll coated/printed organic photovoltaics in normal geometry. Journal of Materials Chemistry A, 2016, 4, 15986-15996.	10.3	23
48	Photo-electrocatalytic hydrogen generation at dye-sensitised electrodes functionalised with a heterogeneous metal catalyst. Electrochimica Acta, 2016, 219, 773-780.	5.2	22
49	Cation Exchange at Semiconducting Oxide Surfaces: Origin of Light-Induced Performance Increases in Porphyrin Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 11885-11898.	3.1	20
50	Dichromophoric Zinc Porphyrins: Filling the Absorption Gap between the Soret and Q Bands. Journal of Physical Chemistry C, 2015, 119, 5350-5363.	3.1	19
51	Electrochemical CO₂ Reduction Catalyzed by Copper Molecular Complexes: The Influence of Ligand Structure. Energy & Fuels, 2022, 36, 4653-4676.	5.1	19
52	Photovoltaic activity of a PolyProDOT derivative in a bulk heterojunction solar cell. Solar Energy Materials and Solar Cells, 2006, 90, 3531-3546.	6.2	18
53	Exploiting Intermolecular Interactions between Alkyl-Functionalized Redox-Active Molecule Pairs to Enhance Interfacial Electron Transfer. Journal of the American Chemical Society, 2018, 140, 13935-13944.	13.7	18
54	A Nonconjugated Bridge in Dimer-Sensitized Solar Cells Retards Charge Recombination without Decreasing Charge Injection Efficiency. ACS Applied Materials & Interfaces, 2013, 5, 10824-10829.	8.0	17

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55	Novel Regiospecific MDMO-PPV Polymers with Improved Charge Transport Properties for Bulk Heterojunction Solar Cells. Synthetic Metals, 2005, 153, 81-84.	3.9	16
56	Charge Transport in Dye-Sensitized Solar Cells Based on Flame-made $hbox{TiO}_{m 2}$ Nanoparticles. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1641-1648.	2.9	16
57	Origin of Photoelectrochemical Generation of Dihydrogen by a Dye-Sensitized Photocathode without an Intentionally Introduced Catalyst. Journal of Physical Chemistry C, 2017, 121, 25836-25846.	3.1	16
58	Tuning Non-Langevin Recombination in an Organic Photovoltaic Blend Using a Processing Additive. Journal of Physical Chemistry C, 2015, 119, 7016-7021.	3.1	14
59	Enhanced Electron Lifetimes in Dye-Sensitized Solar Cells Using a Dichromophoric Porphyrin: The Utility of Intermolecular Forces. ACS Applied Materials & Interfaces, 2015, 7, 22078-22083.	8.0	14
60	A coupled chemo-mechanical model to study the effects of adhesive strength on the electrochemical performance of silicon electrodes for advanced lithium ion batteries. Journal of Power Sources, 2018, 407, 153-161.	7.8	14
61	The role of emissive charge transfer states in two polymerâ€“fullerene organic photovoltaic blends: tuning charge photogeneration through the use of processing additives. Journal of Materials Chemistry A, 2014, 2, 12583-12593.	10.3	13
62	Driving Force Dependence of Electron Transfer Kinetics and Yield in Low-Band-Gap Polymer Donorâ€“Acceptor Organic Photovoltaic Blends. Journal of Physical Chemistry C, 2015, 119, 12829-12837.	3.1	12
63	Characterisation of graphene fibres and graphene coated fibres using capacitively coupled contactless conductivity detector. Analyst, The, 2016, 141, 2774-2782.	3.5	12
64	Flexible Polymer X-ray Detectors with Non-fullerene Acceptors for Enhanced Stability: Toward Printable Tissue Equivalent Devices for Medical Applications. ACS Applied Materials & Interfaces, 2021, 13, 57703-57712.	8.0	12
65	Quantifying Recombination Losses during Charge Extraction in Bulk Heterojunction Solar Cells Using a Modified Charge Extraction Technique. Advanced Energy Materials, 2017, 7, 1602026.	19.5	11
66	Synergistic Effect of Alkyl Chain Barriers on Heteroleptic Ruthenium Dyes and Co^{3+/2+} Complex Mediators for Reduced Charge Recombination in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2020, 124, 23013-23026.	3.1	11
67	Significant Effect of Electronic Coupling on Electron Transfer between Surface-Bound Porphyrins and Co^{2+/3+} Complex Electrolytes. Journal of Physical Chemistry C, 2020, 124, 9178-9190.	3.1	10
68	Trap-Assisted Transport and Non-Uniform Charge Distribution in Sulfur-Rich PbS Colloidal Quantum Dot-based Solar Cells with Selective Contacts. ACS Applied Materials & Interfaces, 2015, 7, 26455-26460.	8.0	9
69	Light soaking effect driven in porphyrin dye-sensitized solar cells using 1D TiO2 nanotube photoanodes. Sustainable Materials and Technologies, 2020, 24, e00165.	3.3	9
70	Substrate-Dependent Electron-Transfer Rate of Mixed-Ligand Electrolytes: Tuning Electron-Transfer Rate without Changing Driving Force. Journal of the American Chemical Society, 2021, 143, 488-495.	13.7	9
71	Effects of atomic layer deposited thin films on dye sensitized solar cell performance. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, 01A157.	2.1	8
72	Investigation of S-shaped current-voltage characteristics in high-performance solution-processed small molecule bulk heterojunction solar cells. Organic Electronics, 2018, 62, 133-141.	2.6	7

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73	Evidence for Encaging Luminescent Guest Molecules in the Inner Cages of Zeolite Host. Bulletin of the Chemical Society of Japan, 2007, 80, 2303-2312.	3.2	6
74	A Novel Covalently Linked Zn Phthalocyanineâ€Zn Porphyrin Dyad for Dyeâ€sensitized Solar Cells. Israel Journal of Chemistry, 2016, 56, 175-180.	2.3	6
75	Solid State Photon Up-Conversion Emission from Chromophore-Tethered PPV Films. Journal of Physical Chemistry C, 2021, 125, 14538-14548.	3.1	6
76	Quantitative characterisation of conductive fibers by capacitive coupling. Analyst, The, 2018, 143, 215-223.	3.5	5
77	Multisample Correlation Reveals the Origin of the Photocurrent of an Unstable Cu₂O Photocathode during CO₂ Reduction. Journal of Physical Chemistry Letters, 2021, 12, 8157-8163.	4.6	4
78	Effects of Interfacial Layers on the Open Circuit Voltage of Polymer/Fullerene Bulk Heterojunction Devices Studied by Charge Extraction Techniques. ACS Applied Materials & Interfaces, 2019, 11, 21030-21041.	8.0	3
79	The impact of insufficient time resolution on dye regeneration lifetime determined using transient absorption spectroscopy. Physical Chemistry Chemical Physics, 2021, 23, 13001-13010.	2.8	3
80	Optical analysis of an integrated solar cell and a photon up converter, providing guidance for future device engineering efforts. Journal of Applied Physics, 2021, 130, 194501.	2.5	2
81	Molecular Geometry Dependent Electronic Coupling and Reorganization Energy for Electron Transfer between Dye Molecule Adsorbed on TiO2 Electrode and Co Complex in Electrolyte Solutions. Journal of Physical Chemistry C, 0, , .	3.1	2
82	Reduced Bimolecular Recombination in Conjugated Polymer Donor/Fullerene Acceptor Bulk Heterojunction Solar Cells. Australian Journal of Chemistry, 2012, 65, 442.	0.9	1
83	Effect of Molecular Structure on Interfacial Electron Transfer Kinetics in the Framework of Classical Marcus Theory. Israel Journal of Chemistry, 0, , .	2.3	1
84	Insight into the Origin of Trapping in Polymer/Fullerene Blends with a Systematic Alteration of the Fullerene to Higher Adducts. Journal of Physical Chemistry C, 2022, 126, 2708-2719.	3.1	1
85	Enhanced Interfacial Electron Transfer Kinetics Between Co^{2+/3}+ Complexes and Organic Dyes with Free Space Near Their Backbone. Physical Chemistry Chemical Physics, 2022, , .	2.8	1
86	Tuning of the photoinduced charge transfer process in donor-acceptor double-cable copolymers. , 2004, 5215, 41.		0
87	Porphyrin dimers harvest more sunlight for next-generation solar cells. SPIE Newsroom, 2009, , .	0.1	0
88	Organic Solar Cells: Significantly Reduced Bimolecular Recombination in a Novel Siloleâ€Based Polymer: Fullerene Blend (Adv. Energy Mater. 6/2011). Advanced Energy Materials, 2011, 1, 974-974.	19.5	0