Murad J Y Tayebjee

List of Publications by Year
in descending order

52	2,256	304602	254106
papers	citations	22 h-index	43 g-index

59	59	59	2355
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Scalable ways to break the efficiency limit of single-junction solar cells. Applied Physics Letters, 2022, 120, .	1.5	4
2	Constraints imposed by the sparse solar photon flux on upconversion and hot carrier solar cells. Solar Energy, 2022, 237, 44-51.	2.9	2
3	Singlet fission photovoltaics: Progress and promising pathways. Chemical Physics Reviews, 2022, 3, .	2.6	24
4	Microscopic reversibility demands lower open circuit voltage in multiple exciton generation solar cells. Applied Physics Letters, 2021, 118, .	1.5	4
5	Singlet fission and tandem solar cells reduce thermal degradation and enhance lifespan. Progress in Photovoltaics: Research and Applications, 2021, 29, 899-906.	4.4	12
6	Singlet Fission in Concentrated TIPS-Pentacene Solutions: The Role of Excimers and Aggregates. Journal of the American Chemical Society, 2021, 143, 13749-13758.	6.6	22
7	Pentaceneâ€“Bridge Interactions in an Axially Chiral Binaphthyl Pentacene Dimer. Journal of Physical Chemistry A, 2021, 125, 7226-7234.	1.1	7
8	Singlet and Triplet Exciton Dynamics of Violanthrone. Journal of Physical Chemistry C, 2021, 125, 22464-22471.	1.5	3
9	Ultra-fast intramolecular singlet fission to persistent multiexcitons by molecular design. Nature Chemistry, 2019, 11, 821-828.	6.6	85
10	Intramolecular Versus Intermolecular Triplet Fusion in Multichromophoric Photochemical Upconversion. Journal of Physical Chemistry C, 2019, 123, 20181-20187.	1.5	42
11	Fluctuating exchange interactions enable quintet multiexciton formation in singlet fission. Journal of Chemical Physics, 2019, 151, 164104.	1.2	33
12	Slowed hot carrier cooling in multiple quantum wells for application to hot carrier solar cells. , 2019, , .		1
13	Elucidation of Excitation Energy Dependent Correlated Triplet Pair Formation Pathways in an Endothermic Singlet Fission System. Journal of the American Chemical Society, 2018, 140, 4613-4622.	6.6	32
14	Crystalline silicon solar cells with tetracene interlayers: the path to silicon-singlet fission heterojunction devices. Materials Horizons, 2018, 5, 1065-1075.	6.4	92
15	All-optical augmentation of solar cells using a combination of up- and downconversion. Journal of Photonics for Energy, 2018, 8, 1.	0.8	11
16	Special Section Guest Editorial: Spectral Management for Renewable Energy Conversion. Journal of Photonics for Energy, 2018, 8, 1.	0.8	0
17	Effect of Blend Composition on Bulk Heterojunction Organic Solar Cells: A Review. Solar Rrl, 2017, 1, 1700035.	3.1	29
18	Dark carrier dynamics and electrical characteristics of organic solar cells integrated with Ag-SiO2 core-shell nanoparticles. Synthetic Metals, 2017, 223, 34-42.	2.1	4

#	Article	IF	Citations
19	Lessons Learnt from Spatially Resolved Electroâ€•and Photoluminescence Imaging: Interfacial Delamination in CH₃NH₃PbI₃ Planar Perovskite Solar Cells upon Illumination. Advanced Energy Materials, 2017, 7, 1602111.	10.2	50
20	Tuning Singlet Fission in Ï€-Bridge-Ï€ Chromophores. Journal of the American Chemical Society, 2017, 139, 12488-12494.	6.6	147
21	Quintet multiexciton dynamics in singlet fission. Nature Physics, 2017, 13, 182-188.	6.5	220
22	Extended hot carrier lifetimes observed in bulk In0.265Â±0.02Ga0.735N under high-density photoexcitation. Applied Physics Letters, 2016, 108, .	1.5	22
23	Electro- and photoluminescence imaging as fast screening technique of the layer uniformity and device degradation in planar perovskite solar cells. Journal of Applied Physics, 2016, 120, .	1.1	27
24	Limitations and design considerations for donorâ€“acceptor systems in luminescent solar concentrators: the effect of coupling-induced red-edge absorption. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 537	1.0	14
25	Effect of blend composition on ternary blend organic solar cells using a low band gap polymer. Synthetic Metals, 2016, 212, 142-153.	2.1	5
26	Morphological Evolution and Singlet Fission in Aqueous Suspensions of TIPS-Pentacene Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 157-165.	1.5	71
27	Hot Carrier Cooling in In_{0.17}Ga_{0.83}As/GaAs_{0.80}P_{0.20}Multiple Quantum Wells: The Effect of Barrier Thickness. IEEE Journal of Photovoltaics, 2016, 6, 166-171.	1.5	7
28	Effects of blend composition on the morphology of Si-PCPDTBT:PC₇₁ BM bulk heterojunction organic solar cells. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1931-1940.	0.8	8
29	Beyond Shockleyâ€“Queisser: Molecular Approaches to High-Efficiency Photovoltaics. Journal of Physical Chemistry Letters, 2015, 6, 2367-2378.	2.1	142
30	Effect of Blend Composition on Binary Organic Solar Cells Using a Low Band Gap Polymer. Journal of Nanoscience and Nanotechnology, 2015, 15, 2204-2211.	0.9	1
31	Atmospheric oxidation intermediates: Laser spectroscopy of resonance-stabilized radicals from p-cymene. Chemical Physics Letters, 2015, 620, 129-133.	1.2	8
32	Hot carrier solar cell absorber prerequisites and candidate material systems. Solar Energy Materials and Solar Cells, 2015, 135, 124-129.	3.0	76
33	A medium-energy photoemission and ab-initio investigation of cubic yttria-stabilised zirconia. Journal of Applied Physics, 2014, 115, 143502.	1.1	4
34	Hot carrier solar cell absorbers: materials, mechanisms and nanostructures. Proceedings of SPIE, 2014, , .	0.8	4
35	Influence of bridging atom on the vertical phase separation of low band gap bulk heterojunction solar cells. Physica Status Solidi - Rapid Research Letters, 2014, 8, 904-907.	1.2	5
36	Semi-Empirical Limiting Efficiency of Singlet-Fission-Capable Polyacene/Inorganic Hybrid Solar Cells. Journal of Physical Chemistry C, 2014, 118, 2298-2305.	1.5	18

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37	The exciton dynamics in tetracene thin films. Physical Chemistry Chemical Physics, 2013, 15, 14797.	1.3	106
38	InGaAs/GaAsP quantum wells for hot carrier solar cells. Proceedings of SPIE, 2012, , .	0.8	25
39	Improving the light-harvesting of second generation solar cells with photochemical upconversion. Proceedings of SPIE, 2012, , .	0.8	2
40	Thermodynamic Limit of Exciton Fission Solar Cell Efficiency. Journal of Physical Chemistry Letters, 2012, 3, 2749-2754.	2.1	95
41	Downconversion. , 2012, , 549-561.		1
42	Upconversion. , 2012, , 533-548.		4
43	Photochemical Upconversion Enhanced Solar Cells: Effect of a Back Reflector. Australian Journal of Chemistry, 2012, 65, 480.	0.5	85
44	Interplay between the hot phonon effect and intervalley scattering on the cooling rate of hot carriers in GaAs and InP. Progress in Photovoltaics: Research and Applications, 2012, 20, 82-92.	4.4	61
45	Two-photon triplet-triplet annihilation upconversion for photovoltaics. , 2011, , .		1
46	Hot carrier dynamics in InGaAs/GaAsP quantum well solar cells. , 2011, , .		16
47	Hot carrier solar cells: Challenges and recent progress. , 2010, , .		7
48	The efficiency limit of solar cells with molecular absorbers: A master equation approach. Journal of Applied Physics, 2010, 108, 124506.	1.1	22
49	Molecular approaches to third generation photovoltaics: photochemical up-conversion. , 2010, , .		5
50	Kinetic Analysis of Photochemical Upconversion by Tripletâ^'Triplet Annihilation: Beyond Any Spin Statistical Limit. Journal of Physical Chemistry Letters, 2010, 1, 1795-1799.	2.1	248
51	On the efficiency limit of tripletâ€“triplet annihilation for photochemical upconversion. Physical Chemistry Chemical Physics, 2010, 12, 66-71.	1.3	342
52	CHAPTER 15. Tripletâ€“triplet Annihilation Up-conversion. RSC Energy and Environment Series, 0, , 489-505.	0.2	0