Safakath Karuthedath

List of Publications by Year
in descending order

35 papers	1,735 citations	361296 20 h-index	414303 32 g-index
36 all docs	36 docs citations	36 times ranked	2109 citing authors

#	Article	IF	Citations
1	Effect of Quencher, Geometry, and Light Outcoupling on the Determination of Exciton Diffusion Length in Nonfullerene Acceptors. Solar Rrl, 2022, 6, .	3.1	2
2	Mechanistic insights into photochemical nickel-catalyzed cross-couplings enabled by energy transfer. Nature Communications, 2022, 13, 2737.	5.8	30
3	Doubleâ€Cable Conjugated Polymers with Pendent Nearâ€Infrared Electron Acceptors for Singleâ€Component Organic Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	28
4	Charge Photogeneration in Nonâ€Fullerene Organic Solar Cells: Influence of Excess Energy and Electrostatic Interactions. Advanced Functional Materials, 2021, 31, 2007479.	7.8	31
5	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. Nature Materials, 2021, 20, 378-384.	13.3	257
6	The role of spin in the degradation of organic photovoltaics. Nature Communications, 2021, 12, 471.	5.8	16
7	Revealing the Sideâ€Chainâ€Dependent Ordering Transition of Highly Crystalline Doubleâ€Cable Conjugated Polymers. Angewandte Chemie - International Edition, 2021, 60, 25499-25507.	7.2	31
8	Revealing the Sideâ€Chainâ€Dependent Ordering Transition of Highly Crystalline Doubleâ€Cable Conjugated Polymers. Angewandte Chemie, 2021, 133, 25703-25711.	1.6	3
9	Uphill and downhill charge generation from charge transfer to charge separated states in organic solar cells. Journal of Materials Chemistry C, 2021, 9, 14463-14489.	2.7	10
10	Design, Synthesis and Selective Functionalization of a Rigid, Truxene Derived Pure Blueâ€Emitting Chromophore. ChemistrySelect, 2020, 5, 109-116.	0.7	3
11	Deciphering the Role of Fluorination: Morphological Manipulation Prompts Charge Separation and Reduces Carrier Recombination in Allâ€Smallâ€Molecule Photovoltaics. Solar Rrl, 2020, 4, 1900528.	3.1	27
12	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	5.8	204
13	Miscibilityâ€Controlled Phase Separation in Doubleâ€Cable Conjugated Polymers for Singleâ€Component Organic Solar Cells with Efficiencies over 8â€‰%. Angewandte Chemie - International Edition, 2020, 59, 21683-21692.	7.2	82
14	Miscibilityâ€Controlled Phase Separation in Doubleâ€Cable Conjugated Polymers for Singleâ€Component Organic Solar Cells with Efficiencies over 8â€‰%. Angewandte Chemie, 2020, 132, 21867-21876.	1.6	18
15	Ultrafast Charge Dynamics in Dilute-Donor versus Highly Intermixed TAPC:C₆₀ Organic Solar Cell Blends. Journal of Physical Chemistry Letters, 2020, 11, 5610-5617.	2.1	15
16	Buildup of Triplet-State Population in Operating TQ1:PC₇₁BM Devices Does Not Limit Their Performance. Journal of Physical Chemistry Letters, 2020, 11, 2838-2845.	2.1	30
17	17.1% Efficient Singleâ€Junction Organic Solar Cells Enabled by nâ€Type Doping of the Bulkâ€Heterojunction. Advanced Science, 2020, 7, 1903419.	5.6	173
18	Impact of Fullerene on the Photophysics of Ternary Small Molecule Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901443.	10.2	37

#	Article	IF	Citations
19	Highly Crystalline Near-Infrared Acceptor Enabling Simultaneous Efficiency and Photostability Boosting in High-Performance Ternary Organic Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 48095-48102.	4.0	30
20	Charge and Triplet Exciton Generation in Neat PC₇₀BM Films and Hybrid CuSCN:PC₇₀BM Solar Cells. Advanced Energy Materials, 2019, 9, 1802476.	10.2	20
21	Control of triplet state generation in heavy atom-free BODIPYâ€“anthracene dyads by media polarity and structural factors. Physical Chemistry Chemical Physics, 2018, 20, 8016-8031.	1.3	96
22	Charge Photogeneration and Recombination in Mesostructured CuSCNâ€Nanowire/PC₇₀BM Solar Cells. Solar Rrl, 2018, 2, 1800095.	3.1	9
23	BODIPYâ€Pyrene and Perylene Dyads as Heavyâ€Atomâ€Free Singlet Oxygen Sensitizers. ChemPhotoChem, 2018, 2, 606-615.	1.5	66
24	Thermal annealing reduces geminate recombination in TQ1:N2200 all-polymer solar cells. Journal of Materials Chemistry A, 2018, 6, 7428-7438.	5.2	45
25	Efficient long-range electron transfer processes in polyfluoreneâ€“perylene diimide blends. Nanoscale, 2018, 10, 10934-10944.	2.8	8
26	Generation of Triplet Excited States via Photoinduced Electron Transfer in <i>meso</i>-anthra-BODIPY: Fluorogenic Response toward Singlet Oxygen in Solution and in Vitro. Journal of the American Chemical Society, 2017, 139, 6282-6285.	6.6	248
27	The effect of oxygen induced degradation on charge carrier dynamics in P3HT:PCBM and Si-PCPDTBT:PCBM thin films and solar cells. Journal of Materials Chemistry A, 2015, 3, 3399-3408.	5.2	42
28	Degradation effects on charge carrier transport in P3HT:PCBM solar cells studied by Photo-CELIV and ToF. Proceedings of SPIE, 2014, , .	0.8	5
29	Nonlinear optical studies of lead lanthanum borate glass doped with Au nanoparticles. Journal of Non-Crystalline Solids, 2012, 358, 1667-1672.	1.5	70
30	Intramolecular Charge Transfer and <i>Z</i>-Scan Studies of a Semiorganic Nonlinear Optical Material Sodium Acid Phthalate Hemihydrate: A Vibrational Spectroscopic Study. Journal of Physical Chemistry A, 2011, 115, 8216-8226.	1.1	58
31	Synthesis, electrochemical and optical studies of new cyanopyridine based conjugated polymers as potential fluorescent materials. Polymer, 2011, 52, 4174-4183.	1.8	20
32	Ultrafast Energy Transfer Triggers Ionization Energy Offset Dependence of Quantum Efficiency in Low-bandgap Non-fullerene Acceptor Solar Cells. , 0, , .		0
33	Role of Energy Transfer and Ionization Energy Offset in NFA-based Ternary Organic Solar Cells: Implications to Design Rules. , 0, , .		0
34	Trace Solvent Additives Enhance Charge Generation in Layerâ€byâ€Layer Coated Organic Solar Cells. Small Structures, 0, , .	6.9	18
35	Doubleâ€Cable Conjugated Polymers with Pendent Nearâ€Infrared Electron Acceptors for Singleâ€Component Organic Solar Cells. Angewandte Chemie, 0, , .	1.6	0