Akchheta Karki

List of Publications by Year
in descending order

24 papers	1,908 citations	394286 19 h-index	610775 24 g-index
24 all docs	24 docs citations	24 times ranked	1960 citing authors

#	ARTICLE	IF	CITATIONS
1	The role of charge recombination to triplet excitons in organic solar cells. Nature, 2021, 597, 666-671.	13.7	225
2	Understanding the High Performance of over 15% Efficiency in Singleâ€Junction Bulk Heterojunction Organic Solar Cells. Advanced Materials, 2019, 31, e1903868.	11.1	211
3	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. ACS Energy Letters, 2019, 4, 1401-1409.	8.8	182
4	The Path to 20% Power Conversion Efficiencies in Nonfullerene Acceptor Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003441.	10.2	154
5	The role of bulk and interfacial morphology in charge generation, recombination, and extraction in non-fullerene acceptor organic solar cells. Energy and Environmental Science, 2020, 13, 3679-3692.	15.6	126
6	Bandgap Narrowing in Nonâ€Fullerene Acceptors: Single Atom Substitution Leads to High Optoelectronic Response Beyond 1000 nm. Advanced Energy Materials, 2018, 8, 1801212.	10.2	125
7	Quantifying the Nongeminate Recombination Dynamics in Nonfullerene Bulk Heterojunction Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901438.	10.2	115
8	Thermally stable, highly efficient, ultraflexible organic photovoltaics. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4589-4594.	3.3	106
9	Design of Nonfullerene Acceptors with Nearâ€Infrared Light Absorption Capabilities. Advanced Energy Materials, 2018, 8, 1801209.	10.2	95
10	Unifying Charge Generation, Recombination, and Extraction in Lowâ€Offset Nonâ€Fullerene Acceptor Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2001203.	10.2	74
11	Quantifying and Understanding Voltage Losses Due to Nonradiative Recombination in Bulk Heterojunction Organic Solar Cells with Low Energetic Offsets. Advanced Energy Materials, 2019, 9, 1901077.	10.2	69
12	Unifying Energetic Disorder from Charge Transport and Band Bending in Organic Semiconductors. Advanced Functional Materials, 2019, 29, 1901109.	7.8	62
13	Charge Generation and Recombination in an Organic Solar Cell with Low Energetic Offsets. Advanced Energy Materials, 2018, 8, 1701073.	10.2	60
14	Highly efficient organic photovoltaics with enhanced stability through the formation of doping-induced stable interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6391-6397.	3.3	53
15	Doping Polymer Semiconductors by Organic Salts: Toward High-Performance Solution-Processed Organic Field-Effect Transistors. ACS Nano, 2018, 12, 3938-3946.	7.3	52
16	Design of narrow bandgap non-fullerene acceptors for photovoltaic applications and investigation of non-geminate recombination dynamics. Journal of Materials Chemistry C, 2020, 8, 15175-15182.	2.7	50
17	Electrical Tuning of Plasmonic Conducting Polymer Nanoantennas. Advanced Materials, 2022, 34, e2107172.	11.1	32
18	Effect of Palladiumâ€Tetrakis(Triphenylphosphine) Catalyst Traces on Charge Recombination and Extraction in Nonâ€Fullereneâ€based Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2009363.	7.8	27

#	Article	IF	Citations
19	Temperature and Light Modulated Openâ€Circuit Voltage in Nonfullerene Organic Solar Cells with Different Effective Bandgaps. Advanced Energy Materials, 2021, 11, 2003091.	10.2	23
20	Geminate and Nongeminate Pathways for Triplet Exciton Formation in Organic Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	22
21	The Importance of Quantifying the Composition of the Amorphous Intermixed Phase in Organic Solar Cells. Advanced Materials, 2020, 32, e2005241.	11.1	21
22	Unusual Morphologies of Poly(vinyl alcohol) Thin Films Adsorbed on Poly(dimethylsiloxane) Substrates. Langmuir, 2016, 32, 3191-3198.	1.6	12
23	Doped semiconducting polymer nanoantennas for tunable organic plasmonics. Communications Materials, 2022, 3, .	2.9	9
24	Low Voltageâ€Loss Organic Solar Cells Light the Way for Efficient Semitransparent Photovoltaics. Solar Rrl, 2022, 6, .	3.1	3