Akhil Gupta

List of Publications by Citations

55 papers	984 citations	19 h-index	28 g-index
57 ext. papers	1,126 ext. citations	4.9 avg, IF	4.31 L-index

#	Paper	IF	Citations
55	Absorption enhancement of oligothiophene dyes through the use of a cyanopyridone acceptor group in solution-processed organic solar cells. *Chemical Communications*, **2012**, 48, 1889-91	5.8	65
54	A four-directional non-fullerene acceptor based on tetraphenylethylene and diketopyrrolopyrrole functionalities for efficient photovoltaic devices with a high open-circuit voltage of 1.18 V. *Chemical Communications*, **2016**, 52, 8522-5	5.8	59
53	A non-fullerene electron acceptor based on fluorene and diketopyrrolopyrrole building blocks for solution-processable organic solar cells with an impressive open-circuit voltage. *Physical Chemistry Chemical Physics*, **2014**, 16, 23837-42	3.6	56
52	Cyanomethylbenzoic acid: an acceptor for donor-acceptor chromophores used in dye-sensitized solar cells. *ChemSusChem*, **2013**, 6, 256-60	8.3	45
51	The effect of direct amine substituted push-pull oligothiophene chromophores on dye-sensitized and bulk heterojunction solar cells performance. *Tetrahedron*, **2013**, 69, 3584-3592	2.4	44
50	A diketopyrrolopyrrole and benzothiadiazole based small molecule electron acceptor: design, synthesis, characterization and photovoltaic properties. *RSC Advances*, **2014**, 4, 57635-57638	3.7	38
49	Enhanced photovoltaic efficiency via light-triggered self-assembly. *Chemical Communications*, **2013**, 49, 6552-4	5.8	38
48	A non-fullerene electron acceptor based on central carbazole and terminal diketopyrrolopyrrole functionalities for efficient, reproducible and solution-processable bulk-heterojunction devices. *RSC Advances*, **2016**, 6, 28103-28109	3.7	33
47	A solution-processable electron acceptor based on diketopyrrolopyrrole and naphthalenediimide motifs for organic solar cells. *Tetrahedron Letters*, **2014**, 55, 4430-4432	2	32
46	Molecular engineering for panchromatic absorbing oligothiophene donor-acceptor organic semiconductors. *Tetrahedron*, **2012**, 68, 9440-9447	2.4	32
45	Non-fullerene acceptors based on central naphthalene diimide flanked by rhodanine or 1,3-indanedione. *Chemical Communications*, **2017**, 53, 7080-7083	5.8	30
44	Small band gap D-A-D benzothiadiazole derivatives with low-lying HOMO levels as potential donors for applications in organic photovoltaics: a combined experimental and theoretical investigation. *RSC Advances*, **2014**, 4, 35318-35331	3.7	29
43	An H-shaped, small molecular non-fullerene acceptor for efficient organic solar cells with an impressive open-circuit voltage of 1.17 V. *Materials Chemistry Frontiers*, **2017**, 1, 1600-1606	7.8	28
42	Cyanopyridone flanked the tetraphenylethylene to generate an efficient, three-dimensional small molecule non-fullerene electron acceptor. *Materials Chemistry Frontiers*, **2017**, 1, 2511-2518	7.8	24
41	Band-gap tuning of pendant polymers for organic light-emitting devices and photovoltaic applications. *Synthetic Metals*, **2011**, 161, 856-863	3.6	23
40	An efficient non-fullerene acceptor based on central and peripheral naphthalene diimides. *Chemical Communications*, **2018**, 54, 5062-5065	5.8	21
39	Conjoint use of Dibenzosilole and Indan-1,3-dione Functionalities to Prepare an Efficient Non-Fullerene Acceptor for Solution-Processable Bulk-Heterojunction Solar Cells. *Asian Journal of Organic Chemistry*, **2015**, 4, 1096-1102	3	21

38	Naphthalene diimide-based non-fullerene acceptors flanked by open-ended and aromatizable acceptor functionalities. *Chemical Communications*, **2017**, 53, 11157-11160	5.8	20
37	Small molecules containing rigidified thiophenes and a cyanopyridone acceptor unit for solution-processable bulk-heterojunction solar cells. *Dyes and Pigments*, **2015**, 119, 122-132	4.6	19
36	Supramolecular Chemistry of Protoporphyrin IX and Its Derivatives. *European Journal of Organic Chemistry*, **2013**, 2013, 3939-3954	3.2	19
35	Generating a three-dimensional non-fullerene electron acceptor by combining inexpensive spiro[fluorene-9,9?-xanthene] and cyanopyridone functionalities. *Materials Chemistry Frontiers*, **2018**, 2, 1090-1096	7.8	18
34	Donor□cceptor□cceptor-based non-fullerene acceptors comprising terminal chromen-2-one functionality for efficient bulk-heterojunction devices. *Dyes and Pigments*, **2017**, 146, 502-511	4.6	18
33	Small molecular non-fullerene acceptors based on naphthalenediimide and benzoisoquinoline-dione functionalities for efficient bulk-heterojunction devices. *Dyes and Pigments*, **2017**, 143, 1-9	4.6	16
32	Donor□Acceptor□Donor Modular Small Organic Molecules Based on the Naphthalene Diimide Acceptor Unit for Solution-Processable Photovoltaic Devices. *Journal of Electronic Materials*, **2014**, 43, 3243-3254	1.9	16
31	Linear and Angular Heteroacenes from Double-Electrophilic Cyclization (DEC) and DEC-Reductive Elimination of Diynes. *Organic Letters*, **2017**, 19, 1939-1941	6.2	15
30	Naphthalene diimide-based non-fullerene acceptors for simple, efficient, and solution-processable bulk-heterojunction devices. *RSC Advances*, **2016**, 6, 38703-38708	3.7	15
29	An efficient, three-dimensional non-fullerene electron acceptor: functionalizing tetraphenylethylene with naphthalene diimides. *Materials Chemistry Frontiers*, **2019**, 3, 1231-1237	7.8	14
28	Improvement of optoelectronic and photovoltaic properties through the insertion of a naphthalenediimide unit in donor□cceptor oligothiophenes. *RSC Advances*, **2015**, 5, 4411-4415	3.7	14
27	Electrophilic Activation of P-Alkynes in the Synthesis of P-Substituted and P-Centered Heterocycles. *Journal of Organic Chemistry*, **2016**, 81, 4012-9	4.2	13
26	Crowning of dibenzosilole with a naphthalenediimide functional group to prepare an electron acceptor for organic solar cells. *Dyes and Pigments*, **2015**, 120, 314-321	4.6	12
25	A Biomimetic Supramolecular Approach for Charge Transfer between Donor and Acceptor Chromophores with Aggregation-Induced Emission. *Chemistry - A European Journal*, **2018**, 24, 14668-14678	4.8	12
24	A series of V-shaped small molecule non-fullerene electron acceptors for efficient bulk-heterojunction devices. *Dyes and Pigments*, **2019**, 171, 107677	4.6	12
23	An Electron-Accepting Chromophore Based on Fluorene and Naphthalenediimide Building Blocks for Solution-Processable Bulk Heterojunction Devices. *Asian Journal of Organic Chemistry*, **2015**, 4, 800-807	3	11
22	Solvent induced ordered-supramolecular assembly of highly branched protoporphyrin IX derivative. *Supramolecular Chemistry*, **2012**, 24, 779-786	1.8	11
21	Capacitive humidity sensing performance of naphthalene diimide derivatives at ambient temperature. *Synthetic Metals*, **2021**, 275, 116739	3.6	11

20	A Triphenylamine–Naphthalenediimide–Fullerene Triad: Synthesis, Photoinduced Charge Separation and Solution-Processable Bulk Heterojunction Solar Cells. *Asian Journal of Organic Chemistry*, **2018**, 7, 220-226	3	11
19	Recent Advances in Perylene Diimide-Based Active Materials in Electrical Mode Gas Sensing. *Chemosensors*, **2021**, 9, 30	4	10
18	Synergistic Coassembly of Two Structurally Different Molecular Gelators. *Langmuir*, **2016**, 32, 12175-12183	4	9
17	Enhancing the efficiency of solution-processable bulk-heterojunction devices via a three-dimensional molecular architecture comprising triphenylamine and cyanopyridone. *Dyes and Pigments*, **2017**, 137, 126-134	4.6	9
16	Nanoporous naphthalene diimide surface enhances humidity and ammonia sensing at room temperature. *Sensors and Actuators B: Chemical*, **2022**, 351, 130972	8.5	7
15	Funnel shaped molecules containing benzo/pyrido[1,2,5]thiadiazole functionalities as peripheral acceptors for organic photovoltaic applications. *RSC Advances*, **2016**, 6, 66978-66989	3.7	7
14	Isoindigo-Based Small Molecules with Varied Donor Components for Solution-Processable Organic Field Effect Transistor Devices. *Molecules*, **2015**, 20, 17362-77	4.8	6
13	Multianalyte azo dye as an on-site assay kit for colorimetric detection of Hgions and electrochemical sensing of Zn ions. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 229, 117869	4.4	6
12	Impact of self-assembly on the photovoltaic properties of a small molecule oligothiophene donor. *Solar Energy*, **2020**, 195, 223-229	6.8	6
11	The first connection of carbonyl-bridged triarylamine and diketopyrrolopyrrole functionalities to generate a three-dimensional, non-fullerene electron acceptor. *Materials Chemistry Frontiers*, **2020**, 4, 2176-2183	7.8	5
10	Significant Improvement of Optoelectronic and Photovoltaic Properties by Incorporating Thiophene in a Solution-Processable D-A-D Modular Chromophore. *Molecules*, **2015**, 20, 21787-801	4.8	5
9	Enhanced Capacitive Humidity Sensing Performance at Room Temperature via Hydrogen Bonding of Cyanopyridone-Based Oligothiophene Donor. *Chemosensors*, **2021**, 9, 320	4	3
8	Direct connection of an amine to oligothiophene to generate push-pull chromophores for organic photovoltaic applications. *Dyes and Pigments*, **2019**, 162, 315-323	4.6	3
7	Enhanced Photovoltaic Efficiency via Control of Self-Assembly in Cyanopyridone-Based Oligothiophene Donors. *Journal of Physical Chemistry Letters*, **2021**, 12, 919-924	6.4	3
6	Improvement of the optoelectronic and photovoltaic properties of a cyanopyrid-2,6-dione-based donor via molecular engineering. *Dyes and Pigments*, **2019**, 170, 107661	4.6	2
5	Naphthalene diimide-based electron transport materials for perovskite solar cells. *Journal of Materials Chemistry A*,	13	2
4	Functionalization of spiro[fluorene-9,9?-xanthene] with diketopyrrolopyrrole to generate a promising, three-dimensional non-fullerene acceptor. *Materials Chemistry Frontiers*, **2020**, 4, 3209-3215	7.8	2
3	Conjoint use of Naphthalene Diimide and Fullerene Derivatives to Generate Organic Semiconductors for n-type Organic Thin Film Transistors. *ChemistryOpen*, **2021**, 10, 414-420	2.3	2

2	Enhancement in room temperature ammonia sensing properties of naphthalene diimides through core expansion. *Journal of Materials Chemistry C*, **2022**, 10, 1326-1333	7.1	1
1	Donor-acceptor-donor modelled donor targets based on indoline and naphthalene diimide functionalities for efficient bulk-heterojunction devices. *Dyes and Pigments*, **2021**, 184, 108808	4.6	1