

# Mohammad Afsar Uddin

## List of Publications by Citations

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60  
papers

3,245  
citations

27  
h-index

56  
g-index

63  
ext. papers

3,585  
ext. citations

10.5  
avg, IF

5.01  
L-index

#	Paper	IF	Citations
60	Semi-crystalline photovoltaic polymers with efficiency exceeding 9% in a ~300 nm thick conventional single-cell device. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 3040-3051	35.4	554
59	Determining the role of polymer molecular weight for high-performance all-polymer solar cells: its effect on polymer aggregation and phase separation. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 2359-65	16.4	311
58	Highly Efficient Fullerene-Free Polymer Solar Cells Fabricated with Polythiophene Derivative. <i>Advanced Materials</i> , <b>2016</b> , 28, 9416-9422	24	253
57	Morphology Control Enables Efficient Ternary Organic Solar Cells. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803045	17	197
56	A High Efficiency Nonfullerene Organic Solar Cell with Optimized Crystalline Organizations. <i>Advanced Materials</i> , <b>2016</b> , 28, 910-6	24	164
55	Benzotriazole-Containing Planar Conjugated Polymers with Noncovalent Conformational Locks for Thermally Stable and Efficient Polymer Field-Effect Transistors. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 2147-2154	9.6	154
54	Interplay of Intramolecular Noncovalent Coulomb Interactions for Semicrystalline Photovoltaic Polymers. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 5997-6007	9.6	132
53	A Fluorinated Polythiophene Derivative with Stabilized Backbone Conformation for Highly Efficient Fullerene and Non-Fullerene Polymer Solar Cells. <i>Macromolecules</i> , <b>2016</b> , 49, 2993-3000	5.5	125
52	(Semi)ladder-Type Bithiophene Imide-Based All-Acceptor Semiconductors: Synthesis, Structure-Property Correlations, and Unipolar n-Type Transistor Performance. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 6095-6108	16.4	123
51	Effects of Bithiophene Imide Fusion on the Device Performance of Organic Thin-Film Transistors and All-Polymer Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 15304-15308	16.4	119
50	Investigation of Charge Carrier Behavior in High Performance Ternary Blend Polymer Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600637	21.8	79
49	A Wide Bandgap Polymer with Strong $\pi$ -Interaction for Efficient Fullerene-Free Polymer Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600742	21.8	74
48	High-efficiency photovoltaic cells with wide optical band gap polymers based on fluorinated phenylene-alkoxybenzothiadiazole. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 1443-1455	35.4	63
47	Controlling Energy Levels and Blend Morphology for All-Polymer Solar Cells via Fluorination of a Naphthalene Diimide-Based Copolymer Acceptor. <i>Macromolecules</i> , <b>2016</b> , 49, 6374-6383	5.5	62
46	Measuring the competition between bimolecular charge recombination and charge transport in organic solar cells under operating conditions. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 3019-3032	35.4	45
45	New M- and V-shaped perylene diimide small molecules for high-performance nonfullerene polymer solar cells. <i>Chemical Communications</i> , <b>2016</b> , 52, 8873-6	5.8	44
44	Excellent Long-Term Stability of Power Conversion Efficiency in Non-Fullerene-Based Polymer Solar Cells Bearing Tricyanovinylene-Functionalized n-Type Small Molecules. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 8838-8847	9.5	43

43	Quinoxalinebithiophene based thick photovoltaic devices with an efficiency of ~8%. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 9967-9976	13	42
42	Spectroscopically tracking charge separation in polymer : fullerene blends with a three-phase morphology. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 2713-2724	35.4	38
41	Photocurrent Extraction Efficiency near Unity in a Thick Polymer Bulk Heterojunction. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 3324-3330	15.6	38
40	Optimization of side chains in alkylthiophene-substituted benzo[1,2-b:4,5-b']dithiophene-based photovoltaic polymers. <i>Polymer Chemistry</i> , <b>2015</b> , 6, 2752-2760	4.9	33
39	Surfactant chemistry for fluorescence imaging of latent fingerprints using conjugated polyelectrolyte nanoparticles. <i>Chemical Communications</i> , <b>2015</b> , 51, 13634-7	5.8	33
38	Fluorine Substituted Bithiophene Imide-Based n-Type Polymer Semiconductor for High-Performance Organic Thin-Film Transistors and All-Polymer Solar Cells. <i>Solar Rrl</i> , <b>2019</b> , 3, 1800265	7.1	33
37	Enhanced Efficiency and Long-Term Stability of Perovskite Solar Cells by Synergistic Effect of Nonhygroscopic Doping in Conjugated Polymer-Based Hole-Transporting Layer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 43846-43854	9.5	31
36	Quinoxaline-Based Wide Band Gap Polymers for Efficient Nonfullerene Organic Solar Cells with Large Open-Circuit Voltages. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 23235-23246	9.5	30
35	Backbone Conformation Tuning of Carboxylate-Functionalized Wide Band Gap Polymers for Efficient Non-Fullerene Organic Solar Cells. <i>Macromolecules</i> , <b>2019</b> , 52, 341-353	5.5	30
34	Alkynyl-Functionalized Head-to-Head Linkage Containing Bithiophene as a Weak Donor Unit for High-Performance Polymer Semiconductors. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 4109-4121	9.6	27
33	Straight chain DA copolymers based on thienothiophene and benzothiadiazole for efficient polymer field effect transistors and photovoltaic cells. <i>Polymer Chemistry</i> , <b>2016</b> , 7, 4638-4646	4.9	27
32	Triimide-Functionalized n-Type Polymer Semiconductors Enabling All-Polymer Solar Cells with Power Conversion Efficiencies Approaching 9%. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900107	7.1	26
31	Thiophene-benzothiadiazole based DA1DA2 type alternating copolymers for polymer solar cells. <i>Polymer Chemistry</i> , <b>2017</b> , 8, 3622-3631	4.9	25
30	Cyano-Substituted Head-to-Head Polythiophenes: Enabling High-Performance n-Type Organic Thin-Film Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 10089-10098	9.5	23
29	2,1,3-Benzothiadiazole-5,6-dicarboxylicimide-Based Polymer Semiconductors for Organic Thin-Film Transistors and Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 42167-42178	9.5	20
28	Drastic Effects of Fluorination on Backbone Conformation of Head-to-Head Bithiophene-Based Polymer Semiconductors. <i>ACS Macro Letters</i> , <b>2018</b> , 7, 519-524	6.6	19
27	Perylene diimide isomers containing a simple sp <sup>3</sup> -core for non-fullerene-based polymer solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 663-671	13	19
26	Bichalcogenophene Imide-Based Homopolymers: Chalcogen-Atom Effects on the Optoelectronic Property and Device Performance in Organic Thin-Film Transistors. <i>Macromolecules</i> , <b>2019</b> , 52, 7301-7312	5.5	18

25	Dithienylbenzodiimide: a new electron-deficient unit for n-type polymer semiconductors. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 9559-9569	7.1	18
24	A High Dielectric N-Type Small Molecular Acceptor Containing Oligoethyleneglycol Side-Chains for Organic Solar Cells. <i>Chinese Journal of Chemistry</i> , <b>2018</b> , 36, 199-205	4.9	16
23	Head-to-Head Linked Dialkylbifuran-Based Polymer Semiconductors for High-Performance Organic Thin-Film Transistors with Tunable Charge Carrier Polarity. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 1808-1817	9.6	15
22	Fluorinated Head-to-Head Dialkoxybithiophene: A New Electron-Donating Building Block for High-Performance Polymer Semiconductors. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700519	6.4	15
21	Effects of Bithiophene Imide Fusion on the Device Performance of Organic Thin-Film Transistors and All-Polymer Solar Cells. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 15506-15510	3.6	13
20	1,4-Di(3-alkoxy-2-thienyl)-2,5-difluorophenylene: A Building Block Enabling High-Performance Polymer Semiconductors with Increased Open-Circuit Voltages. <i>Macromolecules</i> , <b>2018</b> , 51, 5352-5363	5.5	13
19	Cyano-substituted benzochalcogenadiazole-based polymer semiconductors for balanced ambipolar organic thin-film transistors. <i>Polymer Chemistry</i> , <b>2018</b> , 9, 3873-3884	4.9	13
18	Green-, Red-, and Near-Infrared-Emitting Polymer Dot Probes for Simultaneous Multicolor Cell Imaging with a Single Excitation Wavelength. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 6685-6696	9.6	11
17	Difluorobenzoxadiazole-Based Polymer Semiconductors for High-Performance Organic Thin-Film Transistors with Tunable Charge Carrier Polarity. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700100	6.4	9
16	Thienothiophene-benzotriazole-based semicrystalline linear copolymers for organic field effect transistors. <i>Pure and Applied Chemistry</i> , <b>2014</b> , 86, 1293-1302	2.1	9
15	Ultrannarrow Bandgap Naphthalenediimide-Dialkylbifuran-Based Copolymers with High-Performance Organic Thin-Film Transistors and All-Polymer Solar Cells. <i>Macromolecular Rapid Communications</i> , <b>2020</b> , 41, e2000144	4.8	7
14	Fused Bithiophene Imide Oligomer and Diketopyrrolopyrrole Copolymers for n-Type Thin-Film Transistors. <i>Macromolecular Rapid Communications</i> , <b>2019</b> , 40, e1900394	4.8	6
13	Germinant ZnO nanorods as a charge-selective layer in organic solar cells. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 55, 89-94	9.1	5
12	Synthesis and photovoltaic properties of three different types of terpolymers. <i>Materials Chemistry Frontiers</i> , <b>2017</b> , 1, 1147-1155	7.8	4
11	2,7-Carbazole and thieno[3,4-c]pyrrole-4,6-dione based copolymers with deep highest occupied molecular orbital for photovoltaic cells. <i>Current Applied Physics</i> , <b>2015</b> , 15, 654-661	2.6	4
10	Thermochromism, Franck-Condon Analysis and Interfacial Dynamics of a Donor-Acceptor Copolymer with a Low Band Gap. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 2770-2779	9.6	4
9	Semi-crystalline A1D <sub>2</sub> A2-type copolymers for efficient polymer solar cells. <i>Polymer Journal</i> , <b>2017</b> , 49, 141-148	2.7	4
8	Improving the Photostability of Small-Molecule-Based Organic Photovoltaics by Providing a Charge Percolation Pathway of Crystalline Conjugated Polymer. <i>Polymers</i> , <b>2020</b> , 12,	4.5	3

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| 7 | 2,1,3-benzothiadiazole-5,6-dicarboxylicimide based semicrystalline polymers for photovoltaic cells. <i>Journal of Polymer Science Part A</i> , <b>2016</b> , 54, 3826-3834  | 2.5  | 3 |
| 6 | Synthesis and characterization of fluorene-based copolymers as electron-transporting materials for PLEDs. <i>Organic Electronics</i> , <b>2015</b> , 25, 206-211  | 3.5  | 3 |
| 5 | Density Functional Theoretical and Time-dependent Density Functional Theoretical Study on ThiopheneBenzothiadiazole-based Polymers. <i>Bulletin of the Korean Chemical Society</i> , <b>2015</b> , 36, 427-430  | 1.2  | 3 |
| 4 | Influence of Irradiation on Fenton Degradation of Brilliant Red X-3B. <i>International Journal of Chemical Reactor Engineering</i> , <b>2010</b> , 8,   | 1.2  | 3 |
| 3 | Spectroscopic comparison of charge dynamics in fullerene and non-fullerene acceptor-based organic photovoltaic cells. <i>Journal of Materials Chemistry C</i> ,   | 7.1  | 2 |
| 2 | Backbone Configuration and Electronic Property Tuning of Imide-Functionalized Ladder-Type Heteroarenes-Based Polymer Acceptors for Efficient All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2200065                                  | 15.6 | 1 |
| 1 | Organic Electronics: Fluorinated Head-to-Head Dialkoxybithiophene: A New Electron-Donating Building Block for High-Performance Polymer Semiconductors (Adv. Electron. Mater. 3/2018). <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1870019 | 6.4  |   |