Raja Shahid Ashraf

List of Publications by Year
in descending order

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80 papers	10,299 citations	50276 46 h-index	69250 77 g-index
85 all docs	85 docs citations	85 times ranked	8465 citing authors

#	Article	IF	Citations
1	Synthesis, in vitro anticancer activity and reactions with biomolecule of gold(I)-NHC carbene complexes. Journal of Molecular Structure, 2022, 1255, 132482.	3.6	4
2	Synthesis, photophysical, electrochemical and computational studies of novel 2-aminoimidazolones with D-Ï€-A framework. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 429, 113918.	3.9	5
3	Crystalline and porous CoSe dendrimeric architectures for efficient oxygen evolution reaction. Fuel, 2022, 323, 124324.	6.4	19
4	NiRu0.3Se Nanoparticles In Situ Grown on Reduced Graphene: Synthesis and Electrocatalytic Activity in the Oxygen Evolution Reaction. ChemistrySelect, 2021, 6, 502-510.	1.5	4
5	Influence of Side Chains on the n-Type Organic Electrochemical Transistor Performance. ACS Applied Materials & Interfaces, 2021, 13, 4253-4266.	8.0	76
6	Influence of alkyne spacers on the performance of thiophene-based donors in bulk-heterojunction organic photovoltaic cells. Dyes and Pigments, 2021, 188, 109152.	3.7	9
7	Impact of Acceptor Quadrupole Moment on Charge Generation and Recombination in Blends of IDTâ€Based Nonâ€Fullerene Acceptors with PCE10 as Donor Polymer. Advanced Energy Materials, 2021, 11, 2100839.	19.5	23
8	Systematic Assessment of Visible-Light-Driven Microspherical V2O5 Photocatalyst for the Removal of Hazardous Organosulfur Compounds from Diesel. Nanomaterials, 2021, 11, 2908.	4.1	21
9	Prato reaction derived polythiophene/C₆₀ donorâ€“acceptor double cable polymer, fabrication of photodetectors and evaluation of photocurrent generation. Journal of Materials Chemistry C, 2020, 8, 17365-17373.	5.5	8
10	End Group Tuning in Acceptorâ€“Donorâ€“Acceptor Nonfullerene Small Molecules for High Fill Factor Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1808429.	14.9	41
11	P3HT Molecular Weight Determines the Performance of P3HT:Oâ€IDTBR Solar Cells. Solar Rrl, 2019, 3, 1900023.	5.8	27
12	Excitation Wavelength-Dependent Internal Quantum Efficiencies in a P3HT/Nonfullerene Acceptor Solar Cell. Journal of Physical Chemistry C, 2019, 123, 5826-5832.	3.1	6
13	Progress in Poly (3â€Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. Advanced Energy Materials, 2018, 8, 1801001.	19.5	95
14	Improving the Compatibility of Diketopyrrolopyrrole Semiconducting Polymers for Biological Interfacing by Lysine Attachment. Chemistry of Materials, 2018, 30, 6164-6172.	6.7	37
15	Highly Efficient and Reproducible Nonfullerene Solar Cells from Hydrocarbon Solvents. ACS Energy Letters, 2017, 2, 1494-1500.	17.4	89
16	Reducing the efficiencyâ€“stabilityâ€“cost gap of organic photovoltaics with highly efficient and stable small molecule acceptor ternary solar cells. Nature Materials, 2017, 16, 363-369.	27.5	921
17	Exploring the origin of high optical absorption in conjugated polymers. Nature Materials, 2016, 15, 746-753.	27.5	314
18	Naphthacenodithiophene Based Polymersâ€”New Members of the Acenodithiophene Family Exhibiting High Mobility and Power Conversion Efficiency. Advanced Functional Materials, 2016, 26, 6961-6969.	14.9	19

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19	Reduced voltage losses yield 10% efficient fullerene free organic solar cells with >1 V open circuit voltages. Energy and Environmental Science, 2016, 9, 3783-3793.	30.8	477
20	Indolo-naphthyridine-6,13-dione Thiophene Building Block for Conjugated Polymer Electronics: Molecular Origin of Ultrahigh n-Type Mobility. Chemistry of Materials, 2016, 28, 8366-8378.	6.7	52
21	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. Nature Communications, 2016, 7, 11585.	12.8	1,053
22	Photo- and electroluminescence of ambipolar, high-mobility, donor-acceptor polymers. Organic Electronics, 2016, 32, 220-227.	2.6	32
23	A Thieno[3,2â€b][1]benzothiophene Isoindigo Building Block for Additiveâ€•and Annealingâ€Free Highâ€Performance Polymer Solar Cells. Advanced Materials, 2015, 27, 4702-4707.	21.0	120
24	Toward Improved Lifetimes of Organic Solar Cells under Thermal Stress: Substrate-Dependent Morphological Stability of PCDTBT:PCBM Films and Devices. Scientific Reports, 2015, 5, 15149.	3.3	51
25	Increased Exciton Dipole Moment Translates into Charge-Transfer Excitons in Thiophene-Fluorinated Low-Bandgap Polymers for Organic Photovoltaic Applications. Chemistry of Materials, 2015, 27, 7934-7944.	6.7	46
26	Conjugated Polymerâ€“Porphyrin Complexes for Organic Electronics. ChemPhysChem, 2015, 16, 1223-1230.	2.1	10
27	Chalcogenophene Comonomer Comparison in Small Band Gap Diketopyrrolopyrrole-Based Conjugated Polymers for High-Performing Field-Effect Transistors and Organic Solar Cells. Journal of the American Chemical Society, 2015, 137, 1314-1321.	13.7	363
28	A Rhodanine Flanked Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. Journal of the American Chemical Society, 2015, 137, 898-904.	13.7	446
29	Dual Function Additives: A Small Molecule Crosslinker for Enhanced Efficiency and Stability in Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1401426.	19.5	61
30	A Nature-Inspired Conjugated Polymer for High Performance Transistors and Solar Cells. Macromolecules, 2015, 48, 5148-5154.	4.8	48
31	Dithienosilolothiophene: A New Polyfused Donor for Organic Electronics. Macromolecules, 2015, 48, 5557-5562.	4.8	3
32	Novel nature-inspired conjugated polymers for high performance transistors and solar cells (Presentation Recording). , 2015, , .		0
33	2,1,3â€Benzothiadiazoleâ€5,6â€Dicarboxylic Imide â€“ A Versatile Building Block for Additiveâ€•and Annealingâ€Free Processing of Organic Solar Cells with Efficiencies Exceeding 8%. Advanced Materials, 2015, 27, 948-953.	21.0	88
34	Diselenogermole as a novel donor monomer for low band gap polymers. Journal of Materials Chemistry A, 2015, 3, 1986-1994.	10.3	19
35	Influence of the Electron Deficient Coâ€Monomer on the Optoelectronic Properties and Photovoltaic Performance of Dithienogermoleâ€based Coâ€Polymers. Advanced Functional Materials, 2014, 24, 678-687.	14.9	59
36	Thioalkyl-Substituted Benzothiadiazole Acceptors: Copolymerization with Carbazole Affords Polymers with Large Stokes Shifts and High Solar Cell Voltages. Macromolecules, 2014, 47, 2279-2288.	4.8	66

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37	Towards optimisation of photocurrent from fullerene excitons in organic solar cells. Energy and Environmental Science, 2014, 7, 1037.	30.8	42
38	Polythiophenes with vinylene linked ortho, meta and para-carborane sidechains. Polymer Chemistry, 2014, 5, 6190-6199.	3.9	23
39	Power conversion efficiency enhancement in diketopyrrolopyrrole based solar cells through polymer fractionation. Journal of Materials Chemistry C, 2014, 2, 8593-8598.	5.5	14
40	Enhancing Fullereneâ€Based Solar Cell Lifetimes by Addition of a Fullerene Dumbbell. Angewandte Chemie - International Edition, 2014, 53, 12870-12875.	13.8	86
41	Thieno[3,2â€b]thiophene Flanked Isoindigo Polymers for High Performance Ambipolar OFET Applications. Advanced Functional Materials, 2014, 24, 7109-7115.	14.9	58
42	Bis-lactam-based donor polymers for organic solar cells: Evolution by design. Thin Solid Films, 2014, 560, 82-85.	1.8	3
43	Material Crystallinity as a Determinant of Triplet Dynamics and Oxygen Quenching in Donor Polymers for Organic Photovoltaic Devices. Advanced Functional Materials, 2014, 24, 1474-1482.	14.9	71
44	Enhancing Fullereneâ€Based Solar Cell Lifetimes by Addition of a Fullerene Dumbbell. Angewandte Chemie, 2014, 126, 13084-13089.	2.0	8
45	Alkyl Chain Extension as a Route to Novel Thieno[3,2-b]thiophene Flanked Diketopyrrolopyrrole Polymers for Use in Organic Solar Cells and Field Effect Transistors. Macromolecules, 2013, 46, 5961-5967.	4.8	67
46	Photocurrent Enhancement from Diketopyrrolopyrrole Polymer Solar Cells through Alkyl-Chain Branching Point Manipulation. Journal of the American Chemical Society, 2013, 135, 11537-11540.	13.7	258
47	New Fused Bis-Thienobenzothienothiophene Copolymers and Their Use in Organic Solar Cells and Transistors. Macromolecules, 2013, 46, 727-735.	4.8	43
48	Isostructural, Deeper Highest Occupied Molecular Orbital Analogues of Poly(3-hexylthiophene) for High-Open Circuit Voltage Organic Solar Cells. Chemistry of Materials, 2013, 25, 4239-4249.	6.7	55
49	Post-Polymerization Ketalization for Improved Organic Photovoltaic Materials. Macromolecules, 2013, 46, 7727-7732.	4.8	14
50	Effect of Fluorination on the Properties of a Donorâ€“Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. Chemistry of Materials, 2013, 25, 277-285.	6.7	218
51	Dihydropyrroloindoledione-based copolymers for organic electronics. Journal of Materials Chemistry C, 2013, 1, 2711.	5.5	19
52	Pyrroloindacenodithiophene polymers: the effect of molecular structure on OFET performance. Polymer Chemistry, 2013, 4, 3537.	3.9	23
53	The Influence of Polymer Purification on Photovoltaic Device Performance of a Series of Indacenodithiophene Donor Polymers. Advanced Materials, 2013, 25, 2029-2034.	21.0	129
54	Influence of Crystallinity and Energetics on Charge Separation in Polymerâ€“Inorganic Nanocomposite Films for Solar Cells. Scientific Reports, 2013, 3, 1531.	3.3	84

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55	Thieno[3,2â€b]thiopheneâ€diketopyrrolopyrrole Containing Polymers for Inverted Solar Cells Devices with High Short Circuit Currents. Advanced Functional Materials, 2013, 23, 5647-5654.	14.9	78
56	Germaindacenodithiophene based low band gap polymers for organic solar cells. Chemical Communications, 2012, 48, 2955.	4.1	53
57	A new thiophene substituted isoindigo based copolymer for high performance ambipolar transistors. Chemical Communications, 2012, 48, 3939.	4.1	225
58	Competition between the Charge Transfer State and the Singlet States of Donor or Acceptor Limiting the Efficiency in Polymer:Fullerene Solar Cells. Journal of the American Chemical Society, 2012, 134, 685-692.	13.7	238
59	Random benzotrithiophene-based donorâ€“acceptor copolymers for efficient organic photovoltaic devices. Chemical Communications, 2012, 48, 5832.	4.1	111
60	Electronic structure tuning of new fused thieno[3,2-b]thieno bisthiophene based polymers via alkyl chain and Group IV heteroatom modulation. Proceedings of SPIE, 2012, , .	0.8	0
61	Synthesis of novel thieno[3,2-b]thienobis(silolothiophene) based low bandgap polymers for organic photovoltaics. Chemical Communications, 2012, 48, 7699.	4.1	63
62	Photovoltaic and field effect transistor performance of selenophene and thiophene diketopyrrolopyrrole co-polymers with dithienothiophene. Journal of Materials Chemistry, 2012, 22, 12817.	6.7	92
63	Silaindacenodithiopheneâ€Based Low Band Gap Polymers â€“ The Effect of Fluorine Substitution on Device Performances and Film Morphologies. Advanced Functional Materials, 2012, 22, 1663-1670.	14.9	177
64	A Systematic Approach to the Design Optimization of Lightâ€Absorbing Indenofluorene Polymers for Organic Photovoltaics. Advanced Energy Materials, 2012, 2, 260-265.	19.5	48
65	Design of Semiconducting Indacenodithiophene Polymers for High Performance Transistors and Solar Cells. Accounts of Chemical Research, 2012, 45, 714-722.	15.6	256
66	Highâ€Performance Ambipolar Diketopyrrolopyrroleâ€Thieno[3,2â€b]thiophene Copolymer Fieldâ€Effect Transistors with Balanced Hole and Electron Mobilities. Advanced Materials, 2012, 24, 647-652.	21.0	521
67	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. Macromolecules, 2011, 44, 6649-6652.	4.8	165
68	Pyrroloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. Journal of Materials Chemistry, 2011, 21, 18744.	6.7	50
69	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors. Chemistry of Materials, 2011, 23, 768-770.	6.7	126
70	Molecular Packing of High-Mobility Diketo Pyrrolo-Pyrrole Polymer Semiconductors with Branched Alkyl Side Chains. Journal of the American Chemical Society, 2011, 133, 15073-15084.	13.7	381
71	Thieno[3,2-b]thiopheneâ€”Diketopyrrolopyrrole-Containing Polymers for High-Performance Organic Field-Effect Transistors and Organic Photovoltaic Devices. Journal of the American Chemical Society, 2011, 133, 3272-3275.	13.7	854
72	Synthesis of a Novel Fused Thiopheneâ€thieno[3,2â€b]thiopheneâ€thiophene Donor Monomer and Coâ€polymer for Use in OPV and OFETs. Macromolecular Rapid Communications, 2011, 32, 1664-1668.	3.9	41

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73	Indacenodithiophene Semiconducting Polymers for High-Performance, Air-Stable Transistors. Journal of the American Chemical Society, 2010, 132, 11437-11439.	13.7	529
74	Fused ring thiophene-based poly(heteroarylene ethynylene)s for organic solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 1759-1766.	6.2	37
75	Correlation Between Crystallinity and Solarâ€Cell Efficiency of the Lowâ€Bandgap Polymer PDDTP. Macromolecular Chemistry and Physics, 2010, 211, 1689-1694.	2.2	2
76	Synthesis and Properties of Novel Low-Band-Gap Thienopyrazine-Based Poly(heteroarylenevinylene)s. Macromolecules, 2006, 39, 7844-7853.	4.8	53
77	Synthesis and properties of fluorene-based polyheteroarylenes for photovoltaic devices. Journal of Polymer Science Part A, 2006, 44, 6952-6961.	2.3	56
78	Thienopyrazine-Based Low-Bandgap Poly(heteroaryleneethynylene)s for Photovoltaic Devices. Macromolecular Rapid Communications, 2006, 27, 1454-1459.	3.9	161
79	Synthesis and properties of poly(heteroaryleneethynylene)s consisting of electron-accepting benzothiadiazole/quinoxaline units and electron-donating alkyl thiophene units. Journal of Polymer Science Part A, 2005, 43, 6445-6454.	2.3	44
80	Efficiency Limits in Wideâ€Bandgap Geâ€Containing Donor Polymer:Nonfullerene Acceptor Bulk Heterojunction Solar Cells. Physica Status Solidi - Rapid Research Letters, 0, , 2100206.	2.4	1