Prashant Sonar

List of Publications by Year
in descending order

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220	10,444	36203	39575
papers	citations	51 h-index	94 g-index

228	228	228	10893
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High mobility diketopyrrolopyrrole (DPP)-based organic semiconductor materials for organic thin film transistors and photovoltaics. Energy and Environmental Science, 2013, 6, 1684.	15.6	619
2	A High Mobility Pâ€Type DPPâ€Thieno[3,2â€b]thiophene Copolymer for Organic Thinâ€Film Transistors. Advanced Materials, 2010, 22, 4862-4866.	11.1	492
3	A Lowâ€Bandgap Diketopyrrolopyrroleâ€Benzothiadiazoleâ€Based Copolymer for Highâ€Mobility Ambipolar Organic Thinâ€Film Transistors. Advanced Materials, 2010, 22, 5409-5413.	11.1	397
4	Annealing-Free High-Mobility Diketopyrrolopyrroleâ^'Quaterthiophene Copolymer for Solution-Processed Organic Thin Film Transistors. Journal of the American Chemical Society, 2011, 133, 2198-2204.	6.6	390
5	Organic non-fullerene acceptors for organic photovoltaics. Energy and Environmental Science, 2011, 4, 1558.	15.6	366
6	Advanced Materials for Use in Soft Selfâ€Healing Devices. Advanced Materials, 2017, 29, 1604973.	11.1	362
7	Solution processable low bandgap diketopyrrolopyrrole (DPP) based derivatives: novel acceptors for organic solar cells. Journal of Materials Chemistry, 2010, 20, 3626.	6.7	239
8	Organic field-effect transistor-based flexible sensors. Chemical Society Reviews, 2020, 49, 3423-3460.	18.7	230
9	Developments of Diketopyrrolopyrroleâ€Dyeâ€Based Organic Semiconductors for a Wide Range of Applications in Electronics. Advanced Materials, 2020, 32, e1903882.	11.1	212
10	Development of Dopantâ€Free Organic Hole Transporting Materials for Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903326.	10.2	202
11	Organic interfacial materials for perovskite-based optoelectronic devices. Energy and Environmental Science, 2019, 12, 1177-1209.	15.6	185
12	Polyoxometalates (POMs): from electroactive clusters to energy materials. Energy and Environmental Science, 2021, 14, 1652-1700.	15.6	184
13	Biodegradable Materials and Green Processing for Green Electronics. Advanced Materials, 2020, 32, e2001591.	11.1	168
14	High mobility organic thin film transistor and efficient photovoltaic devices using versatile donorâ€“acceptor polymer semiconductor by molecular design. Energy and Environmental Science, 2011, 4, 2288.	15.6	166
15	Molecular Engineering Using an Anthanthrone Dye for Lowâ€Cost Hole Transport Materials: A Strategy for Dopantâ€Free, Highâ€Efficiency, and Stable Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1703007.	10.2	154
16	Tin oxide for optoelectronic, photovoltaic and energy storage devices: a review. Journal of Materials Chemistry A, 2021, 9, 16621-16684.	5.2	146
17	Cubic silsesquioxanes for use in solution processable organic light emitting diodes (OLED). Journal of Materials Chemistry, 2009, 19, 9103.	6.7	131
18	3,6-Di(furan-2-yl)pyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione and bithiophene copolymer with rather disordered chain orientation showing high mobility in organic thin film transistors. Journal of Materials Chemistry, 2011, 21, 10829.	6.7	131

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19	A Highly Sensitive Diketopyrrolopyrroleâ€Based Ambipolar Transistor for Selective Detection and Discrimination of Xylene Isomers. Advanced Materials, 2016, 28, 4012-4018.	11.1	129
20	Advanced liquid biopsy technologies for circulating biomarker detection. Journal of Materials Chemistry B, 2019, 7, 6670-6704.	2.9	118
21	Field-Effect Transistors Based on Self-Organized Molecular Nanostripes. Nano Letters, 2005, 5, 2422-2425.	4.5	114
22	Furan containing diketopyrrolopyrrolecopolymers: synthesis, characterization, organic field effect transistor performance and photovoltaic properties. Journal of Materials Chemistry, 2012, 22, 4425-4435.	6.7	113
23	Nonvolatile multilevel data storage memory device from controlled ambipolar charge trapping mechanism. Scientific Reports, 2013, 3, 2319.	1.6	106
24	Phenothiazine and carbazole substituted pyrene based electroluminescent organic semiconductors for OLED devices. Journal of Materials Chemistry C, 2016, 4, 1009-1018.	2.7	99
25	Synthesis, characterization and comparative study of thiopheneâ€“benzothiadiazole based donorâ€“acceptorâ€“donor (Dâ€“Aâ€“D) materials. Journal of Materials Chemistry, 2009, 19, 3228.	6.7	98
26	An overview on basics of organic and dye sensitized solar cells, their mechanism and recent improvements. Renewable and Sustainable Energy Reviews, 2017, 78, 1262-1287.	8.2	98
27	Multifunctional Optoelectronics via Harnessing Defects in Layered Black Phosphorus. Advanced Functional Materials, 2019, 29, 1901991.	7.8	97
28	1,3,6,8-Tetrasubstituted Pyrenes: Solution-Processable Materials for Application in Organic Electronics. Organic Letters, 2010, 12, 3292-3295.	2.4	95
29	Recent progress and growth in biosensors technology: A critical review. Journal of Industrial and Engineering Chemistry, 2022, 109, 21-51.	2.9	94
30	A furan-containing conjugated polymer for high mobility ambipolar organic thin film transistors. Chemical Communications, 2012, 48, 8383.	2.2	88
31	Organic field effect transistors (OFETs) in environmental sensing and health monitoring: A review. TrAC - Trends in Analytical Chemistry, 2019, 111, 27-36.	5.8	84
32	High-Mobility Organic Thin Film Transistors Based on Benzothiadiazole-Sandwiched Dihexylquaterthiophenes. Chemistry of Materials, 2008, 20, 3184-3190.	3.2	83
33	Electron-Accepting Conjugated Materials Based on 2-Vinyl-4,5-dicyanoimidazoles for Application in Organic Electronics. Journal of Organic Chemistry, 2009, 74, 3293-3298.	1.7	80
34	Organic Electrochemical Transistors for In Vivo Bioelectronics. Advanced Materials, 2021, 33, e2101874.	11.1	78
35	Oneâ€Step Macroscopic Alignment of Conjugated Polymer Systems by Epitaxial Crystallization during Spinâ€Coating. Advanced Functional Materials, 2013, 23, 2368-2377.	7.8	73
36	White paper on the future of plasma science and technology in plastics and textiles. Plasma Processes and Polymers, 2019, 16, 1700228.	1.6	73

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37	Allâ€Rounder Lowâ€Cost Dopantâ€Free Dâ€Aâ€D Holeâ€Transporting Materials for Efficient Indoor and Outdoor Performance of Perovskite Solar Cells. Advanced Electronic Materials, 2020, 6, 1900884.	2.6	72
38	Dopant-free novel hole-transporting materials based on quinacridone dye for high-performance and humidity-stable mesoporous perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 5315-5323.	5.2	70
39	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, 23837-23842.	1.3	63
40	Boosting inverted perovskite solar cell performance by using 9,9-bis(4-diphenylaminophenyl)fluorene functionalized with triphenylamine as a dopant-free hole transporting material. Journal of Materials Chemistry A, 2019, 7, 12507-12517.	5.2	62
41	One step facile synthesis of a novel anthanthrone dye-based, dopant-free hole transporting material for efficient and stable perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 3699-3708.	2.7	61
42	Lowâ€Cost Alternative Highâ€Performance Holeâ€Transport Material for Perovskite Solar Cells and Its Comparative Study with Conventional SPIROâ€OMeTAD. Advanced Electronic Materials, 2017, 3, 1700139.	2.6	60
43	Thienylvinylenethienyl and Naphthalene Core Substituted with Triphenylaminesâ€"Highly Efficient Hole Transporting Materials and Their Comparative Study for Inverted Perovskite Solar Cells. Solar Rrl, 2017, 1, 1700105.	3.1	59
44	Solid-state assemblies and optical properties of conjugated oligomers combining fluorene and thiophene units. Journal of Materials Chemistry, 2007, 17, 728-735.	6.7	58
45	OFET based explosive sensors using diketopyrrolopyrrole and metal organic framework composite active channel material. Sensors and Actuators B: Chemical, 2016, 223, 114-122.	4.0	58
46	3D-Hybrid Networks with Controllable Electrical Conductivity from the Electrochemical Deposition of Terthiophene-Functionalized Polyphenylene Dendrimers. Angewandte Chemie - International Edition, 2005, 44, 2447-2451.	7.2	57
47	Pretreatment and fermentation of lignocellulosic biomass: reaction mechanisms and process engineering. Reaction Chemistry and Engineering, 2020, 5, 2017-2047.	1.9	57
48	Molecular Engineering Strategy for High Efficiency Fullerene-Free Organic Solar Cells Using Conjugated 1,8-Naphthalimide and Fluorenone Building Blocks. ACS Applied Materials & Interfaces, 2017, 9, 16967-16976.	4.0	56
49	4-Hexylbithieno[3,2-b:2â€˜3â€˜-e]pyridine:Â An Efficient Electron-Accepting Unit in Fluorene and Indenofluorene Copolymers for Light-Emitting Devices. Macromolecules, 2004, 37, 709-715.	2.2	55
50	Effect of thermal annealing Super Yellow emissive layer on efficiency of OLEDs. Scientific Reports, 2017, 7, 40805.	1.6	54
51	Thiopheneâ€“benzothiadiazoleâ€“thiophene (Dâ€“Aâ€“D) based polymers: effect of donor/acceptor moieties adjacent to Dâ€“Aâ€“D segment on photophysical and photovoltaic properties. Journal of Materials Chemistry, 2011, 21, 10532.	6.7	52
52	Furan substituted diketopyrrolopyrrole and thienylenevinylene based low band gap copolymer for high mobility organic thin film transistors. Journal of Materials Chemistry, 2012, 22, 17284.	6.7	52
53	Current advancements on charge selective contact interfacial layers and electrodes in flexible hybrid perovskite photovoltaics. Journal of Energy Chemistry, 2021, 54, 151-173.	7.1	51
54	Acene-based organic semiconductors for organic light-emitting diodes and perovskite solar cells. Journal of Materials Chemistry C, 2018, 6, 9017-9029.	2.7	50

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55	Rodlike Bimetallic Ruthenium and Osmium Complexes Bridged by Phenylene Spacers. Synthesis, Electrochemistry, and Photophysics. Inorganic Chemistry, 2005, 44, 4706-4718.	1.9	48
56	Design and modification of three-component randomly incorporated copolymers for high performance organic photovoltaic applications. Polymer Chemistry, 2013, 4, 804-811.	1.9	48
57	Hole mobility of 3.56 cm² V^{â^'1} s^{â^'1} accomplished using more extended dithienothiophene with furan flanked diketopyrrolopyrrole polymer. Journal of Materials Chemistry C, 2015, 3, 9299-9305.	2.7	47
58	High mobility top-gate and dual-gate polymer thin-film transistors based on diketopyrrolopyrrole-naphthalene copolymer. Applied Physics Letters, 2011, 98, 253305.	1.5	45
59	Tuning the Charge Carrier Polarity of Organic Transistors by Varying the Electron Affinity of the Flanked Units in Diketopyrrolopyrroleâ€Based Copolymers. Advanced Functional Materials, 2020, 30, 1907452.	7.8	45
60	Logic-Gate Devices Based on Printed Polymer Semiconducting Nanostripes. Nano Letters, 2013, 13, 3643-3647.	4.5	44
61	Isoindigo dye incorporated copolymers with naphthalene and anthracene: promising materials for stable organic field effect transistors. Polymer Chemistry, 2013, 4, 1983.	1.9	44
62	Recent Progress in the Abatement of Hazardous Pollutants Using Photocatalytic TiO2-Based Building Materials. Nanomaterials, 2020, 10, 1854.	1.9	44
63	Charge transport study of high mobility polymer thin-film transistors based on thiophene substituted diketopyrrolopyrrole copolymers. Physical Chemistry Chemical Physics, 2013, 15, 9735.	1.3	43
64	Synthesis of diketopyrrolopyrrole based copolymers via the direct arylation method for p-channel and ambipolar OFETs. Physical Chemistry Chemical Physics, 2014, 16, 4275.	1.3	43
65	Ultra-flexible nonvolatile memory based on donor-acceptor diketopyrrolopyrrole polymer blends. Scientific Reports, 2015, 5, 10683.	1.6	43
66	Synergistic Use of Pyridine and Selenophene in a Diketopyrrolopyrroleâ€Based Conjugated Polymer Enhances the Electron Mobility in Organic Transistors. Advanced Functional Materials, 2020, 30, 2000489.	7.8	43
67	Flexible Sensors Based on Organicâ€“Inorganic Hybrid Materials. Advanced Materials Technologies, 2021, 6, 2000889.	3.0	43
68	Poly(2,5-bis(2-octyldodecyl)-3,6-di(furan-2-yl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione-co-thieno[3,2-b]thiophene): a high performance polymer semiconductor for both organic thin film transistors and organic photovoltaics. Physical Chemistry Chemical Physics, 2012, 14, 7162.	1.3	42
69	Solution processable poly(2,5-dialkyl-2,5-dihydro-3,6-di-2-thienyl-pyrrolo[3,4-c]pyrrole-1,4-dione) for ambipolar organic thin film transistors. Organic Electronics, 2012, 13, 1606-1613.	1.4	42
70	A fluorenone based low band gap solution processable copolymer for air stable and high mobility organic field effect transistors. Chemical Communications, 2013, 49, 1588-1590.	2.2	41
71	Isolation and Detection of Exosomes Using Fe₂O₃ Nanoparticles. ACS Applied Nano Materials, 2021, 4, 1175-1186.	2.4	41
72	Supramolecular Organization in Fluorene/Indenofluorene- Oligothiophene Alternating Conjugated Copolymers. Advanced Functional Materials, 2005, 15, 1426-1434.	7.8	40

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73	Charge transport and density of trap states in balanced high mobility ambipolar organic thin-film transistors. Organic Electronics, 2012, 13, 136-141.	1.4	40
74	Emerging Perovskite Solar Cell Technology: Remedial Actions for the Foremost Challenges. Advanced Energy Materials, 2021, 11, .	10.2	40
75	Enhancing the Electrochemical Doping Efficiency in Diketopyrrolopyrroleâ€Based Polymer for Organic Electrochemical Transistors. Advanced Electronic Materials, 2021, 7, .	2.6	39
76	Photophysical Characterization of Light-Emitting Poly(indenofluorene)s. ChemPhysChem, 2005, 6, 1650-1660.	1.0	38
77	Efficient Plastic Recycling and Remolding Circular Economy Using the Technology of Trustâ€“Blockchain. Sustainability, 2021, 13, 9142.	1.6	38
78	Synthesis, thin-film morphology, and comparative study of bulk and bilayer heterojunction organic photovoltaic devices using soluble diketopyrrolopyrrole molecules. Energy and Environmental Science, 2011, 4, 3617.	15.6	37
79	Dual chemosensor for the rapid detection of mercury(ii) pollution and biothiols. Analyst, The, 2019, 144, 4908-4916.	1.7	36
80	Recent Progress in Fluorescent Blue Light-emitting Materials. Current Organic Chemistry, 2010, 14, 2034-2069.	0.9	34
81	A benzothiadiazole end capped donorâ€“acceptor based small molecule for organic electronics. Physical Chemistry Chemical Physics, 2013, 15, 17064.	1.3	34
82	Polyethylene Glycol Coated Magnetic Nanoparticles: Hybrid Nanofluid Formulation, Properties and Drug Delivery Prospects. Nanomaterials, 2021, 11, 440.	1.9	34
83	Improved Performance in Diketopyrrolopyrrole-Based Transistors with Bilayer Gate Dielectrics. ACS Applied Materials & Interfaces, 2014, 6, 3170-3175.	4.0	33
84	Template based sintering of WO₃ nanoparticles into porous tungsten oxide nanofibers for acetone sensing applications. Journal of Materials Chemistry C, 2019, 7, 2961-2970.	2.7	33
85	Potassium Doping to Enhance Green Photoemission of Lightâ€Emitting Diodes Based on CsPbBr₃ Perovskite Nanocrystals. Advanced Optical Materials, 2020, 8, 2000742.	3.6	32
86	Relation between charge carrier mobility and lifetime in organic photovoltaics. Journal of Applied Physics, 2013, 114, .	1.1	31
87	Surface Engineering of Reduced Graphene Oxide for Controllable Ambipolar Flash Memories. ACS Applied Materials & Interfaces, 2015, 7, 1699-1708.	4.0	31
88	Current Trends and Future Perspectives of Nanomaterials in Food Packaging Application. Journal of Nanomaterials, 2022, 2022, 1-32.	1.5	31
89	Naphthalimide end capped anthraquinone based solution-processable n-channel organic semiconductors: effect of alkyl chain engineering on charge transport. Journal of Materials Chemistry C, 2018, 6, 3774-3786.	2.7	30
90	A highly sensitive SERS quenching nanosensor for the determination of tumor necrosis factor alpha in blood. Sensors and Actuators B: Chemical, 2020, 310, 127867.	4.0	30

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91	Thiopheneâ€“tetrafluorophenylâ€“thiophene: a promising building block for ambipolar organic field effect transistors. Journal of Materials Chemistry C, 2015, 3, 2080-2085.	2.7	29
92	High-Mobility Ambipolar Organic Thin-Film Transistor Processed From a Nonchlorinated Solvent. ACS Applied Materials & Interfaces, 2016, 8, 24325-24330.	4.0	29
93	Naphthalene flanked diketopyrrolopyrrole based organic semiconductors for high performance organic field effect transistors. New Journal of Chemistry, 2018, 42, 12374-12385.	1.4	29
94	Reviewâ€”Contemporary Progresses in Carbon-Based Electrode Material in Li-S Batteries. Journal of the Electrochemical Society, 2022, 169, 020530.	1.3	28
95	Comparative behavior of CdS and CdSe quantum dots in poly(3-hexylthiophene) based nanocomposites. Materials Research Bulletin, 2006, 41, 198-208.	2.7	27
96	Biowasteâ€Derived, Selfâ€Organized Arrays of Highâ€Performance 2D Carbon Emitters for Organic Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e1906176.	11.1	27
97	Pyrene based conjugated materials: synthesis, characterization and electroluminescent properties. Physical Chemistry Chemical Physics, 2014, 16, 23320-23328.	1.3	26
98	Surface Treatment of Inorganic CsPbI3 Nanocrystals with Guanidinium Iodide for Efficient Perovskite Light-Emitting Diodes with High Brightness. Nano-Micro Letters, 2022, 14, 69.	14.4	24
99	Water-based nanoparticulate solar cells using a diketopyrrolopyrrole donor polymer. Physical Chemistry Chemical Physics, 2014, 16, 2647.	1.3	23
100	Conjoint use of Dibenzosilole and Indanâ€1,3â€dione Functionalities to Prepare an Efficient Nonâ€Fullerene Acceptor for Solutionâ€Processable Bulkâ€Heterojunction Solar Cells. Asian Journal of Organic Chemistry, 2015, 4, 1096-1102.	1.3	23
101	Diketopyrrolopyrrole copolymers based chemical sensors for the detection and discrimination of volatile organic compounds. Sensors and Actuators B: Chemical, 2017, 251, 49-56.	4.0	22
102	Nanomorphology influence on the light conversion mechanisms in highly efficient diketopyrrolopyrrole based organic solar cells. Organic Electronics, 2013, 14, 326-334.	1.4	21
103	Diketopyrrolopyrrole-Based Dual-Acceptor Copolymers to Realize Tunable Charge Carrier Polarity of Organic Field-Effect Transistors and High-Performance Nonvolatile Ambipolar Flash Memories. ACS Applied Electronic Materials, 2020, 2, 1609-1618.	2.0	21
104	Carbon dots derived from human hair for ppb level chloroform sensing in water. Sustainable Materials and Technologies, 2020, 25, e00159.	1.7	21
105	Self-assembled carbon dot-wrapped perovskites enable light trapping and defect passivation for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 7508-7521.	5.2	21
106	Controlling aggregation and crystallization of solution processed diketopyrrolopyrrole based polymer for high performance thin film transistors by pre-metered slot die coating process. Organic Electronics, 2016, 36, 113-119.	1.4	20
107	Organic Transistor Based on Cyclopentadithiopheneâ€Benzothiadiazole Donorâ€“Acceptor Copolymer for the Detection and Discrimination between Multiple Structural Isomers. Advanced Functional Materials, 2019, 29, 1808188.	7.8	20
108	Bactericidal Silver Nanoparticles by Atmospheric Pressure Solution Plasma Processing. Nanomaterials, 2020, 10, 874.	1.9	20

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109	Triethylene Glycol Substituted Diketopyrrolopyrroleâ€•and Isoindigoâ€Dye Based Donorâ€“Acceptor Copolymers for Organic Lightâ€Emitting Electrochemical Cells and Transistors. Advanced Electronic Materials, 2020, 6, 1901414.	2.6	20
110	Thiophene-based dendronized macromonomers and polymers. Polymer, 2007, 48, 4996-5004.	1.8	19
111	Reversible Conversion of Dominant Polarity in Ambipolar Polymer/Graphene Oxide Hybrids. Scientific Reports, 2015, 5, 9446.	1.6	19
112	9-Fluorenone and 9,10-anthraquinone potential fused aromatic building blocks to synthesize electron acceptors for organic solar cells. New Journal of Chemistry, 2017, 41, 2899-2909.	1.4	19
113	Diketopyrrolopyrrole based organic semiconductors with different numbers of thiophene units: symmetry tuning effect on electronic devices. New Journal of Chemistry, 2018, 42, 4017-4028.	1.4	19
114	Energy-Level Manipulation in Novel Indacenodithiophene-Based Donorâ€“Acceptor Polymers for Near-Infrared Organic Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 29866-29875.	4.0	19
115	Charge carrier velocity distributions in high mobility polymer field-effect transistors. Applied Physics Letters, 2012, 100, 153302.	1.5	18
116	ZnO layers for opto-electronic applications from solution-based and low-temperature processing of an organometallic precursor. Journal of Materials Chemistry, 2012, 22, 20896.	6.7	18
117	Characteristics of High-Performance Ambipolar Organic Field-Effect Transistors Based on a Diketopyrrolopyrrole-Benzothiadiazole Copolymer. IEEE Transactions on Electron Devices, 2012, 59, 1494-1500.	1.6	18
118	Defect analysis of sputter grown cupric oxide for optical and electronics application. Journal Physics D: Applied Physics, 2015, 48, 495104.	1.3	18
119	Short Alkyl Chain Engineering Modulation on Naphthalene Flanked Diketopyrrolopyrrole toward Highâ€Performance Single Crystal Transistors and Organic Thin Film Displays. Advanced Electronic Materials, 2021, 7, 2000804.	2.6	18
120	Photo-Cross-Linkable Polymer Inks for Solution-Based OLED Fabrication. Macromolecules, 2019, 52, 9105-9113.	2.2	17
121	Enhanced amperometric acetone sensing using electrospun non-stoichiometric WO_{3âˆ’x} nanofibers. Journal of Materials Chemistry C, 2021, 9, 671-678.	2.7	17
122	Highly-stable memristive devices with synaptic characteristics based on hydrothermally synthesized MnO2 active layers. Journal of Alloys and Compounds, 2021, 872, 159653.	2.8	17
123	Antibody coated conductive polymer for the electrochemical immunosensing of Human Cardiac Troponin I in blood plasma. Analytica Chimica Acta, 2021, 1185, 339082.	2.6	17
124	A study of the effects metal residues in poly(9,9-dioctylfluorene) have on field-effect transistor device characteristics. Synthetic Metals, 2007, 157, 872-875.	2.1	16
125	Naphthalene flanked diketopyrrolopyrrole: a new conjugated building block with hexyl or octyl alkyl side chains for electropolymerization studies and its biosensor applications. Polymer Chemistry, 2019, 10, 3722-3739.	1.9	16
126	Solutionâ€Processed Pure Sulfide Cu₂(Zn_{0.6}Cd_{0.4})SnS₄ Solar Cells with Efficiency 10.8% Using Ultrathin CuO Intermediate Layer. Solar Rrl, 2020, 4, 2000293.	3.1	16

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127	Monochromatic Blue and Switchable Blueâ€Green Carbon Quantum Dots by Roomâ€Temperature Air Plasma Processing. Advanced Materials Technologies, 2022, 7, 2100586.	3.0	16
128	Nanoscale phase domain structure and associated device performance of organic solar cells based on a diketopyrrolopyrrole polymer. RSC Advances, 2013, 3, 20113.	1.7	15
129	Experimental and modeling study of low-voltage field-effect transistors fabricated with molecularly aligned copolymer floating films. Flexible and Printed Electronics, 2018, 3, 015006.	1.5	15
130	A triphenylamine substituted quinacridone derivative for solution processed organic light emitting diodes. Materials Chemistry and Physics, 2018, 206, 56-63.	2.0	15
131	Naphthalimide end-capped diphenylacetylene: a versatile organic semiconductor for blue light emitting diodes and a donor or an acceptor for solar cells. New Journal of Chemistry, 2019, 43, 9243-9254.	1.4	15
132	Synthesis and study of conductivity behaviour of blended conducting polymer films irradiated with swift heavy ions of silicon. Current Applied Physics, 2003, 3, 247-250.	1.1	14
133	Electrical characteristics of lateral heterostructure organic field-effect bipolar transistors. Applied Physics Letters, 2009, 94, 013308.	1.5	14
134	Impact of Al Passivation and Cosputter on the Structural Property of Î²-FeSi₂ for Al-Doped Î²-FeSi₂/n-Si(100) Based Solar Cells Application. ACS Applied Materials & Interfaces, 2013, 5, 5455-5460.	4.0	14
135	A Study of Diphenylfumaronitrile and Furanâ€Substituted Diketopyrrolopyrrole Alternating Copolymer and Its Thinâ€Film Transistors. Macromolecular Chemistry and Physics, 2014, 215, 725-732.	1.1	14
136	A comparative study of electrochemical, optical properties and electropolymerization behavior of thiophene- and furan-substituted diketopyrrolopyrrole. Journal of Materials Research, 2017, 32, 810-821.	1.2	14
137	Effect of controlled humidity on resistive switching of multilayer VO2 devices. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 264, 114968.	1.7	14
138	Iron(II) Spin Transition Complexes with Dendritic Ligands, Part I. European Journal of Inorganic Chemistry, 2008, 2008, 1613-1622.	1.0	13
139	Performance evaluation of a low-cost, novel vanadium nitride xerogel (VNXG) as a platinum-free electrocatalyst for dye-sensitized solar cells. RSC Advances, 2020, 10, 41177-41186.	1.7	13
140	Efficiency enhancement of low-cost metal free dye sensitized solar cells via non-thermal atmospheric pressure plasma surface treatment. Solar Energy, 2021, 215, 367-374.	2.9	13
141	Ultra-bright green carbon dots with excitation-independent fluorescence for bioimaging. Journal of Nanostructure in Chemistry, 2023, 13, 377-387.	5.3	13
142	Polymer-mediated synthesis of Î³-Fe2O3 nano-particles. Polyhedron, 2001, 20, 1489-1494.	1.0	12
143	Band Gap Tunable N-Type Molecules for Organic Field Effect Transistors. Journal of Physical Chemistry C, 2013, 117, 11530-11539.	1.5	12
144	Crowning of dibenzosilole with a naphthalenediimide functional group to prepare an electron acceptor for organic solar cells. Dyes and Pigments, 2015, 120, 314-321.	2.0	12

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145	A printable thermally activated delayed fluorescence polymer light emitting diode. Journal of Materials Chemistry C, 2020, 8, 13001-13009.	2.7	12
146	Materials Design and Optimization for Next-Generation Solar Cell and Light-Emitting Technologies. Journal of Physical Chemistry Letters, 2021, 12, 4638-4657.	2.1	12
147	Reviewâ€"Carbon Electrodes in Magnesium Sulphur Batteries: Performance Comparison of Electrodes and Future Directions. Journal of the Electrochemical Society, 2021, 168, 120555.	1.3	12
148	Charge transport studies in donor-acceptor block copolymer PDPP-TNT and PC71BM based inverted organic photovoltaic devices processed in room conditions. AIP Advances, 2015, 5, .	0.6	11
149	An Electronâ€Accepting Chromophore Based on Fluorene and Naphthalenediimide Building Blocks for Solutionâ€Processable Bulk Heterojunction Devices. Asian Journal of Organic Chemistry, 2015, 4, 800-807.	1.3	11
150	Time-independent charge carrier mobility in a model polymer:fullerene organic solar cell. Organic Electronics, 2015, 16, 205-211.	1.4	11
151	Diketopyrrolopyrrole-based polymer:fullerene nanoparticle films with thermally stable morphology for organic photovoltaic applications. MRS Communications, 2017, 7, 67-73.	0.8	11
152	Highly Efficient Microscopic Charge Transport within Crystalline Domains in a Furanâ€Flanked Diketopyrrolopyrroleâ€Based Conjugated Copolymer. Advanced Functional Materials, 2020, 30, 2000389.	7.8	11
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