Amaresh Mishra

List of Publications by Year
in descending order

93 papers	12,687 citations	71102 41 h-index	38395 95 g-index
103 all docs	103 docs citations	103 times ranked	13305 citing authors

#	Article	IF	Citations
1	High-Efficiency Ternary Organic Solar Cells Enabled by Synergizing Dicyanomethylene-Functionalized Coumarin Donors and Fullerene-Free Acceptors. ACS Applied Energy Materials, 2022, 5, 9020-9030.	5.1	7
2	Energy-level modulation of coumarin-based molecular donors for efficient all small molecule fullerene-free organic solar cells. Journal of Materials Chemistry A, 2021, 9, 1563-1573.	10.3	18
3	Exploring membrane viscosity at the headgroup region utilizing a hemicyanine-based fluorescent probe. Journal of Molecular Liquids, 2021, 325, 115152.	4.9	5
4	Incorporation of a Guaiacolâ€Based Small Molecule Guest Donor Enables Efficient Nonfullerene Acceptorâ€Based Ternary Organic Solar Cells. Solar Rrl, 2021, 5, 2100402.	5.8	8
5	Fullerene-Free All-Small-Molecule Ternary Organic Solar Cells with Two Compatible Fullerene-Free Acceptors and a Coumarin Donor Enabling a Power Conversion Efficiency of 14.5%. ACS Applied Energy Materials, 2021, 4, 11537-11544.	5.1	7
6	Semitransparent organic solar cells: from molecular design to structureâ€“performance relationships. Journal of Materials Chemistry C, 2021, 10, 13-43.	5.5	25
7	Material perceptions and advances in molecular heteroacenes for organic solar cells. Energy and Environmental Science, 2020, 13, 4738-4793.	30.8	50
8	Efficient Fullerene-Free Organic Solar Cells Using a Coumarin-Based Wide-Band-Gap Donor Material. ACS Applied Materials & Interfaces, 2020, 12, 41869-41876.	8.0	21
9	Interfacial Materials for Organic Solar Cells. Energy, Environment, and Sustainability, 2020, , 373-423.	1.0	3
10	Fullerene-Free Molecular Acceptors for Organic Photovoltaics. Energy, Environment, and Sustainability, 2019, , 221-279.	1.0	2
11	Transition-metal-based layered double hydroxides tailored for energy conversion and storage. Journal of Materials Chemistry A, 2018, 6, 12-29.	10.3	170
12	High Open Circuit Voltage for Perovskite Solar Cells with S,Siâ€Heteropentaceneâ€Based Hole Conductors. European Journal of Inorganic Chemistry, 2018, 2018, 4573-4578.	2.0	10
13	Low Energy Gap Triphenylamineâ€“Heteropentaceneâ€“Dicyanovinyl Triad for Solution-Processed Bulk-Heterojunction Solar Cells. Journal of Physical Chemistry C, 2018, 122, 11262-11269.	3.1	8
14	The influence of the central acceptor unit on the optoelectronic properties and photovoltaic performance of Aâ€“Dâ€“Aâ€“Dâ€“A-type co-oligomers. Organic Chemistry Frontiers, 2017, 4, 755-766.	4.5	8
15	Unprecedented low energy losses in organic solar cells with high external quantum efficiencies by employing non-fullerene electron acceptors. Journal of Materials Chemistry A, 2017, 5, 14887-14897.	10.3	38
16	Organic and Hybrid Solar Cells Based on Well-Defined Organic Semiconductors and Morphologies. Advances in Polymer Science, 2017, , 25-49.	0.8	1
17	Dicyanovinylene-Substituted Oligothiophenes for Organic Solar Cells. Advances in Polymer Science, 2017, , 51-75.	0.8	6
18	Origin of Photoelectrochemical Generation of Dihydrogen by a Dye-Sensitized Photocathode without an Intentionally Introduced Catalyst. Journal of Physical Chemistry C, 2017, 121, 25836-25846.	3.1	16

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19	Donorâ€“Acceptor-Type <i>S</i>,<i>N</i>-Heteroacene-Based Hole-Transporting Materials for Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 44423-44428.	8.0	31
20	Highâ€Efficiency Perovskite Solar Cells Employing a <i>S</i>,<i>N</i>â€Heteropentaceneâ€based Dâ€“A Holeâ€Transport Material. ChemSusChem, 2016, 9, 433-438.	6.8	61
21	Indium tin oxide as a semiconductor material in efficient p-type dye-sensitized solar cells. NPG Asia Materials, 2016, 8, e305-e305.	7.9	71
22	High performance Aâ€“Dâ€“A oligothiophene-based organic solar cells employing two-step annealing and solution-processable copper thiocyanate (CuSCN) as an interfacial hole transporting layer. Journal of Materials Chemistry A, 2016, 4, 17344-17353.	10.3	21
23	Photo-electrocatalytic hydrogen generation at dye-sensitised electrodes functionalised with a heterogeneous metal catalyst. Electrochimica Acta, 2016, 219, 773-780.	5.2	22
24	The influence of alkyl side chains on molecular packing and solar cell performance of dithienopyrrole-based oligothiophenes. Journal of Materials Chemistry A, 2016, 4, 10514-10523.	10.3	21
25	Modulation of band gap and p- versus n-semiconductor character of ADA dyes by core and acceptor group variation. Organic Chemistry Frontiers, 2016, 3, 545-555.	4.5	25
26	Development of strongly absorbing S,N-heterohexacene-based donor materials for efficient vacuum-processed organic solar cells. Journal of Materials Chemistry C, 2016, 4, 3715-3725.	5.5	26
27	Fused Thiopheneâ€Pyrroleâ€Containing Ring Systems up to a Heterodecacene. Angewandte Chemie - International Edition, 2015, 54, 12334-12338.	13.8	80
28	Anellierte Thiophenâ€Pyrrolâ€haltige Ringsysteme bis zu einem Heterodecacen. Angewandte Chemie, 2015, 127, 12511-12515.	2.0	20
29	Functional tuning of Aâ€“Dâ€“A oligothiophenes: the effect of solvent vapor annealing on blend morphology and solar cell performance. Journal of Materials Chemistry A, 2015, 3, 13738-13748.	10.3	32
30	Application of the Tris(acetylacetonato)iron(III)/(II) Redox Couple in pâ€Type Dyeâ€Sensitized Solar Cells. Angewandte Chemie - International Edition, 2015, 54, 3758-3762.	13.8	184
31	Aâ€“Dâ€“A-type S,N-heteropentacene-based hole transport materials for dopant-free perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 17738-17746.	10.3	105
32	Acceptorâ€Substituted <i>S</i>,<i>N</i>â€Heteropentacenes of Different Conjugation Length: Structureâ€“Property Relationships and Solar Cell Performance. Advanced Functional Materials, 2015, 25, 3414-3424.	14.9	35
33	Ï€â€Conjugated [2]Catenanes Based on Oligothiophenes and Phenanthrolines: Efficient Synthesis and Electronic Properties. Chemistry - A European Journal, 2015, 21, 7193-7210.	3.3	17
34	A dopant-free spirobi[cyclopenta[2,1-b:3,4-bâ€²]dithiophene] based hole-transport material for efficient perovskite solar cells. Materials Horizons, 2015, 2, 613-618.	12.2	131
35	Dominating Energy Losses in NiO pâ€Type Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1401387.	19.5	75
36	A-D-A-Type Oligothiophenes Containing Benzothiadiazole Terminal Units for Small Molecule Organic Solar Cells. Organic Photonics and Photovoltaics, 2014, 2, .	1.3	3

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37	Solar Cells: Aâ€"Dâ€"Aâ€type <i>S</i>,<i>N</i>â€Heteropentacenes: Nextâ€Generation Molecular Donor Materials for Efficient Vacuumâ€Processed Organic Solar Cells (Adv. Mater. 42/2014). Advanced Materials, 2014, 26, 7279-7279.	21.0	0
38	Acceptorâ€"Donorâ€"Acceptor Oligomers Containing Dithieno[3,2-b:2â€²,3â€²-d]pyrrole and Thieno[2,3-c]pyrrole-4,6-dione Units for Solution-Processed Organic Solar Cells. Organic Letters, 2014, 16, 2642-2645.	4.6	30
39	Efficiency Improvement of Solutionâ€Processed Dithienopyrroleâ€Based Aâ€Dâ€A Oligothiophene Bulkâ€Heterojunction Solar Cells by Solvent Vapor Annealing. Advanced Energy Materials, 2014, 4, 1400266.	19.5	144
40	Synthesis and Structural Analysis of Thiophene-Pyrrole-Based <i>S</i>,<i>N</i>-Heteroacenes. Organic Letters, 2014, 16, 362-365.	4.6	62
41	Synthesis and characterization of benzo- and naphtho[2,1-b:3,4-bâ€²]dithiophene-containing oligomers for photovoltaic applications. Journal of Materials Chemistry C, 2014, 2, 4879-4892.	5.5	21
42	Synthesis and Characterization of Organic Dyes with Various Electronâ€Accepting Substituents for pâ€Type Dyeâ€Sensitized Solar Cells. Chemistry - an Asian Journal, 2014, 9, 3251-3263.	3.3	23
43	Low band gap S,N-heteroacene-based oligothiophenes as hole-transporting and light absorbing materials for efficient perovskite-based solar cells. Energy and Environmental Science, 2014, 7, 2981.	30.8	127
44	Aâ€"Dâ€"Aâ€type <i>S</i>,<i>N</i>â€Heteropentacenes: Nextâ€Generation Molecular Donor Materials for Efficient Vacuumâ€Processed Organic Solar Cells. Advanced Materials, 2014, 26, 7217-7223.	21.0	82
45	Mannose-functionalized dendritic oligothiophenes: synthesis, characterizations and studies on their interaction with Concanavalin A. Organic and Biomolecular Chemistry, 2013, 11, 5656.	2.8	11
46	Synthesis and Ultrafast Time Resolved Spectroscopy of Peripherally Functionalized Zinc Phthalocyanine Bearing Oligothienylene-ethynylene Subunits. Journal of Physical Chemistry C, 2013, 117, 20912-20918.	3.1	14
47	Dithienopyrrole-based oligothiophenes for solution-processed organic solar cells. Chemical Communications, 2013, 49, 10865.	4.1	57
48	Highly Efficient pâ€Type Dyeâ€Sensitized Solar Cells based on Tris(1,2â€diaminoethane)Cobalt(II)/(III) Electrolytes. Angewandte Chemie - International Edition, 2013, 52, 602-605.	13.8	177
49	Synthesis, photophysical and electrochemical characterization of terpyridine-functionalized dendritic oligothiophenes and their Ru(II) complexes. Beilstein Journal of Organic Chemistry, 2013, 9, 866-876.	2.2	20
50	Sustained solar hydrogen generation using a dye-sensitised NiO photocathode/BiVO4 tandem photo-electrochemical device. Energy and Environmental Science, 2012, 5, 9472.	30.8	167
51	Synthesis and characterization of peryleneâ€"bithiopheneâ€"triphenylamine triads: studies on the effect of alkyl-substitution in p-type NiO based photocathodes. Journal of Materials Chemistry, 2012, 22, 7366.	6.7	60
52	Improved photocurrents for p-type dye-sensitized solar cells using nano-structured nickel(ii) oxide microballs. Energy and Environmental Science, 2012, 5, 8896.	30.8	99
53	Correlation of Ï€-Conjugated Oligomer Structure with Film Morphology and Organic Solar Cell Performance. Journal of the American Chemical Society, 2012, 134, 11064-11067.	13.7	260
54	Synthesis and characterizations of red/near-IR absorbing Aâ€"Dâ€"Aâ€"Dâ€"A-type oligothiophenes containing thienothiadiazole and thienopyrazine central units. Journal of Materials Chemistry, 2012, 22, 2701-2712.	6.7	35

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55	Thiophene-based donorâ€"acceptor co-oligomers by copper-catalyzed 1,3-dipolar cycloaddition. Beilstein Journal of Organic Chemistry, 2012, 8, 683-692.	2.2	34
56	Significant Improvement of Dyeâ€Sensitized Solar Cell Performance by Small Structural Modification in Ï€â€Conjugated Donorâ€"Acceptor Dyes. Advanced Functional Materials, 2012, 22, 1291-1302.	14.9	404
57	Synthesis and Structureâ€"Property Correlations of Dicyanovinylâ€Substituted Oligoselenophenes and their Application in Organic Solar Cells. Advanced Functional Materials, 2012, 22, 4322-4333.	14.9	40
58	Clickâ€Functionalized Ru(II) Complexes for Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2012, 2, 1004-1012.	19.5	22
59	Small Molecule Organic Semiconductors on the Move: Promises for Future Solar Energy Technology. Angewandte Chemie - International Edition, 2012, 51, 2020-2067.	13.8	1,632
60	Carbohydrate-functionalized oligothiophenes for concanavalin A recognition. Chemical Communications, 2011, 47, 1324-1326.	4.1	29
61	A-D-A-D-A-Type Oligothiophenes for Vacuum-Deposited Organic Solar Cells. Organic Letters, 2011, 13, 90-93.	4.6	60
62	Vacuum-processed small molecule solar cells based on terminal acceptor-substituted low-band gap oligothiophenes. Chemical Communications, 2011, 47, 1982.	4.1	92
63	Enhanced open-circuit voltage of p-type DSC with highly crystalline NiO nanoparticles. Chemical Communications, 2011, 47, 4808.	4.1	104
64	â€œClick-chemistryâ€• approach in the design of 1,2,3-triazolyl-pyridine ligands and their Ru(ii)-complexes for dye-sensitized solar cells. Journal of Materials Chemistry, 2011, 21, 3726.	6.7	69
65	Dicyanovinylene-Substituted Selenopheneâ€"Thiophene Co-oligomers for Small-Molecule Organic Solar Cells. Chemistry of Materials, 2011, 23, 4435-4444.	6.7	76
66	Dicyanovinylâ€"Substituted Oligothiophenes: Structureâ€Property Relationships and Application in Vacuumâ€Processed Small Molecule Organic Solar Cells. Advanced Functional Materials, 2011, 21, 897-910.	14.9	246
67	A Thiopheneâ€Based Anchoring Ligand and Its Heteroleptic Ru(II)â€Complex for Efficient Thinâ€Film Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2011, 21, 963-970.	14.9	53
68	Synthesis and Characterization of Acceptorâ€Substituted Oligothiophenes for Solar Cell Applications. Advanced Energy Materials, 2011, 1, 265-273.	19.5	50
69	D-Ï€-A Sensitizers for Dye-Sensitized Solar Cells: Linear vs Branched Oligothiophenes. Chemistry of Materials, 2010, 22, 1836-1845.	6.7	144
70	Highly efficient photocathodes for dye-sensitized tandem solar cells. Nature Materials, 2010, 9, 31-35.	27.5	585
71	Shapeâ€Persistent Oligothienyleneâ€"Ethynyleneâ€Based Dendrimers: Synthesis, Spectroscopy and Electrochemical Characterization. Chemistry - A European Journal, 2009, 15, 13521-13534.	3.3	36
72	A Dendritic Oligothiophene Ruthenium Sensitizer for Stable Dyeâ€Sensitized Solar Cells. ChemSusChem, 2009, 2, 761-768.	6.8	35

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73	Metalâ€Free Organic Dyes for Dyeâ€Sensitized Solar Cells: From Structure: Property Relationships to Design Rules. Angewandte Chemie - International Edition, 2009, 48, 2474-2499.	13.8	2,545
74	Functional Oligothiophenes: Molecular Design for Multidimensional Nanoarchitectures and Their Applications. Chemical Reviews, 2009, 109, 1141-1276.	47.7	1,314
75	Design and synthesis of a novel anchoring ligand for highly efficient thin film dye-sensitized solar cells. Chemical Communications, 2009, , 7146.	4.1	42
76	Studies on adsorption of mono- and multi-chromophoric hemicyanine dyes on silver nanoparticles by surface-enhanced resonance raman and theoretical calculations. Journal of Chemical Physics, 2008, 129, 184702.	3.0	25
77	Surface-Enhanced Resonance Raman Scattering and Density Functional Calculations of Hemicyanine Adsorbed on Colloidal Silver Surface. Journal of Physical Chemistry A, 2006, 110, 1805-1811.	2.5	27
78	Synthesis and characterization of spin-coatable tert-amine molecules for hole-transport in organic light-emitting diodes. Tetrahedron Letters, 2006, 47, 4715-4719.	1.4	29
79	Synthesis and characterisation of soluble aluminium complex dyes based on 5-substituted-8-hydroxyquinoline derivatives for OLED applications. Dyes and Pigments, 2005, 66, 89-97.	3.7	48
80	Dendrimers. , 2004, , 432-440.		4
81	Synthesis of 5-alkoxymethyl- and 5-aminomethyl-substituted 8-hydroxyquinoline derivatives and their luminescent Al(III) complexes for OLED applications. Tetrahedron Letters, 2004, 45, 6265-6268.	1.4	47
82	New pushâ€"pull type dendritic stilbazolium dyes: synthesis, photophysical and electrochemical investigation. Dyes and Pigments, 2004, 63, 191-202.	3.7	23
83	Synthesis of Water-Soluble, Ester-Terminated Dendrons and Dendrimers Containing Internal PEG Linkages. Macromolecules, 2004, 37, 8262-8268.	4.8	19
84	Synthesis, spectroscopic and electrochemical investigation of some new stilbazolium dyes. Dyes and Pigments, 2003, 58, 227-237.	3.7	13
85	Improved Synthesis of an Ethereal Tetraamine Core for Dendrimer Construction. Journal of Organic Chemistry, 2002, 67, 3957-3960.	3.2	18
86	Time-resolved fluorescence studies of aminostyryl pyridinium dyes in organic solvents and surfactant solutions. Journal of Luminescence, 2001, 92, 175-188.	3.1	59
87	Cyanines during the 1990s:Â A Review. Chemical Reviews, 2000, 100, 1973-2012.	47.7	1,381
88	Dyeâ€"surfactant interaction: chain folding during solubilization of styryl pyridinium dyes in sodium dodecyl sulfate aggregates. Journal of Photochemistry and Photobiology A: Chemistry, 1999, 121, 63-73.	3.9	41
89	Interaction of N-alkyl styryl pyridinium dyes with TX-100 in aqueous medium: Role of the alkyl chain during solubilisation. Journal of Photochemistry and Photobiology A: Chemistry, 1998, 116, 79-84.	3.9	41
90	Dyeâ€"Surfactant Interaction: Role of an Alkyl Chain in the Localization of Styrylpyridinium Dyes in a Hydrophobic Force Field of a Cationic Surfactant (CTAB). Bulletin of the Chemical Society of Japan, 1997, 70, 2913-2918.	3.2	38

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91	Reversal in Solvatochromism: AnET(30) Switch for a New Class of Cyanine Dyes. Bulletin of the Chemical Society of Japan, 1996, 69, 2581-2584.	3.2	20
92	Photochemistry in microemulsions: Fluorescence quenching of naphthols and their O-alkyl derivatives by CCl4. Journal of Luminescence, 1996, 69, 95-104.	3.1	10
93	Conformational Selectivity of Merocyanine on Nanostructured Silver Films: Surface Enhanced Resonance Raman Scattering (SERRS) and Density Functional Theoretical (DFT) Study. Frontiers in Chemistry, 0, 10, .	3.6	3