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	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
2	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
3	Cyanines during the 1990s:Â A Review. Chemical Reviews, 2000, 100, 1973-2012.	47.7	1,381
4	Functional Oligothiophenes: Molecular Design for Multidimensional Nanoarchitectures and Their Applications. Chemical Reviews, 2009, 109, 1141-1276.	47.7	1,314
5	Highly efficient photocathodes for dye-sensitized tandem solar cells. Nature Materials, 2010, 9, 31-35.	27.5	585
6	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
7	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
8	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
9	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
10	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
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	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
13	D-Ï€-A Sensitizers for Dye-Sensitized Solar Cells: Linear vs Branched Oligothiophenes. Chemistry of Materials, 2010, 22, 1836-1845.	6.7	144
14	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
15	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
16	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
17	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
18	Enhanced open-circuit voltage of p-type DSC with highly crystalline NiO nanoparticles. Chemical Communications, 2011, 47, 4808.	4.1	104

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19	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
20	Vacuum-processed small molecule solar cells based on terminal acceptor-substituted low-band gap oligothiophenes. Chemical Communications, 2011, 47, 1982.	4.1	92
21	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
22	Fused Thiopheneâ€Pyrroleâ€Containing Ring Systems up to a Heterodecacene. Angewandte Chemie - International Edition, 2015, 54, 12334-12338.	13.8	80
23	Dicyanovinylene-Substituted Selenopheneâ€“Thiophene Co-oligomers for Small-Molecule Organic Solar Cells. Chemistry of Materials, 2011, 23, 4435-4444.	6.7	76
24	Dominating Energy Losses in NiO pâ€Type Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1401387.	19.5	75
25	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
26	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
27	Synthesis and Structural Analysis of Thiophene-Pyrrole-Based <i>S</i>,<i>N</i>-Heteroacenes. Organic Letters, 2014, 16, 362-365.	4.6	62
28	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
29	A-D-A-D-A-Type Oligothiophenes for Vacuum-Deposited Organic Solar Cells. Organic Letters, 2011, 13, 90-93.	4.6	60
30	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
31	Time-resolved fluorescence studies of aminostyryl pyridinium dyes in organic solvents and surfactant solutions. Journal of Luminescence, 2001, 92, 175-188.	3.1	59
32	Dithienopyrrole-based oligothiophenes for solution-processed organic solar cells. Chemical Communications, 2013, 49, 10865.	4.1	57
33	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
34	Synthesis and Characterization of Acceptorâ€Substituted Oligothiophenes for Solar Cell Applications. Advanced Energy Materials, 2011, 1, 265-273.	19.5	50
35	Material perceptions and advances in molecular heteroacenes for organic solar cells. Energy and Environmental Science, 2020, 13, 4738-4793.	30.8	50
36	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

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37	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
38	Design and synthesis of a novel anchoring ligand for highly efficient thin film dye-sensitized solar cells. Chemical Communications, 2009, , 7146.	4.1	42
39	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
40	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
41	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
42	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
43	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
44	Shapeâ€Persistent Oligothienyleneâ€“Ethynyleneâ€Based Dendrimers: Synthesis, Spectroscopy and Electrochemical Characterization. Chemistry - A European Journal, 2009, 15, 13521-13534.	3.3	36
45	A Dendritic Oligothiophene Ruthenium Sensitizer for Stable Dyeâ€Sensitized Solar Cells. ChemSusChem, 2009, 2, 761-768.	6.8	35
46	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
47	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
48	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
49	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
50	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
51	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
52	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
53	Carbohydrate-functionalized oligothiophenes for concanavalin A recognition. Chemical Communications, 2011, 47, 1324-1326.	4.1	29
54	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

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55	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
56	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
57	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
58	Semitransparent organic solar cells: from molecular design to structureâ€“performance relationships. Journal of Materials Chemistry C, 2021, 10, 13-43.	5.5	25
59	New pushâ€“pull type dendritic stilbazolium dyes: synthesis, photophysical and electrochemical investigation. Dyes and Pigments, 2004, 63, 191-202.	3.7	23
60	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
61	Clickâ€Functionalized Ru(II) Complexes for Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2012, 2, 1004-1012.	19.5	22
62	Photo-electrocatalytic hydrogen generation at dye-sensitised electrodes functionalised with a heterogeneous metal catalyst. Electrochimica Acta, 2016, 219, 773-780.	5.2	22
63	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
64	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
65	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
66	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
67	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
68	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
69	Anellierte Thiophenâ€Pyrrolâ€haltige Ringsysteme bis zu einem Heterodecacen. Angewandte Chemie, 2015, 127, 12511-12515.	2.0	20
70	Synthesis of Water-Soluble, Ester-Terminated Dendrons and Dendrimers Containing Internal PEG Linkages. Macromolecules, 2004, 37, 8262-8268.	4.8	19
71	Improved Synthesis of an Ethereal Tetraamine Core for Dendrimer Construction. Journal of Organic Chemistry, 2002, 67, 3957-3960.	3.2	18
72	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

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73	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
74	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
75	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
76	Synthesis, spectroscopic and electrochemical investigation of some new stilbazolium dyes. Dyes and Pigments, 2003, 58, 227-237.	3.7	13
77	Mannose-functionalized dendritic oligothiophenes: synthesis, characterizations and studies on their interaction with Concanavalin A. Organic and Biomolecular Chemistry, 2013, 11, 5656.	2.8	11
78	Photochemistry in microemulsions: Fluorescence quenching of naphthols and their O-alkyl derivatives by CCl4. Journal of Luminescence, 1996, 69, 95-104.	3.1	10
79	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
80	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
81	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
82	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
83	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
84	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
85	Dicyanovinylene-Substituted Oligothiophenes for Organic Solar Cells. Advances in Polymer Science, 2017, , 51-75.	0.8	6
86	Exploring membrane viscosity at the headgroup region utilizing a hemicyanine-based fluorescent probe. Journal of Molecular Liquids, 2021, 325, 115152.	4.9	5
87	Dendrimers. , 2004, , 432-440.		4
88	A-D-A-Type Oligothiophenes Containing Benzothiadiazole Terminal Units for Small Molecule Organic Solar Cells. Organic Photonics and Photovoltaics, 2014, 2, .	1.3	3
89	Interfacial Materials for Organic Solar Cells. Energy, Environment, and Sustainability, 2020, , 373-423.	1.0	3
90	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

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91	Fullerene-Free Molecular Acceptors for Organic Photovoltaics. Energy, Environment, and Sustainability, 2019, , 221-279.	1.0	2
92	Organic and Hybrid Solar Cells Based on Well-Defined Organic Semiconductors and Morphologies. Advances in Polymer Science, 2017, , 25-49.	0.8	1
93	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