Varun Vohra

List of Publications by Year in descending order

49 papers	1,685 citations	516710 16 h-index	276875 41 g-index
50 all docs	50 docs citations	50 times ranked	2792 citing authors

#	Article	IF	Citations
1	Efficient inverted polymer solar cells employing favourable molecular orientation. Nature Photonics, 2015, 9, 403-408.	31.4	769
2	Electroluminescence from Conjugated Polymer Electrospun Nanofibers in Solution Processable Organic Light-Emitting Diodes. ACS Nano, 2011, 5, 5572-5578.	14.6	107
3	Toward White Light Emission through Efficient Two-Step Energy Transfer in Hybrid Nanofibers. ACS Nano, 2010, 4, 1409-1416.	14.6	93
4	Highly Emissive Nanostructured Thin Films of Organic Hostâ€“Guests for Energy Conversion. ChemPhysChem, 2009, 10, 647-653.	2.1	68
5	Enhanced Vertical Concentration Gradient in Rubbed P3HT:PCBM Graded Bilayer Solar Cells. Journal of Physical Chemistry Letters, 2012, 3, 1820-1823.	4.6	59
6	Multilevel Organization in Hybrid Thin Films for Optoelectronic Applications. Langmuir, 2009, 25, 12019-12023.	3.5	45
7	Energy Transfer in Fluorescent Nanofibers Embedding Dyeâ€Loaded Zeolite L Crystals. Advanced Materials, 2009, 21, 1146-1150.	21.0	43
8	Uniaxial macroscopic alignment of conjugated polymer systems by directional crystallization during blade coating. Journal of Materials Chemistry C, 2014, 2, 3303-3310.	5.5	39
9	Organic solar cells based on nanoporous P3HT obtained from self-assembled P3HT:PS templates. Journal of Materials Chemistry, 2012, 22, 20017.	6.7	35
10	Low-Cost and Green Fabrication of Polymer Electronic Devices by Push-Coating of the Polymer Active Layers. ACS Applied Materials & Interfaces, 2017, 9, 25434-25444.	8.0	29
11	Bifunctional microstructured films and surfaces obtained by soft lithography from breath figure arrays. Soft Matter, 2009, 5, 1656.	2.7	28
12	Metal oxides and noble metals application in organic solar cells. Solar Energy, 2020, 207, 347-366.	6.1	24
13	Ternary Active Layers for Neutral Color Semitransparent Organic Solar Cells with PCEs over 4%. ACS Applied Energy Materials, 2019, 2, 2534-2540.	5.1	22
14	Molecular Orientation of Conjugated Polymer Chains in Nanostructures and Thin Films: Review of Processes and Application to Optoelectronics. Journal of Nanomaterials, 2017, 2017, 1-18.	2.7	20
15	Waterâ€Processable Amphiphilic Low Band Gap Block Copolymer:Fullerene Blend Nanoparticles as Alternative Sustainable Approach for Organic Solar Cells. Advanced Sustainable Systems, 2018, 2, 1700155.	5.3	19
16	Addition of regiorandom poly(3-hexylthiophene) to solution processed poly(3-hexylthiophene):[6,6]-phenyl-C61-butyric acid methyl ester graded bilayers to tune the vertical concentration gradient. Applied Physics Letters, 2012, 101, .	3.3	17
17	Self-Assembled Nanofibers of Fluorescent Zeolite L Crystals and Conjugated Polymer. Langmuir, 2010, 26, 1590-1593.	3.5	16
18	Nanostructured poly(3-hexylthiophene-2,5-diyl) films with tunable dimensions through self-assembly with polystyrene. Polymer, 2014, 55, 2213-2219.	3.8	15

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19	Efficient Ultrathin Organic Solar Cells with Sustainable Î²-Carotene as Electron Donor. ACS Sustainable Chemistry and Engineering, 2019, 7, 4376-4381.	6.7	15
20	Formation of vertical concentration gradients in poly(3-hexylthiophene-2,5-diyl): Phenyl-C61-butyric acid methyl ester-graded bilayer solar cells. Thin Solid Films, 2014, 554, 41-45.	1.8	14
21	Nanostructured Light-Emitting Polymer Thin Films and Devices Fabricated by the Environment-Friendly Push-Coating Technique. ACS Applied Materials & Interfaces, 2018, 10, 11794-11800.	8.0	14
22	Natural Dyes and Their Derivatives Integrated into Organic Solar Cells. Materials, 2018, 11, 2579.	2.9	14
23	Effect of Alkyl Side Chain Length on Intra- and Intermolecular Interactions of Terthiopheneâ€“Isoindigo Copolymers. Journal of Physical Chemistry C, 2020, 124, 9644-9655.	3.1	14
24	Transfer-printing of active layers to achieve high quality interfaces in sequentially deposited multilayer inverted polymer solar cells fabricated in air. Science and Technology of Advanced Materials, 2016, 17, 530-540.	6.1	13
25	Investigating the effect of solvent boiling temperature on the active layer morphology of diffusive bilayer solar cells. Applied Physics Express, 2016, 9, 012301.	2.4	13
26	Can Polymer Solar Cells Open the Path to Sustainable and Efficient Photovoltaic Windows Fabrication?. Chemical Record, 2019, 19, 1166-1178.	5.8	13
27	Investigating phase separation and structural coloration of self-assembled ternary polymer thin films. Applied Physics Letters, 2016, 109, 103702.	3.3	11
28	Impact of the Electron Acceptor Nature on the Durability and Nanomorphological Stability of Bulk Heterojunction Active Layers for Organic Solar Cells. Small, 2021, 17, e2004168.	10.0	11
29	Fabrication Processes to Generate Concentration Gradients in Polymer Solar Cell Active Layers. Materials, 2017, 10, 518.	2.9	10
30	Design, synthesis, and properties of a series of charged iridium(III) complexes with a neutral bidentate ligand for deep-blue phosphorescent emitter. Journal of Fluorine Chemistry, 2016, 181, 56-60.	1.7	9
31	All solution-processed micro-structured flexible electrodes for low-cost light-emitting pressure sensors fabrication. Scientific Reports, 2017, 7, 6921.	3.3	9
32	Strongly Iridescent Hybrid Photonic Sensors Based on Self-Assembled Nanoparticles for Hazardous Solvent Detection. Nanomaterials, 2018, 8, 169.	4.1	8
33	Eco-Friendly Push-Coated Polymer Solar Cells with No Active Material Wastes Yield Power Conversion Efficiencies over 5.5%. ACS Applied Materials & Interfaces, 2019, 11, 10785-10793.	8.0	8
34	Durable organic solar cells produced by in situ encapsulation of an air-sensitive natural organic semiconductor by the fullerene derivative and the metal oxide layer. Journal of Materials Chemistry C, 2020, 8, 7162-7169.	5.5	8
35	Achieving high efficiency and stability in inverted organic solar cells fabricated by laminated gold leaf as top electrodes. Applied Physics Express, 2014, 7, 111602.	2.4	7
36	Factors Affecting the Performance of Bifacial Inverted Polymer Solar Cells with a Thick Photoactive Layer. Journal of Physical Chemistry C, 2014, 118, 4050-4055.	3.1	7

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37	High Performance Organic Solar Cells Fabricated Using Recycled Transparent Conductive Substrates. ACS Sustainable Chemistry and Engineering, 2020, 8, 5807-5814.	6.7	7
38	Controlling the concentration gradient in sequentially deposited bilayer organic solar cells via rubbing and annealing. RSC Advances, 2020, 10, 37529-37537.	3.6	6
39	Waterâ€Soluble Organic Dyes as Efficient Anode Interlayer Materials for PEDOT:PSSâ€Free Inverted Bulk Heterojunction Solar Cells. Solar Rrl, 2022, 6, .	5.8	6
40	Rodâ€“Coil Block Copolymer: Fullerene Blend Water-Processable Nanoparticles: How Molecular Structure Addresses Morphology and Efficiency in NP-OPVs. Nanomaterials, 2022, 12, 84.	4.1	4
41	Polarized Emission from Conjugated Polymer Chains Aligned by Epitaxial Growth during Off-Center Spin-Coating. Journal of Chemistry, 2017, 2017, 1-9.	1.9	3
42	Ultrafast spectroscopy on water-processable PCBM: rodâ€“coil block copolymer nanoparticles. Physical Chemistry Chemical Physics, 2020, 22, 26583-26591.	2.8	3
43	Water-Processed Organic Solar Cells with Open-Circuit Voltages Exceeding 1.3V. Coatings, 2020, 10, 421.	2.6	3
44	Efficient Organic Devices Based on Ï€-Electron Systems: Comparative Study of Fullerene Derivatives Blended with a High Efficiency Naphthobisthiadiazole-Based Polymer for Organic Photovoltaic Applications. , 2015, , 575-588.		2
45	Low-cost light manipulation coatings for polymer solar cell photocurrent increase under various incident angles. Materials Research Letters, 2019, 7, 68-74.	8.7	2
46	A comparative study of low-cost coating processes for green & sustainable organic solar cell active layer manufacturing. Optical Materials: X, 2022, 13, 100127.	0.8	2
47	Colorless Windows That Transform Sunlight Into Electricity. Frontiers for Young Minds, 0, 9, .	0.8	1
48	Two-Step Energy Transfer: Energy Transfer in Fluorescent Nanofibers Embedding Dye-Loaded Zeolite L Crystals (Adv. Mater. 10-11/2009). Advanced Materials, 2009, 21, NA-NA.	21.0	0
49	Effect of Spraying Parameters on the Morphology of Spray-Coated Active Layers for Organic Solar Cells. International Journal of Engineering and Technology(UAE), 2018, 7, 75.	0.3	0