

Varun Vohra

List of Publications by Year in descending order

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49
papers

1,685
citations

516215

16
h-index

276539

41
g-index

50
all docs

50
docs citations

50
times ranked

2792
citing authors

#	ARTICLE	IF	CITATIONS
1	A comparative study of low-cost coating processes for green & sustainable organic solar cell active layer manufacturing. <i>Optical Materials</i> : X, 2022, 13, 100127.	0.3	2
2	Water-soluble Organic Dyes as Efficient Anode Interlayer Materials for PEDOT:PSS-free Inverted Bulk Heterojunction Solar Cells. <i>Solar Rrl</i> , 2022, 6, .	3.1	6
3	rod-coil Block Copolymer: Fullerene Blend Water-Processable Nanoparticles: How Molecular Structure Addresses Morphology and Efficiency in NP-OPVs. <i>Nanomaterials</i> , 2022, 12, 84.	1.9	4
4	Impact of the Electron Acceptor Nature on the Durability and Nanomorphological Stability of Bulk Heterojunction Active Layers for Organic Solar Cells. <i>Small</i> , 2021, 17, e2004168.	5.2	11
5	Ultrafast spectroscopy on water-processable PCBM: rod-coil block copolymer nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 26583-26591.	1.3	3
6	Controlling the concentration gradient in sequentially deposited bilayer organic solar cells via rubbing and annealing. <i>RSC Advances</i> , 2020, 10, 37529-37537.	1.7	6
7	Metal oxides and noble metals application in organic solar cells. <i>Solar Energy</i> , 2020, 207, 347-366.	2.9	24
8	Water-Processed Organic Solar Cells with Open-Circuit Voltages Exceeding 1.3V. <i>Coatings</i> , 2020, 10, 421.	1.2	3
9	Durable organic solar cells produced by <i>in situ</i> encapsulation of an air-sensitive natural organic semiconductor by the fullerene derivative and the metal oxide layer. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7162-7169.	2.7	8
10	Effect of Alkyl Side Chain Length on Intra- and Intermolecular Interactions of Terthiophene-Isoindigo Copolymers. <i>Journal of Physical Chemistry C</i> , 2020, 124, 9644-9655.	1.5	14
11	High Performance Organic Solar Cells Fabricated Using Recycled Transparent Conductive Substrates. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 5807-5814.	3.2	7
12	Efficient Ultrathin Organic Solar Cells with Sustainable β -Carotene as Electron Donor. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4376-4381.	3.2	15
13	Ternary Active Layers for Neutral Color Semitransparent Organic Solar Cells with PCEs over 4%. <i>ACS Applied Energy Materials</i> , 2019, 2, 2534-2540.	2.5	22
14	Eco-Friendly Push-Coated Polymer Solar Cells with No Active Material Wastes Yield Power Conversion Efficiencies over 5.5%. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10785-10793.	4.0	8
15	Low-cost light manipulation coatings for polymer solar cell photocurrent increase under various incident angles. <i>Materials Research Letters</i> , 2019, 7, 68-74.	4.1	2
16	Can Polymer Solar Cells Open the Path to Sustainable and Efficient Photovoltaic Windows Fabrication?. <i>Chemical Record</i> , 2019, 19, 1166-1178.	2.9	13
17	Water-Processable Amphiphilic Low Band Gap Block Copolymer: Fullerene Blend Nanoparticles as Alternative Sustainable Approach for Organic Solar Cells. <i>Advanced Sustainable Systems</i> , 2018, 2, 1700155.	2.7	19
18	Nanostructured Light-Emitting Polymer Thin Films and Devices Fabricated by the Environment-Friendly Push-Coating Technique. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11794-11800.	4.0	14

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19	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.	0.2	0
20	Natural Dyes and Their Derivatives Integrated into Organic Solar Cells. Materials, 2018, 11, 2579.	1.3	14
21	Strongly Iridescent Hybrid Photonic Sensors Based on Self-Assembled Nanoparticles for Hazardous Solvent Detection. Nanomaterials, 2018, 8, 169.	1.9	8
22	All solution-processed micro-structured flexible electrodes for low-cost light-emitting pressure sensors fabrication. Scientific Reports, 2017, 7, 6921.	1.6	9
23	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.	4.0	29
24	Fabrication Processes to Generate Concentration Gradients in Polymer Solar Cell Active Layers. Materials, 2017, 10, 518.	1.3	10
25	Polarized Emission from Conjugated Polymer Chains Aligned by Epitaxial Growth during Off-Center Spin-Coating. Journal of Chemistry, 2017, 2017, 1-9.	0.9	3
26	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.	1.5	20
27	Investigating phase separation and structural coloration of self-assembled ternary polymer thin films. Applied Physics Letters, 2016, 109, 103702.	1.5	11
28	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.	2.8	13
29	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.	0.9	9
30	Investigating the effect of solvent boiling temperature on the active layer morphology of diffusive bilayer solar cells. Applied Physics Express, 2016, 9, 012301.	1.1	13
31	Efficient inverted polymer solar cells employing favourable molecular orientation. Nature Photonics, 2015, 9, 403-408.	15.6	769
32	Efficient Organic Devices Based on π -Electron Systems: Comparative Study of Fullerene Derivatives Blended with a High Efficiency Naphthobisthiadiazole-Based Polymer for Organic Photovoltaic Applications. , 2015, , 575-588.		2
33	Achieving high efficiency and stability in inverted organic solar cells fabricated by laminated gold leaf as top electrodes. Applied Physics Express, 2014, 7, 111602.	1.1	7
34	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.	0.8	14
35	Uniaxial macroscopic alignment of conjugated polymer systems by directional crystallization during blade coating. Journal of Materials Chemistry C, 2014, 2, 3303-3310.	2.7	39
36	Nanostructured poly(3-hexylthiophene-2,5-diyl) films with tunable dimensions through self-assembly with polystyrene. Polymer, 2014, 55, 2213-2219.	1.8	15

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37	Factors Affecting the Performance of Bifacial Inverted Polymer Solar Cells with a Thick Photoactive Layer. <i>Journal of Physical Chemistry C</i> , 2014, 118, 4050-4055.	1.5	7
38	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. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	17
39	Organic solar cells based on nanoporous P3HT obtained from self-assembled P3HT:PS templates. <i>Journal of Materials Chemistry</i> , 2012, 22, 20017.	6.7	35
40	Enhanced Vertical Concentration Gradient in Rubbed P3HT:PCBM Graded Bilayer Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1820-1823.	2.1	59
41	Electroluminescence from Conjugated Polymer Electrospun Nanofibers in Solution Processable Organic Light-Emitting Diodes. <i>ACS Nano</i> , 2011, 5, 5572-5578.	7.3	107
42	Toward White Light Emission through Efficient Two-Step Energy Transfer in Hybrid Nanofibers. <i>ACS Nano</i> , 2010, 4, 1409-1416.	7.3	93
43	Self-Assembled Nanofibers of Fluorescent Zeolite L Crystals and Conjugated Polymer. <i>Langmuir</i> , 2010, 26, 1590-1593.	1.6	16
44	Energy Transfer in Fluorescent Nanofibers Embedding Dye-Loaded Zeolite L Crystals. <i>Advanced Materials</i> , 2009, 21, 1146-1150.	11.1	43
45	Two-Step Energy Transfer: Energy Transfer in Fluorescent Nanofibers Embedding Dye-Loaded Zeolite L Crystals (<i>Adv. Mater.</i> 10-11/2009). <i>Advanced Materials</i> , 2009, 21, NA-NA.	11.1	0
46	Highly Emissive Nanostructured Thin Films of Organic Host-Guests for Energy Conversion. <i>ChemPhysChem</i> , 2009, 10, 647-653.	1.0	68
47	Multilevel Organization in Hybrid Thin Films for Optoelectronic Applications. <i>Langmuir</i> , 2009, 25, 12019-12023.	1.6	45
48	Bifunctional microstructured films and surfaces obtained by soft lithography from breath figure arrays. <i>Soft Matter</i> , 2009, 5, 1656.	1.2	28
49	Colorless Windows That Transform Sunlight Into Electricity. <i>Frontiers for Young Minds</i> , 0, 9, .	0.8	1