# Varun Vohra

## List of Publications by Year in descending order



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|---|---|---|---|
| 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 | 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | Ultrafast spectroscopy on water-processable PCBM: rodâ€“coil block copolymer nanoparticles. Physical Chemistry Chemical Physics, 2020, 22, 26583-26591. | 2.8 | 3 |
| 6 | Controlling the concentration gradient in sequentially deposited bilayer organic solar cells via rubbing and annealing. RSC Advances, 2020, 10, 37529-37537. | 3.6 | 6 |
| 7 | Metal oxides and noble metals application in organic solar cells. Solar Energy, 2020, 207, 347-366. | 6.1 | 24 |
| 8 | Water-Processed Organic Solar Cells with Open-Circuit Voltages Exceeding 1.3V. Coatings, 2020, 10, 421. | 2.6 | 3 |
| 9 | 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 |
| 10 | 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 |
| 11 | High Performance Organic Solar Cells Fabricated Using Recycled Transparent Conductive Substrates. ACS Sustainable Chemistry and Engineering, 2020, 8, 5807-5814. | 6.7 | 7 |
| 12 | Efficient Ultrathin Organic Solar Cells with Sustainable Î²-Carotene as Electron Donor. ACS Sustainable Chemistry and Engineering, 2019, 7, 4376-4381. | 6.7 | 15 |
| 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 | 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 |
| 15 | 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 |
| 16 | Can Polymer Solar Cells Open the Path to Sustainable and Efficient Photovoltaic Windows Fabrication?. Chemical Record, 2019, 19, 1166-1178. | 5.8 | 13 |
| 17 | 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 |
| 18 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 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. | 0.3 | 0 |
| 20 | Natural Dyes and Their Derivatives Integrated into Organic Solar Cells. Materials, 2018, 11, 2579. | 2.9 | 14 |
| 21 | Strongly Iridescent Hybrid Photonic Sensors Based on Self-Assembled Nanoparticles for Hazardous Solvent Detection. Nanomaterials, 2018, 8, 169. | 4.1 | 8 |
| 22 | All solution-processed micro-structured flexible electrodes for low-cost light-emitting pressure sensors fabrication. Scientific Reports, 2017, 7, 6921. | 3.3 | 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. | 8.0 | 29 |
| 24 | Fabrication Processes to Generate Concentration Gradients in Polymer Solar Cell Active Layers. Materials, 2017, 10, 518. | 2.9 | 10 |
| 25 | 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 |
| 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. | 2.7 | 20 |
| 27 | Investigating phase separation and structural coloration of self-assembled ternary polymer thin films. Applied Physics Letters, 2016, 109, 103702. | 3.3 | 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. | 6.1 | 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. | 1.7 | 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. | 2.4 | 13 |
| 31 | Efficient inverted polymer solar cells employing favourable molecular orientation. Nature Photonics, 2015, 9, 403-408. | 31.4 | 769 |
| 32 | 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 |
| 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. | 2.4 | 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. | 1.8 | 14 |
| 35 | Uniaxial macroscopic alignment of conjugated polymer systems by directional crystallization during blade coating. Journal of Materials Chemistry C, 2014, 2, 3303-3310. | 5.5 | 39 |
| 36 | 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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|---|---|---|---|
| 37 | 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 |
| 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. Applied Physics Letters, 2012, 101, . | 3.3 | 17 |
| 39 | Organic solar cells based on nanoporous P3HT obtained from self-assembled P3HT:PS templates. Journal of Materials Chemistry, 2012, 22, 20017. | 6.7 | 35 |
| 40 | Enhanced Vertical Concentration Gradient in Rubbed P3HT:PCBM Graded Bilayer Solar Cells. Journal of Physical Chemistry Letters, 2012, 3, 1820-1823. | 4.6 | 59 |
| 41 | Electroluminescence from Conjugated Polymer Electrospun Nanofibers in Solution Processable Organic Light-Emitting Diodes. ACS Nano, 2011, 5, 5572-5578. | 14.6 | 107 |
| 42 | Toward White Light Emission through Efficient Two-Step Energy Transfer in Hybrid Nanofibers. ACS Nano, 2010, 4, 1409-1416. | 14.6 | 93 |
| 43 | Self-Assembled Nanofibers of Fluorescent Zeolite L Crystals and Conjugated Polymer. Langmuir, 2010, 26, 1590-1593. | 3.5 | 16 |
| 44 | Energy Transfer in Fluorescent Nanofibers Embedding Dyeâ€Loaded Zeolite L Crystals. Advanced Materials, 2009, 21, 1146-1150. | 21.0 | 43 |
| 45 | 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 |
| 46 | Highly Emissive Nanostructured Thin Films of Organic Hostâ€“Guests for Energy Conversion. ChemPhysChem, 2009, 10, 647-653. | 2.1 | 68 |
| 47 | Multilevel Organization in Hybrid Thin Films for Optoelectronic Applications. Langmuir, 2009, 25, 12019-12023. | 3.5 | 45 |
| 48 | Bifunctional microstructured films and surfaces obtained by soft lithography from breath figure arrays. Soft Matter, 2009, 5, 1656. | 2.7 | 28 |
| 49 | Colorless Windows That Transform Sunlight Into Electricity. Frontiers for Young Minds, 0, 9, . | 0.8 | 1 |