

Hiren K Machhi

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Self-Assembled Solid-State Gel Catholyte Combating Iodide Diffusion and Self-Discharge for a Stable Flexible Aqueous Zn ²⁺ Battery. <i>Advanced Energy Materials</i> , 2020, 10, 2001997.	19.5	86
2	Electrophoretically Deposited MoSe ₂ /WSe ₂ Heterojunction from Ultrasonically Exfoliated Nanocrystals for Enhanced Electrochemical Photoresponse. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 4093-4102.	8.0	57
3	A Smart Flexible Solid State Photovoltaic Device with Interfacial Cooling Recovery Feature through Thermoreversible Polymer Gel Electrolyte. <i>Small</i> , 2018, 14, e1800842.	10.0	42
4	Hierarchically Porous Metal-Organic Gel Hosting Catholyte for Limiting Iodine Diffusion and Self-Discharge Control in Sustainable Aqueous Zinc Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 21426-21435.	8.0	35
5	Anisotropic One-Dimensional Aqueous Polymer Gel Electrolyte for Photoelectrochemical Devices: Improvement in Hydrophobic TiO ₂ -Dye/Electrolyte Interface. <i>ACS Applied Energy Materials</i> , 2018, 1, 3665-3673.	5.1	34
6	Harnessing the N-dopant ratio in carbon quantum dots for enhancing the power conversion efficiency of solar cells. <i>Sustainable Energy and Fuels</i> , 2019, 3, 3182-3190.	4.9	32
7	Transferrable thin film of ultrasonically exfoliated MoSe ₂ nanocrystals for efficient visible-light photodetector. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2020, 119, 114019.	2.7	29
8	Organic Ionic Plastic Crystals as Hole Transporting Layer for Stable and Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 2001460.	14.9	27
9	Flexible Self-Powered Electrochemical Photodetector Functionalized by Multilayered Tantalum Diselenide Nanocrystals. <i>Advanced Optical Materials</i> , 2021, 9, 2100993.	7.3	21
10	Ultrasonically Exfoliated Nanocrystal-Based Z-Scheme SnSe ₂ /WSe ₂ Heterojunction for a Superior Electrochemical Photoresponse. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14729-14740.	3.1	14
11	√ Shape -Type Designed Small Hole Conductors for Efficient Indoor and Outdoor Staging from Solid Dye-Sensitized Solar Cells and Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100206.	5.8	10
12	Design and development of dithienopyrrolobenzothiadiazole (DTPBT)-based rigid conjugated polymers with improved hole mobilities. <i>Polymer</i> , 2020, 211, 123089.	3.8	7
13	Augmentation in photocurrent through organic ionic plastic crystals as an efficient redox mediator for solid-state mesoscopic photovoltaic devices. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1466-1476.	4.9	7
14	Above 800 mV Open-Circuit Voltage in Solid-State Photovoltaic Devices Using Phosphonium Cation-Based Solid Ionic Conductors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 22939-22947.	8.0	5
15	Benzyllic C ³⁺ -H Bond Oxidation on the (111) Facets of Octahedral Cu ₂ O Nanocrystals. <i>ACS Applied Nano Materials</i> , 2021, 4, 7840-7855.	5.0	4
16	Effect of redox active multivalent metal salts on micellization of amphiphilic block copolymer for energy storage devices via SANS, DLS and NMR. <i>Journal of Molecular Liquids</i> , 2021, 341, 116904.	4.9	4
17	Dithienopyrrolobenzothiadiazole-carbazole based -type conjugated material. <i>Nano Select</i> , 2020, 1, 491-498.	3.7	3
18	Yellowish-orange phosphorescent iridium(III) complexes of bis-cyclometalated ligand with pyrazolone derivatives: synthesis, characterization, photophysical and thermal properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 13778-13786.	2.2	3

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19	Donor-acceptor π -conjugated polymers based on terthiophene-3,4-dicarboxylate, dithienopyrrolobenzothiadiazole and thieno[3,4- <i>c</i>]pyrrole-4,6-dione units and their hole mobility. <i>New Journal of Chemistry</i> , 2022, 46, 8601-8610.	2.8	2