

Prem Jyoti Singh Rana

List of Publications by Year in descending order

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34
papers

597
citations

516710

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610901

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35
all docs

35
docs citations

35
times ranked

1057
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective integration of hierarchical nanostructured energy materials: an effective approach to boost the energy storage performance of flexible hybrid supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019, 7, 6374-6386.	10.3	59
2	Hole-transporting Materials for Perovskite-sensitized Solar Cells. <i>Energy Technology</i> , 2016, 4, 891-938.	3.8	50
3	Towards toxicity removal in lead based perovskite solar cells by compositional gradient using manganese chloride. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3101-3105.	5.5	49
4	Hierarchical nanostructured MnCo_2O_4 – NiCo_2O_4 composites as innovative electrodes for supercapacitor applications. <i>New Journal of Chemistry</i> , 2018, 42, 17190-17194.	2.8	43
5	Energy Transfer Dynamics of Highly Stable Fe^{3+} Doped CsPbCl_3 Perovskite Nanocrystals with Dual-Color Emission. <i>Journal of Physical Chemistry C</i> , 2019, 123, 17026-17034.	3.1	41
6	Stabilizing the Electroluminescence of Halide Perovskites with Potassium Passivation. <i>ACS Energy Letters</i> , 2020, 5, 1804-1813.	17.4	41
7	Alkali Additives Enable Efficient Large Area (>55 cm^2) Slot-die Coated Perovskite Solar Modules. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	39
8	Slot-die coated methylammonium-free perovskite solar cells with 18% efficiency. <i>Solar Energy Materials and Solar Cells</i> , 2021, 230, 111189.	6.2	28
9	Ni-Doped CsPbBr_3 Perovskite: Synthesis of Highly Stable Nanocubes. <i>Langmuir</i> , 2019, 35, 17150-17155.	3.5	27
10	Reversible Photochromism in γ -Oriented Layered Halide Perovskite. <i>ACS Nano</i> , 2022, 16, 2942-2952.	14.6	23
11	Carbon nanoparticles for ferric ion detection and novel HFCNs– Fe^{3+} composite for NH_3 and F^- estimation based on a TURN ON-mechanism. <i>Journal of Materials Chemistry B</i> , 2016, 4, 5929-5937.	5.8	22
12	Facile preparation of hierarchical MgCo_2O_4 / MgCo_2O_4 nanochain array composites on Ni foam as advanced electrode materials for supercapacitors. <i>New Journal of Chemistry</i> , 2020, 44, 4266-4275.	2.8	22
13	A step towards environmental benign Mg/Pb based binary metal mixed halide perovskite material. <i>Solar Energy</i> , 2018, 170, 769-779.	6.1	20
14	Unveiling the role of carbon black in printable mesoscopic perovskite solar cells. <i>Journal of Power Sources</i> , 2021, 501, 230019.	7.8	19
15	Open Atmosphere-Processed Stable Perovskite Solar Cells Using Molecular Engineered, Dopant-Free, Highly Hydrophobic Polymeric Hole-Transporting Materials: Influence of Thiophene and Alkyl Chain on Power Conversion Efficiency. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8560-8568.	3.1	18
16	Hybrid 2D $[\text{Pb}(\text{CH}_3\text{NH}_2)_2]_2$ Coordination Polymer Precursor for Scalable Perovskite Deposition. <i>ACS Energy Letters</i> , 2020, 5, 2305-2312.	17.4	18
17	Synthesis of Multichromophoric Asymmetrical Squaraine Sensitizer via ^1H Arylation for See-through Photovoltaic. <i>ACS Applied Energy Materials</i> , 2018, 1, 4786-4793.	5.1	16
18	Open atmospheric processed perovskite solar cells using dopant-free, highly hydrophobic hole-transporting materials: Influence of thiophene and selenophene π -spacers on charge transport and recombination properties. <i>Solar Energy Materials and Solar Cells</i> , 2019, 199, 66-74.	6.2	14

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19	Polyaniline@13X zeolite composite-supported platinum electrocatalysts for direct methanol fuel cell applications. <i>Polymer International</i> , 2019, 68, 929-935.	3.1	8
20	Toward Efficient and Stable Perovskite Photovoltaics with Fluorinated Phosphonate Salt Surface Passivation. <i>ACS Applied Energy Materials</i> , 2021, 4, 2716-2723.	5.1	8
21	Fluorescence alarming ON-OFF-ON switch derived from biocompatible carbon nanoparticle-hemoglobin-H ₂ O ₂ interaction. <i>RSC Advances</i> , 2016, 6, 70660-70668.	3.6	5
22	Wirelike dinuclear ruthenium(II)polyterpyridine complexes based on D-P-A architecture: Experimental and theoretical investigation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 340, 170-180.	3.9	5
23	Effects of All-Organic Interlayer Surface Modifiers on the Efficiency and Stability of Perovskite Solar Cells. <i>ChemSusChem</i> , 2021, 14, 1524-1533.	6.8	5
24	Effect of electron withdrawing substituent and extended π -conjugation on photophysical properties of Ruthenium polyterpyridine D-P-A complexes and interfacial studies with semiconducting TiO ₂ nanoparticle: Experimental and computational evidences. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 346, 416-430.	3.9	4
25	Ruthenium Bis(terpyridine) Complexes Based on D-P-A Functionalization: Experimental and Theoretical Evidences. <i>ChemistrySelect</i> , 2017, 2, 8751-8761.	1.5	4
26	Synthesis, Characterisation, Photophysical and Interfacial Electron Transfer Studies to TiO ₂ Nanoparticle of Novel Heteroleptic Ruthenium Terpyridyl Complex. <i>ChemistrySelect</i> , 2016, 1, 3777-3783.	1.5	3
27	Panchromatic sensitization of new terpyridine ligated thiocyanate-free Ru-complex. <i>Solar Energy</i> , 2019, 188, 305-311.	6.1	2
28	Molecular Engineering and Structure-Related Properties of Squaraine Dyes Based on the Core and Wings Concept. <i>ACS Omega</i> , 2018, 3, 15416-15425.	3.5	1
29	Structural and optical properties of ionic liquid-based hybrid perovskitoid: A combined experimental and theoretical investigation. <i>Functional Materials Letters</i> , 2021, 14, 2150008.	1.2	1
30	Blue-red emitting 2,12-disubstituted [5]helicenes for high fluorescence efficiency and sensing application. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2021, 411, 113203.	3.9	1
31	Ruthenium Polyoxometalate as Water Splitting Catalyst: Enhancement of Photochemical Water Oxidation in Presence of CAN. <i>Bulletin of the Korean Chemical Society</i> , 2014, 35, 1931-1932.	1.9	1
32	Construction of multiple logic gates based on anthocyanin derivative. <i>Materials Letters</i> , 2015, 158, 355-358.	2.6	0
33	Eutectic solidification process: A technique to grow Perylenetetracarboxydiimide nanobelt. <i>Materials Letters</i> , 2015, 157, 256-259.	2.6	0
34	Interaction of semiconducting TiO ₂ colloidal nanoparticles with Ruthenium bis(Terpyridine) complexes: Experimental and theoretical evidences. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 364, 97-108.	3.9	0