

Shyam S Pandey

List of Publications by Year in descending order

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papers

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citations

201385

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182168

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104
all docs

104
docs citations

104
times ranked

4075
citing authors

#	ARTICLE	IF	CITATIONS
1	CH ₃ NH ₃ Sn ²⁺ Pb ²⁺ I ₃ Perovskite Solar Cells Covering up to 1060 nm. Journal of Physical Chemistry Letters, 2014, 5, 1004-1011.	2.1	852
2	All-Solid Perovskite Solar Cells with HOCO-R-NH ₃ ⁺ I ⁻ Anchor-Group Inserted between Porous Titania and Perovskite. Journal of Physical Chemistry C, 2014, 118, 16651-16659.	1.5	191
3	Recent advances in the orientation of conjugated polymers for organic field-effect transistors. Journal of Materials Chemistry C, 2019, 7, 13323-13351.	2.7	111
4	Facile Synthesis and Characterization of Sulfur Doped Low Bandgap Bismuth Based Perovskites by Soluble Precursor Route. Chemistry of Materials, 2016, 28, 6436-6440.	3.2	87
5	Passivation of Grain Boundary by Squaraine Zwitterions for Defect Passivation and Efficient Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 10012-10020.	4.0	70
6	Investigation of Interfacial Charge Transfer in Solution Processed Cs ₂ SnI ₆ Thin Films. Journal of Physical Chemistry C, 2017, 121, 13092-13100.	1.5	66
7	Synthesis and characterization of squaric acid based NIR dyes for their application towards dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 213, 23-29.	2.0	64
8	Solvent driven performance in thin floating-films of PBTTT for organic field effect transistor: Role of macroscopic orientation. Organic Electronics, 2017, 43, 240-246.	1.4	56
9	Substituent effect in direct ring functionalized squaraine dyes on near infra-red sensitization of nanocrystalline TiO ₂ for molecular photovoltaics. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 214, 269-275.	2.0	55
10	Investigation of bi-ionic contribution for the enhancement of bending actuation in polypyrrole film. Sensors and Actuators B: Chemical, 2003, 89, 48-52.	4.0	50
11	Alkyl and fluoro-alkyl substituted squaraine dyes: A prospective approach towards development of novel NIR sensitizers. Thin Solid Films, 2010, 519, 1066-1071.	0.8	48
12	Enhancement of carrier mobility along with anisotropic transport in non-regiocontrolled poly(3-hexylthiophene) films processed by floating film transfer method. Organic Electronics, 2016, 38, 115-120.	1.4	48
13	Air-stable vapor phase sensing of ammonia in sub-threshold regime of poly(2,5-bis(3-tetradecylthiophen-2-yl)thieno(3,2-b)thiophene) based polymer thin-film transistor. Sensors and Actuators B: Chemical, 2017, 246, 243-251.	4.0	46
14	Cyclic Step-voltammetric Analysis of Cation-driven and Anion-driven Actuation in Polypyrrole Films. Japanese Journal of Applied Physics, 2002, 41, 7532-7536.	0.8	42
15	Rapid Formation and Macroscopic Self-Assembly of Liquid-Crystalline, High-Mobility, Semiconducting Thienothiophene. Advanced Materials Interfaces, 2018, 5, 1700875.	1.9	41
16	Anisotropic charge transport in highly oriented films of semiconducting polymer prepared by ribbon-shaped floating film. Applied Physics Letters, 2018, 112, .	1.5	40
17	Transparent conductive oxide layer-less dye-sensitized solar cells consisting of floating electrode with gradient TiO _x blocking layer. Applied Physics Letters, 2009, 94, .	1.5	38
18	Influence of backbone structure on orientation of conjugated polymers in the dynamic casting of thin floating-films. Thin Solid Films, 2016, 619, 125-130.	0.8	35

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19	Mechanism of Photocarrier Generation and Transport in Poly(3-Alkylthiophene) Films. Japanese Journal of Applied Physics, 2000, 39, 6309-6315.	0.8	34
20	Controlling Factors for Orientation of Conjugated Polymer Films in Dynamic Floating-Film Transfer Method. Journal of Nanoscience and Nanotechnology, 2017, 17, 1915-1922.	0.9	34
21	Probing mechanism of dye double layer formation from dye-cocktail solution for dye-sensitized solar cells. Thin Solid Films, 2010, 519, 1087-1092.	0.8	33
22	Huge suppression of charge recombination in P3HT/ZnO organic-inorganic hybrid solar cells by locating dyes at the ZnO/P3HT interfaces. Physical Chemistry Chemical Physics, 2013, 15, 14370.	1.3	33
23	Simple Metal-Free Dyes Derived from Triphenylamine for DSSC: A Comparative Study of Two Different Anchoring Group. Electrochimica Acta, 2015, 169, 256-263.	2.6	30
24	Layer-by-layer coating of oriented conjugated polymer films towards anisotropic electronics. Synthetic Metals, 2017, 227, 29-36.	2.1	30
25	Facile fabrication of large area oriented conjugated polymer films by ribbon-shaped FTM and its implication on anisotropic charge transport. Organic Electronics, 2019, 65, 1-7.	1.4	30
26	A comparative study of Al and LiF:Al interfaces with poly (3-hexylthiophene) using bias dependent photoluminescence technique. Organic Electronics, 2008, 9, 790-796.	1.4	28
27	Development of an amperometric biosensor based on a redox-mediator-doped polypyrrole film. Journal of Applied Polymer Science, 2004, 93, 927-933.	1.3	27
28	Investigation and Control of Charge Transport Anisotropy in Highly Oriented Friction-Transferred Polythiophene Thin Films. ACS Applied Materials & Interfaces, 2020, 12, 11876-11883.	4.0	25
29	Interplay of Orientation and Blending: Synergistic Enhancement of Field Effect Mobility in Thiophene-Based Conjugated Polymers. Journal of Physical Chemistry C, 2017, 121, 11184-11193.	1.5	24
30	Probing TiO ₂ /Dye Interface in Dye Sensitized Solar Cells Using Surface Potential Measurement. Applied Physics Express, 2008, 1, 105001.	1.1	23
31	Effects of regioregularity on carrier transport in poly(alkylthiophene) films with various alkyl chain lengths. Current Applied Physics, 2001, 1, 90-97.	1.1	22
32	Influence of nature of surface dipoles on observed photovoltage in dye-sensitized solar cells as probed by surface potential measurement. Organic Electronics, 2010, 11, 419-426.	1.4	22
33	Investigation of the minimum driving force for dye regeneration utilizing model squaraine dyes for dye-sensitized solar cells. Journal of Materials Chemistry A, 2017, 5, 22672-22682.	5.2	21
34	Preparation of Double Dye-Layer Structure of Dye-Sensitized Solar Cells from Cocktail Solutions for Harvesting Light in Wide Range of Wavelengths. Japanese Journal of Applied Physics, 2009, 48, 020213.	0.8	20
35	Effect of nature of anchoring groups on photosensitization behavior in unsymmetrical squaraine dyes. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 273, 1-7.	2.0	20
36	Photophysical characterization and BSA interaction of the direct ring carboxy functionalized unsymmetrical NIR cyanine dyes. Dyes and Pigments, 2017, 140, 6-13.	2.0	20

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37	Enhanced performance of ZnO based perovskite solar cells by Nb ₂ O ₅ surface passivation. Organic Electronics, 2018, 62, 615-620.	1.4	20
38	Implication of Molecular Weight on Optical and Charge Transport Anisotropy in PQT-C12 Films Fabricated by Dynamic FTM. ACS Applied Materials & Interfaces, 2019, 11, 28088-28095.	4.0	20
39	Novel unsymmetrical squaraine dye bearing cyanoacrylic acid anchoring group and its photosensitization behavior. Tetrahedron Letters, 2012, 53, 5437-5440.	0.7	19
40	Effect of extended π -conjugation on photovoltaic performance of dye sensitized solar cells based on unsymmetrical squaraine dyes. Tetrahedron, 2013, 69, 2633-2639.	1.0	18
41	Combined theoretical and experimental approaches for development of squaraine dyes with small energy barrier for electron injection. Solar Energy Materials and Solar Cells, 2017, 159, 625-632.	3.0	18
42	Extreme Orientational Uniformity in Large-Area Floating Films of Semiconducting Polymers for Their Application in Flexible Electronics. ACS Applied Materials & Interfaces, 2021, 13, 38534-38543.	4.0	18
43	Electrophoretic deposition onto an insulator for thin film preparation toward electronic device fabrication. Applied Physics Letters, 2012, 101, .	1.5	17
44	Transparent conductive oxide-less back contact dye-sensitized solar cells using cobalt electrolyte. Progress in Photovoltaics: Research and Applications, 2015, 23, 1100-1109.	4.4	17
45	First principles analysis of oxygen vacancy formation and migration in Sr ₂ BMoO ₆ (B = Mg, Co, Ni). RSC Advances, 2016, 6, 31968-31975.	1.7	15
46	Synthesis and Photophysical Characterization of Unsymmetrical Squaraine Dyes for Dye-Sensitized Solar Cells Utilizing Cobalt Electrolytes. ACS Applied Energy Materials, 2018, 1, 4545-4553.	2.5	15
47	Optoelectrical anisotropy in graphene oxide supported polythiophene thin films fabricated by floating film transfer. Carbon, 2019, 147, 252-261.	5.4	15
48	Wide wavelength photon harvesting in dye-sensitized solar cells utilizing cobalt complex redox electrolyte: Implication of surface passivation. Solar Energy Materials and Solar Cells, 2019, 195, 122-133.	3.0	15
49	Study To Observe the Effect of PbI ₂ Passivation on Carbon Electrode for Perovskite Solar Cells by Quartz Crystal Microbalance System. ACS Sustainable Chemistry and Engineering, 2018, 6, 10221-10228.	3.2	14
50	Ordered arrangement of F4TCNQ anions in three-dimensionally oriented P3HT thin films. Scientific Reports, 2020, 10, 20020.	1.6	14
51	Characterization of Depletion Layer using Photoluminescence Technique. Applied Physics Express, 0, 1, 021801.	1.1	13
52	Oxygen vacancy formation and migration in double perovskite Sr ₂ CrMoO ₆ : a first-principles study. RSC Advances, 2016, 6, 43034-43040.	1.7	13
53	Role of device architecture and AIOX interlayer in organic Schottky diodes and their interpretation by analytical modeling. Journal of Applied Physics, 2019, 126, .	1.1	11
54	Recent progress in the macroscopic orientation of semiconducting polymers by floating film transfer method. Japanese Journal of Applied Physics, 2022, 61, SB0801.	0.8	11

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55	Structure property correlation: electrochemomechanical deformation in polypyrrole films. <i>Thin Solid Films</i> , 2003, 438-439, 206-211.	0.8	10
56	Controlling the processable ZnO and polythiophene interface for dye-sensitized thin film organic solar cells. <i>Thin Solid Films</i> , 2013, 536, 302-307.	0.8	10
57	Efficient near infrared fluorescence detection of elastase enzyme using peptide-bound unsymmetrical squaraine dye. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 4024-4029.	1.0	10
58	Fine tuning the structure of unsymmetrical squaraine dyes towards the development of efficient dye-sensitized solar cells. , 2011, , .		9
59	Enhancing the performance of transparent conductive oxide-less back contact dye-sensitized solar cells by facile diffusion of cobalt species through TiO ₂ nanoparticles. <i>RSC Advances</i> , 2016, 6, 33353-33360.	1.7	9
60	Molecular orientation and anisotropic charge transport in the large area thin films of regioregular Poly(3-alkylthiophenes) fabricated by ribbon-shaped FTM. <i>Organic Electronics</i> , 2020, 81, 105687.	1.4	9
61	Transparent conductive oxide-less three-dimensional cylindrical dye-sensitized solar cell fabricated with flexible metal mesh electrode. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 517-524.	4.4	8
62	Synthesis, characterizations and photo-physical properties of novel lanthanum(III) complexes. <i>Journal of Taibah University for Science</i> , 2018, 12, 796-808.	1.1	8
63	Synthesis, photophysical characterization and dye adsorption behavior in unsymmetrical squaraine dyes with varying anchoring groups. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 394, 112467.	2.0	8
64	Implication of color of sensitizing dyes on transparency and efficiency of transparent dye-sensitized solar cells. <i>Solar Energy</i> , 2021, 225, 950-960.	2.9	8
65	Transparent Conductive Oxide-Less Dye-Sensitized Solar Cells Consisting of Dye-Cocktail and Cobalt Based Redox Electrolyte. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 4748-4754.	0.9	7
66	2D positional profiling of orientation and thickness uniformity in the semiconducting polymers thin films. <i>Organic Electronics</i> , 2019, 68, 221-229.	1.4	7
67	Parametric optimization of back-contact T-C-O-free dye-sensitized solar cells employing indoline and porphyrin sensitizer based on cobalt redox electrolyte. <i>Solar Energy</i> , 2020, 208, 411-418.	2.9	7
68	Far-red sensitizing octafluorobutoxy phosphorous triazatetrabenzocorrole: Synthesis, spectral characterization and aggregation studies. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 289, 53-59.	2.0	6
69	Photophysical Characterization and BSA Interaction of Direct Ring Carboxy Functionalized Symmetrical squaraine Dyes. <i>Journal of Physics: Conference Series</i> , 2017, 924, 012006.	0.3	6
70	PCPDTBT copolymer based high performance organic phototransistors utilizing improved chain alignment. <i>Optical Materials</i> , 2021, 113, 110886.	1.7	6
71	Assisted alignment of conjugated polymers in floating film transfer method using polymer blend. <i>Thin Solid Films</i> , 2021, 734, 138814.	0.8	6
72	Investigating the Role of Dye Dipole on Open Circuit Voltage in Solid-State Dye-Sensitized Solar Cells. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GF08.	0.8	6

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73	Unravelling the bottleneck of phosphonic acid anchoring groups aiming toward enhancing the stability and efficiency of mesoscopic solar cells. <i>Frontiers of Chemical Science and Engineering</i> , 2022, 16, 1060-1078.	2.3	6
74	Fabrication and characterization of coil type transparent conductive oxide-less cylindrical dye-sensitized solar cells. <i>RSC Advances</i> , 2014, 4, 22959-22963.	1.7	5
75	Relationship between diffusion of Co ³⁺ /Co ²⁺ redox species in nanopores of porous titania stained with dye molecules, dye molecular structures, and photovoltaic performances. <i>RSC Advances</i> , 2015, 5, 83725-83731.	1.7	5
76	Synthesis and Optoelectrical Characterization of Novel Squaraine Dyes Derived from Benzothiophene and Benzofuran. <i>ACS Omega</i> , 2018, 3, 13919-13927.	1.6	5
77	Solvent-Assisted Friction Transfer Method for Fabricating Large-Area Thin Films of Semiconducting Polymers with Edge-On Oriented Extended Backbones. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55033-55043.	4.0	5
78	Investigating the Role of Dye Dipole on Open Circuit Voltage in Solid-State Dye-Sensitized Solar Cells. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GF08.	0.8	4
79	Nonisothermal curing kinetics of epoxy resin composite utilizing Ga (III) xanthate as a latent catalyst. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	4
80	Design of Far-Red Sensitizing Squaraine Dyes Aiming Towards the Fine Tuning of Dye Molecular Structure. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 3282-3288.	0.9	4
81	Reduced contact resistance in organic field-effect transistors fabricated using floating film transfer method. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 15277-15285.	1.1	4
82	Boosting the Efficiency of Low-Cost T-C-O-Less Dye-Sensitized Solar Cells Employing Nanoparticle Spacers and Cobalt Complex Redox Shuttle. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2721-2729.	2.0	4
83	Charge transfer and catalytic properties of various PEDOTs as Pt-free counter electrodes for dye-sensitized solar cells. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SB1010.	0.8	4
84	Solution processable thin film organic photovoltaic cells based on far red sensitive soluble squaraine dyes. <i>Thin Solid Films</i> , 2012, 522, 401-406.	0.8	3
85	Single-step fabrication of all-solid dye-sensitized solar cells using solution-processable precursor. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 1846-1850.	0.8	3
86	P3HT Nanofibrils Thin-Film Transistors by Adsorbing Deposition in Suspension. <i>Materials</i> , 2019, 12, 3643.	1.3	3
87	Bifacial dye-sensitized solar cells utilizing green-colored NIR sensitive unsymmetrical squaraine dye. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SB1005.	0.8	3
88	Transparent conductive oxide-less back contact dye-sensitized solar cells using flat titanium sheet with microholes for photoanode fabrication. <i>Journal of Photonics for Energy</i> , 2017, 7, 015501.	0.8	2
89	Implications of doping and depletion on the switching characteristics in polymer-based organic field-effect transistors. <i>Organic Electronics</i> , 2018, 56, 152-158.	1.4	2
90	2D positional mapping of casting condition driven microstructural distribution in organic thin films. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SCCA06.	0.8	2

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91	Development of High-Sensitivity Poly(2,7-(9,9-diethylfluorene)-alt-5,5-(4,7-dithienylbenzo) Tj ETQq1 1 0.784 Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100185.	1.2	2
92	Computational molecular design of NIR dyes with varying anchoring groups for improving the efficiency and stability of dye-sensitized solar cells. Japanese Journal of Applied Physics, 2022, 61, SB1021.	0.8	2
93	Highly Sensitive Organic Phototransistors Fabricated from PCPDTBT:PCBM Blend. Journal of Physics: Conference Series, 2021, 2070, 012040.	0.3	1
94	Aiming at High Efficiency Dye-Sensitized Solar Cells-From the View Point of Photoconversion Interface-. Electrochemistry, 2011, 79, 761-767.	0.6	0
95	Multiple electron injection from dyes to titania layer for high efficiency-dye-sensitized solar cells. , 2011, , .		0
96	Transparent conductive oxide-less back contact dye-sensitized solar cells using Zinc porphyrin dye employing cobalt complex redox shuttle. , 2014, , .		0
97	All-solid Sn/Pb halide perovskite sensitized solar cells. , 2014, , .		0
98	Comparative analysis of metal diffusion effects in polymer films coated with spin coating and floating film transfer techniques. Synthetic Metals, 2020, 264, 116378.	2.1	0
99	Investigation of Orientation in the Thin Films of Conjugated Polymer and NIR Dye Blends Fabricated by Friction Transfer Method. , 2021, , .		0
100	Probing the metal/conducting polymer interface and implications of the metal diffusion in two-terminal sandwich devices. Synthetic Metals, 2021, 278, 116797.	2.1	0
101	Dye Sensitized Solar Cells Based on Novel Far Red Sensitizing Unsymmetrical Squaraine Dye Containing Pyrroloquinoline Moiety. Japanese Journal of Applied Physics, 2012, 51, 10NE12.	0.8	0
102	Prospects and Challenges with Dye-Sensitized Solar Cells utilizing Far-red Sensitive Dyes and Cobalt Complex Redox Electrolyte. , 0, , .		0
103	Orientation of Semiconducting Polymers via Swift Printing and Drawing Techniques for High Performance Organic Electronic Devices. , 2020, , .		0
104	Effect of electrolyte for back contact transparent conducting oxide-less dye-sensitized solar cells: iodine versus cobalt. Journal of Photonics for Energy, 2020, 10, .	0.8	0