

Shyam S Pandey

List of Publications by Year in descending order

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docs citations

104
times ranked

4075
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Charge transfer and catalytic properties of various PEDOTs as Pt-free counter electrodes for dye-sensitized solar cells. Japanese Journal of Applied Physics, 2022, 61, SB1010.	0.8	4
4	Bifacial dye-sensitized solar cells utilizing green-colored NIR sensitive unsymmetrical squaraine dye. Japanese Journal of Applied Physics, 2022, 61, SB1005.	0.8	3
5	Unravelling the bottleneck of phosphonic acid anchoring groups aiming toward enhancing the stability and efficiency of mesoscopic solar cells. Frontiers of Chemical Science and Engineering, 2022, 16, 1060-1078.	2.3	6
6	PCPDTBT copolymer based high performance organic phototransistors utilizing improved chain alignment. Optical Materials, 2021, 113, 110886.	1.7	6
7	Investigation of Orientation in the Thin Films of Conjugated Polymer and NIR Dye Blends Fabricated by Friction Transfer Method. , 2021, , .		0
8	Development of High-Sensitivity Poly(2,7-(9,9-diethylfluorene)-alt-5,5-(4,7-dithienylbenzo) Tj ETQq0 0 0 rgB Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100185.	1.2	2
9	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
10	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
11	Assisted alignment of conjugated polymers in floating film transfer method using polymer blend. Thin Solid Films, 2021, 734, 138814.	0.8	6
12	Implication of color of sensitizing dyes on transparency and efficiency of transparent dye-sensitized solar cells. Solar Energy, 2021, 225, 950-960.	2.9	8
13	Highly Sensitive Organic Phototransistors Fabricated from PCPDTBT:PCBM Blend. Journal of Physics: Conference Series, 2021, 2070, 012040.	0.3	1
14	2D positional mapping of casting condition driven microstructural distribution in organic thin films. Japanese Journal of Applied Physics, 2020, 59, SCCA06.	0.8	2
15	Parametric optimization of back-contact T-C-O-free dye-sensitized solar cells employing indoline and porphyrin sensitizer based on cobalt redox electrolyte. Solar Energy, 2020, 208, 411-418.	2.9	7
16	Reduced contact resistance in organic field-effect transistors fabricated using floating film transfer method. Journal of Materials Science: Materials in Electronics, 2020, 31, 15277-15285.	1.1	4
17	Boosting the Efficiency of Low-Cost T-C-O-Less Dye-Sensitized Solar Cells Employing Nanoparticle Spacers and Cobalt Complex Redox Shuttle. ACS Applied Electronic Materials, 2020, 2, 2721-2729.	2.0	4
18	Ordered arrangement of F4TCNQ anions in three-dimensionally oriented P3HT thin films. Scientific Reports, 2020, 10, 20020.	1.6	14

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19	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
20	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
21	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
22	Investigation and Control of Charge Transport Anisotropy in Highly Oriented Friction-Transferred Polythiophene Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11876-11883.	4.0	25
23	Comparative analysis of metal diffusion effects in polymer films coated with spin coating and floating film transfer techniques. <i>Synthetic Metals</i> , 2020, 264, 116378.	2.1	0
24	Orientation of Semiconducting Polymers via Swift Printing and Drawing Techniques for High Performance Organic Electronic Devices. , 2020, , .		0
25	Effect of electrolyte for back contact transparent conducting oxide-less dye-sensitized solar cells: iodine versus cobalt. <i>Journal of Photonics for Energy</i> , 2020, 10, .	0.8	0
26	Implication of Molecular Weight on Optical and Charge Transport Anisotropy in PQT-C12 Films Fabricated by Dynamic FTM. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 28088-28095.	4.0	20
27	Role of device architecture and ALOX interlayer in organic Schottky diodes and their interpretation by analytical modeling. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	11
28	Recent advances in the orientation of conjugated polymers for organic field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 13323-13351.	2.7	111
29	Optoelectrical anisotropy in graphene oxide supported polythiophene thin films fabricated by floating film transfer. <i>Carbon</i> , 2019, 147, 252-261.	5.4	15
30	Wide wavelength photon harvesting in dye-sensitized solar cells utilizing cobalt complex redox electrolyte: Implication of surface passivation. <i>Solar Energy Materials and Solar Cells</i> , 2019, 195, 122-133.	3.0	15
31	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
32	Passivation of Grain Boundary by Squaraine Zwitterions for Defect Passivation and Efficient Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10012-10020.	4.0	70
33	P3HT Nanofibrils Thin-Film Transistors by Adsorbing Deposition in Suspension. <i>Materials</i> , 2019, 12, 3643.	1.3	3
34	Facile fabrication of large area oriented conjugated polymer films by ribbon-shaped FTM and its implication on anisotropic charge transport. <i>Organic Electronics</i> , 2019, 65, 1-7.	1.4	30
35	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
36	Rapid Formation and Macroscopic Self-Assembly of Liquid-Crystalline, High-Mobility, Semiconducting Thienothiophene. <i>Advanced Materials Interfaces</i> , 2018, 5, 1700875.	1.9	41

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37	Anisotropic charge transport in highly oriented films of semiconducting polymer prepared by ribbon-shaped floating film. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	40
38	Synthesis and Optoelectrical Characterization of Novel Squaraine Dyes Derived from Benzothiophene and Benzofuran. <i>ACS Omega</i> , 2018, 3, 13919-13927.	1.6	5
39	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
40	Enhanced performance of ZnO based perovskite solar cells by Nb ₂ O ₅ surface passivation. <i>Organic Electronics</i> , 2018, 62, 615-620.	1.4	20
41	Synthesis and Photophysical Characterization of Unsymmetrical Squaraine Dyes for Dye-Sensitized Solar Cells Utilizing Cobalt Electrolytes. <i>ACS Applied Energy Materials</i> , 2018, 1, 4545-4553.	2.5	15
42	Study To Observe the Effect of PbI ₂ Passivation on Carbon Electrode for Perovskite Solar Cells by Quartz Crystal Microbalance System. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 10221-10228.	3.2	14
43	Combined theoretical and experimental approaches for development of squaraine dyes with small energy barrier for electron injection. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 625-632.	3.0	18
44	Photophysical characterization and BSA interaction of the direct ring carboxy functionalized unsymmetrical NIR cyanine dyes. <i>Dyes and Pigments</i> , 2017, 140, 6-13.	2.0	20
45	Solvent driven performance in thin floating-films of PBTTT for organic field effect transistor: Role of macroscopic orientation. <i>Organic Electronics</i> , 2017, 43, 240-246.	1.4	56
46	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
47	Air-stable vapor phase sensing of ammonia in sub-threshold regime of poly(2,5-bis(3-tetradecylthiophen-2yl)thieno(3,2-b)thiophene) based polymer thin-film transistor. <i>Sensors and Actuators B: Chemical</i> , 2017, 246, 243-251.	4.0	46
48	Interplay of Orientation and Blending: Synergistic Enhancement of Field Effect Mobility in Thiophene-Based Conjugated Polymers. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11184-11193.	1.5	24
49	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
50	Investigation of Interfacial Charge Transfer in Solution Processed Cs ₂ SnI ₆ Thin Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 13092-13100.	1.5	66
51	Layer-by-layer coating of oriented conjugated polymer films towards anisotropic electronics. <i>Synthetic Metals</i> , 2017, 227, 29-36.	2.1	30
52	Investigation of the minimum driving force for dye regeneration utilizing model squaraine dyes for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22672-22682.	5.2	21
53	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
54	Controlling Factors for Orientation of Conjugated Polymer Films in Dynamic Floating-Film Transfer Method. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 1915-1922.	0.9	34

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55	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
56	Oxygen vacancy formation and migration in double perovskite Sr ₂ CrMoO ₆ : a first-principles study. <i>RSC Advances</i> , 2016, 6, 43034-43040.	1.7	13
57	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
58	Facile Synthesis and Characterization of Sulfur Doped Low Bandgap Bismuth Based Perovskites by Soluble Precursor Route. <i>Chemistry of Materials</i> , 2016, 28, 6436-6440.	3.2	87
59	Enhancement of carrier mobility along with anisotropic transport in non-regiocontrolled poly (3-hexylthiophene) films processed by floating film transfer method. <i>Organic Electronics</i> , 2016, 38, 115-120.	1.4	48
60	Influence of backbone structure on orientation of conjugated polymers in the dynamic casting of thin floating-films. <i>Thin Solid Films</i> , 2016, 619, 125-130.	0.8	35
61	First principles analysis of oxygen vacancy formation and migration in Sr ₂ BMoO ₆ (B = Mg, Co, Ni). <i>RSC Advances</i> , 2016, 6, 31968-31975.	1.7	15
62	Enhancing the performance of transparent conductive oxide-less back contact dye-sensitized solar cells by facile diffusion of cobalt species through TiO ₂ nanopores. <i>RSC Advances</i> , 2016, 6, 33353-33360.	1.7	9
63	Simple Metal-Free Dyes Derived from Triphenylamine for DSSC: A Comparative Study of Two Different Anchoring Group. <i>Electrochimica Acta</i> , 2015, 169, 256-263.	2.6	30
64	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
65	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
66	Transparent conductive oxide-less back contact dye-sensitized solar cells using cobalt electrolyte. <i>Progress in Photovoltaics: Research and Applications</i> , 2015, 23, 1100-1109.	4.4	17
67	Effect of nature of anchoring groups on photosensitization behavior in unsymmetrical squaraine dyes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 273, 1-7.	2.0	20
68	All-Solid Perovskite Solar Cells with HOCO-R-NH ₃ ⁺ Anchor-Group Inserted between Porous Titania and Perovskite. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16651-16659.	1.5	191
69	Transparent conductive oxide-less back contact dye-sensitized solar cells using Zinc porphyrin dye employing cobalt complex redox shuttle. , 2014, , .		0
70	All-solid Sn/Pb halide perovskite sensitized solar cells. , 2014, , .		0
71	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
72	CH ₃ NH ₃ Sn _x Pb _(1-x) I ₃ Perovskite Solar Cells Covering up to 1060 nm. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1004-1011.	2.1	852

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73	Far-red sensitizing octatrifluorobutoxy phosphorous triazatetrabenzocorrole: Synthesis, spectral characterization and aggregation studies. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 289, 53-59.	2.0	6
74	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
75	Huge suppression of charge recombination in P3HT/ZnO organic-inorganic hybrid solar cells by locating dyes at the ZnO/P3HT interfaces. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 14370.	1.3	33
76	Effect of extended π -conjugation on photovoltaic performance of dye sensitized solar cells based on unsymmetrical squaraine dyes. <i>Tetrahedron</i> , 2013, 69, 2633-2639.	1.0	18
77	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
78	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
79	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
80	Electrophoretic deposition onto an insulator for thin film preparation toward electronic device fabrication. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	17
81	Novel unsymmetrical squaraine dye bearing cyanoacrylic acid anchoring group and its photosensitization behavior. <i>Tetrahedron Letters</i> , 2012, 53, 5437-5440.	0.7	19
82	Dye Sensitized Solar Cells Based on Novel Far Red Sensitizing Unsymmetrical Squaraine Dye Containing Pyrroloquinoline Moiety. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 10NE12.	0.8	0
83	Fine tuning the structure of unsymmetrical squaraine dyes towards the development of efficient dye-sensitized solar cells. , 2011, , .		9
84	Aiming at High Efficiency Dye-Sensitized Solar Cells-From the View Point of Photoconversion Interface-. <i>Electrochemistry</i> , 2011, 79, 761-767.	0.6	0
85	Multiple electron injection from dyes to titania layer for high efficiency-dye-sensitized solar cells. , 2011, , .		0
86	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
87	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
88	Influence of nature of surface dipoles on observed photovoltage in dye-sensitized solar cells as probed by surface potential measurement. <i>Organic Electronics</i> , 2010, 11, 419-426.	1.4	22
89	Synthesis and characterization of squaric acid based NIR dyes for their application towards dye-sensitized solar cells. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2010, 213, 23-29.	2.0	64
90	Substituent effect in direct ring functionalized squaraine dyes on near infra-red sensitization of nanocrystalline TiO ₂ for molecular photovoltaics. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2010, 214, 269-275.	2.0	55

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91	Alkyl and fluoro-alkyl substituted squaraine dyes: A prospective approach towards development of novel NIR sensitizers. <i>Thin Solid Films</i> , 2010, 519, 1066-1071.	0.8	48
92	Probing mechanism of dye double layer formation from dye-cocktail solution for dye-sensitized solar cells. <i>Thin Solid Films</i> , 2010, 519, 1087-1092.	0.8	33
93	Transparent conductive oxide layer-less dye-sensitized solar cells consisting of floating electrode with gradient TiO _x blocking layer. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	38
94	Preparation of Double Dye-Layer Structure of Dye-Sensitized Solar Cells from Cocktail Solutions for Harvesting Light in Wide Range of Wavelengths. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 020213.	0.8	20
95	A comparative study of Al and LiF:Al interfaces with poly (3-hexylthiophene) using bias dependent photoluminescence technique. <i>Organic Electronics</i> , 2008, 9, 790-796.	1.4	28
96	Probing TiO ₂ /Dye Interface in Dye Sensitized Solar Cells Using Surface Potential Measurement. <i>Applied Physics Express</i> , 2008, 1, 105001.	1.1	23
97	Development of an amperometric biosensor based on a redox-mediator-doped polypyrrole film. <i>Journal of Applied Polymer Science</i> , 2004, 93, 927-933.	1.3	27
98	Structure property correlation: electrochemomechanical deformation in polypyrrole films. <i>Thin Solid Films</i> , 2003, 438-439, 206-211.	0.8	10
99	Investigation of bi-ionic contribution for the enhancement of bending actuation in polypyrrole film. <i>Sensors and Actuators B: Chemical</i> , 2003, 89, 48-52.	4.0	50
100	Cyclic Step-voltammetric Analysis of Cation-driven and Anion-driven Actuation in Polypyrrole Films. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 7532-7536.	0.8	42
101	Effects of regioregularity on carrier transport in poly(alkylthiophene) films with various alkyl chain lengths. <i>Current Applied Physics</i> , 2001, 1, 90-97.	1.1	22
102	Mechanism of Photocarrier Generation and Transport in Poly(3-Alkylthiophene) Films. <i>Japanese Journal of Applied Physics</i> , 2000, 39, 6309-6315.	0.8	34
103	Characterization of Depletion Layer using Photoluminescence Technique. <i>Applied Physics Express</i> , 0, 1, 021801.	1.1	13
104	Prospects and Challenges with Dye-Sensitized Solar Cells utilizing Far-red Sensitive Dyes and Cobalt Complex Redox Electrolyte. , 0, , .		0