

# Doojin Vak

## List of Publications by Year in descending order

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75  
papers

5,701  
citations

66234

42  
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79541

73  
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76  
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76  
docs citations

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times ranked

7243  
citing authors

#	ARTICLE	IF	CITATIONS
1	Can Laminated Carbon Challenge Gold? Toward Universal, Scalable, and Low-Cost Carbon Electrodes for Perovskite Solar Cells. <i>Advanced Materials Technologies</i> , 2022, 7, 2101148.	3.0	14
2	Organic Photovoltaics™ New Renaissance: Advances Toward Roll-to-Roll Manufacturing of Non-Fullerene Acceptor Organic Photovoltaics. <i>Advanced Materials Technologies</i> , 2022, 7, .	3.0	32
3	Non-Aqueous One-Pot SnO <sub>2</sub> Nanoparticle Inks and Their Use in Printable Perovskite Solar Cells. <i>Chemistry of Materials</i> , 2022, 34, 5535-5545.	3.2	7
4	Machine learning-assisted development of organic photovoltaics <i>via</i> high-throughput <i>in situ</i> formulation. <i>Energy and Environmental Science</i> , 2021, 14, 3438-3446.	15.6	29
5	A Lab-to-Fab Study toward Roll-to-Roll Fabrication of Reproducible Perovskite Solar Cells under Ambient Room Conditions. <i>Cell Reports Physical Science</i> , 2021, 2, 100293.	2.8	39
6	Microfluidic Processing of Ligand-Engineered NiO Nanoparticles for Low-Temperature Hole-Transporting Layers in Perovskite Solar Cells. <i>Solar Rrl</i> , 2021, 5, 2100342.	3.1	11
7	Roll-to-roll compatible quinoxaline-based polymers toward high performance polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 25208-25216.	5.2	14
8	Crystallisation control of drop-cast quasi-2D/3D perovskite layers for efficient solar cells. <i>Communications Materials</i> , 2020, 1, .	2.9	66
9	Improving the Stability of Ambient Processed, SnO <sub>2</sub> -Based, Perovskite Solar Cells by the UV-treatment of Sub-Cells. <i>Solar Rrl</i> , 2020, 4, 2000262.	3.1	21
10	Slot-Die and Roll-to-Roll Processed Single Junction Organic Photovoltaic Cells with the Highest Efficiency. <i>Advanced Energy Materials</i> , 2019, 9, 1901805.	10.2	62
11	Photovoltaic Devices: Slot-Die and Roll-to-Roll Processed Single Junction Organic Photovoltaic Cells with the Highest Efficiency (Adv. Energy Mater. 36/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970138.	10.2	3
12	Controlling Homogenous Spherulitic Crystallization for High-Efficiency Planar Perovskite Solar Cells Fabricated under Ambient High-Humidity Conditions. <i>Small</i> , 2019, 15, e1904422.	5.2	30
13	Humidity-Tolerant Roll-to-Roll Fabrication of Perovskite Solar Cells via Polymer-Assisted Hot Slot Die Deposition. <i>Advanced Functional Materials</i> , 2019, 29, 1809194.	7.8	93
14	Photovoltaic Devices: High Performance Roll-to-Roll Produced Fullerene-Free Organic Photovoltaic Devices via Temperature-Controlled Slot Die Coating (Adv. Funct. Mater. 6/2019). <i>Advanced Functional Materials</i> , 2019, 29, 1970037.	7.8	1
15	Slot Die Coating of CIGS Nanoparticle Inks for Scalable Solution Processed Photovoltaics. , 2019, , .		1
16	High Performance Roll-to-Roll Produced Fullerene-Free Organic Photovoltaic Devices via Temperature-Controlled Slot Die Coating. <i>Advanced Functional Materials</i> , 2019, 29, 1805825.	7.8	64
17	Self-Assembled 2D Perovskite Layers for Efficient Printable Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1803258.	10.2	149
18	Slot die coated planar perovskite solar cells via blowing and heating assisted one step deposition. <i>Solar Energy Materials and Solar Cells</i> , 2018, 179, 80-86.	3.0	104

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19	One-step roll-to-roll air processed high efficiency perovskite solar cells. Nano Energy, 2018, 46, 185-192.	8.2	271
20	Manufacturing cost and market potential analysis of demonstrated roll-to-roll perovskite photovoltaic cell processes. Solar Energy Materials and Solar Cells, 2018, 174, 314-324.	3.0	113
21	Effect of Cation Composition on the Mechanical Stability of Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1702116.	10.2	130
22	Hot slot die coating for additive-free fabrication of high performance roll-to-roll processed polymer solar cells. Energy and Environmental Science, 2018, 11, 3248-3255.	15.6	85
23	Beyond Fullerenes: Indacenodithiophene-Based Organic Charge-Transport Layer toward Upscaling of Low-Cost Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 22143-22155.	4.0	27
24	Progress in Scalable Coating and Roll-to-Roll Compatible Printing Processes of Perovskite Solar Cells toward Realization of Commercialization. Advanced Optical Materials, 2018, 6, 1701182.	3.6	52
25	Printing-friendly sequential deposition via intra-additive approach for roll-to-roll process of perovskite solar cells. Nano Energy, 2017, 41, 443-451.	8.2	91
26	How reliable are efficiency measurements of perovskite solar cells? The first inter-comparison, between two accredited and eight non-accredited laboratories. Journal of Materials Chemistry A, 2017, 5, 22542-22558.	5.2	70
27	ITO-Free Flexible Perovskite Solar Cells Based on Roll-to-Roll, Slot-Die Coated Silver Nanowire Electrodes. Solar Rrl, 2017, 1, 1700059.	3.1	78
28	Amorphous hole-transporting layer in slot-die coated perovskite solar cells. Nano Energy, 2017, 31, 210-217.	8.2	142
29	Differentially pumped spray deposition as a rapid screening tool for organic and perovskite solar cells. Scientific Reports, 2016, 6, 20357.	1.6	30
30	New barrier encapsulation and lifetime assessment of printed organic photovoltaic modules. Solar Energy Materials and Solar Cells, 2016, 155, 108-116.	3.0	30
31	A stability study of roll-to-roll processed organic photovoltaic modules containing a polymeric electron-selective layer. Solar Energy Materials and Solar Cells, 2016, 152, 133-140.	3.0	16
32	Development of a High-Performance Donor-Acceptor Conjugated Polymer: Synergy in Materials and Device Optimization. Chemistry of Materials, 2016, 28, 3481-3487.	3.2	35
33	Mechanical integrity of solution-processed perovskite solar cells. Extreme Mechanics Letters, 2016, 9, 353-358.	2.0	150
34	Reverse gravure coating for roll-to-roll production of organic photovoltaics. Solar Energy Materials and Solar Cells, 2016, 149, 154-161.	3.0	46
35	Back-contacted hybrid organic-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2016, 4, 3125-3130.	2.7	54
36	Sequent spray deposition of secondary solvent for efficient polymer solar cells. Macromolecular Research, 2015, 23, 696-703.	1.0	4

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37	Toward Large Scale Roll-to-Roll Production of Fully Printed Perovskite Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1241-1247.	11.1	785
38	Optically monitored spray coating system for the controlled deposition of the photoactive layer in organic solar cells. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	18
39	Photonic Sintering of Copper through the Controlled Reduction of Printed CuO Nanocrystals. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 25473-25478.	4.0	57
40	Organic Solar Cells Using a High-Molecular-Weight Benzodithiophene-Benzothiadiazole Copolymer with an Efficiency of 9.4%. <i>Advanced Materials</i> , 2015, 27, 702-705.	11.1	188
41	3D Printer Based Slot-Die Coater as a Lab-to-Fab Translation Tool for Solution-Processed Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1401539.	10.2	196
42	Organic photovoltaic modules fabricated by an industrial gravure printing proofer. <i>Solar Energy Materials and Solar Cells</i> , 2013, 109, 47-55.	3.0	103
43	Synthesis of Poly(p-phenylene-vinylene) Derivatives Containing an Oxadiazole Pendant Group and Their Applications to Organic Electronic Devices. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 3321-3330.	0.9	4
44	Solution Processable Monosubstituted Hexa-peri-hexabenzocoronene Self-Assembling Dyes. <i>Advanced Functional Materials</i> , 2012, 22, 2015-2026.	7.8	13
45	An inter-laboratory stability study of roll-to-roll coated flexible polymer solar modules. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 1398-1416.	3.0	132
46	Factors to be Considered in Bulk Heterojunction Polymer Solar Cells Fabricated by the Spray Process. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010, 16, 1838-1846.	1.9	47
47	Solution Processable Fluorenyl Hexa-peri-hexabenzocoronenes in Organic Field-Effect Transistors and Solar Cells. <i>Advanced Functional Materials</i> , 2010, 20, 927-938.	7.8	109
48	Water-Soluble Polyfluorenes as an Interfacial Layer Leading to Cathode-Independent High Performance of Organic Solar Cells. <i>Advanced Functional Materials</i> , 2010, 20, 1977-1983.	7.8	195
49	Fully spray-coated ITO-free organic solar cells for low-cost power generation. <i>Solar Energy Materials and Solar Cells</i> , 2010, 94, 1333-1337.	3.0	101
50	A porphyrin-hexa-peri-hexabenzocoronene-porphyrin triad: synthesis, photophysical properties and performance in a photovoltaic device. <i>Journal of Materials Chemistry</i> , 2010, 20, 7005.	6.7	60
51	Ambipolar Hexa-peri-hexabenzocoronene~Fullerene Hybrid Materials. <i>Organic Letters</i> , 2010, 12, 5000-5003.	2.4	29
52	Efficient single-component light-emitting electrochemical cells with an ion-conducting water-soluble polyfluorene. <i>Applied Physics Letters</i> , 2009, 94, .	1.5	13
53	Three-Dimensional Bulk Heterojunction Morphology for Achieving High Internal Quantum Efficiency in Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2009, 19, 2398-2406.	7.8	236
54	A New Poly(thienylenevinylene) Derivative with High Mobility and Oxidative Stability for Organic Thin-Film Transistors and Solar Cells. <i>Advanced Materials</i> , 2009, 21, 2808-2814.	11.1	118

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55	Synthesis and fluorescence study of water-soluble conjugated polymers for efficient FRET-based DNA detection. <i>Current Applied Physics</i> , 2009, 9, 636-642.	1.1	9
56	Synthesis of novel arylamine containing perfluorocyclobutane and its electrochromic properties. <i>Journal of Materials Chemistry</i> , 2009, 19, 2380.	6.7	32
57	Water-Soluble Polyfluorenes as an Electron Injecting Layer in PLEDs for Extremely High Quantum Efficiency. <i>Advanced Materials</i> , 2008, 20, 1624-1629.	11.1	83
58	Effect of photo- and thermo-oxidative degradation on the performance of hybrid photovoltaic cells with a fluorene-based copolymer and nanocrystalline TiO <sub>2</sub> . <i>Journal of Materials Chemistry</i> , 2008, 18, 654-659.	6.7	24
59	Fabrication of organic bulk heterojunction solar cells by a spray deposition method for low-cost power generation. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	228
60	Surface plasmon enhanced photoluminescence of conjugated polymers. <i>Applied Physics Letters</i> , 2007, 90, 161107.	1.5	70
61	Cationic Conjugated Polyelectrolytes with Molecular Spacers for Efficient Fluorescence Energy Transfer to Dye-Labeled DNA. <i>Advanced Functional Materials</i> , 2007, 17, 290-295.	7.8	47
62	Novel cationic water-soluble polyfluorene derivatives with ion-transporting side groups for efficient electron injection in PLEDs. <i>Organic Electronics</i> , 2007, 8, 773-783.	1.4	65
63	Silver Nanocrystal-Modified Silicon Nanowires as Substrates for Surface-Enhanced Raman and Hyper-Raman Scattering. <i>Analytical Chemistry</i> , 2006, 78, 6279-6282.	3.2	42
64	Synthesis of a New Cross-Linkable Perfluorocyclobutane-Based Hole-Transport Material. <i>Organic Letters</i> , 2006, 8, 4703-4706.	2.4	73
65	Synthesis and Characterization of Spiro-Triphenylamine Configured Polyfluorene Derivatives with Improved Hole Injection. <i>Macromolecules</i> , 2006, 39, 6433-6439.	2.2	50
66	Surface-enhanced resonance Raman and hyper-Raman spectroscopy of water-soluble substituted stilbene and distyrylbenzene chromophores. <i>Journal of Raman Spectroscopy</i> , 2006, 37, 132-141.	1.2	26
67	Solvent effects on resonant first hyperpolarizabilities and Raman and hyper-Raman spectra of DANS and a water-soluble analog. <i>Journal of Chemical Physics</i> , 2006, 125, 054506.	1.2	25
68	Water-Soluble Conjugated Polyelectrolytes with Molecular Bumper for Efficient FRET Biosensor. <i>Materials Research Society Symposia Proceedings</i> , 2006, 965, 1.	0.1	0
69	Blue electroluminescence from spiro-configured polyfluorene derivatives with hetero-atoms. <i>Journal of Luminescence</i> , 2005, 115, 109-116.	1.5	26
70	Characterization of a high-thermal-stability spiroanthracenefluorene-based blue-light-emitting polymer optical gain medium. <i>Journal of Applied Physics</i> , 2005, 98, 083101.	1.1	33
71	Synthesis of a Double Spiro-Polyindenofluorene with a Stable Blue Emission. <i>Organic Letters</i> , 2005, 7, 4229-4232.	2.4	69
72	Optical Properties of Perfluorocyclobutane Aryl Ether Polymers for Polymer Photonic Devices. <i>Macromolecules</i> , 2004, 37, 5724-5731.	2.2	37

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73	A novel spiro-functionalized polyfluorene derivative with solubilizing side chains. Journal of Materials Chemistry, 2004, 14, 1342.	6.7	60
74	A novel azobenzene-based amorphous molecular material with a spiro linked bifluorene. Journal of Materials Chemistry, 2003, 13, 2904.	6.7	48
75	Photodynamic Properties of Azobenzene Molecular Films with Triphenylamines. Chemistry of Materials, 2003, 15, 4021-4027.	3.2	83