Karen Forberich

List of Publications by Year
in descending order

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Version: 2024-02-01

63	4,446	126907	106344
papers	citations	33 h-index	65 g-index

66	66	66	6625
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highly Reflective and Low Resistive Top Electrode for Organic Solar Cells and Modules by Low Temperature Silver Nanoparticle Ink. Solar Rrl, 2022, 6, 2100887.	5.8	12
2	Luminescence Analysis of PV-Module Soiling in Germany. IEEE Journal of Photovoltaics, 2022, 12, 81-87.	2.5	7
3	Overcoming Temperatureâ€Induced Degradation of Silver Nanowire Electrodes by an Ag@SnO_x Coreâ€Shell Approach. Advanced Electronic Materials, 2022, 8, .	5.1	7
4	Managing Phase Orientation and Crystallinity of Printed Dionâ€"Jacobson 2D Perovskite Layers via Controlling Crystallization Kinetics. Advanced Functional Materials, 2022, 32, .	14.9	33
5	Understanding the Limitations of Charge Transporting Layers in Mixed Leadâ€"Tin Halide Perovskite Solar Cells. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	13
6	Tailoring the Nature of Interface States in Efficient and Stable Bilayer Organic Solar Cells by a Transferâ€Printing Technique. Advanced Materials Interfaces, 2022, 9, .	3.7	4
7	An Innovative Anode Interface Combination for Perovskite Solar Cells with Improved Efficiency, Stability, and Reproducibility. Solar Rrl, 2022, 6, .	5.8	3
8	Building process design rules for microstructure control in wide-bandgap mixed halide perovskite solar cells by a high-throughput approach. Applied Physics Letters, 2021, 118, .	3.3	8
9	Understanding the Microstructure Formation of Polymer Films by Spontaneous Solution Spreading Coating with a Highâ€Throughput Engineering Platform. ChemSusChem, 2021, 14, 3590-3598.	6.8	14
10	Utilizing the unique charge extraction properties of antimony tin oxide nanoparticles for efficient and stable organic photovoltaics. Nano Energy, 2021, 89, 106373.	16.0	8
11	Controlling the crystallization dynamics of photovoltaic perovskite layers on larger-area coatings. Energy and Environmental Science, 2020, 13, 4666-4690.	30.8	79
12	The role of exciton lifetime for charge generation in organic solar cells at negligible energy-level offsets. Nature Energy, 2020, 5, 711-719.	39.5	214
13	Spontaneously Selfâ€Assembly of a 2D/3D Heterostructure Enhances the Efficiency and Stability in Printed Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000173.	19.5	126
14	Interface Molecular Engineering for Laminated Monolithic Perovskite/Silicon Tandem Solar Cells with 80.4% Fill Factor. Advanced Functional Materials, 2019, 29, 1901476.	14.9	43
15	A Generalized Crystallization Protocol for Scalable Deposition of Highâ€Quality Perovskite Thin Films for Photovoltaic Applications. Advanced Science, 2019, 6, 1901067.	11.2	97
16	Sequential Deposition of Highâ€Quality Photovoltaic Perovskite Layers via Scalable Printing Methods. Advanced Functional Materials, 2019, 29, 1900964.	14.9	69
17	Absence of Charge Transfer State Enables Very Low V_{OC} Losses in SWCNT:Fullerene Solar Cells. Advanced Energy Materials, 2019, 9, 1801913.	19.5	25
18	Balancing electrical and optical losses for efficient 4-terminal Siâ€"perovskite solar cells with solution processed percolation electrodes. Journal of Materials Chemistry A, 2018, 6, 3583-3592.	10.3	102

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19	Printing of Largeâ€Scale, Flexible, Longâ€Term Stable Dielectric Mirrors with Suppressed Side Interferences. Advanced Optical Materials, 2018, 6, 1700518.	7.3	8
20	Time-Resolved Analysis of Dielectric Mirrors for Vapor Sensing. ACS Applied Materials & Interfaces, 2018, 10, 36398-36406.	8.0	21
21	Panchromatic ternary/quaternary polymer/fullerene BHJ solar cells based on novel silicon naphthalocyanine and silicon phthalocyanine dye sensitizers. Journal of Materials Chemistry A, 2017, 5, 2550-2562.	10.3	32
22	Detailed optical modelling and light-management of thin-film organic solar cells with consideration of small-area effects. Optics Express, 2017, 25, A176.	3.4	24
23	The fabrication of color-tunable organic light-emitting diode displays via solution processing. Light: Science and Applications, 2017, 6, e17094-e17094.	16.6	105
24	Key parameters of efficient phosphor-filled luminescent down-shifting layers for photovoltaics. Journal of Optics (United Kingdom), 2017, 19, 095901.	2.2	2
25	Determination of the complex refractive index of powder phosphors. Optical Materials Express, 2017, 7, 2943.	3.0	8
26	Overcoming the Interface Losses in Planar Heterojunction Perovskiteâ€Based Solar Cells. Advanced Materials, 2016, 28, 5112-5120.	21.0	188
27	Fully Solutionâ€Processed Small Molecule Semitransparent Solar Cells: Optimization of Transparent Cathode Architecture and Four Absorbing Layers. Advanced Functional Materials, 2016, 26, 4543-4550.	14.9	73
28	Guideline for Efficiency Enhancement in Semi-Transparent Thin-Film Organic Photovoltaics with Dielectric Mirrors. Advanced Optical Materials, 2016, 4, 1098-1105.	7.3	9
29	Numerical study of plasmonic absorption enhancement in semiconductor absorbers by metallic nanoparticles. Journal of Applied Physics, 2016, 120, .	2.5	10
30	Coloring Semitransparent Perovskite Solar Cells via Dielectric Mirrors. ACS Nano, 2016, 10, 5104-5112.	14.6	100
31	Nanostructured organosilicon luminophores in highly efficient luminescent down-shifting layers for thin film photovoltaics. Solar Energy Materials and Solar Cells, 2016, 155, 1-8.	6.2	39
32	Optimization of Solutionâ€Processed Luminescent Downâ€Shifting Layers for Photovoltaics by Customizing Organic Dye Based Thick Films. Energy Technology, 2016, 4, 385-392.	3.8	16
33	Semitransparent Organic Light Emitting Diodes with Bidirectionally Controlled Emission. ACS Photonics, 2016, 3, 1233-1239.	6.6	6
34	Efficiency Limits and Color of Semitransparent Organic Solar Cells for Application in Buildingâ€Integrated Photovoltaics. Energy Technology, 2015, 3, 1051-1058.	3.8	50
35	Printed Smart Photovoltaic Window Integrated with an Energyâ€Saving Thermochromic Layer. Advanced Optical Materials, 2015, 3, 1524-1529.	7.3	43
36	Printable Dielectric Mirrors with Easily Adjustable and Wellâ€Defined Reflection Maxima for Semitransparent Organic Solar Cells. Advanced Optical Materials, 2015, 3, 1424-1430.	7.3	23

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37	Optical Model for Simulation and Optimization of Luminescent down-shifting Layers in Photovoltaics. Energy Procedia, 2015, 84, 3-7.	1.8	4
38	Printing high performance reflective electrodes for organic solar cells. Organic Electronics, 2015, 17, 334-339.	2.6	23
39	Sub-bandgap photon harvesting for organic solar cells via integrating up-conversion nanophosphors. Organic Electronics, 2015, 19, 113-119.	2.6	13
40	Fully printed organic tandem solar cells using solution-processed silver nanowires and opaque silver as charge collecting electrodes. Energy and Environmental Science, 2015, 8, 1690-1697.	30.8	83
41	A generic concept to overcome bandgap limitations for designing highly efficient multi-junction photovoltaic cells. Nature Communications, 2015, 6, 7730.	12.8	67
42	Guidelines for Closing the Efficiency Gap between Hero Solar Cells and Rollâ€Toâ€Roll Printed Modules. Energy Technology, 2015, 3, 373-384.	3.8	98
43	Nanowire Interconnects for Printed Largeâ€Area Semitransparent Organic Photovoltaic Modules. Advanced Energy Materials, 2015, 5, 1401779.	19.5	55
44	Highly transmissive luminescent down-shifting layers filled with phosphor particles for photovoltaics. Optical Materials Express, 2015, 5, 1296.	3.0	20
45	Optical model for simulation and optimization of luminescent down-shifting layers filled with phosphor particles for photovoltaics. Optics Express, 2015, 23, A882.	3.4	18
46	Highly transmissive luminescent down-shifting layers filled with phosphor particles for photovoltaics: publisherâ€™s note. Optical Materials Express, 2015, 5, 1806.	3.0	1
47	Pushing efficiency limits for semitransparent perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 24071-24081.	10.3	95
48	Interface Engineering of Perovskite Hybrid Solar Cells with Solution-Processed Peryleneâ€“Diimide Heterojunctions toward High Performance. Chemistry of Materials, 2015, 27, 227-234.	6.7	233
49	High-performance semitransparent perovskite solar cells with solution-processed silver nanowires as top electrodes. Nanoscale, 2015, 7, 1642-1649.	5.6	300
50	Solution-Processed Parallel Tandem Polymer Solar Cells Using Silver Nanowires as Intermediate Electrode. ACS Nano, 2014, 8, 12632-12640.	14.6	34
51	Fully Solution-Processing Route toward Highly Transparent Polymer Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 18251-18257.	8.0	68
52	An Efficient Solutionâ€Processed Intermediate Layer for Facilitating Fabrication of Organic Multiâ€Junction Solar Cells. Advanced Energy Materials, 2013, 3, 1597-1605.	19.5	45
53	Semitransparent polymer solar cells. Polymer International, 2013, 62, 1408-1412.	3.1	28
54	Towards 15% energy conversion efficiency: a systematic study of the solution-processed organic tandem solar cells based on commercially available materials. Energy and Environmental Science, 2013, 6, 3407.	30.8	96

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55	ITOâ€Free and Fully Solutionâ€Processed Semitransparent Organic Solar Cells with High Fill Factors. Advanced Energy Materials, 2013, 3, 1062-1067.	19.5	172
56	Numerical simulation of light propagation in silver nanowire films using time-harmonic inverse iterative method. Journal of Applied Physics, 2013, 113, 154303.	2.5	20
57	Overcoming interface losses in organic solar cells by applying low temperature, solution processed aluminum-doped zinc oxide electron extraction layers. Journal of Materials Chemistry A, 2013, 1, 6004.	10.3	79
58	Nanomorphology and Charge Generation in Bulk Heterojunctions Based on Lowâ€Bandgap Dithiophene Polymers with Different Bridging Atoms. Advanced Functional Materials, 2010, 20, 1180-1188.	14.9	173
59	Fabrication, Optical Modeling, and Color Characterization of Semitransparent Bulkâ€Heterojunction Organic Solar Cells in an Inverted Structure. Advanced Functional Materials, 2010, 20, 1592-1598.	14.9	182
60	Influence of the Bridging Atom on the Performance of a Lowâ€Bandgap Bulk Heterojunction Solar Cell. Advanced Materials, 2010, 22, 367-370.	21.0	323
61	Solar Power Wires Based on Organic Photovoltaic Materials. Science, 2009, 324, 232-235.	12.6	351
62	Performance improvement of organic solar cells with moth eye anti-reflection coating. Thin Solid Films, 2008, 516, 7167-7170.	1.8	141
63	Design of efficient organic tandem cells: On the interplay between molecular absorption and layer sequence. Journal of Applied Physics, 2007, 102, 123109.	2.5	101