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List of Publications by Year in descending order

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papers

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citations

81900

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96
docs citations

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times ranked

7127
citing authors

#	ARTICLE	IF	CITATIONS
1	Controlling Morphology in Polymer-Fullerene Mixtures. <i>Advanced Materials</i> , 2008, 20, 240-245.	21.0	495
2	Controlling Molecular Doping in Organic Semiconductors. <i>Advanced Materials</i> , 2017, 29, 1703063.	21.0	394
3	Efficiency Enhancements in Solid-State Hybrid Solar Cells via Reduced Charge Recombination and Increased Light Capture. <i>Nano Letters</i> , 2007, 7, 3372-3376.	9.1	363
4	J-Aggregate Behavior in Poly-3-hexylthiophene Nanofibers. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 259-263.	4.6	258
5	Comparison of solution-mixed and sequentially processed P3HT:F4TCNQ films: effect of doping-induced aggregation on film morphology. <i>Journal of Materials Chemistry C</i> , 2016, 4, 3454-3466.	5.5	256
6	Morphology Control in Solution-Processed Bulk-Heterojunction Solar Cell Mixtures. <i>Advanced Functional Materials</i> , 2009, 19, 3028-3036.	14.9	252
7	The effect of active layer thickness and composition on the performance of bulk-heterojunction solar cells. <i>Journal of Applied Physics</i> , 2006, 100, 094503.	2.5	249
8	Double doping of conjugated polymers with monomer molecular dopants. <i>Nature Materials</i> , 2019, 18, 149-155.	27.5	225
9	Effect of Trace Solvent on the Morphology of P3HT:PCBM Bulk Heterojunction Solar Cells. <i>Advanced Functional Materials</i> , 2011, 21, 1779-1787.	14.9	183
10	Two Novel Cyclopentadithiophene-Based Alternating Copolymers as Potential Donor Components for High-Efficiency Bulk-Heterojunction-Type Solar Cells. <i>Chemistry of Materials</i> , 2008, 20, 4045-4050.	6.7	179
11	Coarse-Grained Computer Simulations of Polymer/Fullerene Bulk Heterojunctions for Organic Photovoltaic Applications. <i>Journal of Chemical Theory and Computation</i> , 2010, 6, 526-537.	5.3	166
12	Approach to High-Resolution ex Situ NMR Spectroscopy. <i>Science</i> , 2001, 293, 82-85.	12.6	147
13	Controlling microstructure in poly(3-hexylthiophene) nanofibers. <i>Journal of Materials Chemistry</i> , 2012, 22, 2498-2506.	6.7	136
14	Electronic structure basis for enhanced overall water splitting photocatalysis with aluminum doped SrTiO ₃ in natural sunlight. <i>Energy and Environmental Science</i> , 2019, 12, 1385-1395.	30.8	134
15	Hybrid solar cells: basic principles and the role of ligands. <i>Journal of Materials Chemistry</i> , 2012, 22, 2351-2368.	6.7	127
16	The effect of 2,3,5,6-tetrafluoro-7,7,8,8-tetracyanoquinodimethane charge transfer dopants on the conformation and aggregation of poly(3-hexylthiophene). <i>Journal of Materials Chemistry C</i> , 2013, 1, 5638.	5.5	108
17	Amplification of xenon NMR and MRI by remote detection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 9122-9127.	7.1	98
18	Polymorphism controls the degree of charge transfer in a molecularly doped semiconducting polymer. <i>Materials Horizons</i> , 2018, 5, 655-660.	12.2	92

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19	Minimizing optical losses in bulk heterojunction polymer solar cells. <i>Applied Physics B: Lasers and Optics</i> , 2007, 86, 721-727.	2.2	87
20	Excited-State Self-Trapping and Ground-State Relaxation Dynamics in Poly(3-hexylthiophene) Resolved with Broadband Pump-Dump-Probe Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 2764-2769.	4.6	86
21	Introducing Solubility Control for Improved Organic P-Type Dopants. <i>Chemistry of Materials</i> , 2015, 27, 5765-5774.	6.7	86
22	Measurement of Small Molecular Dopant F4TCNQ and C ₆₀ F ₃₆ Diffusion in Organic Bilayer Architectures. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 28420-28428.	8.0	82
23	The Consequences of Interface Mixing on Organic Photovoltaic Device Characteristics. <i>Advanced Functional Materials</i> , 2011, 21, 1657-1665.	14.9	76
24	An optical spacer is no panacea for light collection in organic solar cells. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	73
25	Packing Dependent Electronic Coupling in Single Poly(3-hexylthiophene) H- and J-Aggregate Nanofibers. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4478-4487.	2.6	73
26	A comparative MD study of the local structure of polymer semiconductors P3HT and PBTTT. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14735.	2.8	69
27	Three-Dimensional Concentration Mapping of Organic Blends. <i>Advanced Functional Materials</i> , 2013, 23, 2115-2122.	14.9	64
28	Intensity-dependent photocurrent generation at the anode in bulk-heterojunction solar cells. <i>Applied Physics B: Lasers and Optics</i> , 2008, 92, 209-218.	2.2	63
29	Investigating the Morphology of Polymer/Fullerene Layers Coated Using Orthogonal Solvents. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7287-7292.	3.1	61
30	Effect of Polymer Nanoparticle Formation on the Efficiency of Polythiophene Based Bulk-Heterojunction Solar Cells. <i>Journal of Physical Chemistry C</i> , 2008, 112, 12583-12589.	3.1	60
31	The effect of thermal annealing on dopant site choice in conjugated polymers. <i>Organic Electronics</i> , 2016, 33, 23-31.	2.6	54
32	Direct probe of the nuclear modes limiting charge mobility in molecular semiconductors. <i>Materials Horizons</i> , 2019, 6, 182-191.	12.2	53
33	Reversible Optical Control of Conjugated Polymer Solubility with Sub-micrometer Resolution. <i>ACS Nano</i> , 2015, 9, 1905-1912.	14.6	52
34	Identifying Atomic Scale Structure in Undoped/Doped Semicrystalline P3HT Using Inelastic Neutron Scattering. <i>Macromolecules</i> , 2017, 50, 2424-2435.	4.8	52
35	Characterization of polymer-fullerene mixtures for organic photovoltaics by systematically coarse-grained molecular simulations. <i>Fluid Phase Equilibria</i> , 2011, 302, 21-25.	2.5	51
36	Self-Assembly of Selective Interfaces in Organic Photovoltaics. <i>Advanced Functional Materials</i> , 2013, 23, 1935-1946.	14.9	50

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37	Quantifying organic solar cell morphology: a computational study of three-dimensional maps. <i>Energy and Environmental Science</i> , 2013, 6, 3060.	30.8	44
38	P3HT:PCBM Bulk-Heterojunctions: Observing Interfacial and Charge Transfer States with Surface Photovoltage Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14723-14731.	3.1	44
39	Quantitative Measurements of the Temperature-Dependent Microscopic and Macroscopic Dynamics of a Molecular Dopant in a Conjugated Polymer. <i>Macromolecules</i> , 2017, 50, 5476-5489.	4.8	44
40	Photochemical Charge Separation in Poly(3-hexylthiophene) (P3HT) Films Observed with Surface Photovoltage Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2013, 117, 26905-26913.	3.1	41
41	Direct-Write Optical Patterning of P3HT Films Beyond the Diffraction Limit. <i>Advanced Materials</i> , 2017, 29, 1603221.	21.0	40
42	Optical description of solid-state dye-sensitized solar cells. I. Measurement of layer optical properties. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	39
43	Interference method for the determination of the complex refractive index of thin polymer layers. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	37
44	Optical Dedoping Mechanism for P3HT:F4TCNQ Mixtures. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4297-4303.	4.6	37
45	Directional dependence of electron blocking in PEDOT:PSS. <i>Organic Electronics</i> , 2012, 13, 2747-2756.	2.6	35
46	Quantitative Dedoping of Conductive Polymers. <i>Chemistry of Materials</i> , 2017, 29, 832-841.	6.7	35
47	A Freely Soluble, High Electron Affinity Molecular Dopant for Solution Processing of Organic Semiconductors. <i>Chemistry of Materials</i> , 2019, 31, 1500-1506.	6.7	33
48	Power from plastic. <i>Current Opinion in Solid State and Materials Science</i> , 2010, 14, 123-130.	11.5	32
49	Laser-polarized ¹²⁹ Xe NMR and MRI at Ultralow Magnetic Fields. <i>Journal of Magnetic Resonance</i> , 2002, 157, 235-241.	2.1	31
50	Correlating dilute solvent interactions to morphology and OPV device performance. <i>Organic Electronics</i> , 2013, 14, 2431-2443.	2.6	31
51	Side chain length affects backbone dynamics in poly(3-alkylthiophene)s. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018, 56, 1193-1202.	2.1	31
52	Photoinduced degradation from trace 1,8-diiodooctane in organic photovoltaics. <i>Journal of Materials Chemistry C</i> , 2018, 6, 219-225.	5.5	30
53	Characterization of new transparent organic electrode materials. <i>Organic Electronics</i> , 2011, 12, 1948-1956.	2.6	28
54	Mixed interlayers at the interface between PEDOT:PSS and conjugated polymers provide charge transport control. <i>Journal of Materials Chemistry C</i> , 2015, 3, 2664-2676.	5.5	26

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55	Nanoscale Morphology of PTB7 Based Organic Photovoltaics as a Function of Fullerene Size. <i>Scientific Reports</i> , 2016, 6, 30915.	3.3	25
56	Nanoscale Morphology of Doctor Bladed versus Spin-Coated Organic Photovoltaic Films. <i>Advanced Energy Materials</i> , 2017, 7, 1701269.	19.5	24
57	Anion Exchange Doping: Tuning Equilibrium to Increase Doping Efficiency in Semiconducting Polymers. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1284-1289.	4.6	24
58	Two-Dimensional High-Resolution NMR Spectra in Matched B0 and B1 Field Gradients. <i>Journal of Magnetic Resonance</i> , 2002, 156, 146-151.	2.1	22
59	High-resolution NMR of static samples by rotation of the magnetic field. <i>Journal of Magnetic Resonance</i> , 2004, 169, 13-18.	2.1	22
60	High work-function hole transport layers by self-assembly using a fluorinated additive. <i>Journal of Materials Chemistry C</i> , 2014, 2, 115-123.	5.5	21
61	Calcium niobate nanosheets as a novel electron transport material for solution-processed multi-junction polymer solar cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 20443.	6.7	19
62	Variable rotation composite pulses for high resolution nuclear magnetic resonance using inhomogeneous magnetic and radiofrequency fields. <i>Chemical Physics Letters</i> , 2002, 363, 25-33.	2.6	18
63	Optical description of solid-state dye-sensitized solar cells. II. Device optical modeling with implications for improving efficiency. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	15
64	Toward Fast Screening of Organic Solar Cell Blends. <i>Advanced Science</i> , 2020, 7, 2000960.	11.2	15
65	Understanding charge transport in donor/acceptor blends from large-scale device simulations based on experimental film morphologies. <i>Energy and Environmental Science</i> , 2020, 13, 601-615.	30.8	14
66	Effect of fractal silver electrodes on charge collection and light distribution in semiconducting organic polymer films. <i>Journal of Materials Chemistry A</i> , 2014, 2, 16608-16616.	10.3	13
67	Predictive Model of Charge Mobilities in Organic Semiconductor Small Molecules with Force-Matched Potentials. <i>Journal of Chemical Theory and Computation</i> , 2020, 16, 3494-3503.	5.3	12
68	P3HT-Based Solar Cells: Structural Properties and Photovoltaic Performance. <i>Advances in Polymer Science</i> , 2014, , 181-232.	0.8	11
69	Morphological consequences of ligand exchange in quantum dot - Polymer solar cells. <i>Organic Electronics</i> , 2018, 54, 119-125.	2.6	11
70	Effect of processing conditions on additive DISC patterning of P3HT films. <i>Journal of Materials Chemistry C</i> , 2019, 7, 302-313.	5.5	10
71	Additive solution deposition of multi-layered semiconducting polymer films for design of sophisticated device architectures. <i>Journal of Materials Chemistry C</i> , 2019, 7, 953-960.	5.5	10
72	Material profile influences in bulk-heterojunctions. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 1291-1300.	2.1	9

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73	High-Speed Photothermal Patterning of Doped Polymer Films. ACS Applied Materials & Interfaces, 2019, 11, 41717-41725.	8.0	9
74	Resolution of ¹²⁹ Xe Chemical Shifts at Ultralow Magnetic Field. Journal of the American Chemical Society, 2001, 123, 8133-8134.	13.7	8
75	Modeling organic electronic materials: bridging length and time scales. Molecular Simulation, 2017, 43, 730-742.	2.0	8
76	Acceptor dependent polaron recombination dynamics in poly 3-hexyl thiophene: Fullerene composite films. Chemical Physics Letters, 2011, 513, 77-83.	2.6	7
77	Put Your Backbone into It: Excited-State Structural Relaxation of PffBT4T-2DT Conducting Polymer in Solution. Journal of Physical Chemistry C, 2018, 122, 7020-7026.	3.1	7
78	Structural characterization of a polycrystalline epitaxially-fused colloidal quantum dot superlattice by electron tomography. Journal of Materials Chemistry A, 2020, 8, 18254-18265.	10.3	7
79	Computing inelastic neutron scattering spectra from molecular dynamics trajectories. Scientific Reports, 2021, 11, 7938.	3.3	7
80	Synthesis and characterization of solution processable, high electron affinity molecular dopants. Journal of Materials Chemistry C, 0, , .	5.5	7
81	Quantifying Polaron Mole Fractions and Interpreting Spectral Changes in Molecularly Doped Conjugated Polymers. Advanced Electronic Materials, 2022, 8, .	5.1	7
82	Quantitative Hole Mobility Simulation and Validation in Substituted Acenes. Journal of Physical Chemistry Letters, 2022, 13, 5530-5537.	4.6	7
83	Detailed study of the decay mechanism in polymeric OLEDs. , 2005, , .		5
84	Molecular Dynamics Study of the Local Structure of Photovoltaic Polymer PCDTBT. Journal of Chemical & Engineering Data, 2014, 59, 2982-2986.	1.9	4
85	Solution aging and degradation of a transparent conducting polymer dispersion. Organic Electronics, 2016, 34, 172-178.	2.6	4
86	Investigation of Hierarchical Structure Formation in Merocyanine Photovoltaics. Journal of Physical Chemistry C, 2020, 124, 19457-19466.	3.1	4
87	Reversible Doping and Photo Patterning of Polymer Nanowires. Advanced Electronic Materials, 2020, 6, 2000469.	5.1	4
88	Davis Computational Spectroscopy Workflowâ€”From Structure to Spectra. Journal of Chemical Information and Modeling, 2021, 61, 4486-4496.	5.4	4
89	The effect of active layer thickness on the efficiency of polymer solar cells. , 2005, , .		3
90	Super-Resolution Photothermal Patterning in Conductive Polymers Enabled by Thermally Activated Solubility. ACS Nano, 2021, 15, 7006-7020.	14.6	3

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91	Comparing the Expense and Accuracy of Methods to Simulate Atomic Vibrations in Rubrene. Journal of Chemical Theory and Computation, 2021, , .	5.3	3
92	High-resolution patterning electronic polymers using dopant induced solubility control (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0
93	Optical Patterning: Directâ€Write Optical Patterning of P3HT Films Beyond the Diffraction Limit (Adv.) Tj ETQq1 1 0.784314 ggBT /Over 21.0	0.1	0
94	Controlling organic polymer structure. SPIE Newsroom, 2008, , .	0.1	0
95	Approaching Rapid, Highâ€Resolution, Largeâ€Area Patterning of Semiconducting Polymers Using Projection Photothermal Lithography. Advanced Materials Technologies, 0, , 2100812.	5.8	0