Mark Nikolka

List of Publications by Year
in descending order

29 papers	3,952 citations	279798 23 h-index	477307 29 g-index
29 all docs	29 docs citations	29 times ranked	5196 citing authors

#	Article	IF	Citations
1	Approaching disorder-free transport in high-mobility conjugated polymers. Nature, 2014, 515, 384-388.	27.8	844
2	Charge transport in high-mobility conjugated polymers and molecular semiconductors. Nature Materials, 2020, 19, 491-502.	27.5	485
3	Chalcogenophene Comonomer Comparison in Small Band Gap Diketopyrrolopyrrole-Based Conjugated Polymers for High-Performing Field-Effect Transistors and Organic Solar Cells. Journal of the American Chemical Society, 2015, 137, 1314-1321.	13.7	363
4	2D coherent charge transport in highly orderedÂconducting polymers doped by solid stateÂdiffusion. Nature Materials, 2016, 15, 896-902.	27.5	346
5	High operational and environmental stability of high-mobility conjugated polymer field-effect transistors through the use of molecular additives. Nature Materials, 2017, 16, 356-362.	27.5	345
6	Multi-scale ordering in highly stretchable polymer semiconducting films. Nature Materials, 2019, 18, 594-601.	27.5	251
7	Twoâ€Dimensional Carrier Distribution in Topâ€Gate Polymer Fieldâ€Effect Transistors: Correlation between Width of Density of Localized States and Urbach Energy. Advanced Materials, 2014, 26, 728-733.	21.0	149
8	Reducing dynamic disorder in small-molecule organic semiconductors by suppressing large-amplitude thermal motions. Nature Communications, 2016, 7, 10736.	12.8	147
9	An Intrinsically Stretchable Highâ€Performance Polymer Semiconductor with Low Crystallinity. Advanced Functional Materials, 2019, 29, 1905340.	14.9	120
10	Modification of Indacenodithiophene-Based Polymers and Its Impact on Charge Carrier Mobility in Organic Thin-Film Transistors. Journal of the American Chemical Society, 2020, 142, 652-664.	13.7	101
11	High-mobility, trap-free charge transport in conjugated polymer diodes. Nature Communications, 2019, 10, 2122.	12.8	92
12	Dithiopheneindenofluorene (TIF) Semiconducting Polymers with Very High Mobility in Fieldâ€Effect Transistors. Advanced Materials, 2017, 29, 1702523.	21.0	81
13	Limits for Recombination in a Low Energy Loss Organic Heterojunction. ACS Nano, 2016, 10, 10736-10744.	14.6	79
14	Performance Improvements in Conjugated Polymer Devices by Removal of Waterâ€Induced Traps. Advanced Materials, 2018, 30, e1801874.	21.0	69
15	Azaisoindigo conjugated polymers for high performance n-type and ambipolar thin film transistor applications. Journal of Materials Chemistry C, 2016, 4, 9704-9710.	5.5	65
16	Short contacts between chains enhancing luminescence quantum yields and carrier mobilities in conjugated copolymers. Nature Communications, 2019, 10, 2614.	12.8	60
17	A Thieno[2,3-b]pyridine-Flanked Diketopyrrolopyrrole Polymer as an n-Type Polymer Semiconductor for All-Polymer Solar Cells and Organic Field-Effect Transistors. Macromolecules, 2018, 51, 71-79.	4.8	58
18	The Effect of Ring Expansion in Thienobenzo[b]indacenodithiophene Polymers for Organic Field-Effect Transistors. Journal of the American Chemical Society, 2019, 141, 18806-18813.	13.7	45

#	Article	IF	Citations
19	Trap Healing for Highâ€Performance Lowâ€Voltage Polymer Transistors and Solutionâ€Based Analog Amplifiers on Foil. Advanced Materials, 2017, 29, 1606938.	21.0	36
20	Inâ€Situ Switching from Barrierâ€Limited to Ohmic Anodes for Efficient Organic Optoelectronics. Advanced Functional Materials, 2014, 24, 3051-3058.	14.9	33
21	Correlation of Disorder and Charge Transport in a Range of Indacenodithiopheneâ€Based Semiconducting Polymers. Advanced Electronic Materials, 2018, 4, 1700410.	5.1	26
22	Low-Voltage, Dual-Gate Organic Transistors with High Sensitivity and Stability toward Electrostatic Biosensing. ACS Applied Materials & Interfaces, 2020, 12, 40581-40589.	8.0	26
23	Linking Glassâ€Transition Behavior to Photophysical and Charge Transport Properties of Highâ€Mobility Conjugated Polymers. Advanced Functional Materials, 2021, 31, 2007359.	14.9	26
24	The effect of thiadiazole out-backbone displacement in indacenodithiophene semiconductor polymers. Journal of Materials Chemistry C, 2014, 2, 8789-8795.	5.5	23
25	Decoupling Charge Transport and Electroluminescence in a High Mobility Polymer Semiconductor. Advanced Materials, 2016, 28, 6378-6385.	21.0	22
26	Strong performance enhancement in lead-halide perovskite solar cells through rapid, atmospheric deposition of n-type buffer layer oxides. Nano Energy, 2020, 75, 104946.	16.0	20
27	Naphthacenodithiophene Based Polymersâ€”New Members of the Acenodithiophene Family Exhibiting High Mobility and Power Conversion Efficiency. Advanced Functional Materials, 2016, 26, 6961-6969.	14.9	19
28	The effect of the dielectric end groups on the positive bias stress stability of N2200 organic field effect transistors. APL Materials, 2021, 9, 041113.	5.1	13
29	A perspective on overcoming water-related stability challenges in molecular and hybrid semiconductors. MRS Communications, 2020, 10, 98-111.	1.8	8