Wei Deng

List of Publications by Year
in descending order

63 papers	3,197 citations	172207 29 h-index	155451 55 g-index
63 all docs	63 docs citations	63 times ranked	4316 citing authors

#	Article	IF	Citations
1	Ambient instability of organic field-effect transistors and their improvement strategies. Journal Physics D: Applied Physics, 2022, 55, 053001.	1.3	8
2	Scalable Growth of Organic Singleâ€Crystal Films via an Orientation Filter Funnel for Highâ€Performance Transistors with Excellent Uniformity. Advanced Materials, 2022, 34, e2109818.	11.1	29
3	A Fully Solutionâ€Printed Photosynaptic Transistor Array with Ultralow Energy Consumption for Artificialâ€Vision Neural Networks. Advanced Materials, 2022, 34, e2200380.	11.1	75
4	A Threeâ€Dimensional Confined Crystallization Strategy Toward Controllable Growth of Highâ€Quality and Largeâ€Area Perovskite Single Crystals. Advanced Functional Materials, 2022, 32, .	7.8	17
5	Ultraâ€Sensitive and Lowâ€Powerâ€Consumption Organic Phototransistor Enables Nighttime Illumination Perception for Bionic Mesopic Vision. Laser and Photonics Reviews, 2022, 16, .	4.4	10
6	Insights into the Origins of Minority Carrier Traps in Solutionâ€Processed Organic Semiconductors and Their Effects on Transistor Photostability. Advanced Electronic Materials, 2022, 8, .	2.6	5
7	Patterning of organic semiconductor crystal arrays via microchannel-assisted inkjet printing for organic field-effect transistors. JPhys Materials, 2022, 5, 035001.	1.8	3
8	Waterâ€Surface Drag Coating: A New Route Toward Highâ€Quality Conjugated Smallâ€Molecule Thin Films with Enhanced Charge Transport Properties. Advanced Materials, 2021, 33, e2005915.	11.1	52
9	Precise patterning of single crystal arrays of organic semiconductors by a patterned microchannel dip-coating method for organic field-effect transistors. Journal of Materials Chemistry C, 2021, 9, 5174-5181.	2.7	10
10	Improving Ideality of Pâ€Type Organic Fieldâ€Effect Transistors via Preventing Undesired Minority Carrier Injection. Advanced Functional Materials, 2021, 31, 2100202.	7.8	21
11	Patterning Liquid Crystalline Organic Semiconductors via Inkjet Printing for Highâ€Performance Transistor Arrays and Circuits. Advanced Functional Materials, 2021, 31, 2100237.	7.8	57
12	A phototransistor with visual adaptation. Nature Electronics, 2021, 4, 460-461.	13.1	4
13	Matrix Manipulation of Directlyâ€Synthesized PbS Quantum Dot Inks Enabled by Coordination Engineering. Advanced Functional Materials, 2021, 31, 2104457.	7.8	24
14	Waferâ€Scale Growth of Aligned C₆₀ Single Crystals via Solutionâ€Phase Epitaxy for Highâ€Performance Transistors. Advanced Functional Materials, 2021, 31, 2105459.	7.8	9
15	Bilayer-passivated stable dif-TES-ADT organic thin-film transistors. Applied Physics Letters, 2021, 119, 183301.	1.5	4
16	Theoretical Studies of Bipolar Transport in CnBTBTâ€“FmTCNQ Donorâ€“Acceptor Cocrystals. Journal of Physical Chemistry Letters, 2020, 11, 359-365.	2.1	15
17	Surficial Marangoni Flowâ€Induced Growth of Ultrathin 2D Molecular Crystals on Target Substrates. Advanced Materials Interfaces, 2020, 7, 1901753.	1.9	10
18	PbSe Quantum Dot Solar Cells Based on Directly Synthesized Semiconductive Inks. ACS Energy Letters, 2020, 5, 3797-3803.	8.8	34

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19	High-resolution patterning of organic semiconductor single crystal arrays for high-integration organic field-effect transistors. Materials Today, 2020, 40, 82-90.	8.3	53
20	Fast deposition of an ultrathin, highly crystalline organic semiconductor film for high-performance transistors. Nanoscale Horizons, 2020, 5, 1096-1105.	4.1	20
21	A Microchannelâ€Confined Crystallization Strategy Enables Blade Coating of Perovskite Single Crystal Arrays for Device Integration. Advanced Materials, 2020, 32, e1908340.	11.1	75
22	Meniscus-guided coating of organic crystalline thin films for high-performance organic field-effect transistors. Journal of Materials Chemistry C, 2020, 8, 9133-9146.	2.7	49
23	Controlled 2D growth of organic semiconductor crystals by suppressing â€œcoffee-ringâ€•effect. Nano Research, 2020, 13, 2478-2484.	5.8	11
24	Channel-restricted meniscus self-assembly for uniformly aligned growth of single-crystal arrays of organic semiconductors. Materials Today, 2019, 24, 17-25.	8.3	98
25	2D Ruddlesdenâ€“Popper Perovskite Nanoplate Based Deepâ€Blue Lightâ€Emitting Diodes for Light Communication. Advanced Functional Materials, 2019, 29, 1903861.	7.8	101
26	Unraveling the Mechanism of the Persistent Photoconductivity in Organic Phototransistors. Advanced Functional Materials, 2019, 29, 1905657.	7.8	54
27	Precise Positioning of Organic Semiconductor Single Crystals with Two-Component Aligned Structure through 3D Wettability-Induced Sequential Assembly. ACS Applied Materials & Interfaces, 2019, 11, 36205-36212.	4.0	17
28	External-force-driven solution epitaxy of large-area 2D organic single crystals for high-performance field-effect transistors. Nano Research, 2019, 12, 2796-2801.	5.8	26
29	A Facile Method for the Growth of Organic Semiconductor Single Crystal Arrays on Polymer Dielectric toward Flexible Fieldâ€Effect Transistors. Advanced Functional Materials, 2019, 29, 1902494.	7.8	54
30	Dual-Band, High-Performance Phototransistors from Hybrid Perovskite and Organic Crystal Array for Secure Communication Applications. ACS Nano, 2019, 13, 5910-5919.	7.3	72
31	Precise Patterning of Organic Semiconductor Crystals for Integrated Device Applications. Small, 2019, 15, e1900332.	5.2	41
32	Photodetectors based on small-molecule organic semiconductor crystals. Chinese Physics B, 2019, 28, 038102.	0.7	16
33	Organic molecular crystal-based photosynaptic devices for an artificial visual-perception system. NPG Asia Materials, 2019, 11, .	3.8	81
34	Few-layer formamidinium lead bromide nanoplatelets for ultrapure-green and high-efficiency light-emitting diodes. Nano Research, 2019, 12, 171-176.	5.8	34
35	Saturated Vapor-Assisted Growth of Single-Crystalline Organicâ€“Inorganic Hybrid Perovskite Nanowires for High-Performance Photodetectors with Robust Stability. ACS Applied Materials & Interfaces, 2018, 10, 10287-10295.	4.0	49
36	Organicâ€“inorganic hybrid perovskite quantum dots for light-emitting diodes. Journal of Materials Chemistry C, 2018, 6, 4831-4841.	2.7	62

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37	Facile Assembly of Highâ€Quality Organicâ€“Inorganic Hybrid Perovskite Quantum Dot Thin Films for Bright Lightâ€Emitting Diodes. Advanced Functional Materials, 2018, 28, 1705189.	7.8	52
38	Flexible integrated diode-transistor logic (DTL) driving circuits based on printed carbon nanotube thin film transistors with low operation voltage. Nanoscale, 2018, 10, 614-622.	2.8	23
39	High-mobility air-stable n-type field-effect transistors based on large-area solution-processed organic single-crystal arrays. Nano Research, 2018, 11, 882-891.	5.8	25
40	Precise Patterning of Laterally Stacked Organic Microbelt Heterojunction Arrays by Surfaceâ€Energyâ€Controlled Stepwise Crystallization for Ambipolar Organic Fieldâ€Effect Transistors. Advanced Materials, 2018, 30, e1800187.	11.1	56
41	1D Organicâ€“Inorganic Hybrid Perovskite Micro/Nanocrystals: Fabrication, Assembly, and Optoelectronic Applications. Small Methods, 2018, 2, 1700340.	4.6	27
42	Ultrahigh-Responsivity Photodetectors from Perovskite Nanowire Arrays for Sequentially Tunable Spectral Measurement. Nano Letters, 2017, 17, 2482-2489.	4.5	242
43	Ordered and Patterned Assembly of Organic Micro/Nanocrystals for Flexible Electronic and Optoelectronic Devices. Advanced Materials Technologies, 2017, 2, 1600280.	3.0	21
44	Controlled Growth of Large-Area Aligned Single-Crystalline Organic Nanoribbon Arrays for Transistors and Light-Emitting Diodes Driving. Nano-Micro Letters, 2017, 9, 52.	14.4	21
45	Alignment and Patterning of Ordered Smallâ€Molecule Organic Semiconductor Microâ€/Nanocrystals for Device Applications. Advanced Materials, 2016, 28, 2475-2503.	11.1	129
46	A facile method for fabrication of highly integrated organic field-effect transistors on photoresist-unwettable insulators with remarkable stability. Organic Electronics, 2016, 34, 104-110.	1.4	4
47	An Inherent Multifunctional Sellotape Substrate for Highâ€Performance Flexible and Wearable Organic Singleâ€Crystal Nanowire Arrayâ€Based Transistors. Advanced Electronic Materials, 2016, 2, 1600129.	2.6	8
48	Organometal Halide Perovskite Quantum Dot Lightâ€Emitting Diodes. Advanced Functional Materials, 2016, 26, 4797-4802.	7.8	231
49	Aligned Singleâ€Crystalline Perovskite Microwire Arrays for Highâ€Performance Flexible Image Sensors with Longâ€Term Stability. Advanced Materials, 2016, 28, 2201-2208.	11.1	346
50	Precisely Patterned Growth of Ultra-Long Single-Crystalline Organic Microwire Arrays for Near-Infrared Photodetectors. ACS Applied Materials & Interfaces, 2016, 8, 7912-7918.	4.0	26
51	Waferâ€Scale Precise Patterning of Organic Singleâ€Crystal Nanowire Arrays via a Photolithographyâ€Assisted Spinâ€Coating Method. Advanced Materials, 2015, 27, 7305-7312.	11.1	84
52	Facile One-Step Fabrication of Ordered Ultra-Long Organic Microwires Film for Flexible Near-Infrared Photodetectors. Journal of Nanoscience and Nanotechnology, 2015, 15, 4450-4456.	0.9	7
53	Organic Nanowire/Crystalline Silicon pâ€“n Heterojunctions for High-Sensitivity, Broadband Photodetectors. ACS Applied Materials & Interfaces, 2015, 7, 2039-2045.	4.0	43
54	Solution-Processed Graphene Quantum Dot Deep-UV Photodetectors. ACS Nano, 2015, 9, 1561-1570.	7.3	249

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55	Patterned growth of single-crystal 3, 4, 9, 10-perylenetetracarboxylic dianhydride nanowire arrays for field-emission and optoelectronic devices. Nanotechnology, 2015, 26, 295302.	1.3	4
56	Very facile fabrication of aligned organic nanowires based high-performance top-gate transistors on flexible, transparent substrate. Organic Electronics, 2014, 15, 1317-1323.	1.4	23
57	Aligned nanowire arrays on thin flexible substrates for organic transistors with high bending stability. Journal of Materials Chemistry C, 2014, 2, 1314-1320.	2.7	36
58	Large-Scale Assembly of Organic Micro/Nanocrystals into Highly Ordered Patterns and Their Applications for Strain Sensors. ACS Applied Materials & Interfaces, 2014, 6, 11018-11024.	4.0	18
59	A High-yield Two-step Transfer Printing Method for Large-scale Fabrication of Organic Single-crystal Devices on Arbitrary Substrates. Scientific Reports, 2014, 4, 5358.	1.6	25
60	In Situ Integration of Squaraine-Nanowire-Array-Based Schottky-Type Photodetectors with Enhanced Switching Performance. ACS Applied Materials & Interfaces, 2013, 5, 12288-12294.	4.0	30
61	High-Sensitivity and Fast-Response Graphene/Crystalline Silicon Schottky Junction-Based Near-IR Photodetectors. IEEE Electron Device Letters, 2013, 34, 1337-1339.	2.2	136
62	Large-scale assembly of semiconductor nanowires into desired patterns for sensor applications. New Journal of Chemistry, 2013, 37, 1776.	1.4	6
63	In-situ device integration of large-area patterned organic nanowire arrays for high-performance optical sensors. Scientific Reports, 2013, 3, 3248.	1.6	25