

Wei-Yang Chou

List of Publications by Year in descending order

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59
papers

734
citations

567281

15
h-index

610901

24
g-index

59
all docs

59
docs citations

59
times ranked

1096
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of surface free energy in gate dielectric in pentacene thin-film transistors. <i>Applied Physics Letters</i> , 2006, 89, 112126.	3.3	110
2	Influence of molecular structure and microstructure on device performance of polycrystalline pentacene thin-film transistors. <i>Applied Physics Letters</i> , 2007, 90, 171926.	3.3	44
3	Alignment of poly(3,4-ethylenedioxythiophene) polymer chains in photovoltaic cells by ultraviolet irradiation. <i>Journal of Materials Chemistry</i> , 2012, 22, 22409.	6.7	40
4	Raman spectroscopy applied to reveal polycrystalline grain structures and carrier transport properties of organic semiconductor films: Application to pentacene-based organic transistors. <i>Organic Electronics</i> , 2009, 10, 289-298.	2.6	33
5	Long-Term Operations of Polymeric Thin-Film Transistors: Electric-Field-Induced Intrachain Order and Charge Transport Enhancements of Conjugated Poly(3-hexylthiophene). <i>Macromolecules</i> , 2009, 42, 8251-8259.	4.8	30
6	Importance of Disordered Polymer Segments to Microstructure-Dependent Photovoltaic Properties of Polymer/Fullerene Bulk Heterojunction Solar Cells. <i>Journal of Physical Chemistry C</i> , 2011, 115, 15057-15066.	3.1	28
7	Manipulating the ambipolar characteristics of pentacene-based field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1823.	5.5	28
8	Light sensing in photosensitive, flexible n-type organic thin-film transistors. <i>Journal of Materials Chemistry C</i> , 2014, 2, 626-632.	5.5	27
9	Electronic structure manipulation of graphene dots for effective hydrogen evolution from photocatalytic water decomposition. <i>Nanoscale</i> , 2018, 10, 10721-10730.	5.6	27
10	Tuning surface properties in photosensitive polyimide. Material design for high performance organic thin-film transistors. <i>Journal of Materials Chemistry</i> , 2010, 20, 5474.	6.7	21
11	Organic complementary inverters with polyimide films as the surface modification of dielectrics. <i>Organic Electronics</i> , 2009, 10, 1001-1005.	2.6	17
12	Spontaneous Formation of an Ideal-Like Field-Effect Channel for Decay-Free Polymeric Thin-Film Transistors by Multiple-Scale Phase Separation. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16486-16494.	8.0	16
13	Nanoimprinting-induced efficiency enhancement in organic solar cells. <i>Applied Physics Letters</i> , 2011, 99, 183108.	3.3	15
14	New Pentacene Crystalline Phase Induced by Nanoimprinted Polyimide Gratings. <i>Journal of Physical Chemistry C</i> , 2012, 116, 8619-8626.	3.1	15
15	High-response organic thin-film memory transistors based on dipole-functional polymer electret layers. <i>Organic Electronics</i> , 2015, 26, 359-364.	2.6	15
16	Enhanced efficiency in polymer light-emitting diodes due to the improvement of charge-injection balance. <i>Applied Physics Letters</i> , 2006, 88, 071108.	3.3	14
17	Synergistic Effects of Binary-Solvent Annealing for Efficient Polymer/Fullerene Bulk Heterojunction Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 18967-18976.	8.0	13
18	A nanoscale study of charge extraction in organic solar cells: the impact of interfacial molecular configurations. <i>Nanoscale</i> , 2015, 7, 104-112.	5.6	13

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19	Polymer bilayer films with semi-interpenetrating semiconducting/insulating microstructure for field-effect transistor applications. <i>Soft Matter</i> , 2011, 7, 11103.	2.7	12
20	Improvement of n-ZnO/p-Si photodiodes by embedding of silver nanoparticles. <i>Journal of Nanoparticle Research</i> , 2011, 13, 4757-4763.	1.9	12
21	The importance of p-n junction interfaces for efficient small molecule-based organic solar cells. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 5284.	2.8	12
22	Highly energy-efficient and air-stable organic transistors by an ultrathin hybrid dielectric with large internal voltage generation. <i>Journal of Materials Chemistry C</i> , 2014, 2, 7752-7760.	5.5	12
23	Temperature dependence of optical properties of pentacene thin films probed by spectroscopic ellipsometry. <i>Solid State Communications</i> , 2014, 188, 1-4.	1.9	12
24	Gate field induced ordered electric dipoles in a polymer dielectric for low-voltage operating organic thin-film transistors. <i>RSC Advances</i> , 2013, 3, 20267.	3.6	11
25	Lithium-Induced Defect Levels in ZnO Nanoparticles To Facilitate Electron Transport in Inverted Organic Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15035-15041.	3.1	11
26	High Mobility Pentacene Thin-Film Transistors on Photopolymer Modified Dielectrics. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 7922-7924.	1.5	10
27	Effective oxygen plasma treatment on indium tin oxide electrode to improve organic solar cell efficiency. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 369-372.	1.8	10
28	Synergistic Amplification of Short-Circuit Current for Organic Solar Cells via Modulation of P3HT:PCBM Spatial Distribution with Solvent Treatment. <i>Journal of Physical Chemistry C</i> , 2013, 117, 14472-14478.	3.1	10
29	Controlling carrier trapping and relaxation with a dipole field in an organic field-effect device. <i>RSC Advances</i> , 2016, 6, 77735-77744.	3.6	10
30	Reformation of conjugated polymer chains toward maximum effective conjugation lengths by quasi-swelling and recrystallization approach. <i>Soft Matter</i> , 2011, 7, 351-354.	2.7	9
31	Enhancing functionalities of organic ultraviolet-visible phototransistors incorporating spiropyran-merocyanine photochromic materials. <i>Journal of Materials Chemistry A</i> , 2021, 9, 22522-22532.	10.3	9
32	Application of nanoimprinting technology to organic field-effect transistors. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	8
33	Dual carrier traps related hysteresis in organic inverters with polyimide-modified gate-dielectrics. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	6
34	Charge transfer highways in polymer solar cells embedded with imprinted PEDOT:PSS gratings. <i>RSC Advances</i> , 2014, 4, 58342-58348.	3.6	6
35	Enhanced and Anisotropic Charge Transport in Polymer-Based Thin-Film Transistors by Guiding Polymer Growth. <i>Crystal Growth and Design</i> , 2017, 17, 629-636.	3.0	6
36	The influence of dual-carrier recombination and release on electrical characteristics of pentacene-based ambipolar transistors. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	5

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37	Initial time-dependent current growth phenomenon in n-type organic transistors induced by interfacial dipole effects. <i>Journal of Applied Physics</i> , 2015, 117, 104507.	2.5	5
38	Effects of interfacial tension and molecular dipole moment on the electrical characteristics of low-voltage-driven organic electronic devices. <i>Organic Electronics</i> , 2018, 59, 374-381.	2.6	5
39	Multifunctional Interfacial Layers from a One-Step Process for Effective Charge Capturing and Erasing in Low-Voltage-Driven Organic Thin-Film Transistors. <i>ACS Applied Electronic Materials</i> , 2020, 2, 1413-1420.	4.3	5
40	Polymorphic transformation induced by nanoimprinted technology in pentacene-film early-stage growth. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	4
41	Electrical stability study of polymer-based organic transistors in ambient air using an active semiconducting/insulating polyblend-based pseudo-bilayer. <i>Materials Chemistry Frontiers</i> , 2020, 4, 1679-1688.	5.9	4
42	Analysis of ultrathin organic inverters by using in situ grazing incidence X-ray diffraction under high bending times and low voltage. <i>Organic Electronics</i> , 2021, 88, 106002.	2.6	4
43	Room temperature ferromagnetism in Fe ₃ O ₄ nanoparticle-embedded polymer semiconductors. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 167, 110750.	4.0	4
44	Open-circuit voltage shifted by the bending effect for flexible organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 15781-15787.	10.3	3
45	Memory characteristics of organic field-effect memory transistors modulated by nano-p ⁿ junctions. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7501-7508.	5.5	3
46	Ultraviolet Light-Activated Charge Modulation Heterojunction for Versatile Organic Thin Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 45822-45832.	8.0	3
47	Air-Stable Crystalline Polymer-Based Field-Effect Transistors Fabricated by a Thermal Gradient Process. <i>Crystal Growth and Design</i> , 0, , .	3.0	3
48	48.4: Flexible Liquid Crystal Display Film by Plasma Alignment Method. <i>Digest of Technical Papers SID International Symposium</i> , 2007, 38, 1518-1521.	0.3	2
49	Analyses of Electrical Properties and Stability of Organic Complementary Transistors. <i>Journal of the Electrochemical Society</i> , 2010, 157, H959.	2.9	2
50	Temperature-dependent ambipolar electrical characteristics of pentacene-based thin-film transistors: The impact of opposite-sign charge carriers. <i>Organic Electronics</i> , 2015, 25, 74-78.	2.6	2
51	Temperature effects on the electrical properties of ambipolar organic complementary-like inverters. <i>Organic Electronics</i> , 2019, 72, 25-29.	2.6	2
52	Enhanced Functionality of Dual-Gate Organic Transistors Based on Semiconducting/Insulating Polyblend-Induced Asymmetric Charge Modulation Layers. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47763-47773.	8.0	2
53	Ferromagnetism above Room Temperature in a Ni-Doped Organic-Based Magnetic Semiconductor. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 34962-34972.	8.0	2
54	Porous p-n junction-induced memory characteristics in low-voltage organic memory transistors. <i>Journal Physics D: Applied Physics</i> , 0, , .	2.8	1

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55	In situ memory characteristics of thermal disturbance in low-voltage organic field-effect transistors. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 164, 110628.	4.0	1
56	Charge transport properties and memory effects in organic thin-film transistors using polymeric dielectrics. , 2008, , .		0
57	Vibrational Spectroscopies for Future Studies of Molecule-Metal Interface. , 2013, , 243-249.		0
58	PEDOT:PSS Transparent Electrode for ITO-Free Polymer:Fullerene Bulk-Heterojunction Organic Solar Cells. , 2019, , .		0
59	Modulation of interfacial properties for low voltage-driven organic thin-film transistors. , 2019, , .		0