Wen-Ya Lee

List of Publications by Year
in descending order

108	4,378	81743	114278
papers	citations	39 h-index	63 g-index

109	109	109	5156
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highâ€Performance Airâ€Stable nâ€Type Organic Transistors Based on Coreâ€Chlorinated Naphthalene Tetracarboxylic Diimides. Advanced Functional Materials, 2010, 20, 2148-2156.	7.8	221
2	Understanding Polymorphism in Organic Semiconductor Thin Films through Nanoconfinement. Journal of the American Chemical Society, 2014, 136, 17046-17057.	6.6	179
3	Bulky Endâ€Capped [1]Benzothieno[3,2â€b]benzothiophenes: Reaching Highâ€Mobility Organic Semiconductors by Fine Tuning of the Crystalline Solidâ€State Order. Advanced Materials, 2015, 27, 3066-3072.	11.1	155
4	Conjugated Polymer Nanoparticles as Nano Floating Gate Electrets for High Performance Nonvolatile Organic Transistor Memory Devices. Advanced Functional Materials, 2015, 25, 1511-1519.	7.8	147
5	Selenophene-DPP donorâ€“acceptor conjugated polymer for high performance ambipolar field effect transistor and nonvolatile memory applications. Journal of Materials Chemistry, 2012, 22, 2120-2128.	6.7	142
6	Side-Chain Engineering of Isoindigo-Containing Conjugated Polymers Using Polystyrene for High-Performance Bulk Heterojunction Solar Cells. Chemistry of Materials, 2013, 25, 4874-4880.	3.2	136
7	Scalable Synthesis of Fused Thiophene-Diketopyrrolopyrrole Semiconducting Polymers Processed from Nonchlorinated Solvents into High Performance Thin Film Transistors. Chemistry of Materials, 2013, 25, 782-789.	3.2	118
8	Nanostructured materials for non-volatile organic transistor memory applications. Materials Horizons, 2016, 3, 294-308.	6.4	103
9	A Rapid and Facile Soft Contact Lamination Method: Evaluation of Polymer Semiconductors for Stretchable Transistors. Chemistry of Materials, 2014, 26, 4544-4551.	3.2	101
10	New Two-Dimensional Thiopheneâ€"Acceptor Conjugated Copolymers for Field Effect Transistor and Photovoltaic Cell Applications. Chemistry of Materials, 2010, 22, 3290-3299.	3.2	96
11	New Donorâ€“Acceptor Oligoimides for High-Performance Nonvolatile Memory Devices. Chemistry of Materials, 2011, 23, 4487-4497.	3.2	95
12	Thiolâ€“ene Cross-Linked Polymer Gate Dielectrics for Low-Voltage Organic Thin-Film Transistors. Chemistry of Materials, 2013, 25, 4806-4812.	3.2	89
13	Effect of Nonâ€Chlorinated Mixed Solvents on Charge Transport and Morphology of Solutionâ€Processed Polymer Fieldâ€Effect Transistors. Advanced Functional Materials, 2014, 24, 3524-3534.	7.8	89
14	Effects of Molecular Structure and Packing Order on the Stretchability of Semicrystalline Conjugated Poly(Tetrathienoaceneâ€diketopyrrolopyrrole) Polymers. Advanced Electronic Materials, 2017, 3, 1600311.	2.6	89
15	Nonvolatile memory based on pentacene organic field-effect transistors with polystyrene para-substituted oligofluorene pendent moieties as polymer electrets. Journal of Materials Chemistry, 2012, 22, 5820.	6.7	85
16	Highâ€Mobility Airâ€Stable Solutionâ€Shearâ€Processed nâ€Channel Organic Transistors Based on Coreâ€Chlorinated Naphthalene Diimides. Advanced Functional Materials, 2011, 21, 4173-4181.	7.8	82
17	Thiophene and Selenophene Donorâ€“Acceptor Polyimides as Polymer Electrets for Nonvolatile Transistor Memory Devices. Macromolecules, 2012, 45, 6946-6956.	2.2	79
18	Effect of Spacer Length of Siloxaneâ€Terminated Side Chains on Charge Transport in Isoindigoâ€Based Polymer Semiconductor Thin Films. Advanced Functional Materials, 2015, 25, 3455-3462.	7.8	79

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19	Conjugated Polymer-Mediated Polymorphism of a High Performance, Small-Molecule Organic Semiconductor with Tuned Intermolecular Interactions, Enhanced Long-Range Order, and Charge Transport. Chemistry of Materials, 2013, 25, 4378-4386.	3.2	77
20	Capacitance Characterization of Elastomeric Dielectrics for Applications in Intrinsically Stretchable Thin Film Transistors. Advanced Functional Materials, 2016, 26, 4680-4686.	7.8	77
21	Stretchable Polymer Dielectrics for Low-Voltage-Driven Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 25522-25532.	4.0	76
22	A poly(fluorene-thiophene) donor with a tethered phenanthro[9,10-d]imidazole acceptor for flexible nonvolatile flash resistive memory devices. Chemical Communications, 2012, 48, 9135.	2.2	75
23	Multilevel nonvolatile transistor memories using a star-shaped poly((4-diphenylamino)benzyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	3.8	70
24	New Didecyloxyphenyleneâ^'Acceptor Alternating Conjugated Copolymers: Synthesis, Properties, and Optoelectronic Device Applications. Macromolecules, 2008, 41, 6952-6959.	2.2	69
25	Solution-Shear-Processed Quaterrylene Diimide Thin-Film Transistors Prepared by Pressure-Assisted Thermal Cleavage of Swallow Tails. Journal of the American Chemical Society, 2011, 133, 4204-4207.	6.6	68
26	High Performance Transparent Transistor Memory Devices Using Nano-Floating Gate of Polymer/ZnO Nanocomposites. Scientific Reports, 2016, 6, 20129.	1.6	68
27	Significance of the double-layer capacitor effect in polar rubbery dielectrics and exceptionally stable low-voltage high transconductance organic transistors. Scientific Reports, 2015, 5, 17849.	1.6	66
28	Nonvolatile transistor memory devices using high dielectric constant polyimide electrets. Journal of Materials Chemistry C, 2013, 1, 3235.	2.7	64
29	Thienoacene dimers based on the thieno[3,2-b]thiophene moiety: synthesis, characterization and electronic properties. Journal of Materials Chemistry C, 2015, 3, 674-685.	2.7	62
30	Oligosaccharide Carbohydrate Dielectrics toward Highâ€Performance Nonâ€volatile Transistor Memory Devices. Advanced Materials, 2015, 27, 6257-6264.	11.1	61
31	Effects of Acceptors on the Electronic and Optoelectronic Properties of Fluoreneâ€Based Donorâ€“Acceptorâ€“Donor Copolymers. Macromolecular Chemistry and Physics, 2007, 208, 1919-1927.	1.1	58
32	nâ€Type Doped Conjugated Polymer for Nonvolatile Memory. Advanced Materials, 2017, 29, 1605166.	11.1	58
33	High Mobility Preservation of Near Amorphous Conjugated Polymers in the Stretched States Enabled by Biaxially-Extended Conjugated Side-Chain Design. Chemistry of Materials, 2020, 32, 7370-7382.	3.2	57
34	New Fluorene-Acceptor Random Copolymers: Towards Pure White Light Emission from a Single Polymer. Macromolecular Chemistry and Physics, 2006, 207, 1131-1138.	1.1	47
35	Electrically bistable memory devices based on all-conjugated block copolythiophenes and their PCBM composite films. Journal of Materials Chemistry, 2011, 21, 14502.	6.7	44
36	Morphology and properties of PEDOT:PSS/soft polymer blends through hydrogen bonding interaction and their pressure sensor application. Journal of Materials Chemistry C, 2020, 8, 6013-6024.	2.7	44

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37	An intrinsically stretchable and ultrasensitive nanofiber-based resistive pressure sensor for wearable electronics. Journal of Materials Chemistry C, 2020, 8, 5361-5369.	2.7	44
38	Muscle fibers inspired electrospun nanostructures reinforced conductive fibers for smart wearable optoelectronics and energy generators. Nano Energy, 2022, 101, 107592.	8.2	44
39	Intrinsically stretchable polymer semiconductors: molecular design, processing and device applications. Journal of Materials Chemistry C, 2021, 9, 2660-2684.	2.7	41
40	Selfâ€Assembled Nanowires of Organic nâ€Type Semiconductor for Nonvolatile Transistor Memory Devices. Advanced Functional Materials, 2012, 22, 4352-4359.	7.8	40
41	Solution-Processable Anion-doped Conjugated Polymer for Nonvolatile Organic Transistor Memory with Synaptic Behaviors. ACS Applied Materials & Interfaces, 2020, 12, 33968-33978.	4.0	37
42	Biaxially extended quaterthiophene-thiophene and -selenophene conjugated polymers for optoelectronic device applications. Polymer Chemistry, 2012, 3, 767.	1.9	36
43	Electrospinning-induced elastomeric properties of conjugated polymers for extremely stretchable nanofibers and rubbery optoelectronics. Journal of Materials Chemistry C, 2020, 8, 873-882.	2.7	35
44	Bioâ€Based Transparent Conductive Film Consisting of Polyethylene Furanoate and Silver Nanowires for Flexible Optoelectronic Devices. Macromolecular Rapid Communications, 2018, 39, e1800271.	2.0	34
45	Self-Powered, Self-Healed, and Shape-Adaptive Ultraviolet Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 9755-9765.	4.0	34
46	Biaxially Extended Thiopheneâ€“Fused Thiophene Conjugated Copolymers for High Performance Field Effect Transistors. Macromolecules, 2011, 44, 9565-9573.	2.2	29
47	Biaxially Extended Quaterthiopheneâ€“ and Octithiopheneâ€“Vinylene Conjugated Polymers for High Performance Field Effect Transistors and Photovoltaic Cells. Macromolecules, 2012, 45, 3047-3056.	2.2	29
48	Improving the characteristics of an organic nano floating gate memory by a self-assembled monolayer. Nanoscale, 2012, 4, 6629.	2.8	29
49	Synthesis of Oligosaccharide-Based Block Copolymers with Pendent Ï€-Conjugated Oligofluorene Moieties and Their Electrical Device Applications. Macromolecules, 2015, 48, 3907-3917.	2.2	28
50	Photophysical and electroluminescent properties of fluorene-based binary and ternary donorâ€“acceptor polymer blends. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 67-78.	2.4	25
51	Highâ€Performance FETs Prepared From Electrospun Aligned P4TDPP Nanofibers. Macromolecular Chemistry and Physics, 2011, 212, 2452-2458.	1.1	25
52	Synthesis of New Fluorene-Indolocarbazole Alternating Copolymers for Light-Emitting Diodes and Field Effect Transistors. Polymer Journal, 2008, 40, 249-255.	1.3	23
53	Human Skin-Inspired Electrospun Patterned Robust Strain-Insensitive Pressure Sensors and Wearable Flexible Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2022, 14, 30160-30173.	4.0	23
54	Fluorene based donor-acceptor polymer electrets for nonvolatile organic transistor memory device applications. Journal of Polymer Science Part A, 2015, 53, 602-614.	2.5	22

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55	Stimuli-responsive conjugated rod-coil block copolymers: Synthesis, morphology, and applications. Polymer, 2015, 65, A1-A16.	1.8	22
56	Enhancing the Mechanical Durability of an Organic Field Effect Transistor through a Fluoroelastomer Substrate with a Crosslinkingâ€Induced Selfâ€Wrinkled Structure. Advanced Electronic Materials, 2017, 3, 1600477.	2.6	22
57	Morphology and field-effect transistor characteristics of semicrystalline poly(3-hexylthiophene) and poly(stearyl acrylate) blend nanowires. Journal of Materials Chemistry, 2012, 22, 14682.	6.7	21
58	Non-volatile organic transistor memory devices using the poly(4-vinylpyridine)-based supramolecular electrets. Chemical Communications, 2015, 51, 2562-2564.	2.2	21
59	Smart garment energy generators fabricated using stretchable electrospun nanofibers. Reactive and Functional Polymers, 2019, 142, 96-103.	2.0	21
60	Ultrahighâ€Performance Selfâ€Powered Flexible Photodetector Driven from Photogating, Piezoâ€Phototronic, and Ferroelectric Effects. Advanced Optical Materials, 2020, 8, 1901334.	3.6	21
61	Solvent-Enhanced Transparent Stretchable Polymer Nanocomposite Electrode for Supercapacitors. ACS Applied Energy Materials, 2021, 4, 2266-2274.	2.5	20
62	Highly Reliable and Sensitive Tactile Transistor Memory. Advanced Electronic Materials, 2017, 3, 1600548.	2.6	19
63	Fabrication and Application of Highly Stretchable Conductive Fiberâ€Based Electrode of Epoxy/NBR Electrospun Fibers Sprayâ€Coated with AgNW/PU Composites. Macromolecular Chemistry and Physics, 2019, 220, 1800387.	1.1	19
64	Poly(triarylamine): Its synthesis, properties, and blend with polyfluorene for white-light electroluminescence. Journal of Polymer Science Part A, 2007, 45, 1727-1736.	2.5	18
65	Manipulation of electrical characteristics of non-volatile transistor-type memory devices through the acceptor strength of donorâ€“acceptor conjugated copolymers. Journal of Materials Chemistry C, 2016, 4, 5702-5708.	2.7	17
66	Atmospheric Pressure Plasma Jet-Assisted Synthesis of Zeolite-Based Low-k Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 900-908.	4.0	16
67	Synthesis, morphology, and electrical memory application of oligosaccharide-based block copolymers with Ï€-conjugated pyrene moieties and their supramolecules. Polymer Chemistry, 2016, 7, 1249-1263.	1.9	15
68	Highly smooth and conductive silver film with metallo-organic decomposition ink for all-solution-processed flexible organic thin-film transistors. Journal of Materials Science, 2020, 55, 15908-15918.	1.7	15
69	High performance organic thin film transistors using chemically modified bottom contacts and dielectric surfaces. Organic Electronics, 2014, 15, 2073-2078.	1.4	14
70	Organic/Inorganic Nano-hybrids with High Dielectric Constant for Organic Thin Film Transistor Applications. Nanoscale Research Letters, 2016, 11, 488.	3.1	14
71	Self-Healing Nanophotonics: Robust and Soft Random Lasers. ACS Nano, 2019, 13, 8977-8985.	7.3	14
72	Semi-Interpenetrating Polymer Network Electrolytes Based on a Spiro-Twisted Benzoxazine for All-Solid-State Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 2663-2671.	2.5	14

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73	Eco-friendly collagen-based bio-organic field effect transistor with improved memory characteristics. Organic Electronics, 2020, 86, 105925.	1.4	13
74	Synthesis, morphology, and fieldâ€effect transistor characteristics of new crystallineâ€“crystalline diblock copolymers of poly(3â€hexylthiopheneâ€blockâ€steryl acrylate). Journal of Polymer Science Part A, 2012, 50, 686-695.	2.5	12
75	Interfacial effects on solution-sheared thin-film transistors. Journal of Materials Chemistry C, 2018, 6, 12006-12015.	2.7	12
76	Eco-Friendly Polyfluorene/Poly(butylene succinate) Blends and Their Electronic Device Application on Biodegradable Substrates. ACS Applied Polymer Materials, 2020, 2, 2469-2476.	2.0	12
77	Stretchable Fluorescent Polyfluorene/Acrylonitrile Butadiene Rubber Blend Electrospun Fibers through Physical Interaction and Geometrical Confinement. Macromolecular Rapid Communications, 2018, 39, 1700616.	2.0	12
78	Photovoltaic properties of low-band-gap fluorene-based donorâ€“acceptor copolymers. Thin Solid Films, 2010, 518, 2119-2123.	0.8	11
79	New poly(4,4â€²-dicyano-4â€³-vinyl-triphenylamine) host material for single-layer Ir complex phosphorescent light-emitting devices. Polymer Journal, 2010, 42, 327-335.	1.3	11
80	Highly air stable branched octithiophene oligomer for organic field effect transistor and pH sensor applications. Materials Chemistry and Physics, 2013, 138, 542-552.	2.0	11
81	Realizing Nonvolatile Photomemories with Multilevel Memory Behaviors Using Water-Processable Polymer Dots-Based Hybrid Floating Gates. ACS Applied Electronic Materials, 2021, 3, 1708-1718.	2.0	11
82	High performance tetrathienoacene-DDP based polymer thin-film transistors using a photo-patternable epoxy gate insulating layer. Organic Electronics, 2014, 15, 991-996.	1.4	10
83	High performance top contact fused thiopheneâ€“diketopyrrolopyrrole copolymer transistors using a photolithographic metal lift-off process. Organic Electronics, 2015, 20, 55-62.	1.4	10
84	Highly transparent polyimide/nanocrystalline-zirconium dioxide hybrid materials for organic thin film transistor applications. Organic Electronics, 2017, 48, 19-28.	1.4	10
85	Scalable Wet Deposition of Zeolite AEI with a High Degree of Preferred Crystal Orientation. Angewandte Chemie - International Edition, 2018, 57, 13271-13276.	7.2	10
86	Shear-Enhanced Stretchable Polymer Semiconducting Blends for Polymer-based Field-Effect Transistors. Macromolecular Research, 2020, 28, 660-669.	1.0	10
87	Tough Polymer Electrolyte with an Intrinsically Stabilized Interface with Li Metal for All-Solid-State Lithium-Ion Batteries. Journal of Physical Chemistry C, 2021, 125, 26339-26347.	1.5	10
88	Direct wet deposition of zeolite FAU thin films using stabilized colloidal suspensions. Microporous and Mesoporous Materials, 2018, 272, 286-295.	2.2	9
89	Graphene Memory Based on a Tunable Nanometer-Thin Water Layer. Journal of Physical Chemistry C, 2019, 123, 10842-10848.	1.5	9
90	Compressive stress profiles of chemically strengthened glass after exposure to high voltage electric fields. Journal of Non-Crystalline Solids, 2014, 394-395, 6-8.	1.5	8

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91	High-performance non-volatile transistor memory devices using charge-transfer supramolecular electrets. Reactive and Functional Polymers, 2016, 108, 31-38.	2.0	8
92	Photoâ€Curable Ionâ€Enhanced Fluorinated Elastomers for Pressureâ€Sensitive Textiles. Advanced Intelligent Systems, 2020, 2, 1900180.	3.3	7
93	Polymer synaptic transistors from memory to neuromorphic computing. Materials Chemistry and Physics, 2022, 287, 126263.	2.0	7
94	High hole mobility from thiophene-thienopyrazine copolymer based thin film transistors. Journal of Polymer Research, 2009, 16, 239-244.	1.2	6
95	Syntheses of Biaxially Extended Octithiopheneâ€Based Conjugated Copolymers for Highâ€Openâ€Circuitâ€Voltage Photovoltaicâ€Cell Applications. Macromolecular Chemistry and Physics, 2014, 215, 638-647.	1.1	6
96	Surfactant-mediated self-assembly of nanocrystals to form hierarchically structured zeolite thin films with controlled crystal orientation. RSC Advances, 2017, 7, 49048-49055.	1.7	6
97	OFETs: BASIC CONCEPTS AND MATERIAL DESIGNS. Materials and Energy, 2016, , 19-83.	2.5	5
98	Experimental improvement of preparation of acrylic acidâ€modified middle deacetylated chitosan and its application in absorbing paraquat. Polymer Engineering and Science, 2013, 53, 468-473.	1.5	3
99	Relationships between the solution and solid-state properties of solution-cast low-k silica thin films. Physical Chemistry Chemical Physics, 2016, 18, 20371-20380.	1.3	3
100	Tactile sensor based on capacitive structure. , 2021, , 31-52.		3
101	Organic Electronics: Conjugated Polymer Nanoparticles as Nano Floating Gate Electrets for High Performance Nonvolatile Organic Transistor Memory Devices (Adv. Funct. Mater. 10/2015). Advanced Functional Materials, 2015, 25, 1611-1611.	7.8	2
102	Synthesis, properties, and electrical memory characteristics of new diblock copolymers of polystyrene-block-poly(styrene-pyrene). Polymer Bulletin, 2012, 69, 29-47.	1.7	1
103	Tactile sensors based on organic field-effect transistors. , 2021, , 53-66.		1
104	Seeing pressure in color based on integration of highly sensitive pressure sensor and emission tunable light emitting diode. Optics Express, 2019, 27, 35448.	1.7	1
105	Photoâ€Curable Ionâ€Enhanced Fluorinated Elastomers for Pressureâ€Sensitive Textiles. Advanced Intelligent Systems, 2020, 2, 2070041.	3.3	1
106	Field-Effect Transistors: Oligosaccharide Carbohydrate Dielectrics toward High-Performance Non-volatile Transistor Memory Devices (Adv. Mater. 40/2015). Advanced Materials, 2015, 27, 6256-6256.	11.1	0
107	Pâ€58: Highly Stable Organic Thinâ€Film Transistor array Fabricated on Gorilla Glass Substrates using Direct Photolithography. Digest of Technical Papers SID International Symposium, 2015, 46, 1359-1361.	0.1	0
108	Development of organic semiconducting technology to realize low driving voltages. , 2016, , .		0