Cheng-Liang Liu

List of Publications by Year
in descending order

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105	4,164	94269	118652
papers	citations	37 h-index	62 g-index

107	107	107	4015
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	New Thiophene-Linked Conjugated Poly(azomethine)s:Â Theoretical Electronic Structure, Synthesis, and Properties. Macromolecules, 2005, 38, 1958-1966.	2.2	208
2	Polymeric charge storage electrets for non-volatile organic field effect transistor memory devices. Polymer Chemistry, 2015, 6, 341-352.	1.9	178
3	Synthesis and characterization of new fluorene-acceptor alternating and random copolymers for light-emitting applications. Polymer, 2006, 47, 527-538.	1.8	173
4	Conjugated rodâ€“coil block copolymers: Synthesis, morphology, photophysical properties, and stimuli-responsive applications. Progress in Polymer Science, 2011, 36, 603-637.	11.8	162
5	Donorâ€“acceptor polymers for advanced memory device applications. Polymer Chemistry, 2011, 2, 2169.	1.9	156
6	High Performance Volatile Polymeric Memory Devices Based on Novel Triphenylamine-based Polyimides Containing Mono- or Dual-Mediated Phenoxy Linkages. Macromolecules, 2010, 43, 1236-1244.	2.2	153
7	Synthesis and Memory Device Characteristics of New Sulfur Donor Containing Polyimides. Macromolecules, 2009, 42, 4456-4463.	2.2	148
8	Flexible Nonvolatile Transistor Memory Devices Based on Oneâ€Dimensional Electrospun P3HT:Au Hybrid Nanofibers. Advanced Functional Materials, 2013, 23, 4960-4968.	7.8	119
9	Synthesis, Morphology, and Properties of Poly(3â€hexylthiophene)â€blockâ€Poly(vinylphenyl) Tj ETQq1 1 0.784314 rgBT /Overlock Advanced Functional Materials, 2010, 20, 3012-3024.	7.8	113
10	Singleâ€Crystal C₆₀ Needle/CuPc Nanoparticle Double Floatingâ€Gate for Lowâ€Voltage Organic Transistors Based Nonâ€Volatile Memory Devices. Advanced Materials, 2015, 27, 27-33.	11.1	111
11	New Donorâ€“Acceptor Random Copolymers with Pendent Triphenylamine and 1,3,4-Oxadiazole for High-Performance Memory Device Applications. Macromolecules, 2011, 44, 2604-2612.	2.2	88
12	Electronic structure and properties of alternating donorâ€“acceptor conjugated copolymers: 3,4-Ethylenedioxythiophene (EDOT) copolymers and model compounds. Polymer, 2006, 47, 699-708.	1.8	87
13	Supramolecular block copolymers: graphene oxide composites for memory device applications. Chemical Communications, 2012, 48, 383-385.	2.2	84
14	New Dibenzothiophene-Containing Donorâ€“Acceptor Polyimides for High-Performance Memory Device Applications. Journal of Physical Chemistry C, 2011, 115, 5930-5939.	1.5	83
15	New random copolymers with pendant carbazole donor and 1,3,4-oxadiazole acceptor for high performance memory device applications. Journal of Materials Chemistry, 2011, 21, 4778.	6.7	79
16	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
17	Flexible polymer memory devices derived from triphenylamineâ€“pyrene containing donorâ€“acceptor polyimides. Journal of Materials Chemistry, 2012, 22, 20754.	6.7	70
18	Multilevel nonvolatile transistor memories using a star-shaped poly((4-diphenylamino)benzyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 T	3.8	70

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19	New Didecyloxyphenyleneâ^'Acceptor Alternating Conjugated Copolymers: Synthesis, Properties, and Optoelectronic Device Applications. Macromolecules, 2008, 41, 6952-6959.	2.2	69
20	Tuning the Electrical Memory Characteristics from Volatile to Nonvolatile by Perylene Imide Composition in Random Copolyimides. Macromolecules, 2012, 45, 4556-4563.	2.2	69
21	Theoretical and Experimental Characterization of Small Band Gap Poly(3,4-ethylenedioxythiophene) Tj ETQq1 1 0.784314 rgBT /Overlock	2.2	68
22	High Performance Transparent Transistor Memory Devices Using Nano-Floating Gate of Polymer/ZnO Nanocomposites. Scientific Reports, 2016, 6, 20129.	1.6	68
23	Non-volatile Memory Devices Based on Polystyrene Derivatives with Electron-Donating Oligofluorene Pendent Moieties. ACS Applied Materials & Interfaces, 2009, 1, 1974-1979.	4.0	62
24	Solutionâ€Processable Dithienothiophenoquinoid (DTTQ) Structures for Ambientâ€Stable nâ€Channel Organic Field Effect Transistors. Advanced Functional Materials, 2017, 27, 1606761.	7.8	62
25	Controlled Deposition and Performance Optimization of Perovskite Solar Cells Using Ultrasonic Sprayâ€Coating of Photoactive Layers. ChemSusChem, 2017, 10, 1405-1412.	3.6	62
26	Tunable electrical memory characteristics by the morphology of self-assembled block copolymers:PCBM nanocomposite films. Soft Matter, 2012, 8, 526-535.	1.2	60
27	Conjugated Fluorene Based Rodâ€"Coil Block Copolymers and Their PCBM Composites for Resistive Memory Switching Devices. ACS Applied Materials & Interfaces, 2011, 3, 4504-4511.	4.0	56
28	Tunable Electrical Memory Characteristics Using Polyimide:Polycyclic Aromatic Compound Blends on Flexible Substrates. ACS Applied Materials & Interfaces, 2013, 5, 4921-4929.	4.0	50
29	Small band gap conjugated polymers based on thiopheneâ€"thienopyrazine copolymers. Journal of Polymer Science Part A, 2007, 45, 5872-5883.	2.5	48
30	Theoretical analysis on the geometries and electronic structures of coplanar conjugated poly(azomethine)s. Polymer, 2005, 46, 4950-4957.	1.8	47
31	Nonvolatile Organic Field-Effect Transistors Memory Devices Using Supramolecular Block Copolymer/Functional Small Molecule Nanocomposite Electret. ACS Applied Materials & Interfaces, 2015, 7, 5663-5673.	4.0	47
32	Novel Organic Phototransistor-Based Nonvolatile Memory Integrated with UV-Sensing/Green-Emissive Aggregation Enhanced Emission (AEE)-Active Aromatic Polyamide Electret Layer. ACS Applied Materials & Interfaces, 2018, 10, 18281-18288.	4.0	47
33	Intramolecular Locked Dithioalkylbithiopheneâ€Based Semiconductors for Highâ€Performance Organic Fieldâ€Effect Transistors. Advanced Materials, 2017, 29, 1702414.	11.1	45
34	Scalable Ultrasonic Spray-Processing Technique for Manufacturing Large-Area CH₃NH₃PbI₃ Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 38042-38050.	4.0	43
35	Full color lightâ€emitting electrospun nanofibers prepared from PFO/MEHâ€PPV/PMMA ternary blends. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 463-470.	2.4	42
36	A Supramolecular Approach on Using Poly(fluorenylstyrene)â€blockâ€poly(2â€vinylpyridine):PCBM Composite Thin Films for Nonâ€Volatile Memory Device Applications. Macromolecular Rapid Communications, 2011, 32, 528-533.	2.0	40

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37	Donorâ€“acceptor conjugated polymers of arylene vinylene with pendent phenanthro[9,10-d]imidazole for high-performance flexible resistor-type memory applications. Polymer Chemistry, 2013, 4, 5261.	1.9	40
38	Solution Processable Pseudo n-Thienoacenes via Intramolecular SÂ·Â·Â·S Lock for High Performance Organic Field Effect Transistors. Chemistry of Materials, 2020, 32, 1422-1429.	3.2	38
39	Zinc chlorophyll aggregates as hole transporters for biocompatible, natural-photosynthesis-inspired solar cells. Journal of Power Sources, 2015, 297, 519-524.	4.0	34
40	Ultrasonic Spray-Coated Mixed Cation Perovskite Films and Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 14217-14224.	3.2	32
41	Fluorene-Based Conjugated Poly(azomethine)s: Synthesis, Photophysical Properties, and Theoretical Electronic Structures. Macromolecular Chemistry and Physics, 2005, 206, 2212-2222.	1.1	31
42	Poly(3-hexylthiophene)â€“graphene composite-based aligned nanofibers for high-performance field effect transistors. Journal of Materials Chemistry C, 2015, 3, 4290-4296.	2.7	31
43	Semiconducting small molecule/polymer blends for organic transistors. Polymer, 2020, 191, 122208.	1.8	31
44	Nonvolatile organic field effect transistor memory devices using one-dimensional aligned electrospun nanofiber channels of semiconducting polymers. Journal of Materials Chemistry C, 2013, 1, 5336.	2.7	30
45	Synthesis and characterization of solution-processable diketopyrrolopyrrole (DPP) and tetrathienothiophene (TTA)-based small molecules for organic thin film transistors and organic photovoltaic cells. Dyes and Pigments, 2016, 133, 280-291.	2.0	28
46	High performance solution-processable tetrathienoacene (TTAR) based small molecules for organic field effect transistors (OFETs). Chemical Communications, 2017, 53, 5898-5901.	2.2	28
47	High throughput two-step ultrasonic spray deposited CH3NH3PbI3 thin film layer for solar cell application. Journal of Power Sources, 2018, 390, 270-277.	4.0	28
48	Solutionâ€Processed Highâ€Performance Tetrathienothiopheneâ€Based Small Molecular Blends for Ambipolar Charge Transport. Advanced Functional Materials, 2018, 28, 1801025.	7.8	28
49	Thienoisoindigo (TII)â€Based Quinoidal Small Molecules for Highâ€Performance nâ€Type Organic Field Effect Transistors. Advanced Science, 2021, 8, 2002930.	5.6	28
50	Solution-Processable Quinoidal Dithioalkylterthiophene-Based Small Molecules Pseudo-Pentathienoacenes via an Intramolecular SÂ·Â·Â·S Lock for High-Performance n-Type Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2020, 12, 25081-25091.	4.0	26
51	UV-sensing organic phototransistor memory devices with a doped organic polymer electret composed of triphenylamine-based aggregation-induced emission luminogens. Journal of Materials Chemistry C, 2019, 7, 11014-11021.	2.7	24
52	Nonvolatile Organic Thin Film Transistor Memory Devices Based on Hybrid Nanocomposites of Semiconducting Polymers: Gold Nanoparticles. ACS Applied Materials & Interfaces, 2013, 5, 13180-13187.	4.0	23
53	Spray-coating semiconducting conjugated polymers for organic thin film transistor applications. RSC Advances, 2014, 4, 30145.	1.7	23
54	Heteroalkylâ€Substitution in Molecular Organic Semiconductors: Chalcogen Effect on Crystallography, Conformational Lock, and Charge Transport. Advanced Functional Materials, 2022, 32, .	7.8	22

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55	Controllable Electrochromic Polyamide Film and Device Produced by Facile Ultrasonic Spray-coating. Scientific Reports, 2017, 7, 11982.	1.6	21
56	Influences of Conjugation Length on Organic Field-Effect Transistor Performances and Thin Film Structures of Diketopyrrolopyrrole-Oligomers. ACS Applied Materials & Interfaces, 2018, 10, 8869-8876.	4.0	21
57	A Solution Processable Dithioalkyl Dithienothiophene (DSDTT) Based Small Molecule and Its Blends for High Performance Organic Field Effect Transistors. ACS Nano, 2021, 15, 727-738.	7.3	21
58	Controlled Synthesis of Poly[(3-alkylthio)thiophene]s and Their Application to Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2021, 13, 31898-31909.	4.0	21
59	Progress in Spray Coated Perovskite Films for Solar Cell Applications. Solar Rrl, 2022, 6, 2101035.	3.1	21
60	Linkage effects of triphenylamine-based aromatic polymer electrets on electrical memory performance. Polymer, 2018, 148, 382-389.	1.8	20
61	Pentafluorosulfanylated polymers as electrets in nonvolatile organic field-effect transistor memory devices. Journal of Materials Chemistry C, 2019, 7, 7865-7871.	2.7	19
62	Tunable dielectric constant of polyimideâ€“barium titanate nanocomposite materials as the gate dielectrics for organic thin film transistor applications. RSC Advances, 2014, 4, 62132-62139.	1.7	17
63	Spray deposition of NiOx hole transport layer and perovskite photoabsorber in fabrication of photovoltaic mini-module. Journal of Power Sources, 2021, 491, 229586.	4.0	16
64	One-Step Spray-Coated All-Inorganic CsPbI₂Br Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 5466-5474.	2.5	16
65	A solâ€“gel titaniumâ€“silicon oxide/organic hybrid dielectric for low-voltage organic thin film transistors. Journal of Materials Chemistry C, 2015, 3, 968-972.	2.7	15
66	Random styrenic copolymers with pendant pyrene moieties: Synthesis and applications in organic fieldâ€effect transistor memory. Journal of Polymer Science Part A, 2016, 54, 910-917.	2.5	15
67	Synthesis of Novel Ï€-Conjugated Rod-Rod-Rod Triblock Copolymers Containing Poly(3-hexylthiophene) and Polyacetylene Segments by Combination of Quasi-Living GRIM and Living Anionic Polymerization. Polymers, 2011, 3, 236-251.	2.0	14
68	Controllable electrical performance of spray-coated semiconducting small molecule/insulating polymer blend thin film for organic field effect transistors application. Reactive and Functional Polymers, 2016, 108, 130-136.	2.0	14
69	Solution-processable end-functionalized tetrathienoacene semiconductors: Synthesis, characterization and organic field effect transistors applications. Dyes and Pigments, 2017, 145, 584-590.	2.0	14
70	Solutionâ€Processable Multifused Thiophene Small Molecules and Conjugated Polymer Semiconducting Blend for Organic Field Effect Transistor Application. Advanced Materials Technologies, 2021, 6, 2001028.	3.0	14
71	Chlorophyll derivatives/MXene hybrids for photocatalytic hydrogen evolution: Dependence of performance on the central coordinating metals. International Journal of Hydrogen Energy, 2022, 47, 3824-3833.	3.8	14
72	Multiâ€Channel Pumped Ultrasonic Sprayâ€Coating for Highâ€Throughput and Scalable Mixed Halide Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2001509.	1.9	13

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73	Quinoidal thioalkyl-substituted bithiophene small molecule semiconductors for n-type organic field effect transistors. Journal of Materials Chemistry C, 2020, 8, 15450-15458.	2.7	12
74	Nanoâ€“Micro Dimensional Structures of Fiberâ€Shaped Luminous Halide Perovskite Composites for Photonic and Optoelectronic Applications. Macromolecular Rapid Communications, 2020, 41, e2000157.	2.0	12
75	Spray deposition of vinyl tris(2-methoxyethoxy) silane-doped Ti3C2T MXene hole transporting layer for planar perovskite solar cells. Journal of Alloys and Compounds, 2022, 900, 163372.	2.8	12
76	Dicyclopentadithienothiophene (DCDTT)-based organic semiconductor assisted grain boundary passivation for highly efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2022, 10, 11254-11267.	5.2	11
77	Conjugated Donorâ€Acceptorâ€Acceptor (Dâ€Aâ€A) Molecule for Organic Nonvolatile Resistor Memory. Chemistry - an Asian Journal, 2014, 9, 3403-3407.	1.7	10
78	Sequential Ultrasonic Sprayâ€Coating Planar Three Layers for 1â€‰cm² Active Area Inverted Perovskite Solar Cells. Energy Technology, 2020, 8, 2000216.	1.8	10
79	Synergetic Effect on Enhanced Photovoltaic Performance of Spray-Coated Perovskite Solar Cells Enabled by Additive Doping and Antisolvent Additive Spraying Treatment. ACS Applied Energy Materials, 2022, 5, 4149-4158.	2.5	10
80	A 1D Electrospun Nanofiber Channel for Organic Fieldâ€Effect Transistors Using a Donor/Acceptor Planar Heterojunction Architecture. Advanced Materials Interfaces, 2015, 2, 1500054.	1.9	9
81	Low-voltage-driven organic phototransistors based on a solution-processed organic semiconductor channel and high k hybrid gate dielectric. Journal of Materials Chemistry C, 2017, 5, 9838-9842.	2.7	9
82	Naphthobisthiadiazole-Based Ï€-Conjugated Polymers for Nonfullerene Solar Cells: Suppressing Intermolecular Interaction Improves Photovoltaic Performance. ACS Applied Materials & Interfaces, 2022, 14, 14400-14409.	4.0	9
83	Morphology and Photophysical Properties of DBâ€PPV/PMMA Luminescent Electrospun Fibers. Macromolecular Chemistry and Physics, 2009, 210, 918-925.	1.1	8
84	Surface Energyâ€Mediated Selfâ€Patterning for High Performance Sprayâ€Deposited Organic Field Effect Transistors. Advanced Materials Interfaces, 2016, 3, 1500714.	1.9	8
85	Fully Solutionâ€Processed Lowâ€Voltage Driven Transparent Oxide Thin Film Transistors. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800192.	0.8	8
86	Solution Processable Pentafluorophenyl Endâ€Capped Dithienothiophene Organic Semiconductors for Holeâ€Transporting Organic Field Effect Transistors. Advanced Electronic Materials, 2022, 8, 2100648.	2.6	7
87	High hole mobility from thiophene-thienopyrazine copolymer based thin film transistors. Journal of Polymer Research, 2009, 16, 239-244.	1.2	6
88	Organic/inorganic F8T2/GaN light emitting heterojunction. Organic Electronics, 2017, 49, 64-68.	1.4	6
89	Atom-economical Synthesis and Characterization of Poly(oxindolidene thienylene vinylene) Based on Aldol Polycondensation Reaction. Catalysts, 2020, 10, 364.	1.6	5
90	Photoelectric effect of hybrid ultraviolet-sensitized phototransistors from an n-type organic semiconductor and an all-inorganic perovskite quantum dot photosensitizer. Nanoscale, 2021, 13, 20498-20507.	2.8	5

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91	Tunable Photoelectric Properties of nâ€Type Semiconducting Polymer:Small Molecule Blends for Red Light Sensing Phototransistors. Advanced Optical Materials, 2022, 10, .	3.6	5
92	Synthesis and Properties of New Small Band Gap Conjugated Polymers: Methine Bridged Poly(3,4-ethylenedioxypyrrole). Polymer Journal, 2009, 41, 363-369.	1.3	4
93	Organic Fieldâ€Effect Transistors: Singleâ€Crystal C₆₀ Needle/CuPc Nanoparticle Double Floatingâ€Gate for Lowâ€Voltage Organic Transistors Based Nonâ€Volatile Memory Devices (Adv. Mater.) Tj ETQq1 1 1 0.784314 rgBT	1.1	4
94	Conjugated fluorene-moiety-containing pendant polymers for the dispersion of single-wall carbon nanotubes: polymer wrapping abilities and electrical properties. Polymer Journal, 2016, 48, 421-429.	1.3	4
95	Efficiency improvement of inverted perovskite solar cells enabled by PTAA/MoS₂double hole transporters. Nanotechnology, 2022, 33, 335202.	1.3	4
96	Methyl-Branched Side Chains on Polythiophene Suppress Chain Mobility and Crystallization to Enhance Photovoltaic Performance. Macromolecules, 2021, 54, 3689-3699.	2.2	3
97	Surface PEGylation via Ultrasonic Spray Deposition for the Biofouling Mitigation of Biomedical Interfaces. ACS Applied Bio Materials, 2022, 5, 225-234.	2.3	2
98	Flexible Transistors: Flexible Nonvolatile Transistor Memory Devices Based on Oneâ€Dimensional Electrospun P3HT:Au Hybrid Nanofibers (Adv. Funct. Mater. 39/2013). Advanced Functional Materials, 2013, 23, 4874-4874.	7.8	1
99	Nonvolatile organic transistor memory devices based on nanostructured polymeric materials. , 2014, , .		1
100	Facile Spray Deposition of Photocatalytic ZnO/Cuâ€“Inâ€Znâ€S Heterostructured Composite Thin Film. ChemistrySelect, 2016, 1, 4979-4986.	0.7	1
101	Ultrasonic Sprayâ€Coatings: Multiâ€Channel Pumped Ultrasonic Sprayâ€Coating for Highâ€Throughput and Scalable Mixed Halide Perovskite Solar Cells (Adv. Mater. Interfaces 5/2021). Advanced Materials Interfaces, 2021, 8, 2170023.	1.9	1
102	Macromol. Chem. Phys. 11/2009. Macromolecular Chemistry and Physics, 2009, 210, NA-NA.	1.1	0
103	Organic Semiconductors: Surface Energy-Mediated Self-Patterning for High Performance Spray-Deposited Organic Field Effect Transistors (Adv. Mater. Interfaces 11/2016). Advanced Materials Interfaces, 2016, 3, .	1.9	0
104	CHAPTER 6. Polymer Composites for Electrical Memory Device Applications. RSC Polymer Chemistry Series, 2015, , 206-232.	0.1	0
105	CHAPTER 7. Conjugated Polymers for Memory Device Applications. RSC Polymer Chemistry Series, 2015, , 233-255.	0.1	0