Cheng-Liang Liu

List of Publications by Year
in descending order

105 papers	4,164 citations	94269 37 h-index	118652 62 g-index
107 all docs	107 docs citations	107 times ranked	4015 citing authors

#	Article	IF	Citations
1	Solution Processable Pentafluorophenyl Endâ€Capped Dithienothiophene Organic Semiconductors for Holeâ€Transporting Organic Field Effect Transistors. Advanced Electronic Materials, 2022, 8, 2100648.	2.6	7
2	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
3	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
4	Progress in Spray Coated Perovskite Films for Solar Cell Applications. Solar Rrl, 2022, 6, 2101035.	3.1	21
5	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
6	Heteroalkylâ€Substitution in Molecular Organic Semiconductors: Chalcogen Effect on Crystallography, Conformational Lock, and Charge Transport. Advanced Functional Materials, 2022, 32, .	7.8	22
7	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
8	Tunable Photoelectric Properties of nâ€Type Semiconducting Polymer:Small Molecule Blends for Red Light Sensing Phototransistors. Advanced Optical Materials, 2022, 10, .	3.6	5
9	Surface PEGylation via Ultrasonic Spray Deposition for the Biofouling Mitigation of Biomedical Interfaces. ACS Applied Bio Materials, 2022, 5, 225-234.	2.3	2
10	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
11	Efficiency improvement of inverted perovskite solar cells enabled by PTAA/MoS₂double hole transporters. Nanotechnology, 2022, 33, 335202.	1.3	4
12	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
13	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
14	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
15	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
16	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
17	Methyl-Branched Side Chains on Polythiophene Suppress Chain Mobility and Crystallization to Enhance Photovoltaic Performance. Macromolecules, 2021, 54, 3689-3699.	2.2	3
18	One-Step Spray-Coated All-Inorganic CsPbI₂Br Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 5466-5474.	2.5	16

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19	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
20	Thienoisoindigo (TII)â€Based Quinoidal Small Molecules for Highâ€Performance nâ€Type Organic Field Effect Transistors. Advanced Science, 2021, 8, 2002930.	5.6	28
21	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
22	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
23	Sequential Ultrasonic Sprayâ€Coating Planar Three Layers for 1â€‰cm² Active Area Inverted Perovskite Solar Cells. Energy Technology, 2020, 8, 2000216.	1.8	10
24	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
25	Solution Processable Pseudo <i>n</i>-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
26	Semiconducting small molecule/polymer blends for organic transistors. Polymer, 2020, 191, 122208.	1.8	31
27	Solution-Processable Quinoidal Dithioalkylterthiophene-Based Small Molecules Pseudo-Pentathienoacenes <i>via</i> 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
28	Atom-economical Synthesis and Characterization of Poly(oxindolidene thienylene vinylene) Based on Aldol Polycondensation Reaction. Catalysts, 2020, 10, 364.	1.6	5
29	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
30	Ultrasonic Spray-Coated Mixed Cation Perovskite Films and Solar Cells. ACS Sustainable Chemistry and Engineering, 2019, 7, 14217-14224.	3.2	32
31	Pentafluorosulfanylated polymers as electrets in nonvolatile organic field-effect transistor memory devices. Journal of Materials Chemistry C, 2019, 7, 7865-7871.	2.7	19
32	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
33	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
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	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
36	Solutionâ€Processed Highâ€Performance Tetrathienothiopheneâ€Based Small Molecular Blends for Ambipolar Charge Transport. Advanced Functional Materials, 2018, 28, 1801025.	7.8	28

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37	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
38	Linkage effects of triphenylamine-based aromatic polymer electrets on electrical memory performance. Polymer, 2018, 148, 382-389.	1.8	20
39	High performance solution-processable tetrathienoacene (TTAR) based small molecules for organic field effect transistors (OFETs). Chemical Communications, 2017, 53, 5898-5901.	2.2	28
40	Solutionâ€Processable Dithienothiophenoquinoid (DTTQ) Structures for Ambientâ€Stable nâ€Channel Organic Field Effect Transistors. Advanced Functional Materials, 2017, 27, 1606761.	7.8	62
41	Controlled Deposition and Performance Optimization of Perovskite Solar Cells Using Ultrasonic Sprayâ€Coating of Photoactive Layers. ChemSusChem, 2017, 10, 1405-1412.	3.6	62
42	Controllable Electrochromic Polyamide Film and Device Produced by Facile Ultrasonic Spray-coating. Scientific Reports, 2017, 7, 11982.	1.6	21
43	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
44	Intramolecular Locked Dithioalkylbithiopheneâ€Based Semiconductors for Highâ€Performance Organic Fieldâ€Effect Transistors. Advanced Materials, 2017, 29, 1702414.	11.1	45
45	Organic/inorganic F8T2/GaN light emitting heterojunction. Organic Electronics, 2017, 49, 64-68.	1.4	6
46	Solution-processable end-functionalized tetrathienoacene semiconductors: Synthesis, characterization and organic field effect transistors applications. Dyes and Pigments, 2017, 145, 584-590.	2.0	14
47	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
48	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
49	Facile Spray Deposition of Photocatalytic ZnO/Cuâ€"Inâ€Znâ€S Heterostructured Composite Thin Film. ChemistrySelect, 2016, 1, 4979-4986.	0.7	1
50	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
51	High Performance Transparent Transistor Memory Devices Using Nano-Floating Gate of Polymer/ZnO Nanocomposites. Scientific Reports, 2016, 6, 20129.	1.6	68
52	Surface Energyâ€Mediated Selfâ€Patterning for High Performance Sprayâ€Deposited Organic Field Effect Transistors. Advanced Materials Interfaces, 2016, 3, 1500714.	1.9	8
53	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
54	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

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55	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
56	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 ETQq0 0 0 rgBT /Overlock 1	11.1	4
57	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
58	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
59	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
60	Zinc chlorophyll aggregates as hole transporters for biocompatible, natural-photosynthesis-inspired solar cells. Journal of Power Sources, 2015, 297, 519-524.	4.0	34
61	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
62	Polymeric charge storage electrets for non-volatile organic field effect transistor memory devices. Polymer Chemistry, 2015, 6, 341-352.	1.9	178
63	CHAPTER 6. Polymer Composites for Electrical Memory Device Applications. RSC Polymer Chemistry Series, 2015, , 206-232.	0.1	0
64	CHAPTER 7. Conjugated Polymers for Memory Device Applications. RSC Polymer Chemistry Series, 2015, , 233-255.	0.1	0
65	Nonvolatile organic transistor memory devices based on nanostructured polymeric materials. , 2014, , .		1
66	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
67	Conjugated Donorâ€Acceptorâ€Acceptor (Dâ€Aâ€A) Molecule for Organic Nonvolatile Resistor Memory. Chemistry - an Asian Journal, 2014, 9, 3403-3407.	1.7	10
68	Spray-coating semiconducting conjugated polymers for organic thin film transistor applications. RSC Advances, 2014, 4, 30145.	1.7	23
69	Flexible Nonvolatile Transistor Memory Devices Based on Oneâ€Dimensional Electrospun P3HT:Au Hybrid Nanofibers. Advanced Functional Materials, 2013, 23, 4960-4968.	7.8	119
70	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
71	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
72	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

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73	Tunable Electrical Memory Characteristics Using Polyimide:Polycyclic Aromatic Compound Blends on Flexible Substrates. ACS Applied Materials & Interfaces, 2013, 5, 4921-4929.	4.0	50
74	Multilevel nonvolatile transistor memories using a star-shaped poly((4-diphenylamino)benzyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702	3.8	70
75	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
76	Tunable electrical memory characteristics by the morphology of self-assembled block copolymers:PCBM nanocomposite films. Soft Matter, 2012, 8, 526-535.	1.2	60
77	Tuning the Electrical Memory Characteristics from Volatile to Nonvolatile by Perylene Imide Composition in Random Copolyimides. Macromolecules, 2012, 45, 4556-4563.	2.2	69
78	Flexible polymer memory devices derived from triphenylamineâ€“pyrene containing donorâ€“acceptor polyimides. Journal of Materials Chemistry, 2012, 22, 20754.	6.7	70
79	Supramolecular block copolymers: graphene oxide composites for memory device applications. Chemical Communications, 2012, 48, 383-385.	2.2	84
80	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
81	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
82	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
83	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
84	New Dibenzothiophene-Containing Donorâ˜'Acceptor Polyimides for High-Performance Memory Device Applications. Journal of Physical Chemistry C, 2011, 115, 5930-5939.	1.5	83
85	Donorâ€“acceptor polymers for advanced memory device applications. Polymer Chemistry, 2011, 2, 2169.	1.9	156
86	A Supramolecular Approach on Using Poly(fluorenylstyrene)â€‹<i>block</i>â€poly(2â€vinylpyridine):PCBM Composite Thin Films for Nonâ€Volatile Memory Device Applications. Macromolecular Rapid Communications, 2011, 32, 528-533.	2.0	40
87	Conjugated rodâ€“coil block copolymers: Synthesis, morphology, photophysical properties, and stimuli-responsive applications. Progress in Polymer Science, 2011, 36, 603-637.	11.8	162
88	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
89	Synthesis, Morphology, and Properties of Poly(3â€hexylthiophene)â€‹<i>block</i>â€Poly(vinylphenyl) Tj ETQq1 1 0.784314 rgBT /Ove Advanced Functional Materials, 2010, 20, 3012-3024.	7.8	113
90	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

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91	Morphology and Photophysical Properties of DBâ€PPV/PMMA Luminescent Electrospun Fibers. Macromolecular Chemistry and Physics, 2009, 210, 918-925.	1.1	8
92	Macromol. Chem. Phys. 11/2009. Macromolecular Chemistry and Physics, 2009, 210, NA-NA.	1.1	0
93	High hole mobility from thiophene-thienopyrazine copolymer based thin film transistors. Journal of Polymer Research, 2009, 16, 239-244.	1.2	6
94	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
95	Synthesis and Memory Device Characteristics of New Sulfur Donor Containing Polyimides. Macromolecules, 2009, 42, 4456-4463.	2.2	148
96	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
97	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
98	New Didecyloxyphenyleneâ^'Acceptor Alternating Conjugated Copolymers: Synthesis, Properties, and Optoelectronic Device Applications. Macromolecules, 2008, 41, 6952-6959.	2.2	69
99	Small band gap conjugated polymers based on thiopheneâ€"thienopyrazine copolymers. Journal of Polymer Science Part A, 2007, 45, 5872-5883.	2.5	48
100	Synthesis and characterization of new fluorene-acceptor alternating and random copolymers for light-emitting applications. Polymer, 2006, 47, 527-538.	1.8	173
101	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
102	Theoretical analysis on the geometries and electronic structures of coplanar conjugated poly(azomethine)s. Polymer, 2005, 46, 4950-4957.	1.8	47
103	Fluorene-Based Conjugated Poly(azomethine)s: Synthesis, Photophysical Properties, and Theoretical Electronic Structures. Macromolecular Chemistry and Physics, 2005, 206, 2212-2222.	1.1	31
104	New Thiophene-Linked Conjugated Poly(azomethine)s:Â Theoretical Electronic Structure, Synthesis, and Properties. Macromolecules, 2005, 38, 1958-1966.	2.2	208
105	Theoretical and Experimental Characterization of Small Band Gap Poly(3,4-ethylenedioxythiophene) Tj ETQq1 1 0.784314 rgBT /Overl	2.2	68