Cheng Zhang

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Low (Sub-1-Volt) Halfwave Voltage Polymeric Electro-optic Modulators Achieved by Controlling Chromophore Shape. Science, 2000, 288, 119-122.	12.6	920
2	Polymer micro-ring filters and modulators. Journal of Lightwave Technology, 2002, 20, 1968-1975.	4.6	476
3	High Performance Bianisotropic Metasurfaces: Asymmetric Transmission of Light. Physical Review Letters, 2014, 113, 023902.	7.8	317
4	Low Vπ Electrooptic Modulators from CLD-1:  Chromophore Design and Synthesis, Material Processing, and Characterization. Chemistry of Materials, 2001, 13, 3043-3050.	6.7	270
5	An Ultrathin, Smooth, and Lowâ€Loss Alâ€Doped Ag Film and Its Application as a Transparent Electrode in Organic Photovoltaics. Advanced Materials, 2014, 26, 5696-5701.	21.0	221
6	Recent advances in electrooptic polymer modulators incorporating highly nonlinear chromophore. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 826-835.	2.9	147
7	Electro-optic polymer modulators with 0.8 V half-wave voltage. Applied Physics Letters, 2000, 77, 1-3.	3.3	140
8	Fabrication and Replication of Polymer Integrated Optical Devices Using Electron-Beam Lithography and Soft Lithographyâ€. Journal of Physical Chemistry B, 2004, 108, 8606-8613.	2.6	115
9	Investigation of Polymers and Marine-Derived DNA in Optoelectronicsâ€. Journal of Physical Chemistry B, 2004, 108, 8584-8591.	2.6	113
10	Photovoltaic enhancement of organic solar cells by a bridged donor-acceptor block copolymer approach. Applied Physics Letters, 2007, 90, 043117.	3.3	97
11	Highâ€Performance Doped Silver Films: Overcoming Fundamental Material Limits for Nanophotonic Applications. Advanced Materials, 2017, 29, 1605177.	21.0	90
12	Push–pull electro-optic polymer modulators with low half-wave voltage and low loss at both 1310 and 1550 nm. Applied Physics Letters, 2001, 78, 3136-3138.	3.3	89
13	Progress toward Device-Quality Second-Order Nonlinear Optical Materials. 4. A Trilink High μβ NLO Chromophore in Thermoset Polyurethane:  A "Guestâ^Host―Approach to Larger Electrooptic Coefficients. Macromolecules, 2001, 34, 253-261.	4.8	89
14	Highly Transparent and Broadband Electromagnetic Interference Shielding Based on Ultrathin Doped Ag and Conducting Oxides Hybrid Film Structures. ACS Applied Materials & Interfaces, 2019, 11, 11782-11791.	8.0	88
15	Efficient real-time detection of terahertz pulse radiation based on photoacoustic conversion by carbon nanotube nanocomposite. Nature Photonics, 2014, 8, 537-542.	31.4	86
16	Thermal Liquefaction of Lignin to Aromatics: Efficiency, Selectivity, and Product Analysis. ACS Sustainable Chemistry and Engineering, 2016, 4, 5106-5122.	6.7	82
17	Flexible low-voltage electro-optic polymer modulators. Applied Physics Letters, 2003, 82, 4432-4434.	3.3	81
18	Design, Synthesis, and Characterization of a â^'Donorâ^'Bridgeâ^'Acceptorâ^'Bridge- Type Block Copolymer via Alkoxy- and Sulfone- Derivatized Poly(phenylenevinylenes). Macromolecules, 2006, 39, 4317-4326.	4.8	77

CHENG ZHANG

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19	Review of Imprinted Polymer Microrings as Ultrasound Detectors: Design, Fabrication, and Characterization. IEEE Sensors Journal, 2015, 15, 3241-3248.	4.7	73
20	Electro-optic polymer modulators for 1.55 μm wavelength using phenyltetraene bridged chromophore in polycarbonate. Applied Physics Letters, 2000, 76, 3525-3527.	3.3	71
21	Highâ€Performance Ta ₂ O ₅ /Alâ€Doped Ag Electrode for Resonant Light Harvesting in Efficient Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1500768.	19.5	71
22	Printed photonic elements: nanoimprinting and beyond. Journal of Materials Chemistry C, 2016, 4, 5133-5153.	5.5	71
23	Synthesis and Characterization of Sterically Stabilized Second-Order Nonlinear Optical Chromophores. Chemistry of Materials, 1999, 11, 1966-1968.	6.7	65
24	Semitransparent and Flexible Mechanically Reconfigurable Electrically Small Antennas Based on Tortuous Metallic Micromesh. IEEE Transactions on Antennas and Propagation, 2017, 65, 150-158.	5.1	58
25	Enhanced Lifetime of Polymer Solar Cells by Surface Passivation of Metal Oxide Buffer Layers. ACS Applied Materials & Interfaces, 2015, 7, 16093-16100.	8.0	57
26	Air-coupled ultrasound detection using capillary-based optical ring resonators. Scientific Reports, 2017, 7, 109.	3.3	50
27	High-Performance Large-Scale Flexible Optoelectronics Using Ultrathin Silver Films with Tunable Properties. ACS Applied Materials & Interfaces, 2019, 11, 27216-27225.	8.0	47
28	Poly(3-dodedyl-2,5-thienylenevinylene)s from the Stille coupling and the Horner–Emmons reaction. Polymer Chemistry, 2010, 1, 663.	3.9	41
29	Critical role of domain crystallinity, domain purity and domain interface sharpness for reduced bimolecular recombination in polymer solar cells. Nano Energy, 2015, 12, 457-467.	16.0	41
30	Polymer Solar Cells Processed Using Anisole as a Relatively Nontoxic Solvent. Energy Technology, 2014, 2, 269-274.	3.8	38
31	Breaking Malus' law: Highly efficient, broadband, and angular robust asymmetric light transmitting metasurface. Laser and Photonics Reviews, 2016, 10, 791-798.	8.7	38
32	Wide-range tuning of polymer microring resonators by the photobleaching of CLD-1 chromophores. Optics Letters, 2004, 29, 2584.	3.3	35
33	Plasmonic Lithography Utilizing Epsilon Near Zero Hyperbolic Metamaterial. ACS Nano, 2017, 11, 9863-9868.	14.6	33
34	Integration of electro-optic polymer modulators with low-loss fluorinated polymer waveguides. Optics Letters, 2002, 27, 2109.	3.3	31
35	Poly(3-dodecylthienylenevinylene)s: Regioregularity and Crystallinity. Macromolecules, 2011, 44, 6389-6396.	4.8	30
36	Design, Synthesis, Characterization, and Modeling of a Series ofS,S-Dioxothienylenevinylene-Based Conjugated Polymers with Evolving Frontier Orbitals. Macromolecules, 2009, 42, 663-670.	4.8	29

CHENG ZHANG

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37	Low-loss interconnection between electrooptic and passive polymer waveguides with a vertical taper. IEEE Photonics Technology Letters, 2002, 14, 1121-1123.	2.5	26
38	Synthesis and characterization of a new acceptor (n-type) fluorinated and terminal-functionalized polythiophene. Journal of Polymer Science Part A, 2005, 43, 4280-4287.	2.3	23
39	Sustainable p-type copper selenide solar material with ultra-large absorption coefficient. Chemical Science, 2018, 9, 5405-5414.	7.4	20
40	Improved Performance for Inverted Organic Photovoltaics via Spacer between Benzodithiophene and Benzothiazole in Polymers. Journal of Physical Chemistry C, 2015, 119, 18992-19000.	3.1	16
41	Synthesis and characterisation of 1,3-bis(dicyanomethylidene)indane (BDMI)-based nonlinear optical polymers. Polymer, 1998, 39, 4977-4981.	3.8	14
42	Synthesis and energy gap studies of a series of sulfone-substituted polyphenylenevinylenes (SF-PPVs). Synthetic Metals, 2010, 160, 16-21.	3.9	14
43	Generation and Recombination Kinetics of Optical Excitations in Poly(3-dodecylthienylenevinylene) with Controlled Regioregularity. Journal of Physical Chemistry B, 2011, 115, 13139-13148.	2.6	14
44	Synthesis and characterization of main-chain NLO oligomers and polymer that contain 4-dialkylamino- 4?-(alkylsulfonyl)azobenzene chromophores. Journal of Polymer Science Part A, 2000, 38, 546-559.	2.3	13
45	Morphological Evolution and Its Impacts on Performance of Polymer Solar Cells. IEEE Transactions on Electron Devices, 2015, 62, 1284-1290.	3.0	13
46	Dicyano-Substituted Poly(phenylenevinylene) (DiCN–PPV) and the Effect of Cyano Substitution on Photochemical Stability. Macromolecules, 2013, 46, 4247-4254.	4.8	11
47	Design, synthesis, and characterization of a novel câ€donorâ€ncâ€bridgeâ€câ€acceptor type block copolymer for optoelectronic applications. Journal of Polymer Science Part A, 2014, 52, 1149-1160.	2.3	10
48	Mitsunobu reactions of aliphatic alcohols and bulky phenols. Tetrahedron Letters, 2014, 55, 3090-3092.	1.4	10
49	Efficient synthesis of an aldehyde-capped polythiophene containing fluorinated electron-withdrawing groups. Journal of Polymer Science Part A, 2007, 45, 41-47.	2.3	9
50	Combined electromagnetic and photoreaction modeling of CLD-1 photobleaching in polymer microring resonators. Applied Physics Letters, 2005, 87, 071108.	3.3	8
51	Integrated WDM polymer modulator. , 0, , .		7
52	Organic electro-optic materials: some unique opportunities. , 2004, , .		7
53	Frontier orbital and morphology engineering of conjugated polymers and block copolymers for potential high efficiency photovoltaics. Solar Energy Materials and Solar Cells, 2012, 97, 150-156.	6.2	7
54	A Facile Synthesis of 5-N, N-Bis(2-Hydroxyethyl)Amino-2-Thiophenecarboxaldehyde. Synthetic Communications, 2000, 30, 1359-1364.	2.1	6

CHENG ZHANG

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55	Enhancing the Efficiencies of Organic Photovoltaic and Organic Light-Emitting Diode Devices by Regular Nano-Wrinkle Patterns. Journal of Shanghai Jiaotong University (Science), 2018, 23, 45-51.	0.9	5
56	Photochemical stability of dicyanoâ€substituted poly(phenylenevinylenes) with different side chains. Journal of Polymer Science Part A, 2015, 53, 2820-2828.	2.3	4
57	A low-energy gap and fully regioregular poly(3-Dodecyl-2,5-thienylenevinylene) for photovoltaics. , 2008, , .		3
58	Synthesis and characterization of new sulfoneâ€derivatized phenylenevinyleneâ€based conjugated copolymers with evolving energy levels and gaps. Journal of Polymer Science Part A, 2012, 50, 1197-1204.	2.3	3
59	Regioregularity and solar cell device performance of poly(3â€dodecylthienylenevinylene). Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 917-922.	2.1	3
60	Hybrid-state emission in a polythienylenevinylene derivative with an electron deficient moiety. Journal of Chemical Physics, 2015, 142, 164702.	3.0	3
61	An oligothiophene chromophore with a macrocyclic side chain: synthesis, morphology, charge transport, and photovoltaic performance. RSC Advances, 2016, 6, 102043-102056.	3.6	3
62	Transparent Ultrathin Doped Silver Film for Broadband Electromagnetic Interference Shielding. , 2018, , .		3
63	Polymeric hybrid waveguide modulators with high optical stability and high electro-optic coefficient. , 2011, , .		2
64	Optimization of organic NLO materials for integration with silicon photonic, plasmonic (metal) Tj ETQq0 0 0 rgBT	/Overlock 0.8	10 Tf 50 38
65	Experimental and computational studies of 4H-cyclopenta[2,1-b:3,4-bâ€2]dithiophen-4-one (CPDTO)-oligomers. Polymer, 2014, 55, 4677-4683.	3.8	2
66	4 <i>H</i> yclopenta[2,1â€ <i>b</i> :3,4â€ <i>b</i> ′]dithiophenâ€4â€one (CPDTO) homopolymer with side c every other CPDTO. Journal of Polymer Science Part A, 2017, 55, 1077-1085.	hains on	2
67	The effects of gamma-ray irradiation on organic materials of different conjugation lengths. , 2009, , .		1
68	Development of Low Energy Gap and Fully Regioregular Polythienylenevinylene Derivative. Journal of Chemistry, 2014, 2014, 1-7.	1.9	1
69	Transparent and mechanically reconfigurable small antenna based on stretchable micromesh. , 2015, , .		1
70	Synthesis and characterization of poly(3,5-didodecyl-cyclopenta[2,1-b;3,4-b′]dithiophen-4-one). Synthetic Metals, 2016, 221, 275-283.	3.9	1
71	Morphological studies of a donor-bridge-acceptor block copolymer system. , 2006, , .		0
72	Molecular morphological effects to optoelectronics. , 2007, , .		0

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73	Bioinspired self-assembly for organic elctro-optics. Proceedings of SPIE, 2010, , .	0.8	0
74	Polymer frontier orbital and morphology engineering for nanophotonics. , 2012, , .		0
75	Opposite effects of a singlet oxygen quencher on photochemical degradation of dicyano-substituted poly(phenylenevinylenes) with different side chains. Polymer Degradation and Stability, 2015, 122, 146-152.	5.8	0
76	Interchain and intrachain triplets in poly(3-thienylene vinylene) derivatives. Journal of Photonics for Energy, 2018, 8, 1.	1.3	0