

Cheng Zhang

List of Publications by Year in descending order

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76
papers

4,645
citations

136885

32
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110317

64
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78
all docs

78
docs citations

78
times ranked

4925
citing authors

#	ARTICLE	IF	CITATIONS
1	Low (Sub-1-Volt) Halfwave Voltage Polymeric Electro-optic Modulators Achieved by Controlling Chromophore Shape. <i>Science</i> , 2000, 288, 119-122.	6.0	920
2	Polymer micro-ring filters and modulators. <i>Journal of Lightwave Technology</i> , 2002, 20, 1968-1975.	2.7	476
3	High Performance Bianisotropic Metasurfaces: Asymmetric Transmission of Light. <i>Physical Review Letters</i> , 2014, 113, 023902.	2.9	317
4	Low Voltage Electrooptic Modulators from CLD-1: Chromophore Design and Synthesis, Material Processing, and Characterization. <i>Chemistry of Materials</i> , 2001, 13, 3043-3050.	3.2	270
5	An Ultrathin, Smooth, and Low Loss Al-Doped Ag Film and Its Application as a Transparent Electrode in Organic Photovoltaics. <i>Advanced Materials</i> , 2014, 26, 5696-5701.	11.1	221
6	Recent advances in electrooptic polymer modulators incorporating highly nonlinear chromophore. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2001, 7, 826-835.	1.9	147
7	Electro-optic polymer modulators with 0.8 V half-wave voltage. <i>Applied Physics Letters</i> , 2000, 77, 1-3.	1.5	140
8	Fabrication and Replication of Polymer Integrated Optical Devices Using Electron-Beam Lithography and Soft Lithography. <i>Journal of Physical Chemistry B</i> , 2004, 108, 8606-8613.	1.2	115
9	Investigation of Polymers and Marine-Derived DNA in Optoelectronics. <i>Journal of Physical Chemistry B</i> , 2004, 108, 8584-8591.	1.2	113
10	Photovoltaic enhancement of organic solar cells by a bridged donor-acceptor block copolymer approach. <i>Applied Physics Letters</i> , 2007, 90, 043117.	1.5	97
11	High Performance Doped Silver Films: Overcoming Fundamental Material Limits for Nanophotonic Applications. <i>Advanced Materials</i> , 2017, 29, 1605177.	11.1	90
12	Push-pull electro-optic polymer modulators with low half-wave voltage and low loss at both 1310 and 1550 nm. <i>Applied Physics Letters</i> , 2001, 78, 3136-3138.	1.5	89
13	Progress toward Device-Quality Second-Order Nonlinear Optical Materials. 4. A Trilink High $\chi^{(2)}$ NLO Chromophore in Thermoset Polyurethane: A Guest-Host Approach to Larger Electrooptic Coefficients. <i>Macromolecules</i> , 2001, 34, 253-261.	2.2	89
14	Highly Transparent and Broadband Electromagnetic Interference Shielding Based on Ultrathin Doped Ag and Conducting Oxides Hybrid Film Structures. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11782-11791.	4.0	88
15	Efficient real-time detection of terahertz pulse radiation based on photoacoustic conversion by carbon nanotube nanocomposite. <i>Nature Photonics</i> , 2014, 8, 537-542.	15.6	86
16	Thermal Liquefaction of Lignin to Aromatics: Efficiency, Selectivity, and Product Analysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 5106-5122.	3.2	82
17	Flexible low-voltage electro-optic polymer modulators. <i>Applied Physics Letters</i> , 2003, 82, 4432-4434.	1.5	81
18	Design, Synthesis, and Characterization of a Donor-Bridge-Acceptor-Bridge Type Block Copolymer via Alkoxy- and Sulfone-Derivatized Poly(phenylenevinylenes). <i>Macromolecules</i> , 2006, 39, 4317-4326.	2.2	77

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19	Review of Imprinted Polymer Microrings as Ultrasound Detectors: Design, Fabrication, and Characterization. <i>IEEE Sensors Journal</i> , 2015, 15, 3241-3248.	2.4	73
20	Electro-optic polymer modulators for 1.55 μ m wavelength using phenyltetraene bridged chromophore in polycarbonate. <i>Applied Physics Letters</i> , 2000, 76, 3525-3527.	1.5	71
21	High-Performance Ta ₂ O ₅ /Al-Doped Ag Electrode for Resonant Light Harvesting in Efficient Organic Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1500768.	10.2	71
22	Printed photonic elements: nanoimprinting and beyond. <i>Journal of Materials Chemistry C</i> , 2016, 4, 5133-5153.	2.7	71
23	Synthesis and Characterization of Sterically Stabilized Second-Order Nonlinear Optical Chromophores. <i>Chemistry of Materials</i> , 1999, 11, 1966-1968.	3.2	65
24	Semitransparent and Flexible Mechanically Reconfigurable Electrically Small Antennas Based on Tortuous Metallic Micromesh. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 150-158.	3.1	58
25	Enhanced Lifetime of Polymer Solar Cells by Surface Passivation of Metal Oxide Buffer Layers. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16093-16100.	4.0	57
26	Air-coupled ultrasound detection using capillary-based optical ring resonators. <i>Scientific Reports</i> , 2017, 7, 109.	1.6	50
27	High-Performance Large-Scale Flexible Optoelectronics Using Ultrathin Silver Films with Tunable Properties. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 27216-27225.	4.0	47
28	Poly(3-dodecyl-2,5-thienylenevinylene)s from the Stille coupling and the Horner-Emmons reaction. <i>Polymer Chemistry</i> , 2010, 1, 663.	1.9	41
29	Critical role of domain crystallinity, domain purity and domain interface sharpness for reduced bimolecular recombination in polymer solar cells. <i>Nano Energy</i> , 2015, 12, 457-467.	8.2	41
30	Polymer Solar Cells Processed Using Anisole as a Relatively Nontoxic Solvent. <i>Energy Technology</i> , 2014, 2, 269-274.	1.8	38
31	Breaking Malus's law: Highly efficient, broadband, and angular robust asymmetric light transmitting metasurface. <i>Laser and Photonics Reviews</i> , 2016, 10, 791-798.	4.4	38
32	Wide-range tuning of polymer microring resonators by the photobleaching of CLD-1 chromophores. <i>Optics Letters</i> , 2004, 29, 2584.	1.7	35
33	Plasmonic Lithography Utilizing Epsilon Near Zero Hyperbolic Metamaterial. <i>ACS Nano</i> , 2017, 11, 9863-9868.	7.3	33
34	Integration of electro-optic polymer modulators with low-loss fluorinated polymer waveguides. <i>Optics Letters</i> , 2002, 27, 2109.	1.7	31
35	Poly(3-dodecylthienylenevinylene)s: Regioregularity and Crystallinity. <i>Macromolecules</i> , 2011, 44, 6389-6396.	2.2	30
36	Design, Synthesis, Characterization, and Modeling of a Series of S,S-Dioxothienylenevinylene-Based Conjugated Polymers with Evolving Frontier Orbitals. <i>Macromolecules</i> , 2009, 42, 663-670.	2.2	29

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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.	1.3	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.	2.5	23
39	Sustainable p-type copper selenide solar material with ultra-large absorption coefficient. Chemical Science, 2018, 9, 5405-5414.	3.7	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.	1.5	16
41	Synthesis and characterisation of 1,3-bis(dicyanomethylidene)indane (BDMI)-based nonlinear optical polymers. Polymer, 1998, 39, 4977-4981.	1.8	14
42	Synthesis and energy gap studies of a series of sulfone-substituted polyphenylenevinylenes (SF-PPVs). Synthetic Metals, 2010, 160, 16-21.	2.1	14
43	Generation and Recombination Kinetics of Optical Excitations in Poly(3-dodecylthiophenevinylene) with Controlled Regioregularity. Journal of Physical Chemistry B, 2011, 115, 13139-13148.	1.2	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.	2.5	13
45	Morphological Evolution and Its Impacts on Performance of Polymer Solar Cells. IEEE Transactions on Electron Devices, 2015, 62, 1284-1290.	1.6	13
46	Dicyano-Substituted Poly(phenylenevinylene) (DiCN-PPV) and the Effect of Cyano Substitution on Photochemical Stability. Macromolecules, 2013, 46, 4247-4254.	2.2	11
47	Design, synthesis, and characterization of a novel donor-bridge-acceptor type block copolymer for optoelectronic applications. Journal of Polymer Science Part A, 2014, 52, 1149-1160.	2.5	10
48	Mitsunobu reactions of aliphatic alcohols and bulky phenols. Tetrahedron Letters, 2014, 55, 3090-3092.	0.7	10
49	Efficient synthesis of an aldehyde-capped polythiophene containing fluorinated electron-withdrawing groups. Journal of Polymer Science Part A, 2007, 45, 41-47.	2.5	9
50	Combined electromagnetic and photoreaction modeling of CLD-1 photobleaching in polymer microring resonators. Applied Physics Letters, 2005, 87, 071108.	1.5	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.	3.0	7
54	A Facile Synthesis of 5-N, N-Bis(2-Hydroxyethyl)Amino-2-Thiophenecarboxaldehyde. Synthetic Communications, 2000, 30, 1359-1364.	1.1	6

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55	Enhancing the Efficiencies of Organic Photovoltaic and Organic Light-Emitting Diode Devices by Regular Nano-Wrinkle Patterns. <i>Journal of Shanghai Jiaotong University (Science)</i> , 2018, 23, 45-51.	0.5	5
56	Photochemical stability of dicyano-substituted poly(phenylenevinylene)s with different side chains. <i>Journal of Polymer Science Part A</i> , 2015, 53, 2820-2828.	2.5	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 sulfone-derivatized phenylenevinylene-based conjugated copolymers with evolving energy levels and gaps. <i>Journal of Polymer Science Part A</i> , 2012, 50, 1197-1204.	2.5	3
59	Regioregularity and solar cell device performance of poly(3-dodecylthienylenevinylene). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 917-922.	2.4	3
60	Hybrid-state emission in a polythienylenevinylene derivative with an electron deficient moiety. <i>Journal of Chemical Physics</i> , 2015, 142, 164702.	1.2	3
61	An oligothiophene chromophore with a macrocyclic side chain: synthesis, morphology, charge transport, and photovoltaic performance. <i>RSC Advances</i> , 2016, 6, 102043-102056.	1.7	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 10 Tf 50 38	0.8	2
65	Experimental and computational studies of 4H-cyclopenta[2,1-b:3,4-b ²]dithiophen-4-one (CPDTO)-oligomers. <i>Polymer</i> , 2014, 55, 4677-4683.	1.8	2
66	4-cyclopenta[2,1-b:3,4-b ²]dithiophen-4-one (CPDTO) homopolymer with side chains on every other CPDTO. <i>Journal of Polymer Science Part A</i> , 2017, 55, 1077-1085.	2.5	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. <i>Journal of Chemistry</i> , 2014, 2014, 1-7.	0.9	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 ²]dithiophen-4-one). <i>Synthetic Metals</i> , 2016, 221, 275-283.	2.1	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.	2.7	0
76	Interchain and intrachain triplets in poly(3-thienylene vinylene) derivatives. Journal of Photonics for Energy, 2018, 8, 1.	0.8	0