

Luping Yu

List of Publications by Year in descending order

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97
papers

11,428
citations

71097

41
h-index

46795

89
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99
all docs

99
docs citations

99
times ranked

10662
citing authors

#	ARTICLE	IF	CITATIONS
1	Polymer solar cells with enhanced open-circuit voltage and efficiency. <i>Nature Photonics</i> , 2009, 3, 649-653.	31.4	3,015
2	Recent Advances in Bulk Heterojunction Polymer Solar Cells. <i>Chemical Reviews</i> , 2015, 115, 12666-12731.	47.7	2,308
3	Ternary blend polymer solar cells with enhanced power conversion efficiency. <i>Nature Photonics</i> , 2014, 8, 716-722.	31.4	601
4	High-performance ternary blend polymer solar cells involving both energy transfer and hole relay processes. <i>Nature Communications</i> , 2015, 6, 7327.	12.8	422
5	Covalently Bound Clusters of Alpha-Substituted PDI Rival Electron Acceptors to Fullerene for Organic Solar Cells. <i>Journal of the American Chemical Society</i> , 2016, 138, 7248-7251.	13.7	377
6	Rational Design of Porous Conjugated Polymers and Roles of Residual Palladium for Photocatalytic Hydrogen Production. <i>Journal of the American Chemical Society</i> , 2016, 138, 7681-7686.	13.7	364
7	How to design low bandgap polymers for highly efficient organic solar cells. <i>Materials Today</i> , 2014, 17, 11-15.	14.2	209
8	Overcoming efficiency challenges in organic solar cells: rational development of conjugated polymers. <i>Energy and Environmental Science</i> , 2012, 5, 8158.	30.8	189
9	Electron Acceptors Based on β -Substituted Perylene Diimide (PDI) for Organic Solar Cells. <i>Chemistry of Materials</i> , 2016, 28, 1139-1146.	6.7	187
10	Are we there yet? Design of better conjugated polymers for polymer solar cells. <i>Journal of Materials Chemistry</i> , 2011, 21, 18934.	6.7	156
11	Transport Properties of a Single-Molecule Diode. <i>ACS Nano</i> , 2012, 6, 4931-4939.	14.6	143
12	Mediating Solar Cell Performance by Controlling the Internal Dipole Change in Organic Photovoltaic Polymers. <i>Macromolecules</i> , 2012, 45, 6390-6395.	4.8	138
13	Photovoltaic Function and Exciton/Charge Transfer Dynamics in a Highly Efficient Semiconducting Copolymer. <i>Advanced Functional Materials</i> , 2014, 24, 10-26.	14.9	134
14	Donor-Acceptor Porous Conjugated Polymers for Photocatalytic Hydrogen Production: The Importance of Acceptor Comonomer. <i>Macromolecules</i> , 2016, 49, 6903-6909.	4.8	129
15	Ladder polymers: recent developments in syntheses, characterization, and potential applications as electronic and optical materials. <i>Chemistry of Materials</i> , 1990, 2, 649-659.	6.7	128
16	Synthesis of Amphiphilic Conjugated Diblock Oligomers as Molecular Diodes. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 3598-3601.	13.8	127
17	Polyselenopheno[3,4- <i>b</i>]selenophene for Highly Efficient Bulk Heterojunction Solar Cells. <i>ACS Macro Letters</i> , 2012, 1, 361-365.	4.8	120
18	Development of Semiconducting Polymers for Solar Energy Harvesting. <i>Polymer Reviews</i> , 2010, 50, 454-473.	10.9	110

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19	Multifunctional Polymers Exhibiting Photorefractive Effects. <i>Accounts of Chemical Research</i> , 1996, 29, 13-21.	15.6	108
20	Nanoporous Porphyrin Polymers for Gas Storage and Separation. <i>Macromolecules</i> , 2012, 45, 7413-7419.	4.8	108
21	Synthesis and Search for Design Principles of New Electron Accepting Polymers for All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2014, 26, 3450-3459.	6.7	100
22	Exploration of Syntheses and Functions of Higher Ladder-type π -Conjugated Heteroacenes. <i>CheM</i> , 2018, 4, 2538-2570.	11.7	85
23	Nanoporous Polyporphyrin as Adsorbent for Hydrogen Storage. <i>Macromolecules</i> , 2010, 43, 3325-3330.	4.8	84
24	Mechanistic Studies of Effect of Dispersity on the Photovoltaic Performance of PTB7 Polymer Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 537-543.	6.7	84
25	Synthesis of Ladder-Type Thienoacenes and Their Electronic and Optical Properties. <i>Journal of the American Chemical Society</i> , 2016, 138, 868-875.	13.7	84
26	Propeller-Shaped Acceptors for High-Performance Non-Fullerene Solar Cells: Importance of the Rigidity of Molecular Geometry. <i>Chemistry of Materials</i> , 2017, 29, 1127-1133.	6.7	83
27	Photocatalysts Based on Cobalt-Chelating Conjugated Polymers for Hydrogen Evolution from Water. <i>Chemistry of Materials</i> , 2016, 28, 5394-5399.	6.7	81
28	Photophysical and Morphological Implications of Single-Strand Conjugated Polymer Folding in Solution. <i>Chemistry of Materials</i> , 2016, 28, 2814-2822.	6.7	76
29	Exceptional Single-Molecule Transport Properties of Ladder-Type Heteroacene Molecular Wires. <i>Journal of the American Chemical Society</i> , 2016, 138, 10630-10635.	13.7	76
30	Synthesis and Characterization of Diblock Copolymers Containing Oligothiophenes with Defined Regiospecificity and Molecular Weights. <i>Macromolecules</i> , 1996, 29, 7329-7334.	4.8	75
31	Conjugated block copolymers and co-oligomers: from supramolecular assembly to molecular electronics. <i>Journal of Materials Chemistry</i> , 2007, 17, 2183.	6.7	75
32	Conjugated Polymers Containing Mixed-Ligand Ruthenium(II) Complexes. Synthesis, Characterization, and Investigation of Photoconductive Properties. <i>Journal of the American Chemical Society</i> , 2000, 122, 11806-11811.	13.7	69
33	Beyond Molecular Wires: Design Molecular Electronic Functions Based on Dipolar Effect. <i>Accounts of Chemical Research</i> , 2016, 49, 1852-1863.	15.6	60
34	Chemoselective Immobilization of Gold Nanoparticles onto Self-Assembled Monolayers. <i>Langmuir</i> , 2002, 18, 311-313.	3.5	59
35	Molecular Rectification Tuned by Through-Space Gating Effect. <i>Nano Letters</i> , 2017, 17, 308-312.	9.1	56
36	Two Photon Absorption Study of Low-Bandgap, Fully Conjugated Perylene Diimide-Thienoacene-Perylene Diimide Ladder-Type Molecules. <i>Chemistry of Materials</i> , 2017, 29, 6726-6732.	6.7	55

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37	Synthesis of Alternating Donor–Acceptor Ladder-Type Molecules and Investigation of Their Multiple Charge-Transfer Pathways. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 6442-6448.	13.8	54
38	Charge Transfer and Aggregation Effects on the Performance of Planar vs Twisted Nonfullerene Acceptor Isomers for Organic Solar Cells. <i>Chemistry of Materials</i> , 2018, 30, 4263-4276.	6.7	49
39	Optical, Electrical, and Magnetic Studies of Organic Solar Cells Based on Low Bandgap Copolymer with Spin $\frac{1}{2}$ Radical Additives. <i>Advanced Functional Materials</i> , 2015, 25, 1895-1902.	14.9	45
40	Proton-triggered switch based on a molecular transistor with edge-on gate. <i>Chemical Science</i> , 2016, 7, 3137-3141.	7.4	45
41	Edge-on Gating Effect in Molecular Wires. <i>Nano Letters</i> , 2015, 15, 958-962.	9.1	43
42	A Single-Molecular AND Gate Operated with Two Orthogonal Switching Mechanisms. <i>Advanced Materials</i> , 2017, 29, 1701248.	21.0	41
43	Roles of Quinoidal Character and Regioregularity in Determining the Optoelectronic and Photovoltaic Properties of Conjugated Copolymers. <i>Macromolecules</i> , 2014, 47, 6252-6259.	4.8	40
44	Synthesis and Structure/Property Correlation of Fully Functionalized Photorefractive Polymers. <i>Macromolecules</i> , 2002, 35, 4636-4645.	4.8	37
45	Conjugated, Liquid Crystalline Polymers. <i>Angewandte Chemie International Edition in English</i> , 1993, 32, 1345-1347.	4.4	35
46	Wide bandgap OPV polymers based on pyridinonedithiophene unit with efficiency $>5\%$. <i>Chemical Science</i> , 2015, 6, 4860-4866.	7.4	35
47	Effect of Acceptor Strength on Optical and Electronic Properties in Conjugated Polymers for Solar Applications. <i>Journal of the American Chemical Society</i> , 2015, 137, 5759-5769.	13.7	35
48	Tuning the Polarizability in Donor Polymers with a Thiophenesaccharin Unit for Organic Photovoltaic Applications. <i>Advanced Functional Materials</i> , 2014, 24, 3432-3437.	14.9	34
49	Effects of Exciton Polarity in Charge-Transfer Polymer/PCBM Bulk Heterojunction Films. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 1856-1863.	4.6	33
50	Design of High-Performance Organic Light-Emitting Transistors. <i>ACS Omega</i> , 2020, 5, 68-74.	3.5	32
51	Hybridized approach to new polymers exhibiting large photorefractivity. <i>Applied Physics Letters</i> , 1996, 69, 4002-4004.	3.3	31
52	Efficient molecular photorefractive materials based on methine dyes. <i>Applied Physics Letters</i> , 2001, 78, 700-702.	3.3	31
53	Synergy between Photoluminescence and Charge Transport Achieved by Finely Tuning Polymeric Backbones for Efficient Light-Emitting Transistor. <i>Journal of the American Chemical Society</i> , 2021, 143, 5239-5246.	13.7	31
54	Conjugated photorefractive polymer. <i>Applied Physics Letters</i> , 1994, 64, 2489-2491.	3.3	29

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55	Incremental optimization in donor polymers for bulk heterojunction organic solar cells exhibiting high performance. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 1057-1070.	2.1	29
56	Morphological characterization of fullerene and fullerene-free organic photovoltaics by combined real and reciprocal space techniques. <i>Journal of Materials Research</i> , 2017, 32, 1921-1934.	2.6	28
57	Enhancement in Open-Circuit Voltage in Organic Solar Cells by Using Ladder-Type Nonfullerene Acceptors. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13528-13533.	8.0	28
58	An Electromechanical Approach to Understanding Binding Configurations in Single-Molecule Devices. <i>Nano Letters</i> , 2018, 18, 6638-6644.	9.1	26
59	Structure and dynamics correlations of photoinduced charge separation in rigid conjugated linear donor-acceptor dyads towards photovoltaic applications. <i>New Journal of Chemistry</i> , 2009, 33, 1497.	2.8	25
60	A Multifunctional Photorefractive Material Showing High Optical Gain and Diffraction Efficiency. <i>Advanced Materials</i> , 1998, 10, 927-931.	21.0	24
61	Intra-molecular Charge Transfer and Electron Delocalization in Non-fullerene Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 10043-10052.	8.0	24
62	Investigations of Thienoacene Molecules for Classical and Entangled Two-Photon Absorption. <i>Journal of Physical Chemistry A</i> , 2018, 122, 8167-8182.	2.5	24
63	Novel second-order nonlinear optical, aromatic, and aliphatic polyimides exhibiting high-temperature stability. <i>Applied Physics Letters</i> , 1995, 66, 1050-1052.	3.3	22
64	Solution Phase Exciton Diffusion Dynamics of a Charge-Transfer Copolymer PTB7 and a Homopolymer P3HT . <i>Journal of Physical Chemistry B</i> , 2015, 119, 7447-7456.	2.6	22
65	Synthesis of Amphiphilic Conjugated Diblock Oligomers as Molecular Diodes. <i>Angewandte Chemie</i> , 2002, 114, 3750-3753.	2.0	20
66	BODIPY-Containing Polymers with Ultralow Band Gaps and Ambipolar Charge Mobilities. <i>Macromolecules</i> , 2020, 53, 2014-2020.	4.8	18
67	Lessons learned from research on photorefractive polymers and molecular materials. <i>Journal of Polymer Science Part A</i> , 2001, 39, 2557-2564.	2.3	17
68	Highly Emissive Semi-Ladder-Type Copolymers, Aggregation State, and Solution-Processed Organic Light-Emitting Transistor. <i>Chemistry of Materials</i> , 2020, 32, 4672-4680.	6.7	17
69	High Performance Ternary Organic Solar Cells due to Favored Interfacial Connection by a Non-Fullerene Electron Acceptor with Cross-Like Molecular Geometry. <i>Journal of Physical Chemistry C</i> , 2018, 122, 11305-11311.	3.1	16
70	Fine-tuning photorefractive properties of monolithic molecular materials. <i>Applied Physics Letters</i> , 2003, 82, 3385-3387.	3.3	14
71	Intramolecular Hydrogen Bonding Assisted Charge Transport through Single Rectifying Molecule. <i>Langmuir</i> , 2011, 27, 2084-2087.	3.5	14
72	Visualization of Hierarchical Nanodomains in Polymer/Fullerene Bulk Heterojunction Solar Cells. <i>Microscopy and Microanalysis</i> , 2014, 20, 1507-1513.	0.4	11

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73	Controlled Self-Assembly of Cyclophane Amphiphiles: From 1D Nanofibers to Ultrathin 2D Topological Structures. <i>Macromolecules</i> , 2016, 49, 5172-5178.	4.8	11
74	Photoinduced cationic polycondensation in solid state towards ultralow band gap conjugated polymers. <i>Journal of Materials Chemistry C</i> , 2020, 8, 7026-7033.	5.5	10
75	The Role of the Core Attachment Positioning in Triggering Intramolecular Singlet Exciton Fission in Perylene Diimide Tetramers. <i>Journal of Physical Chemistry B</i> , 2021, 125, 5114-5131.	2.6	9
76	Investigation of the Liquid Crystalline~Isotropic Phase Transition in Oligo(phenylenevinylene) with Alkyl Side Chains. <i>Macromolecules</i> , 1997, 30, 6274-6279.	4.8	7
77	Dipolar and electronic effects on charge transport through single transition metal complexes. <i>Science China Chemistry</i> , 2011, 54, 410-414.	8.2	7
78	Synthesis of Alternating Donor~Acceptor Ladder~Type Molecules and Investigation of Their Multiple Charge~Transfer Pathways. <i>Angewandte Chemie</i> , 2018, 130, 6552-6558.	2.0	7
79	Molecular Control of Charge Carrier and Seebeck Coefficient in Hybrid Two-Dimensional Nanoparticle Superlattices. <i>Journal of Physical Chemistry C</i> , 2020, 124, 17-24.	3.1	7
80	Effect of a local electric field on photogeneration efficiency in a photorefractive polymer. <i>Applied Physics Letters</i> , 1998, 73, 2546-2548.	3.3	6
81	Inhomogeneity of the Ultrafast Excited State Dynamics in Organic Photovoltaic Materials Measured at Nanoscale. <i>Journal of Physical Chemistry C</i> , 2018, 122, 22201-22209.	3.1	6
82	Photophysical implications of ring fusion, linker length, and twisting angle in a series of perylenediimide~thienoacene dimers. <i>Chemical Science</i> , 2020, 11, 7133-7143.	7.4	6
83	Length-dependent self-assembly of oligothiophene derivatives in thin films. <i>Journal of Materials Research</i> , 2011, 26, 296-305.	2.6	4
84	Finely Designed P3HT-Based Fully Conjugated Graft Polymer: Optical Measurements, Morphology, and the Faraday Effect. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 30856-30861.	8.0	3
85	Rational Designs of Multifunctional Polymers-Conjugated Photorefractive Polymers. <i>Materials Research Society Symposia Proceedings</i> , 1993, 328, 63.	0.1	2
86	PICOSECOND OPTICAL LIMITING PERFORMANCE OF A NOVEL PPV-ZnPc CONJUGATED POLYMER. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2000, 09, 289-296.	1.8	2
87	Molecular Design towards Controlling Charge Transport. <i>Chemistry - A European Journal</i> , 2018, 24, 17180-17187.	3.3	2
88	Donor~Acceptor Conjugated Copolymers Containing Transition-Metal Complex: Intrachain Magnetic Exchange Interactions and Magneto-Optical Activity. <i>Chemistry of Materials</i> , 0, , .	6.7	2
89	Novel Photorefractive Materials Based on Multifunctional Organic Glasses. <i>ACS Symposium Series</i> , 1999, , 226-236.	0.5	1
90	Frontispiece: Synthesis of Alternating Donor~Acceptor Ladder~Type Molecules and Investigation of Their Multiple Charge~Transfer Pathways. <i>Angewandte Chemie - International Edition</i> , 2018, 57, .	13.8	1

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91	Synthesis of Thioester End-Functionalized Poly(ϵ -caprolactone) and Its Application in Chemoselective Ligation. ACS Symposium Series, 1998, , 92-104.	0.5	0
92	Progress in Fully Functionalized Photorefractive Materials. Materials Research Society Symposia Proceedings, 1999, 597, 203.	0.1	0
93	Structural Evolution and Alignment of Cylinder-Forming PS-b-PEP Thin Films in Confinement Studied by Time-Lapse Atomic Force Microscopy. Materials Research Society Symposia Proceedings, 2004, 854, U11.17.1.	0.1	0
94	Disposable organic fluorescence biosensor for water pollution monitoring.. Materials Research Society Symposia Proceedings, 2011, 1358, 50301.	0.1	0
95	Organic Photovoltaics: Photovoltaic Function and Exciton/Charge Transfer Dynamics in a Highly Efficient Semiconducting Copolymer (Adv. Funct. Mater. 1/2014). Advanced Functional Materials, 2014, 24, 2-2.	14.9	0
96	Frontispiz: Synthesis of Alternating Donor–Acceptor Ladder-Type Molecules and Investigation of Their Multiple Charge-Transfer Pathways. Angewandte Chemie, 2018, 130, .	2.0	0
97	Frontispiece: Molecular Design towards Controlling Charge Transport. Chemistry - A European Journal, 2018, 24, .	3.3	0