

Bogyu Lim

List of Publications by Year in descending order

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64
papers

2,526
citations

218677

26
h-index

197818

49
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64
all docs

64
docs citations

64
times ranked

3566
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress in lactam-based polymer semiconductors for organic electronic devices. <i>Journal of Polymer Science</i> , 2022, 60, 429-485.	3.8	9
2	Photonic multilayers for ultrasensitive millisecond colorimetric discrimination between benzene, toluene, and xylene. <i>Sensors and Actuators B: Chemical</i> , 2022, 351, 130974.	7.8	6
3	Background color dependent photonic multilayer films for anti-counterfeiting labeling. <i>Nanoscale</i> , 2022, 14, 5377-5383.	5.6	12
4	A regioregular donor-acceptor copolymer allowing a high gain-bandwidth product to be obtained in photomultiplication-type organic photodiodes. <i>Materials Horizons</i> , 2021, 8, 276-283.	12.2	32
5	Design and Synthesis of a New Non-Fullerene Acceptor for High-Performance Photomultiplication-Type Organic Photodiodes. <i>Advanced Optical Materials</i> , 2021, 9, 2001836.	7.3	13
6	Newly Synthesized Nonvacuum Processed High-k Polymeric Dielectrics with Carboxyl Functionality for Highly Stable Operating Printed Transistor Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2007304.	14.9	23
7	Precisely Tunable Humidity Color Indicator Based on Photonic Polymer Films. <i>Macromolecules</i> , 2021, 54, 621-628.	4.8	23
8	Effect of molecular structure of benzo[1,2-b:4,5-b']dithiophene-based push-pull type donor polymers on performance panchromatic organic photodiodes. <i>Organic Electronics</i> , 2020, 78, 105580.	2.6	8
9	Chromophore-Free photonic multilayer films for the ultra-sensitive colorimetric detection of nerve agent mimics in the vapor phase. <i>Sensors and Actuators B: Chemical</i> , 2020, 323, 128698.	7.8	24
10	Formation of Large Crystalline Domains in a Semiconducting Polymer with Semi-fluorinated Alkyl Side Chains and Application to High-Performance Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49886-49894.	8.0	12
11	Improving the Photostability of Small-Molecule-Based Organic Photovoltaics by Providing a Charge Percolation Pathway of Crystalline Conjugated Polymer. <i>Polymers</i> , 2020, 12, 2598.	4.5	4
12	Bis-Diketopyrrolopyrrole and Carbazole-Based Terpolymer for High Performance Organic Field-Effect Transistors and Infra-Red Photodiodes. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900287.	2.2	19
13	Synthesis and electrochromic properties of a carbazole and diketopyrrolopyrrole-based small molecule semiconductor. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 80, 93-97.	5.8	14
14	Morphology-Dependent Hole Transfer under Negligible HOMO Difference in Non-Fullerene Acceptor-Based Ternary Polymer Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 7208-7215.	8.0	28
15	Printed Large-Area Photovoltaic Modules Based on Small Molecules with Different Alkyl Terminal Chains. <i>ACS Applied Energy Materials</i> , 2019, 2, 8885-8893.	5.1	7
16	Efficient planar perovskite solar cells with a conjugated random terpolymer as a novel hole-transporting material. <i>Dyes and Pigments</i> , 2019, 160, 930-935.	3.7	10
17	A novel quinoxaline-based donor-acceptor type electrochromic polymer. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 70, 380-384.	5.8	16
18	Synergistic Effects of Terpolymer Regioregularity on the Performance of All-Polymer Solar Cells. <i>Macromolecules</i> , 2019, 52, 738-746.	4.8	17

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19	Well-defined alternative polymer semiconductor using large size regioregular building blocks as monomers: electrical and electrochemical properties. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5662-5670.	5.5	9
20	Highly efficient polymer solar cells with a thienopyrroledione and benzodithiophene containing planar random copolymer. <i>Polymer Chemistry</i> , 2018, 9, 1216-1222.	3.9	19
21	Carbazole and rhodanine based donor molecule with improved processability for high performance organic photovoltaics. <i>Dyes and Pigments</i> , 2018, 151, 272-278.	3.7	12
22	Reducing Trap-Assisted Recombination in Small Organic Molecule-Based Photovoltaics by the Addition of a Conjugated Block Copolymer. <i>Macromolecular Rapid Communications</i> , 2018, 39, 1700630.	3.9	18
23	Highly soluble diketopyrrolopyrrole-based donor-acceptor type small molecule for electrochromic applications. <i>Organic Electronics</i> , 2018, 63, 23-28.	2.6	6
24	Highly π -extended small molecules with bis(alkylthio)methylene side chains for organic field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2018, 6, 7604-7611.	5.5	14
25	A novel random terpolymer for high-efficiency bulk-heterojunction polymer solar cells. <i>RSC Advances</i> , 2017, 7, 1975-1980.	3.6	14
26	Diketopyrrolopyrrole-based conjugated polymer for printed organic field-effect transistors and gas sensors. <i>Dyes and Pigments</i> , 2017, 140, 244-249.	3.7	33
27	Thienopyrroledione and benzodithiophene/thiophene-based random terpolymer for polymer solar cells with improved fill factor. <i>Dyes and Pigments</i> , 2017, 140, 229-235.	3.7	16
28	High-Efficiency Organic Photovoltaics with Two-Dimensional Conjugated Benzodithiophene-Based Regioregular Polymers. <i>Chemistry of Materials</i> , 2017, 29, 4301-4310.	6.7	35
29	High Performance Solution Processed Organic Field Effect Transistors with Novel Diketopyrrolopyrrole-Containing Small Molecules. <i>Scientific Reports</i> , 2017, 7, 164.	3.3	51
30	Highly soluble small-molecule organic semiconductor with trihexylsilyloxy side chain for high-performance organic field-effect transistors with mobility of up to $3.10 \text{ Å}^2 \text{ V}^{-1} \text{ s}^{-1}$. <i>Dyes and Pigments</i> , 2017, 142, 17-23.	3.7	26
31	Fluorinated benzothiadiazole and indacenodithieno[3,2-b]thiophene based regioregular-conjugated copolymers for ambipolar organic field-effect transistors and inverters. <i>RSC Advances</i> , 2017, 7, 1110-1117.	3.6	17
32	Electrochemical and electrochromic properties of diketopyrrolopyrrole-based conjugated polymer. <i>Electrochemistry Communications</i> , 2017, 83, 102-105.	4.7	19
33	Conjugated Side Chain Tuning Effect of Indacenodithieno[3,2-b]thiophene and Fluoro-Benzothiadiazole-Based Regioregular Copolymers for High-Performance Organic Field-Effect Transistors. <i>Macromolecular Chemistry and Physics</i> , 2017, 218, 1700225.	2.2	11
34	Silaindacenodithiophene based organic semiconductor for high performance organic field-effect transistors. <i>Dyes and Pigments</i> , 2017, 146, 520-528.	3.7	6
35	Orthogonal 4,10 and 6,12 substitution of dibenzo[def,mno]chrysene polycyclic aromatic small molecules. <i>Journal of Materials Chemistry C</i> , 2017, 5, 8723-8733.	5.5	15
36	Design, synthesis and photophysical properties of D1-A-D2-A-D1-type small molecules based on fluorobenzotriazole acceptor and dithienosilole core donor for solution processed organic solar cells. <i>Dyes and Pigments</i> , 2016, 132, 387-397.	3.7	7

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37	Regioregular D ₁ -A-D ₂ -A Terpolymer with Controlled Thieno[3,4- <i>b</i>]thiophene Orientation for High-Efficiency Polymer Solar Cells Processed with Nonhalogenated Solvents. <i>Macromolecules</i> , 2016, 49, 3328-3335.	4.8	46
38	Synthesis and photophysical properties of semiconductor molecules D1-A-D2-A-D1-type structure based on derivatives of quinoxaline and dithienosilole for organics solar cells. <i>Organic Electronics</i> , 2016, 39, 361-370.	2.6	3
39	A feasible random copolymer approach for high-efficiency polymeric photovoltaic cells. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11439-11445.	10.3	30
40	Sequential "click" functionalization of mesoporous titania for energy-relay dye enhanced dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 6565-6571.	2.8	10
41	New Donor "Donor Type Copolymers with Rigid and Coplanar Structures for High-Mobility Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , 2014, 26, 6907-6910.	6.7	49
42	Ternary Bulk Heterojunction Solar Cells: Addition of Soluble NIR Dyes for Photocurrent Generation beyond 800 nm. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 6905-6913.	8.0	55
43	Silicon-Naphthalo/Phthalocyanine-Hybrid Sensitizer for Efficient Red Response in Dye-Sensitized Solar Cells. <i>Organic Letters</i> , 2013, 15, 784-787.	4.6	67
44	Optimal Ambipolar Charge Transport of Thienylenevinylene-Based Polymer Semiconductors by Changes in Conformation for High-Performance Organic Thin Film Transistors and Inverters. <i>Chemistry of Materials</i> , 2013, 25, 1572-1583.	6.7	55
45	Highly soluble energy relay dyes for dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11306.	2.8	25
46	A Novel Thermally Reversible Soluble "Insoluble Conjugated Polymer with Semi-Fluorinated Alkyl Chains: Enhanced Transistor Performance by Fluorophobic Self-Organization and Orthogonal Hydrophobic Patterning. <i>Advanced Materials</i> , 2013, 25, 6416-6422.	21.0	34
47	Highly Soluble Poly(thienylenevinylene) Derivatives with Charge-Carrier Mobility Exceeding 1 cm ² V ⁻¹ s ⁻¹ . <i>Chemistry of Materials</i> , 2011, 23, 4663-4665.	6.7	72
48	High Performance Weak Donor "Acceptor Polymers in Thin Film Transistors: Effect of the Acceptor on Electronic Properties, Ambipolar Conductivity, Mobility, and Thermal Stability. <i>Journal of the American Chemical Society</i> , 2011, 133, 20799-20807.	13.7	353
49	Synthesis and characterization of low-band-gap poly(thienylenevinylene) derivatives for polymer solar cells. <i>Journal of Materials Chemistry</i> , 2011, 21, 11822.	6.7	33
50	Synthesis and Characterization of Poly(Dithieno[3,2- <i>b</i> :2',3'- <i>d</i>]pyrrole) Derivatives Containing Thiophene Moieties and Their Application to Organic Devices. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 2308-2318.	2.2	12
51	Synthesis and Photovoltaic Properties of a Thienylenevinylene and Diketopyrrolopyrrole Copolymer with High Mobility. <i>Macromolecular Rapid Communications</i> , 2011, 32, 1551-1556.	3.9	28
52	Ambipolarity in Benzobisthiadiazole-Based Donor "Acceptor Conjugated Polymers. <i>Advanced Materials</i> , 2011, 23, 3780-3785.	21.0	113
53	Water-Soluble Polyfluorenes as an Interfacial Layer Leading to Cathode-Independent High Performance of Organic Solar Cells. <i>Advanced Functional Materials</i> , 2010, 20, 1977-1983.	14.9	195
54	Synthesis of an alternating thienylenevinylene "benzothiadiazole copolymer with high hole mobility for use in organic solar cells. <i>Organic Electronics</i> , 2010, 11, 1772-1778.	2.6	15

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55	A morphology controller for high-efficiency bulk-heterojunction polymer solar cells. <i>Journal of Materials Chemistry</i> , 2010, 20, 10919.	6.7	28
56	A New Poly(thienylenevinylene) Derivative with High Mobility and Oxidative Stability for Organic Thin-Film Transistors and Solar Cells. <i>Advanced Materials</i> , 2009, 21, 2808-2814.	21.0	118
57	Synthesis of novel arylamine containing perfluorocyclobutane and its electrochromic properties. <i>Journal of Materials Chemistry</i> , 2009, 19, 2380.	6.7	32
58	Polarity Effects of Polymer Gate Electrets on Non-Volatile Organic Field-Effect Transistor Memory. <i>Advanced Functional Materials</i> , 2008, 18, 3678-3685.	14.9	256
59	Effect of photo- and thermo-oxidative degradation on the performance of hybrid photovoltaic cells with a fluorene-based copolymer and nanocrystalline TiO ₂ . <i>Journal of Materials Chemistry</i> , 2008, 18, 654-659.	6.7	24
60	Enhancement of field effect mobility of poly(3-hexylthiophene) thin film transistors by soft-lithographical nanopatterning on the gate-dielectric surface. <i>Applied Physics Letters</i> , 2007, 91, 222108.	3.3	6
61	Surface plasmon enhanced photoluminescence of conjugated polymers. <i>Applied Physics Letters</i> , 2007, 90, 161107.	3.3	70
62	Synthesis of a New Cross-Linkable Perfluorocyclobutane-Based Hole-Transport Material. <i>Organic Letters</i> , 2006, 8, 4703-4706.	4.6	73
63	Synthesis and Characterization of Spiro-Triphenylamine Configured Polyfluorene Derivatives with Improved Hole Injection. <i>Macromolecules</i> , 2006, 39, 6433-6439.	4.8	50
64	Synthesis of a Double Spiro-Polyindenofluorene with a Stable Blue Emission. <i>Organic Letters</i> , 2005, 7, 4229-4232.	4.6	69