Baoyang Lu

List of Publications by Year
in descending order

109 papers	6,022 citations	101543 36 h-index	76900 74 g-index
111 all docs	111 docs citations	111 times ranked	5704 citing authors

#	Article	IF	Citations
1	Hydrogel bioelectronics. Chemical Society Reviews, 2019, 48, 1642-1667.	38.1	1,267
2	3D printing of conducting polymers. Nature Communications, 2020, 11, 1604.	12.8	568
3	Pure PEDOT:PSS hydrogels. Nature Communications, 2019, 10, 1043.	12.8	528
4	Highâ€Stretchability, Ultralowâ€Hysteresis ConductingPolymer Hydrogel Strain Sensors for Soft Machines. Advanced Materials, 2022, 34, .	21.0	209
5	Thermoelectric Performance of Poly(3,4-ethylenedioxythiophene): Poly(styrenesulfonate). Chinese Physics Letters, 2008, 25, 2202-2205.	3.3	168
6	Strong adhesion of wet conducting polymers on diverse substrates. Science Advances, 2020, 6, eaay5394.	10.3	141
7	Thiadiazolo[3,4-c]pyridine as an Acceptor toward Fast-Switching Green Donorâ€“Acceptor-Type Electrochromic Polymer with Low Bandgap. ACS Applied Materials & Interfaces, 2015, 7, 11089-11098.	8.0	135
8	Highly conducting free-standing poly(3,4-ethylenedioxythiophene)/poly(styrenesulfonate) films with improved thermoelectric performances. Synthetic Metals, 2010, 160, 2481-2485.	3.9	107
9	Improved Thermoelectric Performance of Free-Standing PEDOT:PSS/Bi2Te3 Films with Low Thermal Conductivity. Journal of Electronic Materials, 2013, 42, 1268-1274.	2.2	92
10	Highly stable hybrid selenophene-3,4-ethylenedioxythiophene as electrically conducting and electrochromic polymers. Polymer Chemistry, 2014, 5, 4896-4908.	3.9	92
11	PEDOT-Based Conducting Polymer Actuators. Frontiers in Robotics and AI, 2019, 6, 114.	3.2	89
12	Facile Fabrication of PEDOT:PSS/Polythiophenes Bilayered Nanofilms on Pure Organic Electrodes and Their Thermoelectric Performance. ACS Applied Materials & Interfaces, 2013, 5, 12811-12819.	8.0	87
13	Novel Electroactive Proton-Doped Conducting Poly(aromatic ethers) with Good Fluorescence Properties via Electropolymerization. Macromolecules, 2010, 43, 4599-4608.	4.8	75
14	Simultaneous Increases in Electrical Conductivity and Seebeck Coefficient of PEDOT:PSS Films by Adding Ionic Liquids into a Polymer Solution. Journal of Electronic Materials, 2012, 41, 639-645.	2.2	74
15	Chalcogenodiazolo[3,4-c]pyridine based donorâ€“acceptorâ€“donor polymers for green and near-infrared electrochromics. Polymer Chemistry, 2015, 6, 8248-8258.	3.9	68
16	Robust PEDOT:PSS-based hydrogel for highly efficient interfacial solar water purification. Chemical Engineering Journal, 2022, 442, 136284.	12.7	66
17	Free-Standing PEDOT-PSS/Ca3Co4O9 Composite Films as Novel Thermoelectric Materials. Journal of Electronic Materials, 2011, 40, 948-952.	2.2	64
18	Isoindigo as an electronâ˜deficient unit for highâ˜performance polymeric electrochromics. Electrochimica Acta, 2018, 260, 772-782.	5.2	62

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19	Thermoelectric Performances of Free-Standing Polythiophene and Poly(3-Methylthiophene) Nanofilms. Chinese Physics Letters, 2010, 27, 057201.	3.3	61
20	Facile fabrication of a cost-effective, water-soluble, and electrosynthesized poly(9-aminofluorene) fluorescent sensor for the selective and sensitive detection of Fe(III) and inorganic phosphates. Sensors and Actuators B: Chemical, 2012, 171-172, 786-794.	7.8	59
21	Synthesis and electrochromic properties of polyacrylate functionalized poly(3,4-ethylenedioxythiophene) network films. Journal of Materials Chemistry, 2012, 22, 18345.	6.7	57
22	Electrochemical polymerization of 3,4-ethylenedioxythiophene in aqueous micellar solution containing biocompatible amino acid-based surfactant. Journal of Electroanalytical Chemistry, 2009, 634, 49-58.	3.8	55
23	Facile electrosynthesis of nitro-group-substituted oligopyrene with bicolored emission. Electrochimica Acta, 2008, 54, 334-340.	5.2	54
24	Paper: An effective substrate for the enhancement of thermoelectric properties in PEDOT:PSS. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 737-742.	2.1	54
25	Hybrid Ï€-conjugated polymers from dibenzo pentacyclic centers: precursor design, electrosynthesis and electrochromics. Science China Chemistry, 2017, 60, 38-53.	8.2	54
26	Nanostructured conducting polymers and their composites: synthesis methodologies, morphologies and applications. Journal of Materials Chemistry C, 2020, 8, 10136-10159.	5.5	53
27	Poly(thieno[3,4-b]-1,4-oxathiane): Medium Effect on Electropolymerization and Electrochromic Performance. Langmuir, 2014, 30, 15581-15589.	3.5	49
28	Tuning the optoelectronic properties of polyfuran by design of furan-EDOT monomers and free-standing films with enhanced redox stability and electrochromic performances. Electrochimica Acta, 2014, 146, 666-678.	5.2	49
29	Improved thermoelectric performance of PEDOT:PSS films prepared by polar-solvent vapor annealing method. Journal of Materials Science: Materials in Electronics, 2013, 24, 4240-4246.	2.2	48
30	Molecular design of DBT/DBF hybrid thiophenes Ï€-conjugated systems and comparative study of their electropolymerization and optoelectronic properties: from comonomers to electrochromic polymers. Polymer Chemistry, 2015, 6, 4575-4587.	3.9	48
31	Thermoelectric Performance of Poly(3,4-Ethylenedioxy-thiophene)/Poly(Styrenesulfonate) Pellets and Films. Journal of Electronic Materials, 2011, 40, 648-651.	2.2	47
32	Electrochemical Polymerization of Benzanthrone and Characterization of its Excellent Green-light-emitting Polymer. Journal of Physical Chemistry B, 2009, 113, 37-48.	2.6	45
33	Electrochemical fabrication of a porous network MnO2/poly(5-cyanoindole) composite and its capacitance performance. Electrochimica Acta, 2014, 138, 270-277.	5.2	42
34	Synthesis and electrochromic performances of donor-acceptor-type polymers from chalcogenodiazolo [3,4-c]pyridine and alkyl ProDOTs. Electrochimica Acta, 2018, 266, 263-275.	5.2	42
35	Electrosynthesis of poly(3,4-ethylenedithiathiophene) in an ionic liquid and its electrochemistry and electrochromic properties. Electrochimica Acta, 2013, 106, 201-208.	5.2	41
36	Systematic study on chemical oxidative and solidâ€state polymerization of poly(3,4â€ethylenedithiathiophene). Journal of Polymer Science Part A, 2012, 50, 1967-1978.	2.3	40

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37	Electrosynthesis of highly conducting poly(1,5-dihydroxynaphthalene) in BF3Â·Et2O. European Polymer Journal, 2009, 45, 2279-2287.	5.4	39
38	Electrochemical synthesis and capacitance properties of a novel poly(3,4-ethylenedioxythiophene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	5.2	36
39	Synthesis of novel chiral<scp>l</scp>-leucine grafted PEDOT derivatives with excellent electrochromic performances. RSC Advances, 2014, 4, 35597-35608.	3.6	36
40	Electropolymerization study of benzothiophenes and characterization of novel poly(dibenzothiophene-S,S-dioxide). Journal of Electroanalytical Chemistry, 2010, 643, 67-76.	3.8	35
41	Facile one-pot preparation of Pdâ€“Au/PEDOT/graphene nanocomposites and their high electrochemical sensing performance for caffeic acid detection. RSC Advances, 2016, 6, 89157-89166.	3.6	35
42	Poly(mono-, bi- or trifuran): effect of oligomer chain length on the electropolymerization performances and polymer properties. RSC Advances, 2014, 4, 14001-14012.	3.6	32
43	Electrochemistry, morphology, thermoelectric and thermal degradation behaviors of free-standing copolymer films made from 1,12-bis(carbazolyl)dodecane and 3,4-ethylenedioxythiophene. Polymer Journal, 2011, 43, 531-539.	2.7	30
44	Synthesis, characterization, and thermoelectric properties of a conducting copolymer of 1,12-bis(carbazolyl)dodecane and thieno[3,2-b]thiophene. Journal of Solid State Electrochemistry, 2012, 16, 117-126.	2.5	30
45	Low-potential electrosynthesis of a novel nitrogen analog of PEDOT in an ionic liquid and its optoelectronic properties. Electrochimica Acta, 2015, 160, 160-168.	5.2	30
46	One-step template-free electrodeposition of novel poly(indole-7-carboxylic acid) nanowires and their high capacitance properties. RSC Advances, 2015, 5, 3215-3223.	3.6	30
47	Novel highly selective fluorescent sensor based on electrosynthesized poly(9-fluorenecarboxylic) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Actuators B: Chemical, 2016, 230, 123-129.	7.8	30
48	Electrochromic enhancement of poly(3,4â€ethylenedioxythiophene) films functionalized with hydroxymethyl and ethylene oxide. Journal of Polymer Science Part A, 2014, 52, 1989-1999.	2.3	29
49	Facile electrosynthesis and thermoelectric performance of electroactive free-standing polythieno[3,2-b]thiophene films. Journal of Solid State Electrochemistry, 2011, 15, 539-548.	2.5	28
50	Solvent effects on electrosynthesis, morphological and electrochromic properties of a nitrogen analog of PEDOT. Physical Chemistry Chemical Physics, 2016, 18, 5129-5138.	2.8	28
51	Conducting polynaphthalenes from 1,1â€²-binaphthyl and 1,1â€²-bi-2-naphthol via electropolymerization. Synthetic Metals, 2011, 161, 188-195.	3.9	27
52	A cost-effective and practical polybenzanthrone-based fluorescent sensor for efficient determination of palladium (II) ion and its application in agricultural crops and environment. Analytica Chimica Acta, 2013, 805, 87-94.	5.4	27
53	Structural Design and Applications of Stereoregular Fused Thiophenes and Their Oligomers and Polymers. Polymer Reviews, 2020, 60, 318-358.	10.9	27
54	Electrochemical copolymerization of benzanthrone and 3-methylthiophene and characterization of their fluorescent copolymer. Journal of Materials Science, 2009, 44, 5909-5918.	3.7	26

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55	Highly fluorescent triazolopyridineâ€“thiophene Dâ€“Aâ€“D oligomers for efficient pH sensing both in solution and in the solid state. Physical Chemistry Chemical Physics, 2019, 21, 7174-7182.	2.8	26
56	Polyfluorene Derivatives with Hydroxyl and Carboxyl Substitution: Electrosynthesis and Characterization. Journal of Physical Chemistry C, 2009, 113, 9900-9910.	3.1	25
57	Thermoelectric Performances of Different Types of Polyselenophene and its Copolymers with 3-Methylthiophene via Electropolymerization. Synthetic Metals, 2013, 183, 8-15.	3.9	25
58	Capacitive performance of electrodeposited PEDOS and a comparative study with PEDOT. Electrochimica Acta, 2016, 220, 340-346.	5.2	25
59	Electrochemical Treatment for Effectively Tuning Thermoelectric Properties of Freeâ€Standing Poly(3â€methylthiophene) Films. ChemPhysChem, 2016, 17, 2256-2262.	2.1	25
60	Stretchable Antiâ€Fogging Tapes for Diverse Transparent Materials. Advanced Functional Materials, 2021, 31, 2103551.	14.9	25
61	Synthesis and electro-optical properties of new conjugated hybrid polymers from EDOT end-capped dibenzothiophene and dibenzofuran. New Journal of Chemistry, 2015, 39, 2096-2105.	2.8	24
62	Free-standing oligo(oxyethylene)-functionalized polythiophene with the 3,4-ethylenedioxythiophene building block: electrosynthesis, electrochromic and thermoelectric properties. Electrochimica Acta, 2017, 228, 361-370.	5.2	23
63	Electrochemical immobilization of ascorbate oxidase in poly(3,4â€ethylenedioxythiophene)/multiwalled carbon nanotubes composite films. Journal of Applied Polymer Science, 2011, 122, 1142-1151.	2.6	21
64	Facile electrosynthesis of novel free-standing electroactive poly((S)-(â^)-1,1â€²-bi-2-naphthol dimethyl) Tj ETQq0 0 0 rgBT /Overlock 10 T	5.2	20
65	Pyrazine-EDOT D-A-D type Hybrid Polymer for Patterned Flexible Electrochromic Devices. Electrochimica Acta, 2020, 357, 136859.	5.2	20
66	Novel chiral PEDOTs for selective recognition of 3,4-dihydroxyphenylalanine enantiomers: Synthesis and characterization. Journal of Polymer Science Part A, 2015, 53, 2238-2251.	2.3	19
67	Alkyl chain engineering in the hybrid bithiophene-3,4-ethylenedioxythiophene: Synthesis, electronic properties, and electropolymerization. Synthetic Metals, 2014, 198, 19-30.	3.9	18
68	[1,2,5]Chalcogenodiazolo[3,4-c]pyridine and selenophene based donorâ€“acceptorâ€“donor electrochromic polymers electrosynthesized from high fluorescent precursors. New Journal of Chemistry, 2016, 40, 8316-8323.	2.8	18
69	Blue to light gray electrochromic polymers from dodecylâ€derivatized thiophene Bisâ€substituted dibenzothiophene/dibenzofuran. Journal of Polymer Science Part A, 2016, 54, 1468-1478.	2.3	17
70	Stable low-bandgap isoindigo-bisEDOT copolymer with superior electrochromic performance in NIR window. Electrochimica Acta, 2021, 399, 139418.	5.2	17
71	A novel solution-processable amino-group-substituted oligopyrene: Synthesis, electropolymerization, properties, and application in fluorescent chemosensor. Synthetic Metals, 2014, 198, 155-160.	3.9	16
72	Three novel electrochemical electrodes for the fabrication of conducting polymer/SWCNTs layered nanostructures and their thermoelectric performance. Nanotechnology, 2015, 26, 245401.	2.6	16

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73	Electrosynthesis and electrochemical capacitive behavior of a new nitrogen PEDOT analogue-based polymer electrode. New Journal of Chemistry, 2016, 40, 2304-2314.	2.8	16
74	Design of twisted conjugated molecular systems towards stable multi-colored electrochromic polymers. Dyes and Pigments, 2020, 183, 108648.	3.7	16
75	Efficient Fluorescent Recognition of Carboxylates in Aqueous Media Using Facilely Electrosynthesized Poly(9-Aminofluorene). Journal of Fluorescence, 2013, 23, 1053-1063.	2.5	15
76	Novel functionalized conjugated polypyrene with polyacrylate: synthesis, electrochemistry, luminescence, and chemical sensing properties. RSC Advances, 2014, 4, 28368.	3.6	14
77	Effect of electrolytes on the electropolymerization and optoelectronic properties of poly(3-methylselenophene). RSC Advances, 2015, 5, 70649-70660.	3.6	13
78	Thermoelectric Performance of Donorâ€“Acceptorâ€“Donor Conjugated Polymers Based on Benzothiadiazole Derivatives. Journal of Electronic Materials, 2015, 44, 1606-1613.	2.2	13
79	Electrosyntheses and characterization of poly(9-bromophenanthrene) in boron trifluoride diethyl etherate. European Polymer Journal, 2009, 45, 418-425.	5.4	12
80	Preparation and characterization of aqueous dispersions of poly(3,4â€ethylenedithiathiopheneâ€coâ€3,4â€ethylenedioxythiophene)/ poly(styrene sulfonate) and their conducting films. Journal of Applied Polymer Science, 2013, 129, 1717-1725.	2.6	12
81	Furan and pyridinechalcogenodiazole-based Ï€-conjugated systems via a donor-acceptor approach. Journal of Solid State Electrochemistry, 2016, 20, 2337-2349.	2.5	12
82	PEDOT:PSS film: a novel flexible organic electrode for facile electrodeposition of dendritic tellurium nanostructures. Journal of Materials Science, 2015, 50, 4813-4821.	3.7	11
83	Stepwise enhancement on optoelectronic performances of polyselenophene via electropolymerization of mono-, bi-, and tri-selenophene. Electrochimica Acta, 2020, 340, 135974.	5.2	11
84	3D Printing of Stretchable, Adhesive and Conductive Ti3C2Tx-Polyacrylic Acid Hydrogels. Polymers, 2022, 14, 1992.	4.5	11
85	Electrosynthesis and characterization of a polyfluorene derivative with green-light-emitting property. Journal of Materials Science, 2012, 47, 315-322.	3.7	10
86	A reusable fluorescent sensor from electrosynthesized water-soluble oligo(1-pyrenesulfonic acid) for effective detection of Fe³⁺. New Journal of Chemistry, 2018, 42, 19450-19457.	2.8	10
87	A universal respiration sensing platform utilizing surface water condensation. Journal of Materials Chemistry C, 2019, 7, 2853-2864.	5.5	10
88	Tuning optoelectronic performances for 3-methylselenophene-EDOT hybrid polymer. Materials Chemistry and Physics, 2020, 244, 122699.	4.0	10
89	Thermoelectric Properties of Poly(selenophene-co-3, 4-ethylenedioxythiophene) via Electropolymerization. Journal of Electronic Materials, 2017, 46, 3124-3130.	2.2	9
90	Novel polyâ€bridgedâ€naphthalene with blueâ€lightâ€emitting property via electropolymerization. Journal of Applied Polymer Science, 2012, 123, 2706-2714.	2.6	7

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91	Poly(thieno[3,4-b]-1,4-oxathiane) and poly(3,4-ethylenedioxythiophene-co-thieno[3,4-b]-1,4-oxathiane)/poly(styrene sulfonic) Tj ETQq1 1 0.784314 rgBT /Overlock Part A, 2015, 53, 2285-2297.	2.3	7
92	Solvent effects on the synthesis, characterization and electrochromic properties of acetic acid modified polyterthiophene. Electrochimica Acta, 2016, 220, 122-129.	5.2	7
93	Electrochemical copolymerization of 9,10-dihydrophenanthrene and 3-methylthiophene and characterization of their copolymer with tunable fluorescence properties. Journal of Solid State Electrochemistry, 2010, 14, 1153-1161.	2.5	6
94	Novel redoxâ€active polycarbazoleâ€functionalized polycatechol network films produced by controlled electropolymerization. Journal of Applied Polymer Science, 2012, 126, 1613-1622.	2.6	6
95	Low-potential electrosynthesis of novel electroactive poly(9-fluorenemethanol) and its electrochromic and blue-light-emitting properties. Electrochimica Acta, 2013, 90, 452-460.	5.2	6
96	Electrochemical copolymerization of dibenzo-18-crown-6 and carbazole and characterization of their copolymer. Journal of Materials Science, 2010, 45, 5769-5777.	3.7	5
97	Fluorescent and electrochromic poly(5-(benzo[d][1,3]dioxol-5-yl)-2,3-dihydrothieno[3,4-b][1,4]dioxin). Synthetic Metals, 2016, 220, 202-207.	3.9	5
98	ELECTROCHEMICAL POLYMERIZATION OF FLUORENE IN MIXED PROTON ELECTROLYTE OF ACETIC ACID CONTAINING BORON TRIFLUORIDE DIETHYL ETHERATE. Acta Polymerica Sinica, 2011, 011, 327-334.	0.0	5
99	Synthesis and electrochemical polymerization of 9,9-bis(carbazolylalkyl)fluorene and characterization of its conducting polymer film with high tensile strength. Journal of Materials Science, 2010, 45, 1963-1971.	3.7	4
100	Electrodeposition of freeâ€standing poly(oâ€dihydroxybenzeneâ€coâ€3â€methylthiophene) films with tunable fluorescence properties. Journal of Applied Polymer Science, 2010, 115, 3273-3281.	2.6	4
101	Novel cross-linking poly(ethylene oxide) grafted poly(1-hydroxy-2-methoxyphenol) copolymers by secondary polymerization. Electrochimica Acta, 2012, 77, 163-170.	5.2	4
102	High fluorescent ethyl acrylate modified PEDOTâ€MeNH₂ with enhanced electrochromic performance. Journal of Polymer Science Part A, 2016, 54, 2081-2091.	2.3	4
103	Dibenzothiophene-thiophene hybrid electrochromic polymer: effect of media on electrosynthesis and optical properties. Journal of Solid State Electrochemistry, 2016, 20, 1369-1376.	2.5	4
104	Soluble and Greenâ€lightâ€emitting Oligo(9â€fluorenylideneacetic acid): Electrosynthesis and Characterization. Chinese Journal of Chemistry, 2012, 30, 1177-1184.	4.9	3
105	Electrosynthesis of electroactive and fluorescent polyphenanthrenes via electropolymerization in BmimPF6. Synthetic Metals, 2015, 209, 447-454.	3.9	3
106	ELECTROCHEMICAL OXIDATION CROSS-LINKING REACTION OF POLY(FLUORENYLACRYLATE) AND ITS CHARACTERIZATION. Acta Polymerica Sinica, 2010, 010, 714-720.	0.0	3
107	Electrosynthesis of blue-light-emitting oligo(1-bromopyrene) with favorable solubility. Journal of Solid State Electrochemistry, 2012, 16, 1907-1915.	2.5	1
108	Low-potential electrosynthesis of conducting and electroactive oligocatecholborane with blue light-emitting properties. Chinese Journal of Polymer Science (English Edition), 2013, 31, 159-170.	3.8	1

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109	Effect of oxidants on chemical synthesis and properties of poly(3,4-ethylenedithiathiophene). , 2011, , .		0