Hugo Bronstein

List of Publications by Year
in descending order

92 papers	7,841 citations	76326 40 h-index	54911 84 g-index
94 all docs	94 docs citations	94 times ranked	9746 citing authors

#	Article	IF	Citations
1	Thieno[3,2-b]thiopheneâ^'Diketopyrrolopyrrole-Containing Polymers for High-Performance Organic Field-Effect Transistors and Organic Photovoltaic Devices. Journal of the American Chemical Society, 2011, 133, 3272-3275.	13.7	854
2	On the application of the tolerance factor to inorganic and hybrid halide perovskites: a revised system. Chemical Science, 2016, 7, 4548-4556.	7.4	757
3	Recent Progress in Highâ€Mobility Organic Transistors: A Reality Check. Advanced Materials, 2018, 30, e1801079.	21.0	498
4	Molecular origin of high field-effect mobility in an indacenodithiopheneâ€“benzothiadiazole copolymer. Nature Communications, 2013, 4, 2238.	12.8	456
5	The role of chemical design in the performance of organic semiconductors. Nature Reviews Chemistry, 2020, 4, 66-77.	30.2	444
6	Exploring the origin of high optical absorption in conjugated polymers. Nature Materials, 2016, 15, 746-753.	27.5	314
7	Photocurrent Enhancement from Diketopyrrolopyrrole Polymer Solar Cells through Alkyl-Chain Branching Point Manipulation. Journal of the American Chemical Society, 2013, 135, 11537-11540.	13.7	258
8	Design of Semiconducting Indacenodithiophene Polymers for High Performance Transistors and Solar Cells. Accounts of Chemical Research, 2012, 45, 714-722.	15.6	256
9	Externally Initiated Regioregular P3HT with Controlled Molecular Weight and Narrow Polydispersity. Journal of the American Chemical Society, 2009, 131, 12894-12895.	13.7	255
10	Effect of Fluorination on the Properties of a Donorâ€“Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. Chemistry of Materials, 2013, 25, 277-285.	6.7	218
11	Charge Recombination in Organic Photovoltaic Devices with High Open-Circuit Voltages. Journal of the American Chemical Society, 2008, 130, 13653-13658.	13.7	204
12	On the Energetic Dependence of Charge Separation in Low-Band-Gap Polymer/Fullerene Blends. Journal of the American Chemical Society, 2012, 134, 18189-18192.	13.7	180
13	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. Macromolecules, 2011, 44, 6649-6652.	4.8	165
14	A Simple Molecular Design Strategy for Delayed Fluorescence toward 1000 nm. Journal of the American Chemical Society, 2019, 141, 18390-18394.	13.7	137
15	Correlating triplet yield, singlet oxygen generation and photochemical stability in polymer/fullerene blend films. Chemical Communications, 2013, 49, 1291.	4.1	136
16	The Influence of Polymer Purification on Photovoltaic Device Performance of a Series of Indacenodithiophene Donor Polymers. Advanced Materials, 2013, 25, 2029-2034.	21.0	129
17	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors. Chemistry of Materials, 2011, 23, 768-770.	6.7	126
18	Morphological Stability and Performance of Polymerâ€“Fullerene Solar Cells under Thermal Stress: The Impact of Photoinduced PC₆₀BM Oligomerization. ACS Nano, 2014, 8, 1297-1308.	14.6	122

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19	Singlet Exciton Lifetimes in Conjugated Polymer Films for Organic Solar Cells. Polymers, 2016, 8, 14.	4.5	111
20	Exploiting Excited-State Aromaticity To Design Highly Stable Singlet Fission Materials. Journal of the American Chemical Society, 2019, 141, 13867-13876.	13.7	104
21	Manipulating molecules with strong coupling: harvesting triplet excitons in organic exciton microcavities. Chemical Science, 2020, 11, 343-354.	7.4	98
22	Identification of Oxidation Products of Squalene in Solution and in Latent Fingerprints by ESI-MS and LC/APCI-MS. Analytical Chemistry, 2007, 79, 2650-2657.	6.5	97
23	Synthesis and Exciton Dynamics of Donor-Orthogonal Acceptor Conjugated Polymers: Reducing the Singletâ€“Triplet Energy Gap. Journal of the American Chemical Society, 2017, 139, 11073-11080.	13.7	95
24	Thieno[3,2â€b]thiopheneâ€diketopyrrolopyrrole Containing Polymers for Inverted Solar Cells Devices with High Short Circuit Currents. Advanced Functional Materials, 2013, 23, 5647-5654.	14.9	78
25	Probing the chemical structure of monolayer covalent-organic frameworks grown via Schiff-base condensation reactions. Chemical Communications, 2016, 52, 9941-9944.	4.1	78
26	Scalable route to CH₃NH₃PbI₃ perovskite thin films by aerosol assisted chemical vapour deposition. Journal of Materials Chemistry A, 2015, 3, 9071-9073.	10.3	75
27	Material Crystallinity as a Determinant of Triplet Dynamics and Oxygen Quenching in Donor Polymers for Organic Photovoltaic Devices. Advanced Functional Materials, 2014, 24, 1474-1482.	14.9	71
28	Highly Luminescent Encapsulated Narrow Bandgap Polymers Based on Diketopyrrolopyrrole. Journal of the American Chemical Society, 2018, 140, 1622-1626.	13.7	70
29	Alkyl Chain Extension as a Route to Novel Thieno[3,2-b]thiophene Flanked Diketopyrrolopyrrole Polymers for Use in Organic Solar Cells and Field Effect Transistors. Macromolecules, 2013, 46, 5961-5967.	4.8	67
30	Charge Recombination and Exciton Annihilation Reactions in Conjugated Polymer Blends. Journal of the American Chemical Society, 2010, 132, 328-335.	13.7	65
31	Constructing Regioregular Star Poly(3-hexylthiophene) via Externally Initiated Kumada Catalyst-Transfer Polycondensation. ACS Macro Letters, 2012, 1, 392-395.	4.8	65
32	Thieno[3,2â€b]thiophene Flanked Isoindigo Polymers for High Performance Ambipolar OFET Applications. Advanced Functional Materials, 2014, 24, 7109-7115.	14.9	58
33	Isostructural, Deeper Highest Occupied Molecular Orbital Analogues of Poly(3-hexylthiophene) for High-Open Circuit Voltage Organic Solar Cells. Chemistry of Materials, 2013, 25, 4239-4249.	6.7	55
34	Enhanced sub-bandgap efficiency of a solid-state organic intermediate band solar cell using tripletâ€“triplet annihilation. Energy and Environmental Science, 2017, 10, 1465-1475.	30.8	54
35	Indolo-naphthyridine-6,13-dione Thiophene Building Block for Conjugated Polymer Electronics: Molecular Origin of Ultrahigh n-Type Mobility. Chemistry of Materials, 2016, 28, 8366-8378.	6.7	52
36	A Systematic Approach to the Design Optimization of Lightâ€Absorbing Indenofluorene Polymers for Organic Photovoltaics. Advanced Energy Materials, 2012, 2, 260-265.	19.5	48

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37	A Nature-Inspired Conjugated Polymer for High Performance Transistors and Solar Cells. Macromolecules, 2015, 48, 5148-5154.	4.8	48
38	The Effects of Binding Ligand Variation on the Nickel Catalyzed Externally Initiated Polymerization of 2â€Bromoâ€3â€hexylâ€5â€iodothiophene. Macromolecular Chemistry and Physics, 2009, 210, 1966-1972.	2.2	46
39	Perspectives for next generation lithium-ion battery cathode materials. APL Materials, 2021, 9, .	5.1	44
40	Synthesis of a Novel Fused Thiopheneâ€thieno[3,2â€b]thiopheneâ€thiophene Donor Monomer and Coâ€polymer for Use in OPV and OFETs. Macromolecular Rapid Communications, 2011, 32, 1664-1668.	3.9	41
41	Synthesis and Exciton Dynamics of Triplet Sensitized Conjugated Polymers. Journal of the American Chemical Society, 2015, 137, 10383-10390.	13.7	41
42	Investigation into the Phosphorescence of a Series of Regioisomeric Iridium(III) Complexes. Organometallics, 2008, 27, 2980-2989.	2.3	38
43	Sequencing conjugated polymers by eye. Science Advances, 2018, 4, eaas9543.	10.3	35
44	Effect of Interfacial Energetics on Charge Transfer from Lead Halide Perovskite to Organic Hole Conductors. Journal of Physical Chemistry C, 2018, 122, 1326-1332.	3.1	32
45	Hybrid Organicâ€“Inorganic Coordination Complexes as Tunable Optical Response Materials. Inorganic Chemistry, 2016, 55, 3393-3400.	4.0	31
46	Excited state character of Cibalackrot-type compounds interpreted in terms of HÃ¼ckel-aromaticity: a rationale for singlet fission chromophore design. Chemical Science, 2021, 12, 6159-6171.	7.4	30
47	Bithiazole: An Intriguing Electronâ€Ðeficient Building for Plastic Electronic Applications. Macromolecular Rapid Communications, 2017, 38, 1600610.	3.9	27
48	Tunable Semiconducting Polymer Nanoparticles with INDT-Based Conjugated Polymers for Photoacoustic Molecular Imaging. Bioconjugate Chemistry, 2017, 28, 1734-1740.	3.6	26
49	Optimisation of diketopyrrolopyrrole:fullerene solar cell performance through control of polymer molecular weight and thermal annealing. Journal of Materials Chemistry A, 2014, 2, 19282-19289.	10.3	25
50	Spatial Electron-hole Separation in a One Dimensional Hybrid Organicâ€“Inorganic Lead Iodide. Scientific Reports, 2016, 6, 20626.	3.3	25
51	Indacenodithiazole-Ladder-Type Bridged Di(thiophene)-Difluoro-Benzothiadiazole-Conjugated Copolymers as Ambipolar Organic Field-Effect Transistors. Chemistry of Materials, 2019, 31, 9488-9496.	6.7	25
52	Doubly Encapsulated Perylene Diimides: Effect of Molecular Encapsulation on Photophysical Properties. Journal of Organic Chemistry, 2020, 85, 207-214.	3.2	25
53	Impact of Marginal Excitonâ€“Charge-Transfer State Offset on Charge Generation and Recombination in Polymer:Fullerene Solar Cells. ACS Energy Letters, 2019, 4, 2096-2103.	17.4	24
54	A novel low-bandgap pyridazine thiadiazole-based conjugated polymer with deep molecular orbital levels. Polymer Chemistry, 2020, 11, 581-585.	3.9	24

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55	Polythiophenes with vinylene linked ortho, meta and para-carborane sidechains. Polymer Chemistry, 2014, 5, 6190-6199.	3.9	23
56	Suppressing Solid-State Quenching in Red-Emitting Conjugated Polymers. Chemistry of Materials, 2020, 32, 10140-10145.	6.7	23
57	Pressure-Induced Delocalization of Photoexcited States in a Semiconducting Polymer. Physical Review Letters, 2010, 105, 195501.	7.8	22
58	Role of Polymer Fractionation in Energetic Losses and Charge Carrier Lifetimes of Polymer: Fullerene Solar Cells. Journal of Physical Chemistry C, 2015, 119, 19668-19673.	3.1	22
59	Macrocyclic Encapsulated Conjugated Polymers. Macromolecules, 2021, 54, 1083-1094.	4.8	22
60	Ultra-fast spin-mixing in a diketopyrrolopyrrole monomer/fullerene blend charge transfer state. Journal of Materials Chemistry A, 2017, 5, 24335-24343.	10.3	21
61	Electro-optical Ï€-radicals: design advances, applications and future perspectives. Journal of Materials Chemistry C, 2022, 10, 7368-7403.	5.5	21
62	Benzocarborano[2,1-b:3,4-bâ€²]dithiophene Containing Conjugated Polymers: Synthesis, Characterization, and Optoelectronic Properties. Macromolecules, 2014, 47, 89-96.	4.8	19
63	Indolonaphthyridine: A Versatile Chromophore for Organic Electronics Inspired by Natural Indigo Dye. Accounts of Chemical Research, 2021, 54, 182-193.	15.6	19
64	Highly red-shifted NIR emission from a novel anthracene conjugated polymer backbone containing Pt(<scp>ii</scp>) porphyrins. Polymer Chemistry, 2016, 7, 722-730.	3.9	18
65	Effect of Alkyl Chain Branching Point on 3D Crystallinity in High Nâ€Type Mobility Indolonaphthyridine Polymers. Advanced Functional Materials, 2017, 27, 1704069.	14.9	18
66	Molecular Encapsulation of Naphthalene Diimide (NDI) Based Ï€â€Conjugated Polymers: A Tool for Understanding Photoluminescence. Angewandte Chemie - International Edition, 2021, 60, 25005-25012.	13.8	18
67	Synthesis of fluoroâ€substituted siloleâ€containing conjugated materials. Journal of Polymer Science Part A, 2009, 47, 5116-5125.	2.3	17
68	Suppressing aggregation induced quenching in anthracene based conjugated polymers. Polymer Chemistry, 2021, 12, 1830-1836.	3.9	17
69	Polaron stability in semiconducting polymer neat films. Chemical Communications, 2014, 50, 14425-14428.	4.1	14
70	Power conversion efficiency enhancement in diketopyrrolopyrrole based solar cells through polymer fractionation. Journal of Materials Chemistry C, 2014, 2, 8593-8598.	5.5	14
71	Operational electrochemical stability of thiophene-thiazole copolymers probed by resonant Raman spectroscopy. Journal of Chemical Physics, 2015, 142, 244904.	3.0	14
72	Conjugated Polymerâ€“Porphyrin Complexes for Organic Electronics. ChemPhysChem, 2015, 16, 1223-1230.	2.1	10

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73	Discerning Bulk and Interfacial Polarons in a Dual Electron Donor/Acceptor Polymer. Journal of Physical Chemistry Letters, 2019, 10, 3813-3819.	4.6	9
74	A solution-processable near-infrared thermally activated delayed fluorescent dye with a fused aromatic acceptor and aggregation induced emission behavior. Journal of Materials Chemistry C, 2022, 10, 4831-4836.	5.5	9
75	Transition-Metal-Free Homopolymerization of Pyrrolo[2,3-d:5,4-dâ€²]bisthiazoles via Nucleophilic Aromatic Substitution. ACS Applied Materials & Interfaces, 2021, 13, 41094-41101.	8.0	8
76	Alkyl side-chain branching point effects in thieno[3,4-c]pyrrole-4,6-dione copolymers. Journal of Organic Semiconductors, 2013, 1, 30-35.	1.2	7
77	Energetic Tuning in Spirocyclic Conjugated Polymers. Polymers, 2016, 8, 9.	4.5	7
78	Deep-red electrophosphorescence from a platinum(II)â€“porphyrin complex copolymerised with polyfluorene for efficient energy transfer and triplet harvesting. Journal of Organic Semiconductors, 2015, 3, 1-7.	1.2	6
79	Solvent-dependent photophysics of a red-shifted, biocompatible coumarin photocage. Organic and Biomolecular Chemistry, 2019, 17, 6178-6183.	2.8	6
80	Energy-Transfer Pathways and Triplet Lifetime Manipulation in a Zinc Porphyrin/F8BT Hybrid Polymer. Journal of Physical Chemistry C, 2018, 122, 23950-23958.	3.1	5
81	Synthesis of fully asymmetric diketopyrrolopyrrole derivatives. RSC Advances, 2021, 11, 5276-5283.	3.6	5
82	Bis-lactam-based donor polymers for organic solar cells: Evolution by design. Thin Solid Films, 2014, 560, 82-85.	1.8	3
83	Intrinsic photogeneration of long-lived charges in a donor-orthogonal acceptor conjugated polymer. Chemical Science, 2021, 12, 8165-8177.	7.4	3
84	Tyrian purple: an ancient natural dye for cross-conjugated n-type charge transport. Journal of Materials Chemistry C, 2021, 9, 4200-4205.	5.5	2
85	Molecular Encapsulation of Naphthalene Diimide (NDI) Based Ï€â€Conjugated Polymers: A Tool for Understanding Photoluminescence. Angewandte Chemie, 0, , .	2.0	2
86	Electronic structure tuning of new fused thieno[3,2-b]thieno bisthiophene based polymers via alkyl chain and Group IV heteroatom modulation. Proceedings of SPIE, 2012, , .	0.8	0
87	Effect of molecular weight on the vibronic structure of a diketopyrrolopyrrole polymer. Proceedings of SPIE, 2016, , .	0.8	0
88	Nature-Inspired Conjugated Molecules for Future Organic Solar Cell Materials. , 2016, , .		0
89	Transient absorption spectroscopy of ultra-low band gap polymers for organic electronic applications. Proceedings of SPIE, 2016, , .	0.8	0
90	Ultra-low band gap polymers for organic electronic applications. , 0, , .		0

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91	Donor and Acceptor Character in a Cross-Conjugated Polymer: a Transient Absorption Spectroscopy Study. , 0, , .		0
92	Illuminating Charge-Transfer at the Absorber/Hole Transport Material Interface in Perovskite Solar Cells. , 0, , .		0