Bryan W Boudouris

List of Publications by Year
in descending order

99 papers	3,992 citations	126907 33 h-index	123424 61 g-index
101 all docs	101 docs citations	101 times ranked	5321 citing authors

#	Article	IF	Citations
1	A Carbon Nanotube-Functional Polymer Composite Film for Low-Power Indoor COâ‚‚ Monitoring. IEEE Sensors Journal, 2022, 22, 11233-11240.	4.7	3
2	Electronic and Magnetic Properties of a Three-Arm Nonconjugated Open-Shell Macromolecule. ACS Polymers Au, 2022, 2, 59-68.	4.1	6
3	Radical Polymer-Based Organic Electrochemical Transistors. ACS Macro Letters, 2022, 11, 243-250.	4.8	11
4	Electronic and Spintronic Open-Shell Macromolecules,<i>Quo Vadis</i>?. Journal of the American Chemical Society, 2022, 144, 626-647.	13.7	38
5	High-Spin (<i>S</i> = 1) Blatter-Based Diradical with Robust Stability and Electrical Conductivity. Journal of the American Chemical Society, 2022, 144, 6059-6070.	13.7	30
6	Highâ€Speed Oneâ€Photon 3D Nanolithography Using Controlled Initiator Depletion and Inhibitor Transport. Advanced Optical Materials, 2022, 10, .	7.3	5
7	Design Considerations for Nextâ€Generation Polymer Sorbents: From Polymer Chemistry to Device Configurations. Macromolecular Chemistry and Physics, 2022, 223, .	2.2	6
8	Sorption Kinetics of Poly(ethyleneimine)â€"Poly(ethylene Oxide) Blends and the Implication for Low-Cost, Small-Scale CO₂ Sensors. ACS Applied Polymer Materials, 2022, 4, 4389-4397.	4.4	1
9	Poly (5-carboxyindole)â€"Î²-cyclodextrin composite material for enhanced formaldehyde gas sensing. Journal of Materials Science, 2022, 57, 11460-11474.	3.7	2
10	Design of an n-type low glass transition temperature radical polymer. Polymer Chemistry, 2021, 12, 1448-1457.	3.9	13
11	Substituted Thioxanthone-Based Photoinitiators for Efficient Two-Photon Direct Laser Writing Polymerization with Two-Color Resolution. ACS Applied Polymer Materials, 2021, 3, 1426-1435.	4.4	19
12	Organic Cation Engineering for Vertical Charge Transport in Leadâ€Free Perovskite Quantum Wells. Small Science, 2021, 1, 2000024.	9.9	8
13	All-printed stretchable corneal sensor on soft contact lenses for noninvasive and painless ocular electrodiagnosis. Nature Communications, 2021, 12, 1544.	12.8	41
14	Relationship of Various Interfacial Tensions of Surfactants/Brine/Oil Formulations to Oil Recovery Efficiency. Energy & Fuels, 2021, 35, 7768-7777.	5.1	3
15	Design of Mixed Electron- and Ion-Conducting Radical Polymer-Based Blends. Macromolecules, 2021, 54, 5178-5186.	4.8	8
16	Device Engineering in Organic Electrochemical Transistors toward Multifunctional Applications. ACS Applied Electronic Materials, 2021, 3, 2434-2448.	4.3	16
17	Manipulating polymer composition to create low-cost, high-fidelity sensors for indoor CO2 monitoring. Scientific Reports, 2021, 11, 13237.	3.3	9
18	Designing Donorâ€"Acceptor Copolymers for Stable and High-Performance Organic Electrochemical Transistors. ACS Macro Letters, 2021, 10, 1061-1067.	4.8	24

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19	Molecular Design Features for Charge Transport in Nonconjugated Radical Polymers. Journal of the American Chemical Society, 2021, 143, 11994-12002.	13.7	35
20	Conductive Polymer Spark Gap Igniters. Propellants, Explosives, Pyrotechnics, 2021, 46, 1500.	1.6	0
21	Rapid, continuous projection multi-photon 3D printing enabled by spatiotemporal focusing of femtosecond pulses. Light: Science and Applications, 2021, 10, 199.	16.6	57
22	Ligand-Driven Grain Engineering of High Mobility Two-Dimensional Perovskite Thin-Film Transistors. Journal of the American Chemical Society, 2021, 143, 15215-15223.	13.7	55
23	Thermoelectric Performance of Lead-Free Two-Dimensional Halide Perovskites Featuring Conjugated Ligands. Nano Letters, 2021, 21, 7839-7844.	9.1	28
24	Two-Dimensional Organic Semiconductor-Incorporated Perovskite (OSiP) Electronics. ACS Applied Electronic Materials, 2021, 3, 5155-5164.	4.3	9
25	Modifying field-effect transistor response in a conjugated polymer upon the addition of radical dopants. Thin Solid Films, 2020, 714, 138391.	1.8	4
26	Modifying the Surface Chemistry and Nanostructure of Carbon Nanotubes Facilitates the Detection of Aromatic Hydrocarbon Gases. ACS Applied Nano Materials, 2020, 3, 10389-10398.	5.0	12
27	A Chemiresistive CO₂ Sensor Based on CNT-Functional Polymer Composite Films. , 2020, , .		4
28	A Vapor Phase Trinitrotoluene Threshold Detector Enabled by Nonlinear Feedback. , 2020, 4, 1-4.		0
29	Mixed Ionic and Electronic Conduction in Radical Polymers. Macromolecules, 2020, 53, 4435-4441.	4.8	21
30	Two-dimensional halide perovskites featuring semiconducting organic building blocks. Materials Chemistry Frontiers, 2020, 4, 3400-3418.	5.9	50
31	Rethinking the Analysis of the Linear Viscoelastic Behavior of an Epoxy Polymer near and above the Glass Transition. Macromolecules, 2020, 53, 1867-1880.	4.8	5
32	100th Anniversary of Macromolecular Science Viewpoint: Recent Advances and Opportunities for Mixed Ion and Charge Conducting Polymers. ACS Macro Letters, 2020, 9, 646-655.	4.8	49
33	Tailored thioxanthoneâ€based photoinitiators for twoâ€photonâ€controllable polymerization and nanolithographic printing. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1462-1475.	2.1	23
34	Molecular engineering of organicâ€“inorganic hybrid perovskites quantum wells. Nature Chemistry, 2019, 11, 1151-1157.	13.6	302
35	Tuning the interfacial and energetic interactions between a photoexcited conjugated polymer and open-shell small molecules. Soft Matter, 2019, 15, 1413-1422.	2.7	3
36	Effects of the water-oil volume ratio and premixing or pre-equilibration on the interfacial tension and phase behavior of biphasic mixtures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 571, 55-63.	4.7	4

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37	A Resonant CO₂ Sensor Functionalized with a Polymerized Ionic Liquid. , 2019, , .		3
38	Accurate Determination of the Equilibrium Surface Tension Values with Area Perturbation Tests. Journal of Visualized Experiments, 2019, , .	0.3	1
39	A rheometry method to assess the evaporationâ€induced mechanical strength development of polymer solutions used for membrane applications. Journal of Applied Polymer Science, 2019, 136, 47038.	2.6	9
40	Radical Polymers Alter the Carrier Properties of Semiconducting Carbon Nanotubes. ACS Applied Polymer Materials, 2019, 1, 204-210.	4.4	5
41	Fit-for-purpose block polymer membranes molecularly engineered for water treatment. Npj Clean Water, 2018, 1, .	8.0	72
42	Impact of surface chemistry on the adhesion of an energetic small molecule to a conducting polymer surface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 551, 74-80.	4.7	4
43	Stable Radical Materials for Energy Applications. Annual Review of Chemical and Biomolecular Engineering, 2018, 9, 83-103.	6.8	70
44	A nonconjugated radical polymer glass with high electrical conductivity. Science, 2018, 359, 1391-1395.	12.6	203
45	Solution selfâ€assembly behavior of A â€B â€C triblock polymers and the implications for nanoporous membrane fabrication. Journal of Applied Polymer Science, 2018, 135, 45531.	2.6	4
46	Surface tension behavior of aqueous solutions of a propoxylated surfactant and interfacial tension behavior against a crude oil. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 537, 163-172.	4.7	17
47	High-Affinity Detection and Capture of Heavy Metal Contaminants using Block Polymer Composite Membranes. ACS Central Science, 2018, 4, 1697-1707.	11.3	56
48	Thermoelectric Performance of an Open-Shell Donorâ€“Acceptor Conjugated Polymer Doped with a Radical-Containing Small Molecule. Macromolecules, 2018, 51, 3886-3894.	4.8	51
49	Highly Transparent Crosslinkable Radical Copolymer Thin Film as the Ion Storage Layer in Organic Electrochromic Devices. ACS Applied Materials & Interfaces, 2018, 10, 18956-18963.	8.0	37
50	Energetic Microparticle Adhesion to Functionalized Surfaces. Propellants, Explosives, Pyrotechnics, 2018, 43, 862-868.	1.6	3
51	Phase and rheological behavior of aqueous mixtures of an isopropoxylated surfactant. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 554, 60-73.	4.7	5
52	Nanomanufacturing of high-performance hollow fiber nanofiltration membranes by coating uniform block polymer films from solution. Journal of Materials Chemistry A, 2017, 5, 3358-3370.	10.3	27
53	Nanoporous Block Polymer Thin Films Functionalized with Bio-Inspired Ligands for the Efficient Capture of Heavy Metal Ions from Water. ACS Applied Materials & Interfaces, 2017, 9, 19152-19160.	8.0	48
54	Organic Radical Polymers. SpringerBriefs in Materials, 2017, , .	0.3	26

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55	Design of a three-state switchable chromogenic radical-based moiety and its translation to molecular logic systems. Molecular Systems Design and Engineering, 2017, 2, 159-164.	3.4	8
56	Analyzing adhesion in microstructured systems through a robust computational approach. Surface and Interface Analysis, 2017, 49, 1165-1170.	1.8	3
57	Enhancing polymer thermoelectric performance using radical dopants. Organic Electronics, 2017, 51, 243-248.	2.6	14
58	Radical polymers as interfacial layers in inverted hybrid perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 23831-23839.	10.3	44
59	Controlling openâ€shell loading in norborneneâ€based radical polymers modulates the solidâ€state charge transport exponentially. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1516-1525.	2.1	24
60	Fabrication of silver nanostructures using femtosecond laser-induced photoreduction. Nanotechnology, 2017, 28, 505302.	2.6	24
61	Block Polymer Membranes Functionalized with Nanoconfined Polyelectrolyte Brushes Achieve Sub-Nanometer Selectivity. ACS Macro Letters, 2017, 6, 726-732.	4.8	63
62	Structure, properties and applications of thermoelectric polymers. Journal of Applied Polymer Science, 2017, 134, .	2.6	16
63	Applications of Radical Polymers in Solid-State Devices. SpringerBriefs in Materials, 2017, , 57-71.	0.3	2
64	Design of freeâ€standing microstructured conducting polymer films for enhanced particle removal from nonâ€uniform surfaces. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1968-1974.	2.1	7
65	Recent advances in the syntheses of radical-containing macromolecules. Journal of Polymer Science Part A, 2016, 54, 1875-1894.	2.3	49
66	Unusually Stable Hysteresis in the pH-Response of Poly(Acrylic Acid) Brushes Confined within Nanoporous Block Polymer Thin Films. Journal of the American Chemical Society, 2016, 138, 7030-7039.	13.7	70
67	Radical polymers improve the metal-semiconductor interface in organic field-effect transistors. Organic Electronics, 2016, 37, 148-154.	2.6	17
68	On the Environmental and Electrical Bias Stability of Radical Polymer Conductors in the Solid State. Macromolecular Chemistry and Physics, 2016, 217, 477-484.	2.2	5
69	Impact of the Addition of Redox-Active Salts on the Charge Transport Ability of Radical Polymer Thin Films. Macromolecules, 2016, 49, 4784-4791.	4.8	28
70	Solution-based synthesis and characterization of earth abundant Cu₃(As,Sb)Se₄ nanocrystal alloys: towards scalable room-temperature thermoelectric devices. Journal of Materials Chemistry A, 2016, 4, 2198-2204.	10.3	17
71	An evaluation of complementary approaches to elucidate fundamental interfacial phenomena driving adhesion of energetic materials. Journal of Colloid and Interface Science, 2016, 473, 28-33.	9.4	14
72	Nanoscale Mapping of Dielectric Properties of Nanomaterials from Kilohertz to Megahertz Using Ultrasmall Cantilevers. ACS Nano, 2016, 10, 4062-4071.	14.6	32

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73	Synthesis and thin-film self-assembly of radical-containing diblock copolymers. MRS Communications, 2015, 5, 257-263.	1.8	12
74	Polymerization Rate Considerations for High Molecular Weight Polyisopreneâ€<i>b</i>â€Polystyreneâ€<i>b</i>â€Poly(<i>N</i>,<i>N</i>â€dimethylacrylamide) Triblock Polymers Synthesized Via Sequential Reversible Additionâ€Fragmentation Chain Transfer (RAFT) Reactions. Macromolecular Chemistry and Physics, 2015, 216, 1831-1840.	2.2	10
75	Suppressing the environmental dependence of the openâ€circuit voltage in inverted polymer solar cells through a radical polymer anodic modifier. Journal of Polymer Science, Part B: Polymer Physics, 2015, 53, 311-316.	2.1	28
76	Effect of intrachain sulfonic acid dopants on the solid-state charge mobility of a model radical polymer. Thin Solid Films, 2015, 577, 56-61.	1.8	4
77	Systematic Control of the Nanostructure of Semiconducting-Ferroelectric Polymer Composites in Thin Film Memory Devices. ACS Macro Letters, 2015, 4, 293-297.	4.8	27
78	Design of Super-Paramagnetic Coreâ€"Shell Nanoparticles for Enhanced Performance of Inverted Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 25061-25068.	8.0	19
79	Nanostructured Membranes from Triblock Polymer Precursors as High Capacity Copper Adsorbents. Langmuir, 2015, 31, 11113-11123.	3.5	41
80	Tuning the Thermoelectric Properties of a Conducting Polymer through Blending with Open-Shell Molecular Dopants. ACS Applied Materials & Interfaces, 2015, 7, 18195-18200.	8.0	28
81	Collection-limited theory interprets the extraordinary response of single semiconductor organic solar cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11193-11198.	7.1	24
82	Nanoporous membranes generated from selfâ€assembled block polymer precursors: <i><scp>Q</scp>uo<scp>V</scp>adis</i>?. Journal of Applied Polymer Science, 2015, 132, .	2.6	72
83	Quantification of the solid-state charge mobility in a model radical polymer. Applied Physics Letters, 2014, 104, .	3.3	31
84	Defect Characterization in Organic Semiconductors by Forward Bias Capacitanceâ€"Voltage (FB-CV) Analysis. Journal of Physical Chemistry C, 2014, 118, 17461-17466.	3.1	40
85	Tunable nanoporous membranes with chemically-tailored pore walls from triblock polymer templates. Journal of Membrane Science, 2014, 470, 246-256.	8.2	88
86	Radical Polymers and Their Application to Organic Electronic Devices. Macromolecules, 2014, 47, 6145-6158.	4.8	137
87	Solid State Electrical Conductivity of Radical Polymers as a Function of Pendant Group Oxidation State. Macromolecules, 2014, 47, 3713-3719.	4.8	85
88	Controlled Radical Polymerization and Quantification of Solid State Electrical Conductivities of Macromolecules Bearing Pendant Stable Radical Groups. ACS Applied Materials & Interfaces, 2013, 5, 9896-9901.	8.0	93
89	Intramolecular Exciton Diffusion in Poly(3-hexylthiophene). Journal of Physical Chemistry Letters, 2013, 4, 3445-3449.	4.6	18
90	Engineering optoelectronically active macromolecules for polymer-based photovoltaic and thermoelectric devices. Current Opinion in Chemical Engineering, 2013, 2, 294-301.	7.8	28

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91	Poly(3-alkylthiophene) Diblock Copolymers with Ordered Microstructures and Continuous Semiconducting Pathways. Journal of the American Chemical Society, 2011, 133, 9270-9273.	13.7	117
92	Real-Time Observation of Poly(3-alkylthiophene) Crystallization and Correlation with Transient Optoelectronic Properties. Macromolecules, 2011, 44, 6653-6658.	4.8	99
93	Controlling inelastic light scattering quantum pathways in graphene. Nature, 2011, 471, 617-620.	27.8	492
94	Polylactideâ^'Polythiopheneâ^'Polylactide Triblock Copolymers. Macromolecules, 2010, 43, 3566-3569.	4.8	39
95	Tuning Polythiophene Crystallization through Systematic Side Chain Functionalization. Macromolecules, 2010, 43, 7895-7899.	4.8	148
96	Synthesis, Optical Properties, and Microstructure of a Fullerene-Terminated Poly(3-hexylthiophene). Macromolecules, 2009, 42, 4118-4126.	4.8	54
97	Nanoporous Poly(3-alkylthiophene) Thin Films Generated from Block Copolymer Templates. Macromolecules, 2008, 41, 67-75.	4.8	182
98	Intramolecular Exciton Relaxation and Migration Dynamics in Poly(3-hexylthiophene). Journal of Physical Chemistry C, 2007, 111, 15404-15414.	3.1	89
99	Impact of openâ€shell loading on mass transport and doping in conjugated radical polymers. Journal of Polymer Science, 0, , .	3.8	4