

E Bryan Coughlin

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	<i>p</i> -Nitrobenzyl Alcohol Derivatives: Opportunities in Polymer and Materials Science. <i>Macromolecules</i> , 2012, 45, 1723-1736.	4.8	480
2	Tuning the Hemolytic and Antibacterial Activities of Amphiphilic Polynorbornene Derivatives. <i>Journal of the American Chemical Society</i> , 2004, 126, 15870-15875.	13.7	443
3	Anion exchange membranes: Current status and moving forward. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 1727-1735.	2.1	367
4	Novel Polyolefin Nanocomposites: Synthesis and Characterizations of Metallocene-Catalyzed Polyolefin Polyhedral Oligomeric Silsesquioxane Copolymers. <i>Macromolecules</i> , 2001, 34, 8034-8039.	4.8	273
5	X-ray Characterizations of Polyethylene Polyhedral Oligomeric Silsesquioxane Copolymers. <i>Macromolecules</i> , 2002, 35, 2375-2379.	4.8	266
6	Chemically Cross-Linked Polycyclooctene: Synthesis, Characterization, and Shape Memory Behavior. <i>Macromolecules</i> , 2002, 35, 9868-9874.	4.8	257
7	Crystal Structure of Polyhedral Oligomeric Silsesquioxane (POSS) Nano-materials: A Study by X-ray Diffraction and Electron Microscopy. <i>Chemistry of Materials</i> , 2003, 15, 4555-4561.	6.7	227
8	Polymer Nanocomposites through Controlled Self-Assembly of Cubic Silsesquioxane Scaffolds. <i>Macromolecules</i> , 2004, 37, 8606-8611.	4.8	191
9	Nanostructured Polyethylene-POSS Copolymers: Control of Crystallization and Aggregation. <i>Nano Letters</i> , 2002, 2, 1149-1155.	9.1	176
10	Iso-specific Ziegler-Natta polymerization of α -olefins with a single-component organoyttrium catalyst. <i>Journal of the American Chemical Society</i> , 1992, 114, 7606-7607.	13.7	156
11	Multi-Component Fe-Ni Hydroxide Nanocatalyst for Oxygen Evolution and Methanol Oxidation Reactions under Alkaline Conditions. <i>ACS Catalysis</i> , 2017, 7, 365-379.	11.2	154
12	Preparation of Cadmium Selenide/Polyolefin Composites from Functional Phosphine Oxides and Ruthenium-Based Metathesis. <i>Journal of the American Chemical Society</i> , 2002, 124, 5729-5733.	13.7	148
13	Antibacterial and Hemolytic Activities of Quaternary Pyridinium Functionalized Polynorbornenes. <i>Macromolecular Chemistry and Physics</i> , 2008, 209, 516-524.	2.2	134
14	Carborane-Containing Polyfluorene: Carborane in the Main Chain. <i>Macromolecules</i> , 2009, 42, 8594-8598.	4.8	124
15	Carborane-Containing Poly(fluorene): Response to Solvent Vapors and Amines. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 1796-1799.	8.0	118
16	Morphological and Mechanical Evaluation of Hybrid Organic-Inorganic Thermoset Copolymers of Dicyclopentadiene and Mono- or Tris(norbornenyl)-Substituted Polyhedral Oligomeric Silsesquioxanes. <i>Macromolecules</i> , 2004, 37, 1276-1282.	4.8	109
17	Synthesis and thermal properties of hybrid copolymers of syndiotactic polystyrene and polyhedral oligomeric silsesquioxane. <i>Journal of Polymer Science Part A</i> , 2002, 40, 885-891.	2.3	107
18	Synthesis of polyethylene hybrid copolymers containing polyhedral oligomeric silsesquioxane prepared with ring-opening metathesis copolymerization. <i>Journal of Polymer Science Part A</i> , 2001, 39, 2920-2928.	2.3	97

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19	Hemi-Telechelic Polystyrene-POSS Copolymers as Model Systems for the Study of Well-Defined Inorganic/Organic Hybrid Materials. <i>Macromolecules</i> , 2004, 37, 5123-5126.	4.8	97
20	Highly Ordered Nanoporous Thin Films from Photocleavable Block Copolymers. <i>Macromolecules</i> , 2011, 44, 6433-6440.	4.8	97
21	Deoxybenzoin-Based Polyarylates as Halogen-Free Fire-Resistant Polymers. <i>Macromolecules</i> , 2006, 39, 3553-3558.	4.8	96
22	Synthesis and Characterization of Halogen-Free Antiflammable Polyphosphonates Containing 4,4'-Bishydroxydeoxybenzoin. <i>Macromolecules</i> , 2006, 39, 5974-5975.	4.8	80
23	Influence of Chain Stiffness on Thermal and Mechanical Properties of Polymer Thin Films. <i>Macromolecules</i> , 2011, 44, 9040-9045.	4.8	77
24	Synthesis and structure-conductivity relationship of polystyrene-block-poly(vinyl benzyl) Part B: Polymer Physics, 2013, 51, 1751-1760.	2.1	75
25	Alternating Copolymerizations of Polar and Nonpolar Cyclic Olefins by Ring-Opening Metathesis Polymerization. <i>Macromolecules</i> , 2002, 35, 54-58.	4.8	74
26	Polyfluorene with p-carborane in the backbone. <i>Chemical Communications</i> , 2009, , 4950.	4.1	71
27	Photo-Cross-Linked Anion Exchange Membranes with Improved Water Management and Conductivity. <i>Macromolecules</i> , 2016, 49, 153-161.	4.8	68
28	Functionalized Nanoporous Thin Films and Fibers from Photocleavable Block Copolymers Featuring Activated Esters. <i>Macromolecules</i> , 2013, 46, 5195-5201.	4.8	65
29	Intrinsically conducting polymers and copolymers containing triazole moieties. <i>Solid State Ionics</i> , 2007, 178, 1398-1403.	2.7	64
30	Toughening semicrystalline poly(lactic acid) by morphology alteration. <i>Polymer</i> , 2011, 52, 4184-4188.	3.8	63
31	Water-Free Proton-Conducting Polysiloxanes: A Study on the Effect of Heterocycle Structure. <i>Macromolecules</i> , 2007, 40, 8708-8713.	4.8	62
32	Thermally Cross-Linked Anion Exchange Membranes from Solvent Processable Isoprene Containing Ionomers. <i>Macromolecules</i> , 2015, 48, 655-662.	4.8	61
33	Achieving Continuous Anion Transport Domains Using Block Copolymers Containing Phosphonium Cations. <i>Macromolecules</i> , 2016, 49, 4714-4722.	4.8	60
34	Peptide-Directed PdAu Nanoscale Surface Segregation: Toward Controlled Bimetallic Architecture for Catalytic Materials. <i>ACS Nano</i> , 2016, 10, 8645-8659.	14.6	58
35	Synthesis of Polyfluorenes with Pendant Silylcarboranes. <i>Macromolecules</i> , 2009, 42, 512-516.	4.8	56
36	Modular Norbornene Derivatives for the Preparation of Well-Defined Amphiphilic Polymers: A Study of the Lipid Membrane Disruption Activities. <i>Macromolecules</i> , 2004, 37, 694-700.	4.8	54

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37	Glycolipid Polymer Synthesized from Natural Lactonic Sophorolipids by Ring-Opening Metathesis Polymerization. <i>Macromolecules</i> , 2007, 40, 145-147.	4.8	54
38	Effect of midblock on the morphology and properties of blends of ABA triblock copolymers of PDLA-mid-block-PDLA with PLLA. <i>Polymer</i> , 2012, 53, 3008-3016.	3.8	53
39	Ethylene-Propylene-Silsesquioxane Thermoplastic Elastomers. <i>Macromolecular Chemistry and Physics</i> , 2008, 209, 1198-1209.	2.2	52
40	Directed Self-Assembly of Poly(2-vinylpyridine)-polystyrene-poly(2-vinylpyridine) Triblock Copolymer with Sub-15 nm Spacing Line Patterns Using a Nanoimprinted Photoresist Template. <i>Advanced Materials</i> , 2015, 27, 4364-4370.	21.0	51
41	A Polyethylene-Based Triblock Copolymer Anion Exchange Membrane with High Conductivity and Practical Mechanical Properties. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1294-1303.	4.4	48
42	¹ H Solid-State NMR Investigation of Structure and Dynamics of Anhydrous Proton Conducting Triazole-Functionalized Siloxane Polymers. <i>Journal of Physical Chemistry B</i> , 2009, 113, 9151-9160.	2.6	46
43	Thieno[3,4-thiophene Acceptors with Alkyl, Aryl, Perfluoroalkyl, and Perfluorophenyl Pendants for Donor-Acceptor Low Bandgap Polymers. <i>Macromolecules</i> , 2013, 46, 8873-8881.	4.8	46
44	Systematic Variation of Fluorinated Diketopyrrolopyrrole Low Bandgap Conjugated Polymers: Synthesis by Direct Arylation Polymerization and Characterization and Performance in Organic Photovoltaics and Organic Field-Effect Transistors. <i>Macromolecules</i> , 2015, 48, 6978-6986.	4.8	46
45	Scission of Diblock Copolymers into Their Constituent Blocks. <i>Macromolecules</i> , 2006, 39, 1670-1672.	4.8	43
46	C2-symmetric ansa metallocenes of titanium and zirconium with a ligand system that yields pure rac. <i>Journal of Organometallic Chemistry</i> , 1995, 497, 171-180.	1.8	41
47	Poly(arylate-phosphonate) copolymers with deoxybenzoin in the backbone: Synthesis, characterization, and thermal properties. <i>Journal of Polymer Science Part A</i> , 2007, 45, 4573-4580.	2.3	39
48	Thermal degradation of deoxybenzoin polymers studied by pyrolysis-gas chromatography/mass spectrometry. <i>Polymer Degradation and Stability</i> , 2008, 93, 1059-1066.	5.8	37
49	Using block copolymer architecture to achieve sub-10Ånm periods. <i>Polymer</i> , 2017, 121, 297-303.	3.8	37
50	Supported Constrained-Geometry Catalysts on Cross-Linked (Aminomethyl)polystyrene: Studies of Ethylene and 1-Octene Polymerizations. <i>Organometallics</i> , 2003, 22, 1534-1539.	2.3	36
51	Amphiphilic Carborane-Containing Diblock Copolymers. <i>Macromolecules</i> , 2007, 40, 5628-5630.	4.8	32
52	Proton conducting polymers containing 1,2,3-triazole moieties. <i>Journal of Polymer Science Part A</i> , 2009, 47, 188-196.	2.3	32
53	Photocleavable Triblock Copolymers Featuring an Activated Ester Middle Block: One-Step Synthesis and Application as Locally Reactive Nanoporous Thin Films. <i>ACS Macro Letters</i> , 2013, 2, 966-969.	4.8	31
54	Stereocomplex Formation in Polylactide Multiarm Stars and Comb Copolymers with Linear and Hyperbranched Multifunctional PEG. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 1434-1444.	2.2	30

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55	Interplay between solid state transitions, conductivity mechanisms, and electrical relaxations in a [PVBtMA]-b-PMB diblock copolymer membrane for electrochemical applications. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 31125-31139.	2.8	29
56	Kinetic Modeling of the Effect of MAO/Zr Ratio and Chain Transfer to Aluminum in Zirconocene Catalyzed Propylene Polymerization. <i>Macromolecules</i> , 2006, 39, 4306-4316.	4.8	27
57	In-situ polymerization of isotactic polypropylene-nanographite nanocomposites. <i>Polymer</i> , 2015, 80, 275-281.	3.8	27
58	Tethered Constrained-Geometry Catalysts in Mesoporous Silica: Probing the Influence of the Second Sphere on Polymer Properties. <i>Chemistry of Materials</i> , 2005, 17, 2716-2723.	6.7	25
59	Utilization of Oligo(lactic acid) for Studies of Chain Conformation and Chain Packing in Poly(lactic acid) Block Copolymers. <i>Macromolecules</i> , 2005, 38, 7843-7851.	4.8	25
60	Synthesis of Semicrystalline/Fluorinated Side-Chain Crystalline Block Copolymers and Their Bulk and Thin Film Nanoordering. <i>Macromolecules</i> , 2013, 46, 3737-3745.	4.8	24
61	Duplex strand formation using alternating copolymers. <i>Chemical Communications</i> , 2005, , 3271.	4.1	23
62	Kinetic modeling of slurry propylene polymerization using rac-ET(Ind) ₂ ZrCl ₂ /MAO. <i>AIChE Journal</i> , 2006, 52, 1824-1835.	3.6	22
63	Effect of Pendant Functionality in Thieno[3,4-b]thiophene-benzodithiophene Polymers for OPVs. <i>Chemistry of Materials</i> , 2015, 27, 443-449.	6.7	22
64	Ion transport properties of mechanically stable symmetric ABCBA pentablock copolymers with quaternary ammonium functionalized midblock. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 612-622.	2.1	21
65	Interplay Between Hydroxyl Density and Relaxations in Poly(vinylbenzyltrimethylammonium)-b-poly(methylbutylene) Membranes for Electrochemical Applications. <i>Journal of the American Chemical Society</i> , 2018, 140, 1372-1384.	13.7	21
66	Phosphonium-Containing Block Copolymer Anion Exchange Membranes: Effect of Quaternization Level on Bulk and Surface Morphologies at Hydrated and Dehydrated States. <i>Macromolecules</i> , 2019, 52, 6097-6106.	4.8	21
67	Line Patterns from Cylinder-Forming Photocleavable Block Copolymers. <i>Advanced Materials</i> , 2013, 25, 4690-4695.	21.0	19
68	Synthesis and photophysical properties of soluble low-bandgap thienothiophene polymers with various alkyl side-chain lengths. <i>Journal of Polymer Science Part A</i> , 2011, 49, 3260-3271.	2.3	18
69	Synthesis of photocleavable poly(methyl methacrylate-block-lactide) via atom-transfer radical polymerization and ring-opening polymerization. <i>Journal of Polymer Science Part A</i> , 2013, 51, 4309-4316.	2.3	18
70	Ring-opening metathesis copolymerization of cyclooctene and a carborane-containing oxanorbornene. <i>Journal of Polymer Science Part A</i> , 2010, 48, 2557-2563.	2.3	17
71	Water uptake profile in a model ion-exchange membrane: Conditions for water-rich channels. <i>Journal of Chemical Physics</i> , 2015, 142, 114906.	3.0	15
72	Thin, robust, and chemically stable photo-cross-linked anion exchange membranes based on a polychlorostyrene-b-polycyclooctene-b-polychlorostyrene ABA triblock polymer. <i>Solid State Ionics</i> , 2018, 316, 135-142.	2.7	14

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73	Ring-opening metathesis polymerization of cobaltocenium derivative to prepare anion exchange membrane with high ionic conductivity. <i>Polyhedron</i> , 2020, 181, 114462.	2.2	14
74	Olefin Polymerization with Single Component Organoscandium and Organoyttrium Catalysts. , 1995, , 317-331.		13
75	Gas Manifold for Olefin Polymerization and a Convenient Reactor Design for the Parallel Screening of Catalysts. <i>Macromolecules</i> , 2002, 35, 9613-9616.	4.8	11
76	Effect of Surface Alignment on Connectivity in Phosphonium-Containing Diblock Copolymer Anion-Exchange Membranes. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30819-30826.	3.1	11
77	Silylcarborane Acrylate Nanoimprint Lithography Resists. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 1887-1892.	8.0	10
78	Linear or Branched Polyethylenes from Supported Aryloxytitanium(IV) η^5 -Cyclopentadienyl Complexes. <i>Macromolecules</i> , 2003, 36, 6300-6304.	4.8	9
79	Mechanical Performance of Polyisoprene Copolymer Anion Exchange Membranes by Varying Crosslinking Methods. <i>Journal of the Electrochemical Society</i> , 2015, 162, H206-H212.	2.9	9
80	Progression of the Morphology in Random Ionomers Containing Bulky Ammonium Counterions. <i>Macromolecules</i> , 2018, 51, 7377-7385.	4.8	9
81	Enhancing desalination performance by manipulating block ratios in a polyethylene-based triblock copolymer anion exchange membrane for electrodialysis. <i>Journal of Membrane Science</i> , 2022, 647, 120295.	8.2	9
82	Origin of the formation of the 4-butenyl end group in zirconocene-catalyzed propylene polymerization. <i>Journal of Polymer Science Part A</i> , 2006, 44, 3724-3728.	2.3	8
83	Amphiphilic Polymers with Potent Antibacterial Activity. <i>ACS Symposium Series</i> , 2007, , 175-197.	0.5	7
84	Effects of Molecular Architecture on the Stereocomplex Crystallization in Poly(lactic acid) Blends. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 320-326.	2.2	7
85	Alkaline Stability Evaluation of Polymerizable Hexyl ϵ -Tethered Ammonium Cations. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2100610.	3.9	7
86	Tuning microdomain spacing with light using ortho ϵ -nitrobenzyl ϵ -linked triblock copolymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018, 56, 355-361.	2.1	5
87	Investigating Silver Nanoparticle Interactions with Quaternary Ammonium Functionalized Triblock Copolymers and Their Effect on Midblock Crystallinity. <i>ACS Applied Polymer Materials</i> , 2020, 2, 4914-4923.	4.4	5
88	Evaluating the effect of ionomer chemical composition in silver-ionomer catalyst inks toward the oxygen evolution reaction by half-cell measurements and water electrolysis. <i>Electrochimica Acta</i> , 2022, 412, 140124.	5.2	5
89	Nonconventional Elements in Block Copolymers. <i>ACS Symposium Series</i> , 2011, , 53-70.	0.5	3
90	Optimization of anionic conductivity through the coexistence of ionomer cluster and backbone ϵ -backbone morphologies in anion exchange membranes. <i>Journal of Polymer Science</i> , 2020, 58, 3446-3455.	3.8	3

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91	Designing Anion-Exchange Ionomers with Oriented Nanoscale Phase Separation at a Silver Interface. Journal of Physical Chemistry C, 2021, 125, 20592-20605.	3.1	3
92	Pendant side-chain sterics against electrostatic forces: Influencing short-range ordering in random polyelectrolytes. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1325-1336.	2.1	2
93	Dinonylphenyl end-capped poly(ethylene glycol)-b-polystyrene: synthesis and its unusual crystalline and self-assembly behaviors. Journal of Materials Science, 2015, 50, 4280-4287.	3.7	1
94	Metathesis and Polyolefin Growth on Cadmium Selenide Surfaces Using Ruthenium-Based Catalysts. , 2003, , 263-270.		1
95	Inorganic-Organic Hybrid Copolymers derived from Silsesquioxanes or Carborane Building Blocks. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	0