

# Frederick L Beyer

## List of Publications by Year in descending order

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80  
papers

5,184  
citations

100601

38  
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97045

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86  
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86  
docs citations

86  
times ranked

7290  
citing authors

#	ARTICLE	IF	CITATIONS
1	Covalently integrated silica nanoparticles in poly(ethylene glycol)-based acrylate resins: thermomechanical, swelling, and morphological behavior. <i>Soft Matter</i> , 2022, , .	1.2	4
2	Application of the small-angle scattering invariant to morphological behavior in ballistic materials. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50478.	1.3	1
3	Impact of ionic liquid on lithium ion battery with a solid poly(ionic liquid) pentablock terpolymer as electrolyte and separator. <i>Polymer</i> , 2020, 209, 122975.	1.8	11
4	Modifying the Structure and Dynamics of Ionomers through Counterion Sterics. <i>Macromolecules</i> , 2020, 53, 1767-1776.	2.2	22
5	Photocurable Poly(ethylene glycol) Diacrylate Resins with Variable Silica Nanoparticle Loading. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 14775-14784.	1.8	4
6	Metallo-supramolecular Crosslinked Polyurethanes. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019, 57, 1744-1757.	2.4	2
7	Macroscopic Alignment of Silver Nanoplates in an Adaptable Dichroic Polarizer. <i>Plasmonics</i> , 2019, 14, 547-553.	1.8	2
8	Lithium ion conducting polymerized ionic liquid pentablock terpolymers as solid-state electrolytes. <i>Polymer</i> , 2019, 161, 128-138.	1.8	16
9	Tuning the Morphology of an Acrylate-Based Metallo-Supramolecular Network: From Vesicles to Cylinders. <i>Macromolecules</i> , 2018, 51, 1636-1643.	2.2	11
10	Synthesis and Characterization of Segmented Polyurethanes Containing Trisaminocyclopropenium Carbocations. <i>ACS Macro Letters</i> , 2018, 7, 846-851.	2.3	13
11	Tough, Rapidly Swelling Thermoplastic Elastomer Hydrogels for Hemorrhage Control. <i>Macromolecules</i> , 2018, 51, 4705-4717.	2.2	13
12	Process induced alignment of gold nano-rods (GNRs) in thermoplastic polymer composites with tailored optical properties. <i>Polymer</i> , 2017, 110, 250-259.	1.8	10
13	Synthesis and characterization of anion-exchange membranes based on hydrogenated poly(norbornene). <i>Polymer Chemistry</i> , 2017, 8, 5708-5717.	1.9	33
14	Polymerized ionic liquid diblock copolymer as solid-state electrolyte and separator in lithium-ion battery. <i>Polymer</i> , 2016, 101, 311-318.	1.8	43
15	Influence of nano-scale morphology on impact toughness of epoxy blends. <i>Polymer</i> , 2016, 103, 337-346.	1.8	22
16	Achieving Continuous Anion Transport Domains Using Block Copolymers Containing Phosphonium Cations. <i>Macromolecules</i> , 2016, 49, 4714-4722.	2.2	60
17	Polymerized ionic liquid diblock copolymers: impact of water/ion clustering on ion conductivity. <i>Soft Matter</i> , 2016, 12, 1133-1144.	1.2	33
18	Relating structure and chain dynamics to ballistic performance in transparent epoxy networks exhibiting nanometer scale heterogeneity. <i>Polymer</i> , 2015, 58, 96-106.	1.8	30

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19	Sulfonimide-Containing Triblock Copolymers for Improved Conductivity and Mechanical Performance. <i>Macromolecules</i> , 2015, 48, 4520-4528.	2.2	103
20	Polyethylene-Based Block Copolymers for Anion Exchange Membranes. <i>Macromolecules</i> , 2015, 48, 6523-6533.	2.2	75
21	Supramolecular Polymers with Orthogonal Functionality. <i>Macromolecules</i> , 2014, 47, 8487-8496.	2.2	26
22	Highly Conductive Anion Exchange Membrane for High Power Density Fuel-Cell Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 13330-13333.	4.0	86
23	Poly(2,6-dimethyl-1,4-phenylene oxide) Blended with Poly(vinylbenzyl chloride)- <i>b</i> -polystyrene for the Formation of Anion Exchange Membranes. <i>Macromolecules</i> , 2014, 47, 6757-6767.	2.2	43
24	Metallopolymers Containing Excess Metal-Ligand Complex for Improved Mechanical Properties. <i>Macromolecules</i> , 2014, 47, 4144-4150.	2.2	21
25	Relationships between Structure and Alkaline Stability of Imidazolium Cations for Fuel Cell Membrane Applications. <i>ACS Macro Letters</i> , 2014, 3, 160-165.	2.3	81
26	Engineering Topochemical Polymerizations Using Block Copolymer Templates. <i>Journal of the American Chemical Society</i> , 2014, 136, 13381-13387.	6.6	65
27	HAADF STEM of Phase Separated Anion Exchange Membranes Prepared by Ultracryomicrotomy. <i>Microscopy and Microanalysis</i> , 2014, 20, 470-471.	0.2	0
28	Morphologies of ABC Triblock Terpolymer Melts Containing Poly(Cyclohexadiene): Effects of Conformational Asymmetry. <i>Langmuir</i> , 2013, 29, 1995-2006.	1.6	23
29	Bicontinuous Alkaline Fuel Cell Membranes from Strongly Self-Segregating Block Copolymers. <i>Macromolecules</i> , 2013, 46, 7332-7340.	2.2	59
30	Role of Metal-Ligand Bond Strength and Phase Separation on the Mechanical Properties of Metallopolymer Films. <i>Macromolecules</i> , 2013, 46, 5416-5422.	2.2	55
31	Extraordinarily high plastic deformation in polyurethane/silica nanoparticle nanocomposites with low filler concentrations. <i>Polymer</i> , 2013, 54, 6510-6515.	1.8	22
32	Development of phosphonium-based bicarbonate anion exchange polymer membranes. <i>Journal of Membrane Science</i> , 2013, 443, 93-99.	4.1	45
33	Influence of Metal Ion and Polymer Core on the Melt Rheology of Metallosupramolecular Films. <i>Macromolecules</i> , 2012, 45, 473-480.	2.2	72
34	Morphologies of poly(cyclohexadiene) diblock copolymers: Effect of conformational asymmetry. <i>Polymer</i> , 2012, 53, 5155-5162.	1.8	12
35	Anion exchange membranes derived from nafion precursor for the alkaline fuel cell. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 552-562.	2.4	35
36	Influence of Zwitterions on Thermomechanical Properties and Morphology of Acrylic Copolymers: Implications for Electroactive Applications. <i>Macromolecules</i> , 2011, 44, 8056-8063.	2.2	49

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37	Determination of Binding Energy and Solubility Parameters for Functionalized Gold Nanoparticles by Molecular Dynamics Simulation. <i>Langmuir</i> , 2011, 27, 7836-7842.	1.6	22
38	RAFT polymerization and thermal behavior of trimethylphosphonium polystyrenes for anion exchange membranes. <i>Polymer Chemistry</i> , 2011, 2, 80-82.	1.9	44
39	Phosphonium-Containing ABA Triblock Copolymers: Controlled Free Radical Polymerization of Phosphonium Ionic Liquids. <i>Macromolecules</i> , 2011, 44, 6509-6517.	2.2	84
40	Optically healable supramolecular polymers. <i>Nature</i> , 2011, 472, 334-337.	13.7	1,568
41	Phase behavior of SEBS triblock copolymer gels. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1479-1491.	2.4	20
42	Characterization of poly(2,6-diphenyl-p-phenylene oxide) films as adsorbent for microfabricated preconcentrators. <i>Microchemical Journal</i> , 2011, 98, 240-245.	2.3	32
43	Morphological Investigations of Organic/Inorganic Nanocomposites Fabricated to Achieve Controlled Dispersion at High Loadings. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1312, 1.	0.1	0
44	Synthesis and characterization of hexafluoroisopropylidene bisphenol poly(arylene ether sulfone) and polydimethylsiloxane segmented block copolymers. <i>Polymer</i> , 2010, 51, 1679-1686.	1.8	14
45	Morphology control of segmented polyurethanes by crystallization of hard and soft segments. <i>Polymer</i> , 2010, 51, 2191-2198.	1.8	127
46	Characterization of the hierarchical structures of a dry nanopowder in a polymer matrix by X-ray scattering techniques. <i>Journal of Applied Crystallography</i> , 2009, 42, 925-931.	1.9	7
47	Influence of Site-Specific Sulfonation on Acrylic Graft Copolymer Morphology. <i>Macromolecules</i> , 2008, 41, 3503-3512.	2.2	20
48	Effect of Symmetry and H-bond Strength of Hard Segments on the Structure-Property Relationships of Segmented, Nonchain Extended Polyurethanes and Polyureas. <i>Journal of Macromolecular Science - Physics</i> , 2007, 46, 853-875.	0.4	94
49	Efficient flexible devices using a statistical copolymer of oxadiazole containing PPV. <i>Synthetic Metals</i> , 2007, 157, 120-124.	2.1	2
50	Multiple Hydrogen Bonding for the Noncovalent Attachment of Ionic Functionality in Triblock Copolymers. <i>Macromolecules</i> , 2007, 40, 4396-4398.	2.2	40
51	Thermally Driven Assembly of Nanoparticles in Polymer Matrices. <i>Macromolecules</i> , 2007, 40, 3996-4001.	2.2	56
52	Role of Symmetry and Charge Delocalization in Two-Dimensional Conjugated Molecules for Optoelectronic Applications. <i>Chemistry of Materials</i> , 2007, 19, 993-1001.	3.2	12
53	Supramolecular Triblock Copolymers Containing Complementary Nucleobase Molecular Recognition. <i>Macromolecules</i> , 2007, 40, 6834-6845.	2.2	116
54	Thermoresponsive, Optically Active Films Based On Diels-Alder Chemistry. <i>Chemistry of Materials</i> , 2007, 19, 6168-6173.	3.2	21

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55	Morphological Analysis of Telechelic Ureidopyrimidone Functional Hydrogen Bonding Linear and Star-Shaped Poly(ethylene-co-propylene)s. <i>Macromolecular Rapid Communications</i> , 2007, 28, 1601-1606.	2.0	39
56	Structure-property relationships and melt rheology of segmented, non-chain extended polyureas: Effect of soft segment molecular weight. <i>Polymer</i> , 2007, 48, 290-301.	1.8	118
57	Poly[acrylic acid-b-styrene-b-isobutylene-b-styrene-b-acrylic acid] pentablock terpolymers: 1. Morphological characterization. <i>Polymer</i> , 2007, 48, 3739-3748.	1.8	13
58	Multiscale Simulations of Triblock Copolymers. <i>International Journal for Multiscale Computational Engineering</i> , 2007, 5, 167-179.	0.8	2
59	Controlling Dispersion and Migration of Particulate Additives with Block Copolymers and Diels-Alder Chemistry. <i>Langmuir</i> , 2006, 22, 10251-10257.	1.6	26
60	A Novel Route to Inducing Disorder in Model Polymer-Layered Silicate Nanocomposites. <i>Macromolecules</i> , 2006, 39, 1864-1871.	2.2	33
61	Delamination of organo-modified layered double hydroxides in polyamide 6 by melt processing. <i>Polymer</i> , 2006, 47, 652-662.	1.8	108
62	A model of charge transport and electromechanical transduction in ionic liquid-swollen Nafion membranes. <i>Polymer</i> , 2006, 47, 6782-6796.	1.8	110
63	Synthesis of monodisperse fluorescent core-shell silica particles using a modified Stober method for imaging individual particles in dense colloidal suspensions. <i>Journal of Colloid and Interface Science</i> , 2005, 288, 114-123.	5.0	30
64	Does the length of the short chain branch affect the mechanical properties of linear low density polyethylenes? An investigation based on films of copolymers of ethylene/1-butene, ethylene/1-hexene and ethylene/1-octene synthesized by a single site metallocene catalyst. <i>Polymer</i> , 2005, 46, 8819-8837.	1.8	74
65	Structure-property behavior of segmented polyurethaneurea copolymers based on an ethylene-butylene soft segment. <i>Polymer</i> , 2005, 46, 10191-10201.	1.8	60
66	A comparative study of the structure-property behavior of highly branched segmented poly(urethane) Tj ETQq0 0.0 rgBT /Overlock 10	1.8	39
67	Structure Property Behavior of New Segmented Polyurethanes and Polyureas Without Use of Chain Extenders. <i>Rubber Chemistry and Technology</i> , 2005, 78, 737-753.	0.6	34
68	Mechanical response and rheological properties of polycarbonate layered-silicate nanocomposites. <i>Polymer Engineering and Science</i> , 2004, 44, 825-837.	1.5	91
69	Investigation of the effects of silicate modification on polymer-layered silicate nanocomposite morphology. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004, 42, 4075-4083.	2.4	19
70	Viscoelastic properties and morphology of sulfonated poly(styrene-b-ethylene/butylene-b-styrene) block copolymers (sBCP), and sBCP/[silicate] nanostructured materials. <i>Polymer</i> , 2004, 45, 3001-3016.	1.8	73
71	Influence of system variables on the morphological and dynamic mechanical behavior of polydimethylsiloxane based segmented polyurethane and polyurea copolymers: a comparative perspective. <i>Polymer</i> , 2004, 45, 6919-6932.	1.8	177
72	Triblock copolymer ionomer membranes. <i>Journal of Membrane Science</i> , 2004, 231, 181-188.	4.1	133

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73	Design and Development of Novel 2-D Oligomers for Electroactive Device Application. Journal of Physical Chemistry B, 2004, 108, 8673-8681.	1.2	37
74	Polymer-Layered Silicate Nanocomposites from Model Surfactants. Chemistry of Materials, 2002, 14, 2983-2988.	3.2	71
75	High-Sensitivity Multinuclear NMR Spectroscopy of a Smectite Clay and of Clay-Intercalated Polymer. Solid State Nuclear Magnetic Resonance, 2002, 22, 110-127.	1.5	69
76	Graft Copolymers with Regularly Spaced, Tetrafunctional Branch Points: Morphology and Grain Structure. Macromolecules, 2000, 33, 2039-2048.	2.2	109
77	Morphological behavior of A2B2 star block copolymers. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 3392-3400.	2.4	43
78	Morphological Behavior of A5B Miktoarm Star Block Copolymers. Macromolecules, 1999, 32, 6604-6607.	2.2	62
79	Morphology of Model Graft Copolymers with Randomly Placed Trifunctional and Tetrafunctional Branch Points. Macromolecules, 1998, 31, 7659-7667.	2.2	64
80	Morphology of Vergina Star 16-Arm Block Copolymers and Scaling Behavior of Interfacial Area with Graft Point Functionality. Macromolecules, 1997, 30, 2373-2376.	2.2	67