

# Eric Baer

## List of Publications by Year in descending order

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86  
papers

3,473  
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109264

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docs citations

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times ranked

2563  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancing breakdown strength and lifetime of multilayer dielectric films by using high temperature polycarbonate skin layers. <i>Energy Storage Materials</i> , 2022, 45, 494-503.	9.5	22
2	Electromechanical deformation and failure of multilayered films. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50298.	1.3	1
3	Deformation and failure of polycarbonate in an electric field. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48341.	1.3	1
4	Alkaline Battery Separators with High Electrolyte Absorption from Forced Assembly Coextruded Composite Tapes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 5227-5237.	1.8	3
5	Achieving Flat-on Primary Crystals by Nanoconfined Crystallization in High-Temperature Polycarbonate/Poly(vinylidene fluoride) Multilayer Films and Its Effect on Dielectric Insulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 44892-44901.	4.0	20
6	Electromechanical deformation of amorphous and semi-crystalline polymeric films. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49229.	1.3	1
7	Demonstration of a self-healing all-polymer distributed Bragg reflector laser. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	7
8	Reducing dielectric loss and enhancing electrical insulation for multilayer polymer films by nanoconfined ion transport under high poling electric fields. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6102-6117.	2.7	20
9	Micro- and nano-layered processing of new polymeric systems. <i>Progress in Polymer Science</i> , 2020, 102, 101210.	11.8	55
10	Thermoformable high oxygen barrier multilayer EVOH/LDPE film/foam. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48903.	1.3	7
11	HDPE/EVOH Multilayered, High Barrier Films for Flexible Organic Photovoltaic Device Packaging. <i>ACS Applied Polymer Materials</i> , 2019, 1, 259-266.	2.0	14
12	Effect of compatibilizer on morphology and properties of HDPE/Nylon 6 blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019, 57, 281-290.	2.4	18
13	Fabrication of Surlyn ionomer fibers using a novel coextrusion approach and mechanical property characterization. <i>Journal of Applied Polymer Science</i> , 2019, 136, 48046.	1.3	3
14	High Dielectric Constant Polycarbonate/Nylon Multilayer Films Capacitors with Self-Healing Capability. <i>ACS Applied Polymer Materials</i> , 2019, 1, 867-875.	2.0	60
15	Morphological effects on dielectric properties of poly(vinylidene fluoride-co-hexafluoropropylene) blends and multilayer films. <i>Polymer</i> , 2019, 172, 221-230.	1.8	25
16	Scaling effects on the optical properties of patterned nano-layered shape memory films. <i>Polymer</i> , 2019, 167, 182-192.	1.8	10
17	Polymer multilayer films for high temperature capacitor application. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47535.	1.3	33
18	Opto-mechanical programming of micro-scale information on transparent multilayer shape memory film. <i>Polymer</i> , 2018, 137, 156-168.	1.8	14

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19	Reduction of Ionic Conduction Loss in Multilayer Dielectric Films by Immobilizing Impurity Ions in High Glass Transition Temperature Polymer Layers. ACS Applied Energy Materials, 2018, 1, 775-782.	2.5	42
20	Polymer Nanosheet Containing Star-Like Copolymers: A Novel Scalable Controlled Release System. Small, 2018, 14, e1800115.	5.2	5
21	High oxygen barrier multilayer EVOH/LDPE film/foam. Journal of Applied Polymer Science, 2018, 135, 46425.	1.3	27
22	Antimicrobial LDPE/EVOH Layered Films Containing Carvacrol Fabricated by Multiplication Extrusion. Polymers, 2018, 10, 864.	2.0	25
23	Flat-On Secondary Crystals as Effective Blocks To Reduce Ionic Conduction Loss in Polysulfone/Poly(vinylidene fluoride) Multilayer Dielectric Films. Macromolecules, 2018, 51, 5019-5026.	2.2	30
24	<i>50th Anniversary Perspective</i>: Dielectric Phenomena in Polymers and Multilayered Dielectric Films. Macromolecules, 2017, 50, 2239-2256.	2.2	251
25	Programming of macro/micro scale information on shape memorizing polyvinyl acetate film. Journal of Applied Polymer Science, 2017, 134, .	1.3	5
26	Enhanced dielectric properties due to space charge-induced interfacial polarization in multilayer polymer films. Journal of Materials Chemistry C, 2017, 5, 10417-10426.	2.7	108
27	Composite nanofibrous microfiltration water filter. Journal of Applied Polymer Science, 2017, 134, 45557.	1.3	7
28	In Situ Photogeneration of Palladium Nanoparticles in Thermoplastic Polyurethane: Photopatterning and Enhanced Oxygen Barrier Property. Macromolecular Chemistry and Physics, 2017, 218, 1700289.	1.1	3
29	Polyolefin Microfiber Based Antibacterial Fibrous Membrane by Forced Assembly Coextrusion. Macromolecular Materials and Engineering, 2017, 302, 1600304.	1.7	8
30	Triple-Shape-memory polymer films created by forced-assembly multilayer coextrusion. Journal of Applied Polymer Science, 2017, 134, .	1.3	8
31	Polymeric Nanofiber/Antifungal Formulations Using a Novel Co-extrusion Approach. AAPS PharmSciTech, 2017, 18, 1917-1924.	1.5	18
32	Protein and Bacterial Antifouling Behavior of Melt-Coextruded Nanofiber Mats. ACS Applied Materials & Interfaces, 2016, 8, 8928-8938.	4.0	30
33	Effects of Interphase Modification and Biaxial Orientation on Dielectric Properties of Poly(ethylene Terephthalate) Nanofiber Mats. ACS Applied Materials & Interfaces, 2016, 8, 13555-13566.	4.0	89
34	Processing-structure-property relationships of novel fibrous filters produced by a melt-process. Journal of Materials Science, 2016, 51, 188-203.	1.7	17
35	Structure-Properties Relationship of a Novel Multilayer Film/Foam Material Produced through Co-extrusion and Orientation. Industrial & Engineering Chemistry Research, 2016, 55, 10947-10954.	1.8	19
36	Grafting of a Stimuli Responsive Polymer on Nanolayered Coextruded PS/PCL Films by Surface Initiated Polymerization. Macromolecular Materials and Engineering, 2016, 301, 870-875.	1.7	7

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37	Evaluation of high temperature polymers in nanolayered films and gradient refractive index (<sc>GRIN</sc>) lenses. Journal of Applied Polymer Science, 2015, 132, .	1.3	3
38	Orientation of PVDF $\hat{1}$ and $\hat{3}$ crystals in nanolayered films. Colloid and Polymer Science, 2015, 293, 1289-1297.	1.0	61
39	Fracture phenomena in micro- and nano-layered polycarbonate/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 667 Journal of Applied Polymer Science, 2014, 131, .	1.3	12
40	Melt-processed polymer multilayer distributed feedback lasers: Progress and prospects. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 251-271.	2.4	14
41	Internal field distributions in multilayer polycarbonate/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 587 Td (fluoride) Electrical Insulation, 2014, 21, 800-808.	1.8	11
42	Interfacial polarization and layer thickness effect on electrical insulation in multilayered polysulfone/poly(vinylidene fluoride) films. Polymer, 2014, 55, 8-14.	1.8	117
43	Manufacturing of polymer continuous nanofibers using a novel co-extrusion and multiplication technique. Polymer, 2014, 55, 673-685.	1.8	68
44	Surface Modification of Melt Extruded Poly( $\hat{1}$ -caprolactone) Nanofibers: Toward a New Scalable Biomaterial Scaffold. ACS Macro Letters, 2014, 3, 585-589.	2.3	61
45	Co-extruded polymeric films for gas separation membranes. Journal of Applied Polymer Science, 2014, 131, .	1.3	18
46	Structure and transport properties of polyethylene terephthalate and poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td (fluoride) Polymer Science, Part B: Polymer Physics, 2013, 51, 978-991.	1.8	34
47	Interphase/interface modification on the dielectric properties of polycarbonate/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 307 Td (terephthalate) Polymer Science, Part B: Polymer Physics, 2013, 51, 882-896.	2.4	65
48	Effect of biaxial orientation on dielectric and breakdown properties of poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (terephthalate) Polymer Science, Part B: Polymer Physics, 2013, 51, 882-896.	2.4	76
49	Layer confinement effect on charge migration in polycarbonate/poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 262 Td (terephthalate) Journal of Materials Research, 2012, 27, 1326-1350.	1.1	54
50	Confined crystallization in polymer nanolayered films: A review. Journal of Materials Research, 2012, 27, 1326-1350.	1.2	148
51	Optical Data Storage: Roll-to-Roll Fabrication of Multilayer Films for High Capacity Optical Data Storage (Adv. Mater. 38/2012). Advanced Materials, 2012, 24, 5146-5146.	11.1	0
52	Multilayered polycarbonate/poly(vinylidene fluoride-hexafluoropropylene) for high energy density capacitors with enhanced lifetime. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 993-1003.	2.4	38
53	Effect of additives, catalyst residues, and confining substrates on the fractionated crystallization of polypropylene droplets. Journal of Applied Polymer Science, 2012, 125, 2110-2120.	1.3	17
54	Reduction of Dielectric Hysteresis in Multilayered Films via Nanoconfinement. Macromolecules, 2012, 45, 1954-1962.	2.2	166

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55	Gas permeability of melt-processed poly(ether block amide) copolymers and the effects of orientation. <i>Polymer</i> , 2012, 53, 1383-1392.	1.8	76
56	Melt crystallization of syndiotactic polypropylene in nanolayer confinement impacting structure. <i>Polymer</i> , 2011, 52, 5879-5889.	1.8	40
57	Predicting long-term creep failure of bimodal polyethylene pipe from short-term fatigue tests. <i>Journal of Materials Science</i> , 2011, 46, 174-182.	1.7	20
58	Fractionated crystallization of $\beta$ - and $\alpha$ -nucleated polypropylene droplets. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 159-171.	2.4	28
59	Transformation of isotactic polypropylene droplets from the mesophase into the $\beta$ -phase. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1672-1682.	2.4	34
60	Confined crystallization of PVDF and a PVDF- <i>t</i> -PFE copolymer in nanolayered films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1750-1761.	2.4	62
61	Adhesion of olefin block copolymers to polypropylene and high density polyethylene and their effectiveness as compatibilizers in blends. <i>Polymer</i> , 2011, 52, 1635-1644.	1.8	47
62	Coextruded Multilayer All-Polymer Dye Lasers. <i>ACS Symposium Series</i> , 2010, , 171-184.	0.5	4
63	Macromol. Rapid Commun. 4/2010. <i>Macromolecular Rapid Communications</i> , 2010, 31, .	2.0	0
64	Structure and Properties of Multilayered PET/PC Composites. <i>Macromolecular Symposia</i> , 2010, 290, 156-165.	0.4	20
65	Effect of Substrate on the Isothermal Crystallization Kinetics of Confined Poly( $\epsilon$ -caprolactone) Nanolayers. <i>Macromolecules</i> , 2010, 43, 8619-8627.	2.2	78
66	Crystallization Kinetics of Poly(ethylene oxide) in Confined Nanolayers. <i>Macromolecules</i> , 2010, 43, 3359-3364.	2.2	80
67	Polymer Nanostructures by Forced Assembly: Process, Structure, and Properties. <i>Macromolecular Symposia</i> , 2010, 294, 19-32.	0.4	131
68	Enhanced breakdown strength of multilayered films fabricated by forced assembly microlayer coextrusion. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 175304.	1.3	104
69	Multilayer Polymer Films for Photonic Applications. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1196, 22.	0.1	0
70	Comparison of olefin copolymers as compatibilizers for polypropylene and high-density polyethylene. <i>Journal of Applied Polymer Science</i> , 2009, 113, 1945-1952.	1.3	70
71	Incorporation of lead phthalocyanine into periodic nanolayered assemblies for advanced optical systems. <i>Journal of Applied Polymer Science</i> , 2009, 113, 2150-2159.	1.3	3
72	Continuous melt processing of all-polymer distributed feedback lasers. <i>Journal of Materials Chemistry</i> , 2009, 19, 7520.	6.7	50

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73	Dielectric response of structured multilayered polymer films fabricated by forced assembly. Applied Physics Letters, 2008, 92, 113301.	1.5	77
74	Aggregation of lead phthalocyanine in blends with polycarbonate. Journal of Applied Polymer Science, 2007, 104, 464-469.	1.3	11
75	Polymeric One-Dimensional Photonic Crystals by Continuous Coextrusion. Macromolecular Rapid Communications, 2007, 28, 2210-2216.	2.0	113
76	Comparison of irreversible deformation and yielding in microlayers of polycarbonate with poly(methylmethacrylate) and poly(styrene-co-acrylonitrile). Journal of Applied Polymer Science, 2000, 77, 1545-1557.	1.3	62
77	Epitaxial crystallization of polyoxymethylene, polypropylene, and polypropylene oxide from solution on cleaved surfaces of alkali halides. Journal of Polymer Science Part B: Polymer Letters, 1967, 5, 177-183.	0.9	55
78	Heterogeneous nucleation of polyethylene melts on cleaved surfaces of alkali halides. Journal of Polymer Science Part B: Polymer Letters, 1967, 5, 185-190.	0.9	37
79	Epitaxial crystallization of homopolymers on single crystals of alkali halides. Journal of Polymer Science Part A-2 Polymer Physics, 1966, 4, 611-629.	0.8	63
80	Structure of pressure-crystallized polypropylene. Journal of Polymer Science Part A-2 Polymer Physics, 1966, 4, 777-788.	0.8	114
81	Crystallization from the glassy state. Journal of Applied Polymer Science, 1966, 10, 1409-1419.	1.3	21
82	Lamellar Crystallization and Melting of Polyoxymethylene. Journal of Applied Physics, 1966, 37, 4060-4065.	1.1	36
83	Kinetics of spherulitic crystallization. Polymer Engineering and Science, 1965, 5, 22-28.	1.5	3
84	Melting of homopolymers under pressure. Journal of Polymer Science: Part A, General Papers, 1965, 3, 2827-2841.	0.4	37
85	Rate of Spherulitic Crystallization with Chain Folds in Polyoxymethylene. Journal of Applied Physics, 1964, 35, 1895-1897.	1.1	19
86	Programming of micro/nano-scale information on low switching temperature shape memory film. Journal of Applied Polymer Science, 0, , .	1.3	1