

Eric Baer

List of Publications by Year in descending order

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86
papers

3,473
citations

109321

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144013

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docs citations

87
times ranked

2563
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>50th Anniversary Perspective</i>: Dielectric Phenomena in Polymers and Multilayered Dielectric Films. <i>Macromolecules</i> , 2017, 50, 2239-2256.	4.8	251
2	Reduction of Dielectric Hysteresis in Multilayered Films via Nanoconfinement. <i>Macromolecules</i> , 2012, 45, 1954-1962.	4.8	166
3	Confined crystallization in polymer nanolayered films: A review. <i>Journal of Materials Research</i> , 2012, 27, 1326-1350.	2.6	148
4	Polymer Nanostructures by Forced Assembly: Process, Structure, and Properties. <i>Macromolecular Symposia</i> , 2010, 294, 19-32.	0.7	131
5	Interfacial polarization and layer thickness effect on electrical insulation in multilayered polysulfone/poly(vinylidene fluoride) films. <i>Polymer</i> , 2014, 55, 8-14.	3.8	117
6	Structure of pressure-crystallized polypropylene. <i>Journal of Polymer Science Part A-2 Polymer Physics</i> , 1966, 4, 777-788.	0.8	114
7	Polymeric One-Dimensional Photonic Crystals by Continuous Coextrusion. <i>Macromolecular Rapid Communications</i> , 2007, 28, 2210-2216.	3.9	113
8	Enhanced dielectric properties due to space charge-induced interfacial polarization in multilayer polymer films. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10417-10426.	5.5	108
9	Enhanced breakdown strength of multilayered films fabricated by forced assembly microlayer coextrusion. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 175304.	2.8	104
10	Effects of Interphase Modification and Biaxial Orientation on Dielectric Properties of Poly(ethylene Terephthalate) / Poly(vinylidene fluoride) Multilayered Films. <i>Journal of Materials & Interfaces</i> , 2016, 8, 13555-13566.	8.0	89
11	Crystallization Kinetics of Poly(ethylene oxide) in Confined Nanolayers. <i>Macromolecules</i> , 2010, 43, 3359-3364.	4.8	80
12	Effect of Substrate on the Isothermal Crystallization Kinetics of Confined Poly(μ -caprolactone) Nanolayers. <i>Macromolecules</i> , 2010, 43, 8619-8627.	4.8	78
13	Dielectric response of structured multilayered polymer films fabricated by forced assembly. <i>Applied Physics Letters</i> , 2008, 92, 113301.	3.3	77
14	Gas permeability of melt-processed poly(ether block amide) copolymers and the effects of orientation. <i>Polymer</i> , 2012, 53, 1383-1392.	3.8	76
15	Effect of biaxial orientation on dielectric and breakdown properties of poly(ethylene Terephthalate) / Poly(vinylidene fluoride) Multilayered Films. <i>Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 882-896.	2.1	76
16	Comparison of olefin copolymers as compatibilizers for polypropylene and high-density polyethylene. <i>Journal of Applied Polymer Science</i> , 2009, 113, 1945-1952.	2.6	70
17	Manufacturing of polymer continuous nanofibers using a novel co-extrusion and multiplication technique. <i>Polymer</i> , 2014, 55, 673-685.	3.8	68
18	Interphase/interface modification on the dielectric properties of polycarbonate/poly(vinylidene fluoride) Multilayered Films. <i>Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 978-991.	2.1	65

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19	Epitaxial crystallization of homopolymers on single crystals of alkali halides. <i>Journal of Polymer Science Part A-2 Polymer Physics</i> , 1966, 4, 611-629.	0.8	63
20	Comparison of irreversible deformation and yielding in microlayers of polycarbonate with poly(methylmethacrylate) and poly(styrene-co-acrylonitrile). <i>Journal of Applied Polymer Science</i> , 2000, 77, 1545-1557.	2.6	62
21	Confined crystallization of PVDF and a PVDF- <i>trifluoroethylene</i> copolymer in nanolayered films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1750-1761.	2.1	62
22	Surface Modification of Melt Extruded Poly(ϵ -caprolactone) Nanofibers: Toward a New Scalable Biomaterial Scaffold. <i>ACS Macro Letters</i> , 2014, 3, 585-589.	4.8	61
23	Orientation of PVDF β and β' crystals in nanolayered films. <i>Colloid and Polymer Science</i> , 2015, 293, 1289-1297.	2.1	61
24	High Dielectric Constant Polycarbonate/Nylon Multilayer Films Capacitors with Self-Healing Capability. <i>ACS Applied Polymer Materials</i> , 2019, 1, 867-875.	4.4	60
25	Epitaxial crystallization of polyoxymethylene, polypropylene, and polypropylene oxide from solution on cleaved surfaces of alkali halides. <i>Journal of Polymer Science Part B: Polymer Letters</i> , 1967, 5, 177-183.	0.9	55
26	Micro- and nano-layered processing of new polymeric systems. <i>Progress in Polymer Science</i> , 2020, 102, 101210.	24.7	55
27	Layer confinement effect on charge migration in polycarbonate/poly(vinylidene fluoride) multilayers. <i>Journal of Applied Physics</i> , 2010, 107, 044105.	2.5	54
28	Continuous melt processing of all-polymer distributed feedback lasers. <i>Journal of Materials Chemistry</i> , 2009, 19, 7520.	6.7	50
29	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.	3.8	47
30	Reduction of Ionic Conduction Loss in Multilayer Dielectric Films by Immobilizing Impurity Ions in High Glass Transition Temperature Polymer Layers. <i>ACS Applied Energy Materials</i> , 2018, 1, 775-782.	5.1	42
31	Melt crystallization of syndiotactic polypropylene in nanolayer confinement impacting structure. <i>Polymer</i> , 2011, 52, 5879-5889.	3.8	40
32	Multilayered polycarbonate/poly(vinylidene fluoride-co-hexafluoropropylene) for high energy density capacitors with enhanced lifetime. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 993-1003.	2.1	38
33	Melting of homopolymers under pressure. <i>Journal of Polymer Science: Part A, General Papers</i> , 1965, 3, 2827-2841.	0.4	37
34	Heterogeneous nucleation of polyethylene melts on cleaved surfaces of alkali halides. <i>Journal of Polymer Science Part B: Polymer Letters</i> , 1967, 5, 185-190.	0.9	37
35	Lamellar Crystallization and Melting of Polyoxymethylene. <i>Journal of Applied Physics</i> , 1966, 37, 4060-4065.	2.5	36
36	Transformation of isotactic polypropylene droplets from the mesophase into the β -phase. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 1672-1682.	2.1	34

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37	Structure and transport properties of polyethylene terephthalate and poly(vinylidene fluoride) multilayer films. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47535.	3.8	34
38	Polymer multilayer films for high temperature capacitor application. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47535.	2.6	33
39	Protein and Bacterial Antifouling Behavior of Melt-Coextruded Nanofiber Mats. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 8928-8938.	8.0	30
40	Flat-On Secondary Crystals as Effective Blocks To Reduce Ionic Conduction Loss in Polysulfone/Poly(vinylidene fluoride) Multilayer Dielectric Films. <i>Macromolecules</i> , 2018, 51, 5019-5026.	4.8	30
41	Fractionated crystallization of nucleated polypropylene droplets. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 159-171.	2.1	28
42	High oxygen barrier multilayer EVOH/LDPE film/foam. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46425.	2.6	27
43	Antimicrobial LDPE/EVOH Layered Films Containing Carvacrol Fabricated by Multiplication Extrusion. <i>Polymers</i> , 2018, 10, 864.	4.5	25
44	Morphological effects on dielectric properties of poly(vinylidene fluoride-co-hexafluoropropylene) blends and multilayer films. <i>Polymer</i> , 2019, 172, 221-230.	3.8	25
45	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.	18.0	22
46	Crystallization from the glassy state. <i>Journal of Applied Polymer Science</i> , 1966, 10, 1409-1419.	2.6	21
47	Structure and Properties of Multilayered PET/PC Composites. <i>Macromolecular Symposia</i> , 2010, 290, 156-165.	0.7	20
48	Predicting long-term creep failure of bimodal polyethylene pipe from short-term fatigue tests. <i>Journal of Materials Science</i> , 2011, 46, 174-182.	3.7	20
49	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 & Interfaces</i> , 2020, 12, 44892-44901.	8.0	20
50	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.	5.5	20
51	Rate of Spherulitic Crystallization with Chain Folds in Polyoxymethylene. <i>Journal of Applied Physics</i> , 1964, 35, 1895-1897.	2.5	19
52	Structure-Properties Relationship of a Novel Multilayer Film/Foam Material Produced through Co-extrusion and Orientation. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 10947-10954.	3.7	19
53	Co-extruded polymeric films for gas separation membranes. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	18
54	Polymeric Nanofiber/Antifungal Formulations Using a Novel Co-extrusion Approach. <i>AAPS PharmSciTech</i> , 2017, 18, 1917-1924.	3.3	18

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55	Effect of compatibilizer on morphology and properties of HDPE/Nylon 6 blends. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 281-290.	2.1	18
56	Effect of additives, catalyst residues, and confining substrates on the fractionated crystallization of polypropylene droplets. Journal of Applied Polymer Science, 2012, 125, 2110-2120.	2.6	17
57	Processing-structure-property relationships of novel fibrous filters produced by a melt-process. Journal of Materials Science, 2016, 51, 188-203.	3.7	17
58	Melt-processed polymer multilayer distributed feedback lasers: Progress and prospects. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 251-271.	2.1	14
59	Opto-mechanical programming of micro-scale information on transparent multilayer shape memory film. Polymer, 2018, 137, 156-168.	3.8	14
60	HDPE/EVOH Multilayered, High Barrier Films for Flexible Organic Photovoltaic Device Packaging. ACS Applied Polymer Materials, 2019, 1, 259-266.	4.4	14
61	Fracture phenomena in micro- and nano-layered polycarbonate/poly(vinylidene fluoride) multilayers. Journal of Applied Polymer Science, 2014, 131, .	2.6	12
62	Aggregation of lead phthalocyanine in blends with polycarbonate. Journal of Applied Polymer Science, 2007, 104, 464-469.	2.6	11
63	Internal field distributions in multilayer polycarbonate/poly(vinylidene fluoride) multilayers. Journal of Applied Polymer Science, 2014, 21, 800-808.	2.9	11
64	Scaling effects on the optical properties of patterned nano-layered shape memory films. Polymer, 2019, 167, 182-192.	3.8	10
65	Polyolefin Microfiber Based Antibacterial Fibrous Membrane by Forced Assembly Coextrusion. Macromolecular Materials and Engineering, 2017, 302, 1600304.	3.6	8
66	Triple-shape-memory polymer films created by forced assembly multilayer coextrusion. Journal of Applied Polymer Science, 2017, 134, .	2.6	8
67	Grafting of a Stimuli Responsive Polymer on Nanolayered Coextruded PS/PCL Films by Surface Initiated Polymerization. Macromolecular Materials and Engineering, 2016, 301, 870-875.	3.6	7
68	Composite nanofibrous microfiltration water filter. Journal of Applied Polymer Science, 2017, 134, 45557.	2.6	7
69	Demonstration of a self-healing all-polymer distributed Bragg reflector laser. Applied Physics Letters, 2020, 116, .	3.3	7
70	Thermoformable high oxygen barrier multilayer EVOH/LDPE film/foam. Journal of Applied Polymer Science, 2020, 137, 48903.	2.6	7
71	Programming of macro/micro scale information on shape memorizing polyvinyl acetate film. Journal of Applied Polymer Science, 2017, 134, .	2.6	5
72	Polymer Nanosheet Containing Star-Like Copolymers: A Novel Scalable Controlled Release System. Small, 2018, 14, e1800115.	10.0	5

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73	Coextruded Multilayer All-Polymer Dye Lasers. ACS Symposium Series, 2010, , 171-184.	0.5	4
74	Kinetics of spherulitic crystallization. Polymer Engineering and Science, 1965, 5, 22-28.	3.1	3
75	Incorporation of lead phthalocyanine into periodic nanolayered assemblies for advanced optical systems. Journal of Applied Polymer Science, 2009, 113, 2150-2159.	2.6	3
76	Evaluation of high temperature polymers in nanolayered films and gradient refractive index (<sc>GRIN</sc>) lenses. Journal of Applied Polymer Science, 2015, 132, .	2.6	3
77	In Situ Photogeneration of Palladium Nanoparticles in Thermoplastic Polyurethane: Photopatterning and Enhanced Oxygen Barrier Property. Macromolecular Chemistry and Physics, 2017, 218, 1700289.	2.2	3
78	Fabrication of Surlyn ionomer fibers using a novel coextrusion approach and mechanical property characterization. Journal of Applied Polymer Science, 2019, 136, 48046.	2.6	3
79	Alkaline Battery Separators with High Electrolyte Absorption from Forced Assembly Coextruded Composite Tapes. Industrial & Engineering Chemistry Research, 2020, 59, 5227-5237.	3.7	3
80	Deformation and failure of polycarbonate in an electric field. Journal of Applied Polymer Science, 2020, 137, 48341.	2.6	1
81	Electro-mechanical deformation of amorphous and semi-crystalline polymeric films. Journal of Applied Polymer Science, 2020, 137, 49229.	2.6	1
82	Electromechanical deformation and failure of multilayered films. Journal of Applied Polymer Science, 2021, 138, 50298.	2.6	1
83	Programming of micro/nano-scale information on low switching temperature shape memory film. Journal of Applied Polymer Science, 0, , .	2.6	1
84	Multilayer Polymer Films for Photonic Applications. Materials Research Society Symposia Proceedings, 2009, 1196, 22.	0.1	0
85	Macromol. Rapid Commun. 4/2010. Macromolecular Rapid Communications, 2010, 31, .	3.9	0
86	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.	21.0	0