Donald G Baird

List of Publications by Year
in descending order

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Version: 2024-02-01

55 papers	1,569 citations	430442 18 h-index	301761 39 g-index
56 all docs	56 docs citations	56 times ranked	1193 citing authors

#	Article	IF	Citations
1	The morphology and rheology of polymer blends containing a liquid crystalline copolyester. Polymer Engineering and Science, 1987, 27, 653-662.	1.5	292
2	Preparation of polymerâ€“clay nanocomposites and their properties. Advances in Polymer Technology, 2006, 25, 270-285.	0.8	268
3	Tesile toughness of microcellular foams of polystyrene, styrene-acrylonitrile copolymer, and polycarbonate, and the effect of dissolved gas on the tensile toughness of the same polymer matrices and microcellular foams. Polymer Engineering and Science, 1995, 35, 1167-1177.	1.5	109
4	Effect of flow history on the morphology of thermotropic liquid crystalline copolyesters. Polymer Engineering and Science, 1985, 25, 377-388.	1.5	87
5	Impact behavior of microcellular foams of polystyrene and styrene-acrylonitrile copolymer, and single-edge-notched tensile toughness of microcellular foams of polystyrene, styrene-acrylonitrile copolymer, and palycarbonate. Polymer Engineering and Science, 1995, 35, 1178-1183.	1.5	68
6	The development of economical bipolar plates for fuel cells. Journal of Materials Chemistry, 2006, 16, 4385.	6.7	68
7	Rheological Properties of Liquid Crystalline Copolyester Melts. II. Comparison of Capillary and Rotary Rheometer Results. Journal of Rheology, 1985, 29, 539-556.	1.3	67
8	Separating the effects of sparse long-chain branching on rheology from those due to molecular weight in polyethylenes. Journal of Rheology, 2003, 47, 717-736.	1.3	58
9	Shear and extensional rheology of sparsely branched metallocene-catalyzed polyethylenes. Journal of Rheology, 2000, 44, 1151-1167.	1.3	48
10	Effect of matrix molecular weight on the dispersion of nanoclay in unmodified high density polyethylene. Polymer Composites, 2007, 28, 499-511.	2.3	43
11	Rheological Properties of Liquid Crystalline Solutions of Polyâ€pâ€Phenyleneterphthalamide in Sulfuric Acid. Journal of Rheology, 1980, 24, 465-482.	1.3	41
12	Prediction of fiber orientation in the injection molding of long fiber suspensions. Polymer Composites, 2012, 33, 1360-1367.	2.3	32
13	Improved mechanical properties of poly(ethylene terephthalate) nanocomposite fibers. Polymer Engineering and Science, 2010, 50, 2205-2215.	1.5	31
14	The role of transient rheology in polymeric sintering. Rheologica Acta, 2006, 45, 825-839.	1.1	26
15	Comparison of the melt fracture behavior of metallocene and conventional polyethylenes. Rheologica Acta, 2003, 42, 544-556.	1.1	20
16	THE INFLUENCE OF POROUS MEDIA ON THE FLOW OF POLYMER MELTS IN CAPILLARIESâ€. Chemical Engineering Communications, 1983, 21, 293-309.	1.5	19
17	Separation of a thermotropic liquid crystalline polymer from polypropylene composites. Polymer Composites, 1999, 20, 423-435.	2.3	19
18	Shear rheological properties of acrylic copolymers and terpolymers suitable for potentially melt processable carbon fiber precursors. Journal of Applied Polymer Science, 2004, 93, 2856-2865.	1.3	19

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19	Initial conditions for simulating glass fiber orientation in the filling of center-gated disks. Composites Part A: Applied Science and Manufacturing, 2013, 49, 192-202.	3.8	19
20	Using supercritical carbon dioxide in preparing carbon nanotube nanocomposite: Improved dispersion and mechanical properties. Polymer Composites, 2012, 33, 1033-1043.	2.3	18
21	Application and evaluation of the method of ellipses for measuring the orientation of long, semiâ€flexible fibers. Polymer Composites, 2013, 34, 390-398.	2.3	15
22	Wholly thermoplastic composites from woven preforms based on nylon-11 fibers reinforced in situ with a hydroquinone-based liquid crystalline polyester. Polymer Composites, 1997, 18, 526-538.	2.3	14
23	Thermotropic liquid crystalline polymer reinforced polypropylene composites enhanced with carbon nanotubes for use in fused filament fabrication. Polymer Composites, 2021, 42, 4115-4127.	2.3	14
24	Generation of nylon copolymer reinforced with carbon nanotubes and thermotropic liquid crystalline polymers for use in fused filament fabrication. Polymer Composites, 2021, 42, 4328-4341.	2.3	14
25	Macroscopic fiber orientation model evaluation for concentrated short fiber reinforced polymers in comparison to experimental data. Polymer Composites, 2020, 41, 2542-2556.	2.3	13
26	Prediction of Youngâ€™s Modulus for Injection Molded Long Fiber Reinforced Thermoplastics. Journal of Composites Science, 2018, 2, 47.	1.4	12
27	In Situ Measurement of Block Copolymer Ordering Kinetics during the Drying of Solution-Cast Films Using Small-Angle X-ray Scattering. Macromolecules, 2012, 45, 3471-3479.	2.2	11
28	New method for producing high-performance thermoplastic polymeric foams. Journal of Applied Polymer Science, 1997, 66, 1543-1550.	1.3	10
29	Generation of lowâ€density highâ€performance poly(arylene ether sulfone) foams using a benign processing technique. Polymer Engineering and Science, 2009, 49, 44-51.	1.5	10
30	Thermotropic liquid crystalline polymer reinforced polyamide composite for fused filament fabrication. Additive Manufacturing, 2021, 40, 101931.	1.7	10
31	Benign reduction of carbon nanotube agglomerates using a supercritical carbon dioxide process. Applied Physics A: Materials Science and Processing, 2014, 117, 1003-1017.	1.1	9
32	Progress in modeling long glass and carbon fiber breakage during injection molding. AIP Conference Proceedings, 2015, , .	0.3	8
33	Obtaining short-fiber orientation model parameters using non-lubricated squeeze flow. Physics of Fluids, 2017, 29, .	1.6	8
34	Note: Initial Results of a Flow Birefringence Study of the Hole Pressure for Polymer Melts. Journal of Rheology, 1984, 28, 439-447.	1.3	7
35	Novel Composites from Blends of Amorphous and Semicrystalline Engineering Thermoplastics with Liquid-Crystalline Polymers. ACS Symposium Series, 1990, , 416-438.	0.5	7
36	Melt processing and rheology of an acrylonitrile copolymer with absorbed carbon dioxide. Polymer Engineering and Science, 2009, 49, 1990-2004.	1.5	7

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37	Characterization and Analysis of Polyetherimide: Realizing Practical Challenges of Modeling the Extrusion-Based Additive Manufacturing Process. ACS Symposium Series, 2019, , 69-84.	0.5	6
38	The use of flow type dependent strain reduction factor to improve fiber orientation predictions for an injection molded center-gated disk. Physics of Fluids, 2019, 31, .	1.6	6
39	Improved mechanical properties of organoclay/nylon 6 nanocomposites prepared via a supercritical carbon dioxideâ€aided, melt blending method. Polymer Composites, 2015, 36, 527-537.	2.3	5
40	A model incorporating the effects of flow type on fiber orientation for flows with mixed flow kinematics. Journal of Rheology, 2019, 63, 455-464.	1.3	5
41	The influence of processing conditions on tensile properties of wholly thermoplastic composites reinforced with nanotubes. Polymer Composites, 2021, 42, 2225-2241.	2.3	5
42	Pressure profiles along an abrupt 4:1 planar contraction. AICHE Journal, 2003, 49, 2487-2498.	1.8	3
43	The Dynamic Behavior of a Concentrated Non-Brownian Glass Fiber Suspension in Simple Shear Flow. AIP Conference Proceedings, 2008, , .	0.3	3
44	Note: Method for overcoming ductile failure in MÃ¼nstedt-type extensional rheometers. Journal of Rheology, 2009, 53, 539-545.	1.3	3
45	Efficient parameter identification for macroscopic fiber orientation models with experimental data and a mechanistic fiber simulation. AIP Conference Proceedings, 2020, , .	0.3	3
46	The rotational molding of a thermotropic liquid crystalline polymer. Polymer Engineering and Science, 2005, 45, 410-423.	1.5	2
47	Dispersion of nanoclay into polypropylene with carbon dioxide in the presence of maleated polypropylene. Journal of Applied Polymer Science, 2008, 109, 1048-1056.	1.3	2
48	Effect of sparse longâ€chain branching on the stepâ€strain behavior of a series of wellâ€defined polyethylenes. Polymer Engineering and Science, 2010, 50, 1424-1432.	1.5	1
49	Generation of high performance polyphenylene sulfide-thermotropic liquid crystalline polymer composite filaments for use in fused filament fabrication. AIP Conference Proceedings, 2019, , .	0.3	1
50	The rheology of ultra-high molecular weight poly(ethylene oxide) dispersed in a low molecular weight carrier. Physics of Fluids, 2022, 34, 023304.	1.6	1
51	Critical Comments on â€œSecondary Flow and Stress Birefringence Patterns in the Pressure Hole,â€•by Han and Yoo. Journal of Rheology, 1981, 25, 363-366.	1.3	0
52	A Critical Analysis of Using Step-Strain and Extensional Rheology to Obtain the Multi-mode â€œPom-Pomâ€• Model Parameters for Branched High-Density Polyethylenes. AIP Conference Proceedings, 2008, , .	0.3	0
53	Rheological and Film-Casting Properties of Well-Characterised Polyethylenes with Different Branching Structure. AIP Conference Proceedings, 2008, , .	0.3	0
54	Simulation of Orientation in Injection Molding of High Aspect Ratio Particle Thermoplastic Composites. AIP Conference Proceedings, 2008, , .	0.3	0

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55	Progress in simulating semi-flexible glass fiber orientation in an injection molded end-gated plaque. , 2014, , .		0