Christopher G Robertson

List of Publications by Year
in descending order

68 papers	2,715 citations	159525 30 h-index	182361 51 g-index
68 all docs	68 docs citations	68 times ranked	2460 citing authors

#	Article	IF	Citations
1	Glass-like Signatures in the Dynamic Rheology of Particle-Filled Polymers. Macromolecules, 2022, 55, 2729-2738.	2.2	4
2	Nature of Carbon Black Reinforcement of Rubber: Perspective on the Original Polymer Nanocomposite. Polymers, 2021, 13, 538.	2.0	105
3	Incremental, Critical Plane Analysis of Standing Wave Development, Self-Heating, and Fatigue during Regulatory High-Speed Tire Testing Protocols. Tire Science and Technology, 2021, 49, 172-205.	0.3	6
4	Characterizing Distributions of Tensile Strength and Crack Precursor Size to Evaluate Filler Dispersion Effects and Reliability of Rubber. Polymers, 2020, 12, 203.	2.0	25
5	The Fatigue Threshold of Rubber and Its Characterization Using the Cutting Method. Advances in Polymer Science, 2020, , 57-83.	0.4	11
6	Finite Element Modeling and Critical Plane Analysis of a Cut-and-Chip Experiment for Rubber. Tire Science and Technology, 2020, , .	0.3	5
7	A Nonequilibrium Model for Particle Networking/Jamming and Time-Dependent Dynamic Rheology of Filled Polymers. Polymers, 2020, 12, 190.	2.0	9
8	THE PAYNE EFFECT: PRIMARILY POLYMER-RELATED OR FILLER-RELATED PHENOMENON?. Rubber Chemistry and Technology, 2019, 92, 599-611.	0.6	27
9	Characterisation of cut and chip behaviour for NR, SBR and BR compounds with an instrumented laboratory device. Plastics, Rubber and Composites, 2019, 48, 14-23.	0.9	8
10	Characterizing the Intrinsic Strength (Fatigue Threshold) of Natural Rubber/Butadiene Rubber Blends. Tire Science and Technology, 2019, 47, 292-307.	0.3	19
11	INTERPRETATION OF THE TANÎ´ PEAK HEIGHT FOR PARTICLE-FILLED RUBBER AND POLYMER NANOCOMPOSITES WITH RELEVANCE TO TIRE TREAD PERFORMANCE BALANCE. Rubber Chemistry and Technology, 2018, 91, 577-594.	0.6	32
12	Organosilane grafted silica: Quantitative correlation of microscopic surface characters and macroscopic surface properties. Applied Surface Science, 2017, 399, 565-572.	3.1	25
13	Molecular insight into the Mullins effect: irreversible disentanglement of polymer chains revealed by molecular dynamics simulations. Physical Chemistry Chemical Physics, 2017, 19, 19468-19477.	1.3	41
14	Christopher G. Robertson Guest Editor. Rubber Chemistry and Technology, 2017, 90, G2-G2.	0.6	0
15	Effect of Fillerâ€"Polymer Interface on Elastic Properties of Polymer Nanocomposites: A Molecular Dynamics Study. Tire Science and Technology, 2017, 45, 227-241.	0.3	4
16	FLOCCULATION IN ELASTOMERIC POLYMERS CONTAINING NANOPARTICLES: JAMMING AND THE NEW CONCEPT OF FICTIVE DYNAMIC STRAIN. Rubber Chemistry and Technology, 2015, 88, 463-474.	0.6	26
17	Dynamic Mechanical Properties. , 2015, , 647-654.		3
18	Dynamic Mechanical Properties. , 2014, , 1-9.		3

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19	Linearâ€nonlinear dichotomy of the rheological response of particleâ€filled polymers. Journal of Applied Polymer Science, 2014, 131, .	1.3	38
20	Thermoplastic Elastomers. , 2013, , 591-652.		13
21	Effect of Polar Interactions on Polymer Dynamics. Macromolecules, 2012, 45, 8430-8437.	2.2	59
22	Dynamic Heterogeneity and Density Scaling in 1,4-Polyisoprene. Macromolecules, 2011, 44, 1149-1155.	2.2	41
23	Further Consideration of Viscoelastic Two Glass Transition Behavior of Nanoparticle-Filled Polymers. Macromolecules, 2011, 44, 1177-1181.	2.2	84
24	Comparison of the transient stressâ€"strain response of rubber to its linear dynamic behavior. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 1195-1202.	2.4	3
25	FLOCCULATION, REINFORCEMENT, AND GLASS TRANSITION EFFECTS IN SILICA-FILLED STYRENE-BUTADIENE RUBBER. Rubber Chemistry and Technology, 2011, 84, 507-519.	0.6	93
26	A new spectral memory of filled rubbers. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 859-869.	2.4	8
27	Effect of nanoscale confinement on glass transition of polystyrene domains from self-assembly of block copolymers. Journal of Chemical Physics, 2010, 132, 104904.	1.2	48
28	Memory of Prior Dynamic Strain History in Filled Rubbers. Rubber Chemistry and Technology, 2010, 83, 149-159.	0.6	3
29	Structural Arrest and Thermodynamic Scaling in Filler-Reinforced Polymers. Rubber Chemistry and Technology, 2009, 82, 202-213.	0.6	8
30	Relative quantification of long chain branching in essentially linear polyethylenes. European Polymer Journal, 2008, 44, 376-391.	2.6	37
31	Influence of Particle Size and Polymerâ^'Filler Coupling on Viscoelastic Glass Transition of Particle-Reinforced Polymers. Macromolecules, 2008, 41, 2727-2731.	2.2	263
32	Wall slip and spurt flow of polybutadiene. Journal of Rheology, 2008, 52, 1201-1239.	1.3	63
33	Effect of Silica Nanoparticles on the Local Segmental Dynamics in Poly(vinyl acetate). Macromolecules, 2008, 41, 1289-1296.	2.2	159
34	Structure Evolution in a Polyurea Segmented Block Copolymer Because of Mechanical Deformation. Macromolecules, 2008, 41, 7543-7548.	2.2	89
35	Role of Chemical Structure in Fragility of Polymers: A Qualitative Picture. Macromolecules, 2008, 41, 7232-7238.	2.2	294
36	Effect of Silica Nanoparticles on the Local Segmental Dynamics in Polyvinylacetate. AIP Conference Proceedings, 2008, , .	0.3	1

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37	Glass Transition and Interfacial Segmental Dynamics in Polymer-Particle Composites. Rubber Chemistry and Technology, 2008, 81, 506-522.	0.6	153
38	Heterogeneity of structural relaxation in a particle-suspension system. Europhysics Letters, 2007, 79, 18001.	0.7	7
39	Effect of structural arrest on Poissonâ€™s ratio in nanoreinforced elastomers. Physical Review E, 2007, 75, 051403.	0.8	33
40	Unified application of the coupling model to segmental, Rouse, and terminal dynamics of entangled polymers. Journal of Non-Crystalline Solids, 2006, 352, 342-348.	1.5	15
41	Recovery of Shear-Modified Polybutadiene Solutions. Rubber Chemistry and Technology, 2006, 79, 267-280.	0.6	11
42	Measuring local viscoelastic properties of complex materials with tapping mode atomic force microscopy. Polymer, 2006, 47, 4798-4810.	1.8	22
43	Assignment of Effective Network Chains in Cured Rubbers Derived from Chemical Crosslinking, Entanglements, Polymer End Linking to Carbon Black and Filler Interaction: VII. Tensile Retraction Measurements. Rubber Chemistry and Technology, 2006, 79, 338-365.	0.6	0
44	Spectral hole burning to probe the nature of unjamming (Payne effect) in particle-filled elastomers. Europhysics Letters, 2006, 76, 278-284.	0.7	37
45	Isoenergetic Jamming Transition in Particle-Filled Systems. Physical Review Letters, 2005, 95, 075703.	2.9	70
46	Strain-induced nonlinearity of filled rubbers. Physical Review E, 2005, 72, 031406.	0.8	71
47	Filler Dispersion in Hyperbranched Polyisobutylene. Rubber Chemistry and Technology, 2004, 77, 372-379.	0.6	12
48	Extent of branching from linear viscoelasticity of long-chain-branched polymers. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 1671-1684.	2.4	52
49	Local segmental relaxation in bidisperse polystyrenes. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 2604-2611.	2.4	22
50	Coupling Model Interpretation of Thermorheological Complexity in Polybutadienes with Varied Microstructure. Macromolecules, 2004, 37, 10009-10017.	2.2	32
51	Nanoscale Cooperative Length of Local Segmental Motion in Polybutadiene. Macromolecules, 2004, 37, 4266-4270.	2.2	20
52	Reentanglement Kinetics in Sheared Polybutadiene Solutions. Macromolecules, 2004, 37, 10018-10022.	2.2	49
53	Comment on â€œDirect determination of kinetic fragility indices of glassforming liquids by differential scanning calorimetry: Kinetic versus thermodynamic fragilitiesâ€•[J. Chem. Phys. 117, 10184 (2002)]. Journal of Chemical Physics, 2003, 118, 10351-10352.	1.2	11
54	Nonlinear rheology of hyperbranched polyisobutylene. Journal of Rheology, 2002, 46, 307-320.	1.3	34

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55	Linear viscoelastic properties of hyperbranched polyisobutylene. Journal of Rheology, 2001, 45, 759-772.	1.3	28
56	Glass-formation kinetics of miscible blends of atactic polystyrene and poly(2,6-dimethyl-1,4-phenylene) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.4	14
57	Influence of vinyl ester/styrene network structure on thermal and mechanical behavior. Journal of Applied Polymer Science, 2001, 80, 917-927.	1.3	26
58	Physical aging behavior of miscible blends of poly(methyl methacrylate) and poly(styrene- co) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	1.8	29
59	Breadth of the Î±-Relaxation Function in 1,4-Polybutadiene. Macromolecules, 2000, 33, 1262-1267.	2.2	15
60	?- and ?-Relaxations in neat and antiplasticized polybutadiene. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 1841-1847.	2.4	48
61	Physical aging behavior of miscible blends containing atactic polystyrene and poly(2,6-dimethyl-1,4-phenylene oxide). Polymer, 2000, 41, 9191-9204.	1.8	24
62	Comparison of glass formation kinetics and segmental relaxation in polymers. Journal of Non-Crystalline Solids, 2000, 275, 153-159.	1.5	75
63	Long-Term Volume Relaxation of Bisphenol A Polycarbonate and Atactic Polystyrene. Macromolecules, 2000, 33, 3954-3955.	2.2	35
64	Structural Relaxation and Fragility of Glass-Forming Miscible Blends Composed of Atactic Polystyrene and Poly(2,6-dimethyl-1,4-phenylene oxide). ACS Symposium Series, 1999, , 133-143.	0.5	0
65	Physical aging of an amorphous polyimide: Enthalpy relaxation and mechanical property changes. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 1931-1946.	2.4	37
66	Effect of network structure of epoxy DGEBA-poly(oxypropylene)diamines on tensile behavior. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 2815-2819.	2.4	38
67	Refractive index: A probe for monitoring volume relaxation during physical aging of glassy polymers. Polymer, 1998, 39, 2129-2133.	1.8	35
68	Processing of Sheath-Core and Matrix-Fibril Fibers Composed of PP and a TLCP. International Polymer Processing, 1997, 12, 354-365.	0.3	3