John T Bendler

List of Publications by Year in descending order

59 papers	2,553 citations	279778 23 h-index	197805 49 g-index
59 all docs	59 docs citations	59 times ranked	1266 citing authors

#	Article	IF	Citations
1	Time-Scale Invariance in Transport and Relaxation. Physics Today, 1991, 44, 26-34.	0.3	516
2	Phase behavior of polystyrene, poly(2,6-dimethyl-1,4-phenylene oxide), and their brominated derivatives. Macromolecules, 1983, 16, 753-757.	4.8	481
3	On LÃ©vy (or stable) distributions and the Williams-Watts model of dielectric relaxation. Journal of Statistical Physics, 1984, 34, 129-162.	1.2	297
4	Derivation of the Kohlrausch-Williams/Watts decay law from activation-energy dispersion. Macromolecules, 1985, 18, 591-592.	4.8	101
5	Generalized Vogel law for glass-forming liquids. Journal of Statistical Physics, 1988, 53, 531-541.	1.2	96
6	A New Vogel-Like Law: Ionic Conductivity, Dielectric Relaxation, and Viscosity near the Glass Transition. Physical Review Letters, 2001, 87, 195503.	7.8	82
7	Proton spin relaxation and molecular motion in a bulk polycarbonate. Macromolecules, 1983, 16, 658-665.	4.8	79
8	Resonance calculations for arbitrary potentials. Physical Review A, 1978, 18, 1816-1825.	2.5	75
9	Defect-diffusion models of relaxation. Journal of Molecular Liquids, 1987, 36, 37-46.	4.9	66
10	Dielectric Properties of Bisphenol A Polycarbonate and Its Tethered Nitrile Analogue. Macromolecules, 2013, 46, 4024-4033.	4.8	66
11	Levy (stable) probability densities and mechanical relaxation in solid polymers. Journal of Statistical Physics, 1984, 36, 625-637.	1.2	54
12	Defect diffusion and a two-fluid model for structural relaxation near the glass-liquid transition. The Journal of Physical Chemistry, 1992, 96, 3970-3973.	2.9	53
13	Stable law densities and linear relaxation phenomena. Journal of Research of the National Bureau of Standards (United States), 1985, 90, 27.	0.4	53
14	A Solvable Model of Polymer Main-Chain Dynamics with Applications to Spin Relaxation. Macromolecules, 1978, 11, 650-655.	4.8	48
15	The need to reconsider traditional free volume theory for polymer electrolytes. Electrochimica Acta, 2003, 48, 2267-2272.	5.2	33
16	Continuous-site model for Langmuir gas sorption in glassy polymers. Macromolecules, 1992, 25, 990-992.	4.8	31
17	Diffusion Coefficients of Xenon in Polystyrene Determined by Xenon-129 NMR Spectroscopy. Macromolecules, 1996, 29, 2138-2142.	4.8	30
18	Effect of high pressure on the electrical conductivity of ion conducting polymers. Electrochimica Acta, 2001, 46, 1615-1621.	5.2	28

#	Article	IF	Citations
19	Free-volume dynamics in glasses and supercooled liquids. Physical Review E, 2005, 71, 031508.	2.1	28
20	Improved computational methods for the calculation of Kohlrausch-Williams/Watts (KWW) decay functions. Polymer, 1994, 35, 1880-1883.	3.8	27
21	Analysis of dielectric loss data using the Williamsâ€“Watts function. Journal of Chemical Physics, 1985, 83, 1424-1427.	3.0	25
22	Tables of the inverse Laplace transform of the function e -S-Beta. Journal of Research of the National Institute of Standards and Technology, 1990, 95, 433.	1.2	25
23	An NMR study of segmental motion in poly(isobutylene) and the relationship to translational diffusion of sorbed CO2. Journal of Polymer Science, Part B: Polymer Physics, 1994, 32, 1707-1717.	2.1	24
24	Polymer melt dynamics model with a relaxation time exponent of 10/3. Macromolecules, 1988, 21, 521-523.	4.8	22
25	Microscopic approach to volume recovery of polymers. Macromolecules, 1984, 17, 1174-1177.	4.8	19
26	Physical basis of fragility. Journal of Chemical Physics, 2003, 118, 6713-6716.	3.0	19
27	Biellipsoidal Model for AB Block Copolymers. Excluded Volume Effect in Isolated Molecules. Macromolecules, 1977, 10, 635-646.	4.8	18
28	Phenomenology of Short-Range Order in n-Alkane Liquids. Macromolecules, 1977, 10, 162-168.	4.8	18
29	Synthesis of High Aspect Ratio Bisphenols and Polycarbonates Incorporating Bisaryl Units. Macromolecules, 2005, 38, 3622-3629.	4.8	17
30	The continuous-time random walk description of the non-equilibrium mechanical response of crosslinked elastomers. British Polymer Journal, 1985, 17, 126-128.	0.7	15
31	The defect diffusion model and the properties of glasses and liquids. Journal of Non-Crystalline Solids, 2006, 352, 4835-4842.	3.1	15
32	Reply to comments on the need to reconsider traditional free volume theory for polymer electrolytes. Electrochimica Acta, 2004, 49, 5249-5252.	5.2	14
33	Anomalous defect diffusion near the glass transition. Chemical Physics, 2002, 284, 311-317.	1.9	13
34	SEMI-EMPIRICAL SCF-MO CALCULATIONS OF BACKBONE CONFORMATIONAL STATES IN SOME GLASSY POLYMERS. Annals of the New York Academy of Sciences, 1981, 371, 299-300.	3.8	12
35	Fractal time symmetry in the glass transition. Nuclear Physics, Section B, Proceedings Supplements, 1988, 5, 82-85.	0.4	11
36	Monte Carlo studies of isolated AB block copolymer molecules. Polymer Engineering and Science, 1977, 17, 622-626.	3.1	7

#	Article	IF	Citations
37	SEMI-EMPIRICAL SCF-MO CALCULATIONS OF BACKBONE CONFORMATIONAL STATES IN SOME GLASSY POLYMERS. Annals of the New York Academy of Sciences, 1981, 371, 299-300.	3.8	4
38	A dynamic n.m.r. study of dissolved and solid cyclohexyl polycarbonate. Polymer, 1998, 39, 1339-1344.	3.8	4
39	Anomalous diffusion producing normal relaxation and transport. Journal of Physics Condensed Matter, 2007, 19, 065121.	1.8	4
40	Internal molecular motions and the elastic constants of polymer glasses. Macromolecules, 1982, 15, 1325-1328.	4.8	3
41	Fractal clusters in the learning curve. Physica A: Statistical Mechanics and Its Applications, 1991, 177, 585-588.	2.6	3
42	A spin-lattice relaxation study of dissolved cyclohexyl polycarbonate. Polymer, 1996, 37, 3783-3790.	3.8	3
43	WHY CONDUCTIVITY DECREASES WITH PRESSURE IN ION-DOPED POLYMERS. Fractals, 2003, 11, 93-97.	3.7	3
44	A first passage time problem for random walk occupancy. Journal of Statistical Physics, 1988, 50, 1069-1087.	1.2	2
45	Sources of exponents. Physica D: Nonlinear Phenomena, 2004, 193, 67-72.	2.8	2
46	Random walk model for viscoelastic response of glassy polymers. Physica A: Statistical Mechanics and Its Applications, 1990, 168, 592-601.	2.6	1
47	Stretched Times and Divergent Time Scales. , 1995, , 189-196.		1
48	Synthesis of 1,1-Dichloro-2,2-bis[4-(4â€²-Hydroxyphenyl)phenyl]ethene and Its Incorporation into Homo- and Heteropolycarbonates. ACS Symposium Series, 2005, , 133-146.	0.5	1
49	Effects of pressure, temperature and volume on the electrical conductivity of polymer electrolytes. Electrochimica Acta, 2011, 57, 160-164.	5.2	1
50	Meanâ€Field Calculation of M Z for Randomly Branched Condensation Polymers. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1415-1422.	2.1	1
51	The Stretched Exponential, The Vogel Law, and All That. NATO ASI Series Series B: Physics, 1989, , 347-352.	0.2	1
52	The Arrhenius Law versus the Vogel Law. , 1990, , 161-166.		1
53	Barrier Distributions and Defect Migration in Glasses. Annals of the New York Academy of Sciences, 1986, 484, 300-301.	3.8	0
54	‹title›Random processes underlying stretched times and divergent time scales near the glass transition (Invited Paper)‹/title›. , 2005, , .		0

#	Article	IF	Citations
55	Ductile Polycarbonates Containing Bisaryl Units: Theory and Modeling. ACS Symposium Series, 2005, , 122-132.	0.5	0
56	ELECTRICAL RELAXATION IN ULTEMÂ® AND ULTEMÂ® CONTAINING MESOPOROUS SILICA. AIP Conference Proceedings, 2008, , .	0.4	0
57	THE DEFECT DIFFUSION MODEL AND TIMES OF POLYMERS. AIP Conference Proceedings, 2008, , .	0.4	0
58	WHY CONDUCTIVITY DECREASES WITH PRESSURE IN ION-DOPED POLYMERS. , 2002, , .		0
59	Polymer Modeling Applications of Symbolic Computation. , 1985, , 169-182.		0