

Karl F Freed

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600
papers

19,365
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68
h-index

98
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20,055
ext. citations

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L-index

#	Paper	IF	Citations
600	Multiphonon Processes in the Nonradiative Decay of Large Molecules. <i>Journal of Chemical Physics</i> , 1970 , 52, 6272-6291	3.9	471
599	Characterization of branching architecture through "universal" ratios of polymer solution properties. <i>Macromolecules</i> , 1990 , 23, 4168-4180	5.5	277
598	Statistical coil model of the unfolded state: resolving the reconciliation problem. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 13099-104	11.5	268
597	Effect of monomer structure and compressibility on the properties of multicomponent polymer blends and solutions: 1. Lattice cluster theory of compressible systems. <i>Macromolecules</i> , 1991 , 24, 5076-5095	5.5	233
596	Functional Integrals and Polymer Statistics. <i>Advances in Chemical Physics</i> , 2007 , 1-128		196
595	Analysis and Evaluation of Ionization Potentials, Electron Affinities, and Excitation Energies by the Equations of Motion Green's Function Method. <i>Advances in Chemical Physics</i> , 2007 , 1-69		169
594	Dependence of Radiationless Decay Rates in Polyatomic Molecules upon the Initially Selected Vibronic State: General Theory and Application. <i>Journal of Chemical Physics</i> , 1972 , 56, 2309-2328	3.9	168
593	Theory of the Hyperfine Structure of Molecules: Application to Σ States of Diatomic Molecules Intermediate between Hund's Cases (a) and (b). <i>Journal of Chemical Physics</i> , 1966 , 45, 4214-4241	3.9	160
592	Polymer viscosity in concentrated solutions. <i>Journal of Chemical Physics</i> , 1974 , 61, 3626-3633	3.9	151
591	Helix, sheet, and polyproline II frequencies and strong nearest neighbor effects in a restricted coil library. <i>Biochemistry</i> , 2005 , 44, 9691-702	3.2	150
590	Intramolecular vibrational energy redistribution and the time evolution of molecular fluorescence. <i>Journal of Chemical Physics</i> , 1980 , 73, 4765-4778	3.9	146
589	Role of molecular structure on the thermodynamic properties of melts, blends, and concentrated polymer solutions: comparison of Monte Carlo simulations with the cluster theory for the lattice model. <i>Macromolecules</i> , 1990 , 23, 4803-4819	5.5	140
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587	Intramolecular perturbations and the quenching of luminescence in small molecules. <i>Chemical Physics Letters</i> , 1973 , 18, 470-475	2.5	135
586	Theory of diatomic molecule photodissociation: Electronic angular momentum influence on fragment and fluorescence cross sections. <i>Journal of Chemical Physics</i> , 1983 , 79, 6060-6085	3.9	131
585	The glass transition temperature of polymer melts. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 21285-92	3.4	130
584	Hydrodynamic theory for vibrational relaxation in liquids. <i>Physical Review A</i> , 1977 , 15, 361-371	2.6	127

583	Effect of monomer structure and compressibility on the properties of multicomponent polymer blends and solutions. 2. Application to binary blends. <i>Macromolecules</i> , 1991 , 24, 5096-5111	5.5	125
582	Theory of the dynamical viscosity of polymer solutions. <i>Journal of Chemical Physics</i> , 1974 , 61, 1189-1202	3.9	121
581	Internal Rotation and the Breakdown of the Adiabatic Approximation: Many-Phonon Radiationless Transitions. <i>Journal of Chemical Physics</i> , 1970 , 52, 2460-2473	3.9	119
580	Innovative scattering analysis shows that hydrophobic disordered proteins are expanded in water. <i>Science</i> , 2017 , 358, 238-241	33.3	116
579	Effect of monomer structure and compressibility on the properties of multicomponent polymer blends and solutions. 3. Application to deuterated polystyrene [PS(D)]poly(vinyl methyl ether) (PVME) blends. <i>Macromolecules</i> , 1991 , 24, 5112-5123	5.5	114
578	Investigations into sequence and conformational dependence of backbone entropy, inter-basin dynamics and the Flory isolated-pair hypothesis for peptides. <i>Journal of Molecular Biology</i> , 2003 , 331, 693-711	6.5	113
577	Radiationless transitions in molecules. <i>Accounts of Chemical Research</i> , 1978 , 11, 74-80	24.3	112
576	Dissociation processes of polyatomic molecules. <i>Journal of Chemical Physics</i> , 1975 , 63, 3382-3397	3.9	111
575	Renormalization and the two-parameter theory. <i>Macromolecules</i> , 1984 , 17, 2344-2354	5.5	108
574	Generalized Entropy Theory of Polymer Glass Formation. <i>Advances in Chemical Physics</i> , 2008 , 125-222		105
573	Lattice model of living polymerization. I. Basic thermodynamic properties. <i>Journal of Chemical Physics</i> , 1999 , 111, 7116-7130	3.9	103
572	Phase equilibria of lattice polymer and solvent: tests of theories against simulations. <i>Macromolecules</i> , 1990 , 23, 1181-1191	5.5	103
571	Fragility of glass-forming polymer liquids. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 21350-6	3.4	102
570	Positional time correlation function for one-dimensional systems with barrier crossing: Memory function corrections to the optimized Rouse-Zimm approximation. <i>Journal of Chemical Physics</i> , 1993 , 98, 564-573	3.9	102
569	Long time dynamics of Met-enkephalin: comparison of explicit and implicit solvent models. <i>Biophysical Journal</i> , 2002 , 82, 1791-808	2.9	99
568	Relation of effective interaction parameters for binary blends and diblock copolymers: lattice cluster theory predictions and comparisons with experiment. <i>Macromolecules</i> , 1993 , 26, 213-220	5.5	99
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566	All-atom fast protein folding simulations: the villin headpiece. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002 , 49, 439-45	4.2	96

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- 551 Irreversible Electronic Relaxation in Polyatomic Molecules. *Journal of Chemical Physics*, **1970**, 52, 1345-1354 3.9 82
- 550 Loss of conformational entropy in protein folding calculated using realistic ensembles and its implications for NMR-based calculations. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 15396-401 11.5 81
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- 548 Lattice model of equilibrium polymerization. IV. Influence of activation, chemical initiation, chain scission and fusion, and chain stiffness on polymerization and phase separation. *Journal of Chemical Physics*, **2003**, 119, 12645-12666 3.9 80

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544	Influence of Short Chain Branching on the Miscibility of Binary Polymer Blends: Application to Polyolefin Mixtures. <i>Macromolecules</i> , 1996 , 29, 625-636	5.5	77
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