David R Reichman

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126 papers	12,906 citations	49 h-index	113 g-index
135 ext. papers	14,518 ext. citations	8.2 avg, IF	6.64 L-index

#	Paper	IF	Citations
126	Grains and grain boundaries in highly crystalline monolayer molybdenum disulphide. *Nature Materials*, **2013**, 12, 554-61	27	1590
125	Exciton binding energy and nonhydrogenic Rydberg series in monolayer WS(2). *Physical Review Letters*, **2014**, 113, 076802	7.4	1358
124	Drying-mediated self-assembly of nanoparticles. *Nature*, **2003**, 426, 271-4	50.4	806
123	Visualizing individual nitrogen dopants in monolayer graphene. *Science*, **2011**, 333, 999-1003	33.3	697
122	Theory of neutral and charged excitons in monolayer transition metal dichalcogenides. *Physical Review B*, **2013**, 88,	3.3	579
121	Soft colloids make strong glasses. *Nature*, **2009**, 462, 83-6	50.4	417
120	Observation of biexcitons in monolayer WSe2. *Nature Physics*, **2015**, 11, 477-481	16.2	399
119	Connecting dopant bond type with electronic structure in N-doped graphene. *Nano Letters*, **2012**, 12, 4025-31	11.5	381
118	Irreversible reorganization in a supercooled liquid originates from localized soft modes. *Nature Physics*, **2008**, 4, 711-715	16.2	308
117	Microscopic theory of singlet exciton fission. II. Application to pentacene dimers and the role of superexchange. *Journal of Chemical Physics*, **2013**, 138, 114103	3.9	260
116	Observation of Excitonic Rydberg States in Monolayer MoS2 and WS2 by Photoluminescence Excitation Spectroscopy. *Nano Letters*, **2015**, 15, 2992-7	11.5	259
115	Inhomogeneous mode-coupling theory and growing dynamic length in supercooled liquids. *Physical Review Letters*, **2006**, 97, 195701	7.4	241
114	The quantum coherent mechanism for singlet fission: experiment and theory. *Accounts of Chemical Research*, **2013**, 46, 1321-9	24.3	214
113	Tailoring the electronic structure in bilayer molybdenum disulfide via interlayer twist. *Nano Letters*, **2014**, 14, 3869-75	11.5	213
112	Absence of diffusion in an interacting system of spinless fermions on a one-dimensional disordered lattice. *Physical Review Letters*, **2015**, 114, 100601	7.4	197
111	Strain-rate frequency superposition: a rheological probe of structural relaxation in soft materials. *Physical Review Letters*, **2007**, 98, 238303	7.4	195
110	Mode-coupling theory. *Journal of Statistical Mechanics: Theory and Experiment*, **2005**, 2005, P05013	1.9	187

109	Dynamic basis for one-dimensional DNA scanning by the mismatch repair complex Msh2-Msh6. *Molecular Cell*, **2007**, 28, 359-70	17.6	186
108	Microscopic theory of singlet exciton fission. I. General formulation. *Journal of Chemical Physics*, **2013**, 138, 114102	3.9	182
107	Local atomic and electronic structure of boron chemical doping in monolayer graphene. *Nano Letters*, **2013**, 13, 4659-65	11.5	168
106	Momentum-space indirect interlayer excitons in transition-metal dichalcogenide van der Waals heterostructures. *Nature Physics*, **2018**, 14, 801-805	16.2	145
105	Energy Transfer from Quantum Dots to Graphene and MoS2: The Role of Absorption and Screening in Two-Dimensional Materials. *Nano Letters*, **2016**, 16, 2328-33	11.5	140
104	Adaptive nudged elastic band approach for transition state calculation. *Journal of Chemical Physics*, **2002**, 117, 4651-4658	3.9	138
103	Growing point-to-set length scale correlates with growing relaxation times in model supercooled liquids. *Physical Review Letters*, **2012**, 108, 225506	7.4	115
102	Magnetic self-assembly of three-dimensional surfaces from planar sheets. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 3924-9	11.5	112
101	Length-dependent conductance of oligothiophenes. *Journal of the American Chemical Society*, **2014** , 136, 10486-92	16.4	107
100	Transient superconductivity from electronic squeezing of optically pumped phonons. *Nature Physics*, **2017**, 13, 479-483	16.2	104
99	Multiphonon relaxation slows singlet fission in crystalline hexacene. *Journal of the American Chemical Society*, **2014**, 136, 10654-60	16.4	92
98	The promoter-search mechanism of Escherichia coli RNA polymerase is dominated by three-dimensional diffusion. *Nature Structural and Molecular Biology*, **2013**, 20, 174-81	17.6	88
97	The calculation of transport properties in quantum liquids using the maximum entropy numerical analytic continuation method: application to liquid para-hydrogen. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 1129-33	11.5	88
96	A Feynman path centroid dynamics approach for the computation of time correlation functions involving nonlinear operators. *Journal of Chemical Physics*, **2000**, 113, 919-929	3.9	88
95	Taming the Dynamical Sign Problem in Real-Time Evolution of Quantum Many-Body Problems. *Physical Review Letters*, **2015**, 115, 266802	7.4	86
94	Triplet Separation Drives Singlet Fission after Femtosecond Correlated Triplet Pair Production in Rubrene. *Journal of the American Chemical Society*, **2017**, 139, 11745-11751	16.4	85
93	Accurate Force Field Development for Modeling Conjugated Polymers. *Journal of Chemical Theory and Computation*, **2012**, 8, 4556-69	6.4	85
92	Localized soft modes and the supercooled liquid's irreversible passage through its configuration space. *Journal of Chemical Physics*, **2009**, 131, 194508	3.9	78

91	Quantum fluctuations can promote or inhibit glass formation. *Nature Physics*, **2011**, 7, 134-137	16.2	74
90	Segregation of sublattice domains in nitrogen-doped graphene. *Journal of the American Chemical Society*, **2014**, 136, 1391-7	16.4	73
89	Correlation of local order with particle mobility in supercooled liquids is highly system dependent. *Physical Review Letters*, **2014**, 113, 157801	7.4	69
88	Effect of flexibility on hydrophobic behavior of nanotube water channels. *Journal of Chemical Physics*, **2005**, 123, 194502	3.9	69
87	Vibronic exciton theory of singlet fission. I. Linear absorption and the anatomy of the correlated triplet pair state. *Journal of Chemical Physics*, **2017**, 146, 174703	3.9	67
86	Green's functions from real-time bold-line Monte Carlo calculations: spectral properties of the nonequilibrium Anderson impurity model. *Physical Review Letters*, **2014**, 112, 146802	7.4	64
85	Cooperativity beyond caging: Generalized mode-coupling theory. *Physical Review Letters*, **2006**, 97, 095702	7.4	64
84	A self-consistent mode-coupling theory for dynamical correlations in quantum liquids: Application to liquid para-hydrogen. *Journal of Chemical Physics*, **2002**, 116, 6279-6285	3.9	60
83	Spatial dimension and the dynamics of supercooled liquids. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 15171-5	11.5	58
82	Self-consistent mode-coupling theory for self-diffusion in quantum liquids. *Physical Review Letters*, **2001**, 87, 265702	7.4	58
81	Vibronic exciton theory of singlet fission. III. How vibronic coupling and thermodynamics promote rapid triplet generation in pentacene crystals. *Journal of Chemical Physics*, **2018**, 148, 244701	3.9	55
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79	A self-consistent mode-coupling theory for dynamical correlations in quantum liquids: Rigorous formulation. *Journal of Chemical Physics*, **2002**, 116, 6271-6278	3.9	50
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77	Comparison of dynamical heterogeneity in hard-sphere and attractive glass formers. *Journal of Physical Chemistry B*, **2005**, 109, 14654-8	3.4	48
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74	On the relaxation of a two-level system: Beyond the weak-coupling approximation. *Journal of Chemical Physics*, **1996**, 104, 1506-1518	3.9	47

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66	On Achieving High Accuracy in Quantum Chemical Calculations of 3 d Transition Metal-Containing Systems: A Comparison of Auxiliary-Field Quantum Monte Carlo with Coupled Cluster, Density Functional Theory, and Experiment for Diatomic Molecules. *Journal of Chemical Theory and Computation*, **2019**, 15, 2346-2358	6.4	42
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52	Coherent quantum dynamics in donor□bridge□cceptor systems: beyond the hopping and super-exchange mechanisms. *New Journal of Physics*, **2013**, 15, 105020	2.9	26
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49	A Short-Time Quantum Mechanical Expansion Approach to Vibrational Relaxation□*Journal of Physical Chemistry B*, **2001**, 105, 6550-6555	3.4	26
48	Phaseless Auxiliary-Field Quantum Monte Carlo on Graphical Processing Units. *Journal of Chemical Theory and Computation*, **2018**, 14, 4109-4121	6.4	25
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36	Transport properties of normal liquid helium: comparison of various methodologies. *Journal of Chemical Physics*, **2005**, 123, 184506	3.9	18
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21	On mean-field theories of dynamics in supercooled liquids. *Journal of Chemical Physics*, **2019**, 151, 084503	3.9	9
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10	Spectral Functions from Auxiliary-Field Quantum Monte Carlo without Analytic Continuation: The Extended KoopmansTTheorem Approach. *Journal of Chemical Theory and Computation*, **2021**, 17, 3372-3387	6.4	5
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1 Strongly Correlated Ladders in K-Doped -Terphenyl Crystals. *Nano Letters*, **2021**, 21, 9573-9579 11.5