Raphael David Levine

List of Publications by Year
in descending order

361	13,579	23500 58	39575 94
papers	citations	h-index	g-index

373	373	373	5317
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Algebraic approach to molecular rotationâ€vibration spectra. I. Diatomic molecules. Journal of Chemical Physics, 1982, 77, 3046-3055.	1.2	398
2	Multi-Electronic-State Molecular Dynamics:Â A Wave Function Approach with Applications. The Journal of Physical Chemistry, 1996, 100, 7884-7895.	2.9	371
3	An electronic time scale in chemistry. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6793-6798.	3.3	354
4	Algebraic Theory of Molecules. , 1995, , .		270
5	Algebraic approach to molecular rotationâ€vibration spectra. II. Triatomic molecules. Journal of Chemical Physics, 1983, 79, 2515-2536.	1.2	269
6	Connection between the maximal entropy and the scattering theoretic analyses of collision processes. Physical Review A, 1978, 18, 89-116.	1.0	237
7	Entropy and Chemical Change. II. Analysis of Product Energy Distributions: Temperature and Entropy Deficiency. Journal of Chemical Physics, 1972, 57, 5427-5447.	1.2	205
8	A unified algebraic model description for interacting vibrational modes in ABA molecules. Journal of Chemical Physics, 1984, 81, 5986-5997.	1.2	184
9	Dynamical aspects of stereochemistry. The Journal of Physical Chemistry, 1987, 91, 5365-5377.	2.9	177
10	Vibrational energy transfer in molecular collisions: An information theoretic analysis and synthesis. Journal of Chemical Physics, 1975, 63, 4261-4279.	1.2	175
11	Information Theory Approach to Molecular Reaction Dynamics. Annual Review of Physical Chemistry, 1978, 29, 59-92.	4.8	175
12	Entropy and chemical change. III. The maximal entropy (subject to constraints) procedure as a dynamical theory. Journal of Chemical Physics, 1977, 67, 4321-4339.	1.2	170
13	Entropy and Chemical Change. I. Characterization of Product (and Reactant) Energy Distributions in Reactive Molecular Collisions: Information and Entropy Deficiency. Journal of Chemical Physics, 1972, 57, 434-449.	1.2	152
14	DELAYED IONIZATION AND FRAGMENTATION EN ROUTE TO THERMIONIC EMISSION: Statistics and Dynamics. Annual Review of Physical Chemistry, 2000, 51, 65-98.	4.8	141
15	Collisional ionization and elastic scattering in alkaliâ€“halogen atom collisions. Journal of Chemical Physics, 1976, 64, 2953-2970.	1.2	136
16	Dimensional scaling as a symmetry operation. Journal of Chemical Physics, 1989, 91, 7791-7796.	1.2	136
17	Collision induced dissociation: A statistical theory. Journal of Chemical Physics, 1973, 58, 3942-3952.	1.2	135
18	All-DNA finite-state automata with finite memory. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21996-22001.	3.3	129

#	Article	IF	Citations
19	A molecular logic gate. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 410-414.	3.3	126
20	Intermolecular and Intramolecular Logic Gates. Journal of Physical Chemistry B, 2001, 105, 5589-5591.	1.2	124
21	Quantum Dots as Chemical Building Blocks: Elementary Theoretical Considerations. ChemPhysChem, 2001, 2, 20-36.	1.0	122
22	Laser Steered Ultrafast Quantum Dynamics of Electrons in LiH. Physical Review Letters, 2007, 99, 183902.	2.9	121
23	Consistent Inference of Probabilities for Reproducible Experiments. Physical Review Letters, 1984, 52, 1357-1360.	2.9	120
24	Molecular Collision Dynamics on Several Electronic States. Journal of Physical Chemistry A, 1997, 101, 6389-6402.	1.1	114
25	Nonstationary Electronic States and Site-Selective Reactivity. Journal of Physical Chemistry A, 1997, 101, 7702-7710.	1.1	113
26	Cross sections for rotational energy transfer: An informationâ€theoretic synthesis. Journal of Chemical Physics, 1976, 64, 808-817.	1.2	106
27	Transition-Strength Fluctuations and the Onset of Chaotic Motion. Physical Review Letters, 1986, 57, 2879-2882.	2.9	106
28	An information theoretical approach to inversion problems. Journal of Physics A, 1980, 13, 91-108.	1.6	97
29	The effect of reagent energy on chemical reaction rates: An information theoretic analysis. Journal of Chemical Physics, 1975, 63, 4280-4303.	1.2	93
30	Surprisal analysis and probability matrices for rotational energy transfer. Journal of Chemical Physics, 1976, 64, 796-807.	1.2	93
31	Electronic Control of Site Selective Reactivity:Â A Model Combining Charge Migration and Dissociation. Journal of Physical Chemistry A, 1999, 103, 10149-10158.	1.1	89
32	Pump and probe ultrafast electron dynamics in LiH: a computational study. New Journal of Physics, 2008, 10, 025019.	1.2	87
33	Homogeneous bottleneck model of matrix-assisted ultraviolet laser desorption of large molecules. Rapid Communications in Mass Spectrometry, 1990, 4, 228-233.	0.7	86
34	Logic reversibility and thermodynamic irreversibility demonstrated by DNAzyme-based Toffoli and Fredkin logic gates. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21228-21233.	3.3	82
35	Dynamics of very high Rydberg states of aromatic molecules. Journal of Chemical Physics, 1993, 98, 1744-1747.	1.2	81
36	Photoselective Chemistry. Advances in Chemical Physics, 2007, , 1-114.	0.3	81

#	Article	IF	Citations
37	Information-theoretic analysis of phenotype changes in early stages of carcinogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10324-10329.	3.3	81
38	Shattering of Clusters Upon Surface Impact: An Experimental and Theoretical Study. Physical Review Letters, 1995, 75, 2670-2673.	2.9	80
39	A full-adder based on reconfigurable DNA-hairpin inputs and DNAzyme computing modules. Chemical Science, 2014, 5, 3381.	3.7	80
40	Long time stability of very high Rydberg states of vibrationally excited molecules. Physical Review Letters, 1994, 72, 1435-1438.	2.9	79
41	Cluster impact chemistry. Highâ€energy collisions of I2ArN clusters with a Pt surface. Journal of Chemical Physics, 1994, 101, 8596-8605.	1.2	78
42	DNAzyme-based 2:1 and 4:1 multiplexers and 1:2 demultiplexer. Chemical Science, 2014, 5, 1074.	3.7	78
43	Dissociation dynamics of diatomic molecules embedded in impact heated rare gas clusters. Journal of Chemical Physics, 1994, 101, 8606-8619.	1.2	76
44	Computational Investigation of Internal Excitation in Nonreactive Molecular Collisions: Resonances in Rotational Excitation. Journal of Chemical Physics, 1968, 49, 56-64.	1.2	72
45	Fragment size distribution in cluster impact: Shattering versus evaporation by a statistical approach. Journal of Chemical Physics, 1995, 103, 5394-5409.	1.2	72
46	Postâ€Threshold Energy Dependence of the Cross Section for Endoergic Processes: Vibrational Excitation and Reactive Scattering. Journal of Chemical Physics, 1972, 56, 2281-2287.	1.2	70
47	Role of Potential Curve Crossing in Subexcitation Molecular Collisions: Exact (Twoâ€State) Computations vs Decoupling Approximations for Resonance Positions. Journal of Chemical Physics, 1969, 50, 1694-1701.	1.2	69
48	Ionization, charge separation, charge recombination, and electron transfer in large systems. The Journal of Physical Chemistry, 1992, 96, 10608-10616.	2.9	69
49	Fluctuations in Spectral Intensities and Transition Rates. Advances in Chemical Physics, 2007, , 53-95.	0.3	69
50	Potential work: A statisticalâ€mechanical approach for systems in disequilibrium. Journal of Chemical Physics, 1976, 65, 3357-3364.	1.2	67
51	Classical trajectory study of the K + CH3I reaction. Journal of Chemical Physics, 1973, 59, 6286-6298.	1.2	66
52	Observations of Molecular Rydberg State Decay for n = 10-200. The Journal of Physical Chemistry, 1994, 98, 3472-3477.	2.9	66
53	Firstâ€principles molecular dynamics on multiple electronic states: A case study of NaI. Journal of Chemical Physics, 1996, 105, 6334-6341.	1.2	66
54	Priorâ€expectation distribution functions for energy disposal and energy consumption in reactive molecular collisions. Journal of Chemical Physics, 1974, 61, 4937-4938.	1.2	65

#	Article	IF	Citations
55	On the shattering of clusters by surface impact heating. Journal of Chemical Physics, 1996, 105, 8097-8102.	1.2	64
56	miRNA and mRNA cancer signatures determined by analysis of expression levels in large cohorts of patients. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19160-19165.	3.3	64
57	Empirical triatomic potential energy surfaces defined over orthogonal bond order coordinates. Journal of Chemical Physics, 1979, 71, 3034.	1.2	62
58	Entropy and macroscopic disequilibrium. I. Isothermal time evolution with applications to vibrational relaxation. Journal of Chemical Physics, 1976, 65, 3284-3301.	1.2	61
59	Coherent states for the Morse oscillator. Physical Review A, 1990, 41, 2301-2305.	1.0	61
60	Conservation of zeroâ€point energy in classical trajectory computations by a simple semiclassical correspondence. Journal of Chemical Physics, 1994, 101, 8768-8783.	1.2	61
61	Hypoxia induces a phase transition within a kinase signaling network in cancer cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1352-60.	3.3	61
62	Energy requirements and energy disposal: Reaction probability matrices and a computational study of a model system. Journal of Chemical Physics, 1974, 60, 4977-4989.	1.2	58
63	Energy partitioning in the reaction 16O(1D)+H2â€‰18Oâ†'16OH+18OH. II. The distribution of 16OH and 18OH. Journal of Chemical Physics, 1981, 74, 6106-6112.	1.2	57
64	The branching ratio in the F+HD reaction: An experimental and computational study. Journal of Chemical Physics, 1991, 94, 2749-2757.	1.2	57
65	Four-Center Reactions: A Computational Study of Collisional Activation, Concerted Bond Switching, and Collisional Stabilization in Impact Heated Clusters. The Journal of Physical Chemistry, 1995, 99, 7495-7506.	2.9	57
66	Decay of high Rydberg states: A paradigm for intramolecular dynamics in a congested bound level structure coupled to a continuum. Journal of Chemical Physics, 1996, 104, 1399-1414.	1.2	57
67	Probing Ultrafast Purely Electronic Charge Migration in Small Peptides. Zeitschrift Fur Physikalische Chemie, 2007, 221, 647-661.	1.4	57
68	Charge migration in the bifunctional PENNA cation induced and probed by ultrafast ionization: a dynamical study. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 124011.	0.6	57
69	Energy disposal and energy requirements for elementary chemical reactions. Faraday Discussions of the Chemical Society, 1973, 55, 100.	2.2	56
70	Alternative approach to maximum-entropy inference. Physical Review A, 1984, 30, 2638-2644.	1.0	56
71	Broad spectral features in the stimulated emission pumping spectrum of acetylene. Journal of Chemical Physics, 1988, 88, 5972-5974.	1.2	56
72	Excitation of Rydberg Series inC60. Physical Review Letters, 2001, 87, 273401.	2.9	56

#	Article	IF	Citations
73	Adiabatic Approximation for Nonreactive, Subexcitation, Molecular Collisions. Journal of Chemical Physics, 1968, 49, 51-55.	1.2	55
74	Transition Probabilities in Molecular Collisions: Computational Studies of Rotational Excitation. Journal of Chemical Physics, 1970, 52, 1755-1767.	1.2	55
75	Quantal Fluctuations in Unimolecular Rate Constants. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1988, 92, 222-227.	0.9	55
76	Protein Signaling Networks from Single Cell Fluctuations and Information Theory Profiling. Biophysical Journal, 2011, 100, 2378-2386.	0.2	55
77	On the zero point energy in classical trajectory computations. Journal of Chemical Physics, 1996, 105, 8136-8141.	1.2	54
78	Collisional energy loss in cluster surface impact: Experimental, model, and simulation studies of some relevant factors. Journal of Chemical Physics, 1998, 108, 10262-10273.	1.2	54
79	Spectral autocorrelation function in the statistical theory of energy levels. Physical Review A, 1992, 46, 4650-4653.	1.0	53
80	Networks of Quantum Nanodots:Â The Role of Disorder in Modifying Electronic and Optical Properties. Journal of Physical Chemistry B, 1998, 102, 7727-7734.	1.2	53
81	Electronic Response of Assemblies of Designer Atoms:â€‰ The Metalâ^'Insulator Transition and the Role of Disorder. Journal of the American Chemical Society, 2000, 122, 4084-4091.	6.6	53
82	Localized electron dynamics in attosecond-pulse-excited molecular systems: Probing the time-dependent electron density by sudden photoionization. Physical Review A, 2012, 86, .	1.0	53
83	Glioblastoma cellular architectures are predicted through the characterization of two-cell interactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6521-6526.	3.3	52
84	Intercommunication of DNA-Based Constitutional Dynamic Networks. Journal of the American Chemical Society, 2018, 140, 8721-8731.	6.6	52
85	Free energy of activation. Definition, properties, and dependent variables with special reference to "linear" free energy relations. The Journal of Physical Chemistry, 1979, 83, 159-170.	2.9	51
86	Non-adiabatic molecular dynamics: Split-operator multiple spawning with applications to photodissociation. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 941-947.	1.7	51
87	Coherent Electronic Wave Packet Motion in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">C</mml:mi></mml:mrow><mml:mrow><mml:mn>60</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> by the Waveform and Polarization of Few-Cycle Laser Fields. Physical Review Letters, 2015, 114, 123004.	2.9	51
88	Kinetics of Unimolecular Breakdown. I. The Formal Solution. Journal of Chemical Physics, 1966, 44, 1567-1576.	1.2	50
89	Entropy and macroscopic disequilibrium. II. The information theoretic characterization of Markovian relaxation processes. Journal of Chemical Physics, 1976, 65, 3302-3315.	1.2	50
90	Quantum dot artificial solids: Understanding the static and dynamic role of size and packing disorder. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6456-6459.	3.3	50

#	Article	IF	Citations
91	Massive isotopic effect in vacuum UV photodissociation of N ₂ and implications for meteorite data. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14704-14709.	3.3	50
92	Phenomenological Analysis of Reactive Scattering. Journal of Chemical Physics, 1968, 49, 3872-3878.	1.2	49
93	Statistical fragmentation patterns in multiphoton ionization: A comparison with experiment. Journal of Chemical Physics, 1981, 75, 5735-5743.	1.2	49
94	Four-Center Reactions Induced by Cluster Impact. Journal of the American Chemical Society, 1994, 116, 11167-11168.	6.6	49
95	Structural Considerations in Chemical Kinetics: Gas Phase Hâ€Atom Transfer Reaction Series. Israel Journal of Chemistry, 1980, 19, 330-336.	1.0	48
96	Gating the Conductivity of Arrays of Metallic Quantum Dots. Journal of Physical Chemistry B, 2003, 107, 13892-13901.	1.2	48
97	On the strong and selective isotope effect in the UV excitation of N ₂ with implications toward the nebula and Martian atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 6020-6025.	3.3	48
98	On a fundamental structure of gene networks in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4702-4707.	3.3	48
99	Charge migration and control of site selective reactivity: The role of covalent and ionic states. Journal of Chemical Physics, 1999, 110, 5089-5099.	1.2	47
100	Surprisal analysis characterizes the free energy time course of cancer cells undergoing epithelial-to-mesenchymal transition. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13235-13240.	3.3	47
101	Dynamics and kinetics of molecular high Rydberg states in the presence of an electrical field: An experimental and classical computational study. Journal of Chemical Physics, 1995, 102, 1619-1638.	1.2	46
102	Towards a molecular logic machine. Journal of Chemical Physics, 2001, 114, 10239-10246.	1.2	45
103	High-lying levels of ozone via an algebraic approach. The Journal of Physical Chemistry, 1983, 87, 727-729.	2.9	44
104	Electrical addressing of confined quantum systems for quasiclassical computation and finite state logic machines. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5653-5658.	3.3	44
105	Thermodynamic Approach to Collision Processes. , 1976, , 323-364.		42
106	Information-theoretic analysis of energy disposal in heavy-ion transfer reactions. Physical Review C, 1979, 20, 1789-1813.	1.1	42
107	A stationary formulation of timeâ€dependent problems in quantum mechanics. Journal of Chemical Physics, 1983, 79, 5512-5519.	1.2	42
108	All-optical digital logic: Full addition or subtraction on a three-state system. Physical Review A, 2006, 73, .	1.0	42

#	Article	IF	Citations
109	Attosecond pumping of nonstationary electronic states of LiH: Charge shake-up and electron density distortion. Physical Review A, 2011, 83, .	1.0	42
110	Consecutive feedback-driven constitutional dynamic networks. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2843-2848.	3.3	42
111	Solventâ€induced nonadiabatic transitions in iodine: An ultrafast pumpâ€“probe computational study. Journal of Chemical Physics, 1996, 105, 3035-3056.	1.2	41
112	Resonance Widths and Positions by an Algebraic Approach. Physical Review Letters, 1985, 54, 1746-1749.	2.9	39
113	From bulk vibrational relaxation data to the detailed (microscopic) rate constants. Journal of Chemical Physics, 1975, 62, 2496-2497.	1.2	38
114	Conductivity of 2-D Ag Quantum Dot Arrays:Â Computational Study of the Role of Size and Packing Disorder at Low Temperatures. Journal of Physical Chemistry B, 2002, 106, 4116-4126.	1.2	38
115	Opacity Analysis of Inelastic Molecular Collisions. IV. Statistical Aspects of Rotational Excitation Theory. Journal of Chemical Physics, 1970, 53, 686-693.	1.2	37
116	The Information Theoretic Approach to Intramolecular Dynamics. Advances in Chemical Physics, 2007, , 239-292.	0.3	37
117	Integrated logic circuits using single-atom transistors. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13969-13972.	3.3	37
118	Ternary DNA computing using 3 Ã— 3 multiplication matrices. Chemical Science, 2015, 6, 1288-1292.	3.7	37
119	Intercellular signaling through secreted proteins induces free-energy gradient-directed cell movement. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5520-5525.	3.3	37
120	On the field ionization spectrum of high Rydberg states. Journal of Chemical Physics, 1994, 100, 186-196.	1.2	36
121	Collision experiments with partial resolution of final states: Maximum entropy procedure and surprisal analysis. Physical Review C, 1979, 20, 1775-1788.	1.1	35
122	Rotational relaxation: An analytic solution of the master equation with applications to HCl. Journal of Chemical Physics, 1975, 63, 3181.	1.2	34
123	Architecture with designer atoms: Simple theoretical considerations. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 553-558.	3.3	34
124	Pump and Probe of Ultrafast Charge Reorganization in Small Peptides: A Computational Study through Sudden Ionizations. Journal of Physical Chemistry A, 2013, 117, 10513-10525.	1.1	34
125	A classical kinematic model for direct reactions of oriented reagents. The Journal of Physical Chemistry, 1987, 91, 5472-5480.	2.9	33
126	Nonreactive Molecular Encounters. Journal of Chemical Physics, 1967, 46, 331-345.	1.2	32

#	Article	IF	Citations
127	Information theoretic analysis of multiphoton excitation and collisional deactivation in polyatomic molecules. Journal of Chemical Physics, 1978, 69, 1432-1439.	1.2	32
128	Dynamical stereochemistry of the hydrogen exchange reaction: A computational study. International Journal of Chemical Kinetics, 1986, 18, 1023-1045.	1.0	32
129	Superexchange, Localized, and Domain-Localized Charge States for Intramolecular Electron Transfer in Large Molecules and in Arrays of Quantum Dots. Journal of Physical Chemistry B, 2001, 105, 2153-2162.	1.2	32
130	Transcending Binary Logic by Gating Three Coupled Quantum Dots. Nano Letters, 2007, 7, 2795-2799.	4.5	32
131	Stereocontrol of attosecond time-scale electron dynamics in ABCU using ultrafast laser pulses: a computational study. Physical Chemistry Chemical Physics, 2011, 13, 8331.	1.3	32
132	Dynamical symmetries. The Journal of Physical Chemistry, 1985, 89, 2122-2129.	2.9	31
133	Long lifetimes of high molecular Rydberg states in crossed magnetic and electric fields: An experimental and classical computational study. Physical Review A, 1995, 51, 3922-3933.	1.0	31
134	Kinetics and dynamics of reactions in liquids. International Reviews in Physical Chemistry, 1995, 14, 215-270.	0.9	31
135	Rotational autoionization and interseries coupling of high Rydberg states by the anisotropy of the molecular core: The quantal long time evolution. Journal of Chemical Physics, 1996, 105, 4649-4663.	1.2	31
136	Dissociation Kinetics of Peptide Ionsâ€. Journal of Physical Chemistry A, 2006, 110, 8497-8500.	1.1	31
137	Logic implementations using a single nanoparticleâ€“protein hybrid. Nature Nanotechnology, 2010, 5, 451-457.	15.6	31
138	Time evolution via a self-consistent maximal-entropy propagation: The reversible case. Physical Review A, 1984, 30, 1477-1490.	1.0	30
139	Variational Corrections to Decoupling Approximations in Molecular Collision Theory. Journal of Chemical Physics, 1969, 50, 1-6.	1.2	29
140	Informationâ€theoretic analysis of the kinetic intramolecular isotope effect for the F + HD reaction. Journal of Chemical Physics, 1974, 61, 4926-4927.	1.2	29
141	Translational energy dependence of the reaction cross section: An information theoretic synthesis with applications to M+CH3I. Journal of Chemical Physics, 1975, 63, 5064-5066.	1.2	29
142	Energy flow pathways and their spectral signatures in vibrationally excited acetylene. Journal of Chemical Physics, 1988, 89, 3379-3381.	1.2	29
143	Logic gates using high Rydberg states. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 2973-2978.	3.3	29
144	Control of electronic dynamics visualized by angularly resolved photoelectron spectra: A dynamical simulation with an IR pump and XUV attosecond-pulse-train probe. Physical Review A, 2014, 89, .	1.0	29

#	Article	IF	Citations
145	Does a dissociating molecule sample the available phase space. The Journal of Physical Chemistry, 1991, 95, 7124-7127.	2.9	28
146	The time scale for electronic reorganization upon sudden ionization of the water and water-methanol hydrogen bonded dimers and of the weakly bound NO dimer. Journal of Chemical Physics, 2006, 125, 133321.	1.2	28
147	The post-Bornâ€“Oppenheimer regime: dynamics of electronic motion in molecules by attosecond few-cycle spectroscopy. Physica Scripta, 2009, 80, 048101.	1.2	28
148	On a Theory of Absolute Reaction Rates. Journal of Chemical Physics, 1967, 47, 1235-1247.	1.2	27
149	On the relation between collinear and three dimensional collision rates with applications to vibrational energy transfer. Journal of Chemical Physics, 1976, 64, 3118.	1.2	27
150	Mode selectivity in the classical power spectra of highly vibrationally excited molecules. The Journal of Physical Chemistry, 1992, 96, 8006-8022.	2.9	27
151	Unimolecular Dissociation from a Dense Set of States. The Journal of Physical Chemistry, 1996, 100, 7962-7971.	2.9	27
152	Electrical transport in saturated and conjugated molecular wires. Faraday Discussions, 2006, 131, 45-67.	1.6	27
153	Personalized disease signatures through information-theoretic compaction of big cancer data. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7694-7699.	3.3	27
154	Time domain information from resonant Raman excitation profiles: A direct inversion by maximum entropy. Journal of Chemical Physics, 1993, 99, 4908-4925.	1.2	26
155	Concerted vs Sequential Four-Center Reactions: A Computational Study of High-Energy Dynamics. The Journal of Physical Chemistry, 1995, 99, 13713-13715.	2.9	26
156	Convergence of Logic of Cellular Regulation in Different Premalignant Cells by an Information Theoretic Approach. BMC Systems Biology, 2011, 5, 42.	3.0	26
157	Molecular decision trees realized by ultrafast electronic spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17183-17188.	3.3	26
158	Parallel and Multivalued Logic by the Two-Dimensional Photon-Echo Response of a Rhodamineâ€“DNA Complex. Journal of Physical Chemistry Letters, 2015, 6, 1714-1718.	2.1	26
159	Kinetics of Unimolecular Breakdown. II. Timeâ€Dependent Theory. Journal of Chemical Physics, 1966, 44, 2029-2035.	1.2	25
160	Opacity Analysis of Inelastic Molecular Collisions. VI. The Sudden Approximation for Rotational Excitation. Journal of Chemical Physics, 1971, 54, 997-1004.	1.2	25
161	On the Conservation Rule for the Total Cross Section in Molecular Collision Theory. Journal of Chemical Physics, 1972, 57, 1015-1016.	1.2	25
162	Dynamical stereochemistry of elementary reactions in solution. The Journal of Physical Chemistry, 1990, 94, 3937-3944.	2.9	25

#	Article	IF	Citations
163	Kinematic constraints in reactive collisions. The Journal of Physical Chemistry, 1991, 95, 8201-8205.	2.9	25
164	Ternary logic implemented on a single dopant atom field effect silicon transistor. Applied Physics Letters, 2010, 96, .	1.5	25
165	Metabolomic analysis of the green microalga Chlamydomonas reinhardtii cultivated under day/night conditions. Journal of Biotechnology, 2015, 215, 20-26.	1.9	25
166	Spatial and temporal control of populations, branching ratios, and electronic coherences in LiH by a single one-cycle infrared pulse. Physical Review A, 2017, 95, .	1.0	25
167	A thermodynamic derivation of the cross-relations for rates of electron-transfer reactions. Journal of the American Chemical Society, 1980, 102, 4898-4900.	6.6	24
168	A model algebraic Hamiltonian for interacting nonequivalent local modes with application to HCCD and H12C13CD. Journal of Chemical Physics, 1984, 81, 3352-3353.	1.2	24
169	Geometry in classical statistical thermodynamics. Journal of Chemical Physics, 1986, 84, 910-916.	1.2	24
170	Liquid State Control of Chemical Reactions: Toward a Molecular Description. Accounts of Chemical Research, 1994, 27, 166-173.	7.6	24
171	Continuous variables logic via coupled automata using a DNAzyme cascade with feedback. Chemical Science, 2017, 8, 2161-2168.	3.7	24
172	Coherent electronic and nuclear dynamics in a rhodamine heterodimerâ€“DNA supramolecular complex. Physical Chemistry Chemical Physics, 2017, 19, 23043-23051.	1.3	24
173	The statistical wave function. Journal of Statistical Physics, 1988, 52, 1203-1220.	0.5	23
174	Quantum Nuclear Dynamics Pumped and Probed by Ultrafast Polarization Controlled Steering of a Coherent Electronic State in LiH. Journal of Physical Chemistry A, 2016, 120, 3343-3352.	1.1	23
175	Kinetics of Unimolecular Breakdown. IV. The Linear Chain. Journal of Chemical Physics, 1966, 44, 2035-2045.	1.2	22
176	Angular entropy: The information content of molecular scattering angular distributions. Journal of Chemical Physics, 1977, 66, 511-523.	1.2	22
177	Anharmonic local-mode-normal-mode transformations: an algebraic treatment. The Journal of Physical Chemistry, 1986, 90, 3653-3656.	2.9	22
178	How Large Are High Molecular Rydberg States? A Direct Experimental Test. The Journal of Physical Chemistry, 1995, 99, 1660-1665.	2.9	22
179	All Optical Full Adder Based on Intramolecular Electronic Energy Transfer in the Rhodamineâ^'Azulene Bichromophoric System. Journal of Physical Chemistry C, 2008, 112, 15880-15885.	1.5	22
180	Quantal fluctuations in fluorescence lifetimes of individual rovibronic levels. Journal of Chemical Physics, 1987, 86, 6561-6563.	1.2	21

#	Article	IF	Citations
181	The dynamics of Rydberg states of molecules in the intermediate regime: The role of the vibrations. Journal of Chemical Physics, 1996, 104, 1937-1952.	1.2	21
182	Rydberg states about dipolar cores: The quantum dynamics of the long-range anisotropic interaction. Physical Review A, 1996, 54, 4789-4801.	1.0	21
183	The role of the collision partner in the rotational excitation of diatomic molecules. Journal of Chemical Physics, 1976, 65, 495-496.	1.2	20
184	Statistical theories for molecular collisions: A maximum entropy derivation. Journal of Chemical Physics, 1980, 72, 2990-2997.	1.2	20
185	The analysis of intensity fluctuations for a fully resolved spectrum: Pyrazine. Journal of Chemical Physics, 1988, 88, 6810-6813.	1.2	20
186	The sequential exploration of phase space in selectively excited polyatomic molecules. Journal of Chemical Physics, 1993, 98, 2144-2159.	1.2	20
187	Dynamical Stereochemistry on Several Electronic States:Â A Computational Study of Na* + H2. Journal of Physical Chemistry A, 1997, 101, 7522-7529.	1.1	20
188	Time-dependent view of an isotope effect in electron-nuclear nonequilibrium dynamics with applications to N ₂. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5890-5895.	3.3	20
189	Dynamical stereochemistry of activationless bimolecular reactions of ions and neutrals. The Journal of Physical Chemistry, 1988, 92, 6954-6958.	2.9	19
190	Nanowiring by Molecules. Journal of Physical Chemistry B, 2004, 108, 18129-18134.	1.2	19
191	Quasiclassical computation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12091-12095.	3.3	19
192	DNA-based constitutional dynamic networks as functional modules for logic gates and computing circuit operations. Chemical Science, 2021, 12, 5473-5483.	3.7	19
193	Ultrafast geometrical reorganization of a methane cation upon sudden ionization: an isotope effect on electronic non-equilibrium quantum dynamics. Physical Chemistry Chemical Physics, 2021, 23, 12051-12059.	1.3	19
194	On the partial summation of the Born series. Journal of Physics B: Atomic and Molecular Physics, 1969, 2, 839-842.	1.6	18
195	Comment on the dynamics of dissociation of diatomic molecules: Mass and temperature effects. Journal of Chemical Physics, 1976, 64, 5320-5321.	1.2	18
196	Square-well potential by an algebraic approach. Physical Review A, 1986, 34, 4615-4620.	1.0	18
197	Dynamics of Very High Molecular Rydberg States: The Intramolecular Processes. The Journal of Physical Chemistry, 1994, 98, 8834-8843.	2.9	18
198	A Quantitative Model for the Dynamics of High Rydberg States of Molecules: The Iterated Map and its Kinetic Limit. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 310-322.	0.9	18

#	Article	IF	Citations
199	Configuration Interaction between Covalent and Ionic States in the Quantal and Semiclassical Limits with Application to Coherent and Hopping Charge Migration. Journal of Physical Chemistry A, 2000, 104, 2341-2350.	1.1	18
200	IR-UV Double-Resonance Photodissociation of Nitric Acid (HONO2) Viewed as Molecular Information Processing. Angewandte Chemie - International Edition, 2001, 40, 2512-2514.	7.2	18
201	Kinetics of Unimolecular Breakdown. V. Massâ€Spectral Patterns. Journal of Chemical Physics, 1966, 44, 2046-2053.	1.2	17
202	The populations time evolution in vibrational disequilibrium: An information theoretic approach with application to HF. Journal of Chemical Physics, 1975, 62, 3819.	1.2	17
203	Complex scaling and algebraic calculation of resonances. Physical Review A, 1986, 33, 2833-2835.	1.0	17
204	Polar representation of the (relaxed) potential energy function: the reaction plane and the cone of reaction. The Journal of Physical Chemistry, 1987, 91, 5466-5471.	2.9	17
205	Alignment due to long-range intermolecular forces can enhance reactive asymmetry. The Journal of Physical Chemistry, 1989, 93, 1687-1688.	2.9	17
206	The cage effect and energetic and steric requirements of elementary bimolecular reactions in condensed phases. The Journal of Physical Chemistry, 1992, 96, 1523-1525.	2.9	17
207	Ultrafast Predissociation Mechanism of the ¹Î_u States of ¹⁴N₂ and Its Isotopomers upon Attosecond Excitation from the Ground State. Journal of Physical Chemistry A, 2012, 116, 11311-11318.	1.1	17
208	Information-Theoretic Approach: Application to Molecular Collisions. , 1979, , 693-750.		17
209	Simplistic Analysis of Reactive Scattering II. Initial and Final Distortions. Israel Journal of Chemistry, 1970, 8, 13-28.	1.0	16
210	Classical Evaluation of Averaged Collision Rates: Ehrenfest Theorem in Near Classical Collision Theory. Journal of Chemical Physics, 1972, 56, 1633-1637.	1.2	16
211	Directed states of molecules. The Journal of Physical Chemistry, 1987, 91, 5462-5465.	2.9	16
212	On the repulsion of energy eigenstates in the time domain.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 11133-11137.	3.3	16
213	Physical aspects and quantitative theory of time resolved spectroscopy of high molecular Rydberg states. Journal of Chemical Physics, 1997, 107, 3382-3391.	1.2	16
214	Temporal and spatially resolved imaging of the correlated nuclear-electronic dynamics and of the ionized photoelectron in a coherently electronically highly excited vibrating LiH molecule. Journal of Chemical Physics, 2019, 151, 134310.	1.2	16
215	Quantum Device Emulates the Dynamics of Two Coupled Oscillators. Journal of Physical Chemistry Letters, 2020, 11, 6990-6995.	2.1	16
216	Nonmonotonic temperature dependence of the rates of ion-molecule reactions. The Journal of Physical Chemistry, 1991, 95, 10551-10553.	2.9	15

#	Article	IF	Citations
217	Improved corresponding states scaling of the equations of state of simple fluids. Journal of Chemical Physics, 2002, 117, 4632-4634.	1.2	15
218	Current-voltage-temperature characteristics for 2D arrays of metallic quantum dots. Israel Journal of Chemistry, 2002, 42, 269-280.	1.0	15
219	Transition Probabilities in Molecular Collisions: The Distortedâ€Wave Approximation for the Reaction Matrix. Journal of Chemical Physics, 1969, 50, 1902-1904.	1.2	14
220	Nearest-neighbor level spacing distributions: On the transition from the regular to the chaotic regimes. Physical Review A, 1989, 40, 5277-5283.	1.0	14
221	A New Look at Laser Chemistry. Accounts of Chemical Research, 1994, 27, 91-93.	7.6	14
222	Electric Field Effects on Long Living ZEKE States. The Journal of Physical Chemistry, 1996, 100, 15320-15327.	2.9	14
223	On the inverse Born-Oppenheimer separation for high Rydberg states of molecules. International Journal of Quantum Chemistry, 1998, 67, 85-100.	1.0	14
224	Electronâ^'Nuclear Coupling in the Classical Limit for the Electronic Degrees of Freedomâ€. Journal of Physical Chemistry A, 2001, 105, 2708-2715.	1.1	14
225	Collision-Induced IR Emission Spectra of Impact-Heated Rare-Gas Clusters. Journal of Physical Chemistry A, 2003, 107, 9567-9574.	1.1	14
226	A Counter Based on the Electrical Input/Output Stimuli Activation of an Array of Quantum Dots. ChemPhysChem, 2005, 6, 1239-1242.	1.0	14
227	Electronic Dynamics by Ultrafast Pump Photoelectron Detachment Probed by Ionization: A Dynamical Simulation of Negativeâ€“Neutralâ€“Positive in LiH^{â€“}. Journal of Physical Chemistry A, 2014, 118, 6721-6729.	1.1	14
228	Comment on the rotational excitation in hydrogen-halie-rare-gas collisions. Physical Review A, 1976, 14, 1569-1571.	1.0	13
229	Initial states of maximal entropy in formal scattering theory. Journal of Chemical Physics, 1983, 78, 4938-4946.	1.2	13
230	Solvent effects on dynamics of overtone-induced dissociation. The Journal of Physical Chemistry, 1993, 97, 3647-3657.	2.9	13
231	Prompt and Delayed Dissociation of Energy-Rich Larger Molecules. Journal of Physical Chemistry A, 1998, 102, 10195-10198.	1.1	13
232	Size Effects in the Electronic Properties of Finite Arrays of Exchange-Coupled Quantum Dots. Journal of Physical Chemistry B, 2002, 106, 12847-12850.	1.2	13
233	Spectroscopic characterization of collision-induced electronic deformation energy using sum rules. Journal of Chemical Physics, 2003, 119, 4283-4293.	1.2	13
234	Level Structure and Dynamics from Diatomics to Clusters. Advances in Chemical Physics, 2007, , 1-34.	0.3	13

#	Article	IF	Citations
235	Probing in Space and Time the Nuclear Motion Driven by Nonequilibrium Electronic Dynamics in Ultrafast Pumped N₂. Journal of Physical Chemistry A, 2016, 120, 3335-3342.	1.1	13
236	Ultrafast fs coherent excitonic dynamics in CdSe quantum dots assemblies addressed and probed by 2D electronic spectroscopy. Journal of Chemical Physics, 2021, 154, 014301.	1.2	13
237	Energy transfer in atomâ€“surface scattering: Sum rules and velocity distributions. Journal of Chemical Physics, 1981, 74, 4741-4742.	1.2	12
238	Driving High Threshold Chemical Reactions by Cluster-Surface Collisions:Â Molecular Dynamics Simulations for CH3I Clusters. Journal of Physical Chemistry A, 1999, 103, 10179-10186.	1.1	12
239	Broken Symmetry in the Density of Electronic States of an Array of Quantum Dots As Computed for Scanning Tunneling Microscopyâ€. Journal of Physical Chemistry A, 2000, 104, 10435-10441.	1.1	12
240	Level crossing conductance spectroscopy of molecular bridges. Applied Physics Letters, 2004, 85, 1725-1727.	1.5	12
241	Principles of design of a set-reset finite state logic nanomachine. Journal of Applied Physics, 2008, 104, .	1.1	12
242	Maximal entropy inference of oncogenicity from phosphorylation signaling. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6112-6117.	3.3	12
243	Thermodynamics of Power and Dissipation. Israel Journal of Chemistry, 1977, 16, 342-344.	1.0	11
244	Laser enhanced addition reactions between hydrogen halides and unsaturated hydrocarbons: An informationâ€“theoretic approach. Journal of Chemical Physics, 1980, 73, 2680-2687.	1.2	11
245	The reactivityâ€“selectivity principle: The derivation of bounds and a computational study. Journal of Chemical Physics, 1980, 72, 2484-2494.	1.2	11
246	Intensity distribution in rotational line spectra. II. Analysis of the fluctuations in the Dopplerâ€freeS1â†S0spectrum of benzene. Journal of Chemical Physics, 1988, 89, 4633-4637.	1.2	11
247	Electronic Isomerism: Symmetry Breaking and Electronic Phase Diagrams for Diatomic Molecules at the Large-Dimension Limit. ChemPhysChem, 2001, 2, 434-442.	1.0	11
248	Time-Resolved Electrochemical Spectroscopy of Charge Migration in Molecular Wires:â€‰ Computational Evidence for Rich Electronic Dynamics. Journal of Physical Chemistry C, 2007, 111, 2301-2309.	1.5	11
249	A Thermodynamic-Based Interpretation of Protein Expression Heterogeneity in Different Glioblastoma Multiforme Tumors Identifies Tumor-Specific Unbalanced Processes. Journal of Physical Chemistry B, 2016, 120, 5990-5997.	1.2	11
250	Time resolved mechanism of the isotope selectivity in the ultrafast light induced dissociation in N2. Journal of Chemical Physics, 2019, 151, 114308.	1.2	11
251	Intracellular redox potential is correlated with miRNA expression in MCF7 cells under hypoxic conditions. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19753-19759.	3.3	11
252	Massively parallel classical logic via coherent dynamics of an ensemble of quantum systems with dispersion in size. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21022-21030.	3.3	11

#	Article	IF	Citations
253	Mode Selective Chemistry. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1991, , 535-571.	0.2	11
254	Simplistic Analysis of Reactive Scattering. Israel Journal of Chemistry, 1969, 7, 315-328.	1.0	10
255	Comment on the relation between collinear and three dimensional collision rates with applications to vibrational energy transfer. Journal of Chemical Physics, 1977, 66, 1387-1388.	1.2	10
256	Formal scattering theory by an algebraic approach. Physical Review Letters, 1985, 54, 739-741.	2.9	10
257	Stationary scattering theories. Physica Scripta, 1989, 40, 129-140.	1.2	10
258	Dynamics of bimolecular reactions in solution: A nonadiabatic activation model. Journal of Chemical Physics, 1992, 97, 8341-8356.	1.2	10
259	Dynamics of barrier crossing in solution: Simulations and a hardâ€sphere model. Journal of Chemical Physics, 1993, 98, 1979-1988.	1.2	10
260	Maximal entropy spectral fluctuations and the sampling of phase space. Journal of Chemical Physics, 1993, 99, 2383-2395.	1.2	10
261	On the classical limit for electronic structure and dynamics in the orbital approximation. Journal of Chemical Physics, 2000, 113, 4515-4523.	1.2	10
262	A mechanical representation of entropy for a large finite system. Journal of Chemical Physics, 2006, 125, 144516.	1.2	10
263	Electrically Addressing a Molecule-Like Donor Pair in Silicon: An Atomic Scale Cyclable Full Adder Logic. Journal of Physical Chemistry C, 2010, 114, 20380-20386.	1.5	10
264	Free Energy Rhythms in Saccharomyces cerevisiae: A Dynamic Perspective with Implications for Ribosomal Biogenesis. Biochemistry, 2013, 52, 1641-1648.	1.2	10
265	Information processing in parallel through directionally resolved molecular polarization components in coherent multidimensional spectroscopy. Journal of Chemical Physics, 2015, 143, 064106.	1.2	10
266	Algebraic Approach to Molecular Structure and Dynamics. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1982, , 17-28.	0.2	10
267	Estimation of inverse temperature and other Lagrange multipliers: The dual distribution. Journal of Mathematical Physics, 1984, 25, 2160-2168.	0.5	9
268	A geometrical measure for entropy changes. Journal of Statistical Physics, 1986, 42, 1127-1134.	0.5	9
269	Direct exchange reactions in a liquid: the cage effect and its spectroscopic manifestations. The Journal of Physical Chemistry, 1993, 97, 2334-2343.	2.9	9
270	Time and Frequency Resolved ZEKE Spectroscopy. The Journal of Physical Chemistry, 1996, 100, 19735-19739.	2.9	9

#	Article	IF	Citations
271	A Probabilistic Finite State Logic Machine Realized Experimentally on a Single Dopant Atom. Nano Letters, 2017, 17, 1846-1852.	4.5	9
272	Kinetics of Unimolecular Breakdown. VII. Statisticomechanical Aspects. Journal of Chemical Physics, 1966, 44, 3597-3607.	1.2	8
273	Thermochemical properties of atoms and molecules in specific quantum states. Journal of Chemical Physics, 1978, 68, 4524-4534.	1.2	8
274	Molecular Constraints Implied by Kinetic Coupling Schemes and Maximal Work in Chemical Lasers. Journal of Non-Equilibrium Thermodynamics, 1979, 4, .	2.4	8
275	Algebraic approach to molecular rotation-vibration spectra. International Journal of Quantum Chemistry, 1983, 23, 1679-1681.	1.0	8
276	Transition from Collective to Independent-Particle Motion Within the Valence Shell of the Second- and Third-Row Atoms. Physical Review Letters, 1984, 53, 238-241.	2.9	8
277	Time and frequency resolved spectra of high molecular Rydberg states by dynamical computations. Journal of Chemical Physics, 1997, 107, 3392-3401.	1.2	8
278	On a classical limit for electronic degrees of freedom that satisfies the Pauli exclusion principle. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 1965-1969.	3.3	8
279	Voltage-induced phase transition in arrays of metallic nanodots: Computed transport and surface potential structure. Applied Physics Letters, 2003, 82, 4543-4545.	1.5	8
280	Electronic and electrical response of arrays of metallic quantum dots. International Journal of Quantum Chemistry, 2004, 99, 743-751.	1.0	8
281	Towards parallel computing: representation of a linear finite state digital logic machine by a molecular relaxation process. European Physical Journal D, 2007, 42, 49-59.	0.6	8
282	Statistical thermodynamics of transcription profiles in normal development and tumorigeneses in cohorts of patients. European Biophysics Journal, 2015, 44, 709-726.	1.2	8
283	Rotational excitation of interstellar OH molecules. Astrophysical Journal, 1977, 215, 497.	1.6	8
284	Kinetics of Unimolecular Breakdown. VIII. The Lindemannâ€“Hinshelwood Mechanism. Journal of Chemical Physics, 1968, 48, 4556-4560.	1.2	7
285	Dynamics of chemical reactions in solution using â€˜â€¨inâ€™â€™ and â€˜â€¨outâ€™â€™ observables. Physical Review Letters, 1991, 66, 1251-1254.	2.9	7
286	Voltage-Induced Nonlinear Characteristics of Arrays of Metallic Quantum Dots. Nano Letters, 2002, 2, 697-701.	4.5	7
287	Evanescent high pressure during hypersonic cluster-surface impact characterized by the virial theorem. Journal of Chemical Physics, 2005, 123, 194307.	1.2	7
288	Redox-Executed Logic Operations through the Reversible Voltammetric Response Characteristics of Electroactive Self-Assembled Monolayers. Australian Journal of Chemistry, 2010, 63, 173.	0.5	7

#	Article	IF	Citations
289	Photochemistry of highly excited states. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13594-13596.	3.3	7
290	Correlated electronâ€“nuclear motion during non-adiabatic transitions in LiH and its isotopomers. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 134001.	0.6	7
291	Ion-pair formation in multiphoton fragmentation. The Journal of Physical Chemistry, 1981, 85, 3369-3371.	2.9	6
292	Information theoretic analysis of quantal fluctuations in fluorescence lifetimes. The Journal of Physical Chemistry, 1988, 92, 5497-5500.	2.9	6
293	Overlapping Resonances, Multiple Time Regime Evolution Laws and the Sampling of Phase Space in Unimolecular Processes. Journal of the Chinese Chemical Society, 1995, 42, 381-392.	0.8	6
294	Maximum Entropy Error Bound for Monte Carlo Sampling. Open Systems and Information Dynamics, 1998, 5, 303-317.	0.5	6
295	Systematics of Collision-Induced Light Emission from Hot Matterâ€. Journal of Physical Chemistry A, 2004, 108, 8949-8953.	1.1	6
296	The entropy of a single large finite system undergoing both heat and work transfer. Molecular Physics, 2007, 105, 419-427.	0.8	6
297	The Emergence of a Coupled Quantum Dot Array in a Doped Silicon Nanowire Gated by Ultrahigh Density Top Gate Electrodesâ€. Journal of Physical Chemistry C, 2007, 111, 17852-17860.	1.5	6
298	Separation of Time Scales in the Dynamics of High Molecular Rydberg States. Advances in Chemical Physics, 2007, , 625-646.	0.3	6
299	Lie Algebraic Approach to Molecular Structure and Dynamics. The IMA Volumes in Mathematics and Its Applications, 1988, , 245-261.	0.5	6
300	Electronic Coherences Steer the Strong Isotope Effect in the Ultrafast Jahnâ€“Teller Structural Rearrangement of Methane Cation upon Tunnel Ionization. Journal of Physical Chemistry A, 2021, 125, 9495-9507.	1.1	6
301	On the Theory of Surface and Impurity States. Physica Status Solidi (B): Basic Research, 1967, 19, 587-596.	0.7	5
302	Maximal entropy approach to reactivity and selectivity in elementary chemical reactions. The Journal of Physical Chemistry, 1982, 86, 4931-4937.	2.9	5
303	Branching ratios in heavy ion reactions: Constrained phase space approach. Physical Review C, 1983, 28, 2321-2327.	1.1	5
304	Tikochinsky, Tishby, and Levine Respond. Physical Review Letters, 1985, 55, 1031-1031.	2.9	5
305	Anharmonic collective vibrational modes inABAtriatomic molecules. Physical Review A, 1990, 42, 3991-3995.	1.0	5
306	Ionâ€molecule recombination and other activationless processes in solution: Foundations of a capture model. Journal of Chemical Physics, 1994, 100, 3594-3609.	1.2	5

#	Article	IF	Citations
307	On the independence of correlated events. International Journal of Quantum Chemistry, 1999, 74, 467-478.	1.0	5
308	On the crossing of electronic energy levels of diatomic molecules at the large-Dlimit. Journal of Chemical Physics, 2001, 114, 9697-9705.	1.2	5
309	Probing electronic rearrangement during chemical reactions. Physica Scripta, 2006, 73, C1-C5.	1.2	5
310	The Elimination of Redundant Constraints in Surprisal Analysis of Unimolecular Dissociation and Other Endothermic Processes. Journal of Physical Chemistry A, 2009, 113, 4658-4664.	1.1	5
311	Essentials of Cluster Impact Chemistry. , 2001, , 849-872.		5
312	Surprisal of a quantum state: Dynamics, compact representation, and coherence effects. Journal of Chemical Physics, 2020, 153, 214105.	1.2	5
313	Time evolution of entanglement of electrons and nuclei and partial traces in ultrafast photochemistry. Physical Chemistry Chemical Physics, 2022, 24, 17516-17525.	1.3	5
314	A Quantitative Test of the Statistical Limit for Multiphoton Ionizationâ€Fragmentation. Israel Journal of Chemistry, 1984, 24, 245-250.	1.0	4
315	Tikochinsky, Tishby, and Levine respond. Physical Review Letters, 1985, 55, 337-337.	2.9	4
316	Towards a stateâ€toâ€state transition state theory. Journal of Chemical Physics, 1985, 83, 1671-1676.	1.2	4
317	A quantitative theory of mass spectral fragmentation patterns. Journal of the American Chemical Society, 1985, 107, 8283-8284.	6.6	4
318	Le Chatelierâ€™s principle with multiple relaxation channels. Physical Review A, 1986, 33, 3328-3332.	1.0	4
319	The perturbed hydrogen atom: some new algebraic results. Journal of Physics A, 1989, 22, 803-809.	1.6	4
320	The non-reactive j z -conserving approximation as a probe for the entrance-channel dynamics in reactive collisions: H + H2. Journal of the Chemical Society, Faraday Transactions, 1990, 86, 1669.	1.7	4
321	Pumping and probing vibrational modulated coupled electronic coherence in HCN using short UV fs laser pulses: a 2D quantum nuclear dynamical study. Physical Chemistry Chemical Physics, 2017, 19, 19837-19846.	1.3	4
322	Thermodynamic energetics underlying genomic instability and whole-genome doubling in cancer. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18880-18890.	3.3	4
323	The density matrix via few dominant observables: The quantum interference in the isotope effect for atto-pumped N2. Journal of Chemical Physics, 2021, 155, 024109.	1.2	4
324	Parallel Quantum Computation of Vibrational Dynamics. Frontiers in Physics, 2020, 8, .	1.0	4

#	Article	IF	Citations
325	On the validity of Hamilton-Jacobi mechanics in the mean in quantum mechanics. International Journal of Quantum Chemistry, 1972, 6, 449-453.	1.0	3
326	On the rotational relaxation of hydrogen halides. Journal of Chemical Physics, 1980, 72, 3845-3846.	1.2	3
327	Transition State Theory and Beyond â€" A Constrained Phase Space Approach. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1982, 86, 458-464.	0.9	3
328	Optical model of dissociative chemisorption: H2on the (111), (110), and (100) faces of copper. Journal of Chemical Physics, 1992, 97, 2139-2148.	1.2	3
329	Whose Entropy: A Maximal Entropy Analysis of Phosphorylation Signaling. Journal of Statistical Physics, 2011, 144, 429-442.	0.5	3
330	Computational Surprisal Analysis Speeds-Up Genomic Characterization of Cancer Processes. PLoS ONE, 2014, 9, e108549.	1.1	3
331	Realization of Complex Logic Operations at the Nanoscale. Advances in Atom and Single Molecule Machines, 2013, , 195-220.	0.0	3
332	CHAPTER 9. Attophotochemistry: Coherent Electronic Dynamics and Nuclear Motion. RSC Theoretical and Computational Chemistry Series, 0, , 308-347.	0.7	3
333	SURVEY OF STRUCTURE, ENERGETICS AND DYNAMICS OF CLUSTERS. Advanced Series in Physical Chemistry, 2003, , 1-77.	1.5	3
334	Numerical Calculations of the Rotational Excitation of a Diatomic Molecule Upon Collision with a Structureless Atom. Israel Journal of Chemistry, 1969, 7, 253-259.	1.0	2
335	Bounds for transition probabilities in collision theory. Physical Review A, 1974, 9, 2398-2408.	1.0	2
336	Intensity Fluctuations in Quantal Spectra as a Measure of Diffusion in Phase Space. Europhysics Letters, 1988, 6, 291-296.	0.7	2
337	The Evolution of Complex Systems. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1988, 43, 73-77.	0.7	2
338	Why separable vibrational modes dominate spectra. Journal of Chemical Physics, 1989, 90, 2071-2072.	1.2	2
339	Optical model computations of dissociative chemisorption. The Journal of Physical Chemistry, 1991, 95, 8279-8282.	2.9	2
340	On the effects of an internal barrier on fast fourâ€atom ionâ€"molecule reactions. Journal of Chemical Physics, 1996, 105, 953-964.	1.2	2
341	Propagation of nonstationary electronic and nuclear states: attosecond dynamics in LiF. Molecular Physics, 2018, 116, 2524-2532.	0.8	2
342	Electronic and Nuclear Dynamics for a Non-Equilibrium Electronic State: The Ultrafast Pumping of N2. Progress in Theoretical Chemistry and Physics, 2017, , 195-208.	0.2	2

#	Article	IF	Citations
343	Energy and Chemical Change Energy Disposal and Energy Consumption in Elementary Chemical Reactions. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1974, , 35-50.	0.2	2
344	Patterns of Maximal Entropy. Springer Series in Synergetics, 1987, , 78-86.	0.2	2
345	Intramolecular Dynamics. , 1989, , 41-55.		2
346	The Information-Theoretic Approach: An Interim Progress Report. ACS Symposium Series, 1977, , 226-235.	0.5	1
347	On Maximizing the Information from an Indirect Experiment. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1980, 35, 490-492.	0.7	1
348	Mechanical Simulation of the Pressure and the Relaxation to Thermal Equilibrium of a Hot and Dense Rare Gas Cluster. Journal of Physical Chemistry B, 2006, 110, 24070-24076.	1.2	1
349	Controlling Coherent Quantum Nuclear Dynamics in LiH by Ultra Short IR Atto Pulses. Springer Series in Chemical Physics, 2017, , 41-65.	0.2	1
350	Relaxation in Macroscopic System: An Information Theoretic Approach. Springer Series in Optical Sciences, 1976, , 224-235.	0.5	1
351	Time-Dependent Kinetic-Thermodynamic Description of a Nonequilibrium Molecular System: The HF Chemical Laser. Springer Series in Chemical Physics, 1979, , 22-25.	0.2	1
352	Tunneling and Dynamic Tunneling by an Algebraic Approach. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1986, , 1-8.	0.2	1
353	Spectral Fluctuations in Finite Systems. Jerusalem Symposia on Quantum Chemistry and Biochemistry, 1987, , 45-52.	0.2	1
354	Time Dependent Constants of the Motion. , 1983, , 135-154.		1
355	Compacting the density matrix in quantum dynamics: Singular value decomposition of the surprisal and the dominant constraints for anharmonic systems. Journal of Chemical Physics, 2021, 155, 204110.	1.2	1
356	An algebraic Hamiltonian for electronic and nuclear degrees of freedom based on the vector model. International Journal of Quantum Chemistry, 1988, 34, 457-470.	1.0	0
357	The Application of Spectral Measures to the Stimulated Emission Pumping of Acetylene. , 1988, , 29-37.		0
358	Intramolecular Dynamics. NATO ASI Series Series B: Physics, 1992, , 171-184.	0.2	0
359	Generating the Spectrum of Nonlinear Hamiltonians. , 1994, , 39-48.		0
360	Information Theory Approach in Chemical Dynamics. , 1995, , 195-216.		0

#	Article	IF	Citations
361	The Dynamics of Electron â€" Core Interaction in High Molecular Rydberg States. , 1999, , 329-391.		0