Eli Pollak

List of Publications by Year
in descending order

293 papers	8,703 citations	43973 48 h-index	69108 77 g-index
302 all docs	302 docs citations	302 times ranked	2351 citing authors

#	Article	IF	Citations
1	Theory of activated rate processes: A new derivation of Kramersâ€™ expression. Journal of Chemical Physics, 1986, 85, 865-867.	1.2	366
2	Theory of activated rate processes for arbitrary frequency dependent friction: Solution of the turnover problem. Journal of Chemical Physics, 1989, 91, 4073-4087.	1.2	323
3	Reaction rate theory: What it was, where is it today, and where is it going?. Chaos, 2005, 15, 026116.	1.0	273
4	Transition states, trapped trajectories, and classical bound states embedded in the continuum. Journal of Chemical Physics, 1978, 69, 1218.	1.2	222
5	Symmetry numbers, not statistical factors, should be used in absolute rate theory and in Broensted relations. Journal of the American Chemical Society, 1978, 100, 2984-2991.	6.6	168
6	A new quantum transition state theory. Journal of Chemical Physics, 1998, 108, 2733-2743.	1.2	148
7	Quantum mechanics of a classically chaotic system: Observations on scars, periodic orbits, and vibrational adiabaticity. Physical Review A, 1989, 39, 3776-3793.	1.0	140
8	New Physical Interpretation for Time in Scattering Theory. Physical Review Letters, 1984, 53, 115-118.	2.9	139
9	Classical transition state theory: A lower bound to the reaction probability. Journal of Chemical Physics, 1980, 72, 1669-1678.	1.2	134
10	Classical transition state theory is exact if the transition state is unique. Journal of Chemical Physics, 1979, 71, 2062.	1.2	123
11	Quantum Kramers model: Solution of the turnover problem. Physical Review A, 1990, 41, 5366-5382.	1.0	107
12	Hamiltonian theory for vibrational dephasing rates of small molecules in liquids. Journal of Chemical Physics, 1988, 88, 1959-1966.	1.2	105
13	Photoinduced Cooling of Polyatomic Molecules in an Electronically Excited State in the Presence of Dushinskii Rotationsâ€. Journal of Physical Chemistry A, 2004, 108, 7778-7784.	1.1	104
14	Activated rate processes: Generalization of the Kramersâ€“Groteâ€“Hynes and Langer theories. Journal of Chemical Physics, 1992, 97, 2422-2437.	1.2	99
15	A new possibility of chemical bonding: vibrational stabilization of IHI. Chemical Physics Letters, 1982, 93, 184-187.	1.2	94
16	Unified statistical model for â€™â€™complexâ€™â€™ and â€™â€™directâ€™â€™ reaction mechanisms: A test on the collinear H+H2 exchange reaction. Journal of Chemical Physics, 1979, 70, 325.	1.2	93
17	A simple classical prediction of quantal resonances in collinear reactive scattering. Chemical Physics, 1981, 60, 23-32.	0.9	90
18	Spectral analysis of conservative dynamical systems. Physical Review Letters, 1989, 63, 1226-1229.	2.9	89

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19	Transition state theory for quantum decay rates in dissipative systems: the high-temperature limit. Chemical Physics Letters, 1986, 127, 178-182.	1.2	85
20	Classical Dynamics Methods for High Energy Vibrational Spectroscopy. Annual Review of Physical Chemistry, 1992, 43, 91-126.	4.8	83
21	Trapped trajectories at the boundary of reactivity bands in molecular collisions. Journal of Chemical Physics, 1977, 67, 5976-5977.	1.2	81
22	Quantum transition state theory: Perturbation expansion. Journal of Chemical Physics, 1998, 108, 9711-9725.	1.2	80
23	Giant enhancement of diffusion and particle selection in rocked periodic potentials. Europhysics Letters, 1998, 44, 416-422.	0.7	75
24	Ab initiospectroscopy and photoinduced cooling of thetrans-stilbene molecule. Journal of Chemical Physics, 2008, 128, 164303.	1.2	75
25	Transition-state theory for tunneling in dissipative media. Physical Review A, 1986, 33, 4244-4252.	1.0	74
26	Variational transition state theory for activated rate processes. Journal of Chemical Physics, 1990, 93, 1116-1124.	1.2	73
27	Classical analysis of collinear light atom transfer reactions. Journal of Chemical Physics, 1983, 78, 1228-1236.	1.2	71
28	A theory for the activated barrier crossing rate constant in systems influenced by space and time dependent friction. Journal of Chemical Physics, 1994, 101, 7811-7822.	1.2	70
29	Variational transition-state theory for reaction rates in dissipative systems. Physical Review Letters, 1990, 65, 1399-1402.	2.9	69
30	Monte Carlo Method for Evaluating the Quantum Real Time Propagator. Physical Review Letters, 2003, 91, 190201.	2.9	69
31	Theory of correlated hops in surface diffusion. Physical Review Letters, 1993, 70, 3299-3302.	2.9	68
32	Translational energy disposal in molecular collisions: The transfer of momentum constraint. Chemical Physics Letters, 1975, 33, 201-206.	1.2	67
33	Semiclassical on-the-fly computation of the Sâ†'S1 absorption spectrum of formaldehyde. Journal of Chemical Physics, 2009, 130, 041103.	1.2	67
34	A classical determination of vibrationally adiabatic barriers and wells of a collinear potential energy surface. Journal of Chemical Physics, 1981, 74, 5586-5594.	1.2	65
35	Activated rate processes: Finite-barrier expansion for the rate in the spatial-diffusion limit. Physical Review E, 1993, 47, 922-933.	0.8	63
36	Comparison of rate theories for generalized Langevin dynamics. Journal of Chemical Physics, 1991, 95, 5809-5826.	1.2	61

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37	Semiclassical determination of adiabatic barriers on a threeâ€dimensional potential energy surface. Journal of Chemical Physics, 1983, 78, 4464-4476.	1.2	60
38	Variational transition state theory for reactions in condensed phases. Journal of Chemical Physics, 1991, 95, 533-539.	1.2	60
39	A prefactor free semiclassical initial value series representation of the propagator. Journal of Chemical Physics, 2004, 121, 3384-3392.	1.2	57
40	Multiple hops in multidimensional activated surface diffusion. Surface Science, 1999, 421, 73-88.	0.8	56
41	Semiclassical theory of activated diffusion. Physical Review E, 1994, 49, 5098-5102.	0.8	55
42	A study of the semiclassical initial value representation at short times. Journal of Chemical Physics, 2002, 116, 5925-5932.	1.2	55
43	The dynamics of activated surface diffusion. Journal of Physics Condensed Matter, 2005, 17, S4133-S4150.	0.7	54
44	Classical mechanics of a collinear exchange reaction: A direct evaluation of the reaction probability and product distribution. Journal of Chemical Physics, 1980, 73, 4373-4380.	1.2	51
45	Systematic Improvement of Initial Value Representations of the Semiclassical Propagator. Journal of Physical Chemistry A, 2003, 107, 7112-7117.	1.1	51
46	The significance of imaginary time in quantal reactive scattering. Journal of Chemical Physics, 1985, 83, 1111-1120.	1.2	50
47	Bound states embedded in the continuum of H+3. Journal of Chemical Physics, 1988, 88, 5643-5656.	1.2	49
48	The energy relaxation of a nonlinear oscillator coupled to a linear bath. Journal of Chemical Physics, 1996, 104, 1111-1119.	1.2	49
49	Transition path time distribution and the transition path free energy barrier. Physical Chemistry Chemical Physics, 2016, 18, 28872-28882.	1.3	49
50	A classical trajectory study of the photodissociation spectrum of H+3. Journal of Chemical Physics, 1989, 90, 5406-5419.	1.2	46
51	Optimization of the semiclassical initial value representation of the exact quantum-mechanical real time propagator. Journal of Chemical Physics, 2003, 119, 11058-11063.	1.2	46
52	Unimolecular reactions in the gas and liquid phases: A possible resolution to the puzzles of the trans-stilbene isomerization. Journal of Chemical Physics, 1997, 107, 812-824.	1.2	44
53	Classical theory of atomâ€“surface scattering: The rainbow effect. Surface Science Reports, 2012, 67, 161-200.	3.8	43
54	DO vibrationally adiabatic molecules exist in three dimensions. Chemical Physics Letters, 1983, 94, 85-89.	1.2	41

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55	Fokkerâ€“Planck equation for nonlinear stochastic dynamics in the presence of space and time dependent friction. Journal of Chemical Physics, 1993, 99, 1344-1346.	1.2	41
56	Memory and temperature induced suppression of activated rate processes. Journal of Chemical Physics, 1993, 98, 9532-9543.	1.2	39
57	A classical analysis of quantum resonances in isotopic collinear H + H2 reactions. Chemical Physics Letters, 1982, 86, 26-32.	1.2	38
58	A quasiclassical trajectory study of the F+HHâ‡„FH+H reaction. Journal of Chemical Physics, 1983, 78, 4414-4422.	1.2	38
59	Kramersâ€™ turnover theory for diffusion of Na atoms on a Cu(001) surface measured by He scattering. Journal of Chemical Physics, 2003, 119, 2780-2791.	1.2	38
60	Analytical reaction dynamics: Origin and implications of trapped periodic trajectories. Journal of Chemical Physics, 1980, 73, 4365-4372.	1.2	37
61	A quasiclassical model for resonance widths in quantal collinear reactive scattering. Journal of Chemical Physics, 1982, 76, 5843-5848.	1.2	37
62	Theory of laser cooling of polyatomic molecules in an electronically excited state. Journal of Chemical Physics, 1999, 110, 11890-11905.	1.2	37
63	A new time evolving Gaussian series representation of the imaginary time propagator. Journal of Chemical Physics, 2006, 125, 133502.	1.2	37
64	Activated surface diffusion: Are correlated hops the rule or the exception?. Journal of Chemical Physics, 1995, 102, 6908-6918.	1.2	36
65	On spectroscopic properties and isotope effects of vibrationally stabilized molecules. Chemical Physics, 1984, 83, 333-343.	0.9	35
66	Periodic orbit analysis of the photodissociation spectrum of H+3. Journal of Chemical Physics, 1988, 89, 1195-1196.	1.2	35
67	Transition state theory for photoisomerization rates oftransâ€stilbene in the gas and liquid phases. Journal of Chemical Physics, 1987, 86, 3944-3949.	1.2	34
68	Variational transition state theory for curve crossing processes: A uniform rate expression. Journal of Chemical Physics, 1995, 103, 7912-7926.	1.2	34
69	Quantum dynamics for dissipative systems: A numerical study of the Wignerâ€“Fokkerâ€“Planck equation. Journal of Chemical Physics, 2003, 118, 4357-4364.	1.2	34
70	Determination of the Quantum Contribution to the Activated Motion of Hydrogen on a Metal Surface: H/Pt(111). Physical Review Letters, 2010, 105, 136101.	2.9	34
71	Low-temperature behaviour of water in nafion membranes. Chemical Physics Letters, 1982, 86, 16-19.	1.2	33
72	Total angular momentum barriers for triatomic systems. Journal of Chemical Physics, 1987, 86, 1645-1646.	1.2	33

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73	Quantum mechanics of highly excited states of the H+3 molecular ion: A numerical study of the two degree of freedom C2v subspace. Journal of Chemical Physics, 1990, 92, 3005-3017.	1.2	33
74	Semiclassical initial value series solution of the spin boson problem. Journal of Chemical Physics, 2007, 126, 164108.	1.2	33
75	Periodic orbits, adiabaticity and stability. Chemical Physics, 1981, 61, 305-316.	0.9	32
76	An analysis of normal and local mode dynamics based on periodic orbits. I. Symmetric ABA triatomic molecules. Journal of Chemical Physics, 1987, 87, 1079-1088.	1.2	32
77	Theory of unimolecular dissociation of small metastable molecules and ions as exemplified by triatomic hydrogen cation (H3+). Accounts of Chemical Research, 1989, 22, 223-229.	7.6	32
78	Forward-backward semiclassical initial value series representation of quantum correlation functions. Journal of Chemical Physics, 2006, 125, 164104.	1.2	32
79	Canonical variational transition state theory for dissipative systems: Application to generalized Langevin equations. Journal of Chemical Physics, 1992, 96, 8877-8888.	1.2	31
80	Variational transition state theory for multidimensional activated rate processes in the presence of anisotropic friction. Journal of Chemical Physics, 1994, 101, 4778-4789.	1.2	31
81	Classical theory for the in-plane scattering of atoms from corrugated surfaces: Application to the Arâ€“Ag(111) system. Journal of Chemical Physics, 2009, 130, 194710.	1.2	31
82	A study of the quantal time delay matrix in collinear reactive scattering. Journal of Chemical Physics, 1985, 82, 4500-4508.	1.2	30
83	Classical mechanical analysis of the experimental high-energy spectrum of the sodium trimer molecule. Physical Review Letters, 1989, 62, 2096-2099.	2.9	30
84	Activated rate processes: A relation between Hamiltonian and stochastic theories. Journal of Chemical Physics, 1994, 100, 334-339.	1.2	30
85	Coherent Classical-Path Description of Deep Tunneling. Physical Review Letters, 2004, 93, 140401.	2.9	30
86	New coherent state representation for the imaginary time propagator with applications to forward-backward semiclassical initial value representations of correlation functions. Journal of Chemical Physics, 2007, 126, 164107.	1.2	30
87	The different roles of reagent vibrational excitation for endothermic and exothermic reactions. Chemical Physics Letters, 1976, 39, 199-204.	1.2	29
88	Determination of weak values of quantum operators using only strong measurements. Physical Review A, 2018, 98, .	1.0	29
89	Semiclassical adiabatic theory of resonances in chemical reactions: Application to 3D H+H2 and F+H2. Journal of Chemical Physics, 1984, 81, 1801-1812.	1.2	28
90	Controlling activated surface diffusion by external fields. Surface Science, 1999, 437, 198-206.	0.8	28

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91	Computation of the S₁ â†•S₀ Vibronic Absorption Spectrum of Formaldehyde by Variational Gaussian Wavepacket and Semiclassical IVR Methods. Journal of Chemical Theory and Computation, 2018, 14, 5310-5323.	2.3	28
92	Semiclassical prediction of resonance energies in threeâ€dimensional reactive collisions. Journal of Chemical Physics, 1982, 77, 2689-2691.	1.2	27
93	An adiabatic analysis of the reactive infinite order sudden approximation. Journal of Chemical Physics, 1983, 78, 3014-3020.	1.2	27
94	A theory for the thermally activated rate constant in systems with spatially dependent friction. Chemical Physics Letters, 1993, 207, 309-316.	1.2	27
95	Transition-state recrossing dynamics in activated rate processes. Physical Review E, 1995, 51, 1868-1878.	0.8	27
96	Activated rate processes: The reactive flux method for oneâ€dimensional surface diffusion. Journal of Chemical Physics, 1995, 102, 4037-4055.	1.2	27
97	Quantum transition state theory for dissipative systems. Chemical Physics, 2001, 268, 295-313.	0.9	27
98	Dissipation can enhance quantum effects. Physical Review E, 2007, 75, 041103.	0.8	27
99	A comparison of the reactive sudden and adiabatic BCRLM approximations for rotationally averaged cross sections. Journal of Chemical Physics, 1985, 83, 2851-2856.	1.2	26
100	Numerical test of finite-barrier corrections for the hopping rate in a periodic potential. Physical Review E, 1993, 47, R21-R23.	0.8	26
101	Multidimensional generalization of the Pollakâ€“Grabertâ€“HÃnggi turnover theory for activated rate processes. Journal of Chemical Physics, 1997, 106, 7678-7699.	1.2	26
102	Accurate computation of quantum densities of states and RRKM rate constants for large polyatomic molecules: The STAIR method. Journal of Chemical Physics, 1999, 110, 8246-8253.	1.2	26
103	Order out of chaos in the H3+ molecule. Chemical Physics Letters, 1987, 138, 125-130.	1.2	25
104	The symmetrized quantum thermal flux operator. Journal of Chemical Physics, 1997, 107, 64-69.	1.2	25
105	Semiclassical canonical rate theory. Physical Review E, 1998, 58, 5436-5448.	0.8	25
106	Effects of initial correlations on the dynamics of dissipative systems. Physical Review E, 2008, 77, 021107.	0.8	25
107	Surprisal analysis of products' translational energy distribution in molecular collisions. Chemical Physics, 1977, 21, 61-80.	0.9	24
108	Prior statistical distributions for the collision of an atom with a diatom. Journal of Chemical Physics, 1978, 68, 547-554.	1.2	24

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109	Thermal rate constants for the D + HH (n = 1) reaction: comparison of rotationally averaged quantal sudden theory and experimental rates. Chemical Physics Letters, 1985, 113, 585-588.	1.2	24
110	Sudden theory for tunneling in dissipative systems. Physical Review B, 1989, 40, 2138-2146.	1.1	24
111	Theory of electron transfer in the presence of dissipation. Journal of Chemical Physics, 2003, 119, 11864-11877.	1.2	24
112	Tunneling Flight Time, Chemistry, and Special Relativity. Journal of Physical Chemistry Letters, 2017, 8, 4017-4022.	2.1	24
113	A classical spectral theorem in bimolecular collisions. Journal of Chemical Physics, 1981, 74, 6763-6764.	1.2	23
114	Harmonic tunneling corrections to sudden and adiabatic transition state theory. Journal of Chemical Physics, 1985, 82, 106-112.	1.2	23
115	Quantum variational transition state theory revisited. Chemical Physics, 1993, 170, 265-273.	0.9	23
116	Renormalization of the frozen Gaussian approximation to the quantum propagator. Journal of Chemical Physics, 2011, 134, 134104.	1.2	23
117	On-the-fly semiclassical study of internal conversion rates of formaldehyde. Journal of Chemical Physics, 2013, 139, 154311.	1.2	23
118	Transition Path Time Distribution, Tunneling Times, Friction, and Uncertainty. Physical Review Letters, 2017, 118, 070401.	2.9	23
119	The relativistic tunneling flight time may be superluminal, but it does not imply superluminal signaling. New Journal of Physics, 2020, 22, 093060.	1.2	23
120	Quasiclassical trajectory method for tunneling rates in the unimolecular decomposition of H3+. Chemical Physics, 1988, 120, 37-49.	0.9	22
121	Long hops of an adatom on a surface. Surface Science, 1996, 355, L366-L370.	0.8	22
122	A numerical test of activated rate theories for cusped and smooth potentials. Journal of Chemical Physics, 1996, 104, 6547-6559.	1.2	22
123	Mixed quantum classical rate theory for dissipative systems. Journal of Chemical Physics, 2002, 116, 2718-2727.	1.2	22
124	Hybrid Prefactor Semiclassical Initial Value Series Representation of the Quantum Propagator. Journal of Chemical Theory and Computation, 2005, 1, 345-352.	2.3	22
125	Classical Wigner theory of gas surface scattering. Journal of Chemical Physics, 2008, 129, 054107.	1.2	22
126	Semiclassical initial value series representation in the continuum limit: Application to vibrational relaxation. Journal of Chemical Physics, 2008, 129, 064515.	1.2	22

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127	Quantum theory of activated rate processes: A maximum free energy approach. Journal of Chemical Physics, 1995, 103, 973-980.	1.2	21
128	Theory of Cooling of Room Temperature Benzene upon Photo-Excitation to the S1 State. Journal of Physical Chemistry A, 2001, 105, 10961-10966.	1.1	21
129	Statistical theories for molecular collisions: A maximum entropy derivation. Journal of Chemical Physics, 1980, 72, 2990-2997.	1.2	20
130	A nonseparable quantum mechanical transition state theory. Journal of Chemical Physics, 1981, 74, 6765-6770.	1.2	20
131	Spectroscopy and dynamics of the highly excited nonrotating threeâ€dimensional H+3 molecular ion. Journal of Chemical Physics, 1990, 92, 3377-3386.	1.2	20
132	A model study of symmetric light atom transfer reactions. Chemical Physics, 1985, 99, 15-33.	0.9	19
133	Photodissociation dynamics of the D2H+ molecular ion. Chemical Physics Letters, 1988, 146, 353-357.	1.2	19
134	Variational transition-state theory for a dissipative cubic oscillator. The Journal of Physical Chemistry, 1991, 95, 10235-10240.	2.9	19
135	Activated rate processes: a multidimensional Kramers turnover theory. Chemical Physics, 1994, 180, 191-197.	0.9	19
136	Theoretical study of the transâ€stilbene isomerization reaction in ethane. Journal of Chemical Physics, 1996, 105, 4388-4390.	1.2	19
137	Quantum and classical aspects of activated surface diffusion. Journal of Chemical Physics, 2003, 119, 10941-10952.	1.2	19
138	Classical theory for asymmetric in-plane atom surface scattering. Physical Review B, 2009, 80, .	1.1	19
139	Comparison between different Gaussian series representations of the imaginary time propagator. Physical Review E, 2010, 81, 036704.	0.8	19
140	A study of Kramersâ€™ turnover theory in the presence of exponential memory friction. Journal of Chemical Physics, 2015, 143, 104104.	1.2	19
141	Adiabaticity and tunneling in quantal collinear reactive scattering computations. Journal of Chemical Physics, 1981, 75, 4435-4440.	1.2	18
142	A model for vibrational and translational energy accommodation of no molecules during scattering from a Pt(111) crystal surface. Surface Science, 1985, 149, 146-156.	0.8	18
143	Thawed semiclassical IVR propagators. Journal of Physics A, 2004, 37, 9669-9676.	1.6	18
144	Friction-Induced Energy-Loss Rainbows in Atom Surface Scattering. Physical Review Letters, 2010, 104, 116103.	2.9	18

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145	Improvements to Kramers turnover theory. Journal of Chemical Physics, 2013, 138, 164116.	1.2	18
146	Finite barrier corrections to the PGH solution of Kramers' turnover theory. Journal of Chemical Physics, 2014, 140, .	1.2	18
147	Kramersâ€™ Turnover Theory: Improvement and Extension to Low Barriers. Journal of Physical Chemistry A, 2016, 120, 3155-3164.	1.1	18
148	A classical mechanical study of the LiFH system. Chemical Physics, 1981, 60, 239-247.	0.9	17
149	An adiabatic analysis of quasiperiodic trajectories embedded in the continuum. Chemical Physics Letters, 1982, 91, 27-33.	1.2	17
150	Microcanonical variational transition-state theory for reaction rates in dissipative systems. Journal of Statistical Physics, 1992, 66, 975-990.	0.5	17
151	Numerical methods for locating stable periodic orbits embedded in a largely chaotic system. Journal of Chemical Physics, 1994, 100, 5894-5904.	1.2	17
152	Variational transition state theory for the Clâ¯+CH3Cl SN2 exchange reaction in water. Journal of Chemical Physics, 1994, 101, 7174-7176.	1.2	17
153	Activated rate processes: Anharmonic corrections to the quantum rate. Journal of Chemical Physics, 1995, 103, 8910-8920.	1.2	17
154	Numerical implementation of a mixed quantum classical rate theory. Journal of Chemical Physics, 1999, 111, 7244-7254.	1.2	17
155	A test of quantum transition state theory for a system with two degrees of freedom. Journal of Chemical Physics, 1999, 110, 80-87.	1.2	17
156	Reducing Gaussian noise using distributed approximating functionals. Computer Physics Communications, 2002, 147, 759-769.	3.0	17
157	Continuum limit semiclassical initial value representation for dissipative systems. Journal of Chemical Physics, 2007, 127, 074505.	1.2	17
158	A semiclassical analysis of curvature corrections in quantal collinear reactive scattering. Journal of Chemical Physics, 1984, 80, 3613-3622.	1.2	16
159	Numerical study of tunneling in a dissipative system. Physical Review B, 1990, 41, 2210-2220.	1.1	16
160	Variational transition state theory: Application to a symmetric exchange reaction in water. Journal of Chemical Physics, 1995, 103, 8501-8512.	1.2	16
161	Numerical inversion of the Laplace transform. Journal of Chemical Physics, 1999, 110, 11176-11186.	1.2	16
162	Quantum Transition State Theory for the CollinearH+H2Reaction. Journal of Physical Chemistry A, 2000, 104, 1799-1803.	1.1	16

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163	Theory of fluorescence decay of naphthalene: Was photoinduced cooling observed experimentally?. Journal of Chemical Physics, 2002, 116, 6088-6101.	1.2	16
164	Hamiltonian theory for vibrational line shapes of atoms adsorbed on surfaces. Journal of Chemical Physics, 2004, 120, 10768-10779.	1.2	16
165	A numerical method for locating stable periodic orbits in chaotic systems. Physica D: Nonlinear Phenomena, 1992, 56, 368-380.	1.3	15
166	Determination of the tunneling flight time as the reflected phase time. Physical Review A, 2021, 103, .	1.0	15
167	The Semiclassical Initial Value Series Representation of the Quantum Propagator. Springer Series in Chemical Physics, 2007, , 259-271.	0.2	15
168	Vibrational energy consumption in endoergic atom diatom reactions. Chemical Physics, 1977, 22, 151-166.	0.9	14
169	Adiabaticâ€"sudden transition in chemical reactions: Study of a model for H + H2 (Î½ =1). Chemical Physics Letters, 1984, 110, 340-345.	1.2	14
170	Spectroscopy of resonances in three-dimensional atom-diatom reactive scattering. The Journal of Physical Chemistry, 1986, 90, 3619-3624.	2.9	14
171	A mixed quantum classical rate theory for the collinear H+H2 reaction. Journal of Chemical Physics, 2001, 114, 9741-9746.	1.2	14
172	Continuum limit frozen Gaussian approximation for the reduced thermal density matrix of dissipative systems. Journal of Chemical Physics, 2012, 136, 094101.	1.2	14
173	Lower Bounds for Nonrelativistic Atomic Energies. ACS Physical Chemistry Au, 2022, 2, 23-37.	1.9	14
174	A quasiclassical trajectory study of the F+D2â†'FD+D reaction. Journal of Chemical Physics, 1983, 79, 5204-5205.	1.2	13
175	A collinear quantal study of vibrational predissociation and prereaction of van der Waals molecules. Journal of Chemical Physics, 1987, 87, 1596-1603.	1.2	13
176	Binary collision theory for thermal and nonisothermal relaxation and reaction of polyatomic molecules. Chemical Physics, 1998, 235, 131-146.	0.9	13
177	Experimental evidence of laser cooling of room temperature trans-stilbene upon excitation to the S1 state. Journal of Chemical Physics, 2000, 112, 3938-3941.	1.2	13
178	Second-Order Semiclassical Perturbation Theory for Diffractive Scattering from a Surface. Journal of Physical Chemistry C, 2015, 119, 14532-14541.	1.5	13
179	Quantum Tunneling: The Longer the Path, the Less Time it Takes. Journal of Physical Chemistry Letters, 2017, 8, 352-356.	2.1	13
180	Quantum threshold reflection is not a consequence of a region of the long-range attractive potential with rapidly varying de Broglie wavelength. Physical Review A, 2018, 97, .	1.0	13

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181	Scattering of He Atoms from a Microstructured Grating: Quantum Reflection Probabilities and Diffraction Patterns. Journal of Physical Chemistry Letters, 2017, 8, 1009-1013.	2.1	13
182	Optimized planar dividing surfaces for asymmetric activated-rate processes. Physical Review E, 1994, 49, 1216-1224.	0.8	12
183	A theory for nonisothermal unimolecular reaction rates. Journal of Chemical Physics, 1997, 107, 3542-3549.	1.2	12
184	Theory and Control of Thermal Photoinduced Electron Transfer Reactions in Polyatomic Moleculesâ€. Journal of Physical Chemistry B, 2001, 105, 6500-6506.	1.2	12
185	Observations on Rate Theory for Rugged Energy Landscapes. Biophysical Journal, 2008, 95, 4258-4265.	0.2	12
186	Rainbow scattering of argon from2H-W(100). Physical Review B, 2009, 80, .	1.1	12
187	Quantum Variational Transition State Theory for Hydrogen Tunneling in Enzyme Catalysis. Journal of Physical Chemistry B, 2012, 116, 12966-12971.	1.2	12
188	Instantaneous Tunneling Flight Time for Wavepacket Transmission through Asymmetric Barriers. Journal of Physical Chemistry A, 2018, 122, 3563-3571.	1.1	12
189	The reactivityâ€“selectivity principle: The derivation of bounds and a computational study. Journal of Chemical Physics, 1980, 72, 2484-2494.	1.2	11
190	Variational transition state theory for electron transfer reactions in solution. Journal of Chemical Physics, 1996, 105, 9093-9103.	1.2	11
191	Low temperature extension of the generalized Zusman phase space equations for electron transfer. Journal of Chemical Physics, 2004, 120, 9630-9637.	1.2	11
192	Three dimensional classical theory of rainbow scattering of atoms from surfaces. Chemical Physics, 2010, 375, 337-347.	0.9	11
193	Semiclassical initial value representation study of internal conversion rates. Journal of Chemical Physics, 2011, 134, 234305.	1.2	11
194	Communication: Heavy atom quantum diffraction by scattering from surfaces. Journal of Chemical Physics, 2011, 134, 011103.	1.2	11
195	Communication: Semiclassical perturbation theory for the quantum diffractive scattering of atoms on thermal surfaces. Journal of Chemical Physics, 2012, 137, 201103.	1.2	11
196	Harmonic Theory of Thermal Two-Photon Absorption in Benzene. Journal of Physical Chemistry A, 2005, 109, 122-132.	1.1	10
197	Momentum and Velocity Autocorrelation Functions of a Diatomic Molecule Are Not Necessarily Proportional to Each Other. Journal of Physical Chemistry B, 2008, 112, 213-218.	1.2	10
198	Semiclassical initial-value-representation study of helium scattering from Cu(110). Physical Review A, 2009, 79, .	1.0	10

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199	Classical Stochastic Theory for the Sticking Probability of Atoms Scattered on Surfaces. Journal of Physical Chemistry A, 2011, 115, 7189-7198.	1.1	10
200	Imaginary time Gaussian dynamics of the Ar3 cluster. Journal of Chemical Physics, 2011, 134, 044107.	1.2	10
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