Paul J Dagdigian

List of Publications by Year
in descending order

205	5,003	94269 37	161609 54
papers	citations	h-index	g-index

211	211	211	1448
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Clarification of the electronic asymmetry in Îâ€state Î› doublets with some implications for molecular collisions. Journal of Chemical Physics, 1984, 80, 4325-4332.	1.2	136
2	The inelastic scattering of 2Î [case (b)] molecules and an understanding of the differing Î› doublet propensities for molecules of Ï€ vs Ï€3 orbital occupancy. Journal of Chemical Physics, 1989, 91, 839-848.	1.2	130
3	STATE-RESOLVED COLLISION-INDUCED ELECTRONIC TRANSITIONS. Annual Review of Physical Chemistry, 1997, 48, 95-123.	4.8	95
4	Stateâ€toâ€state collisional interelectronic and intraelectronic energy transfer involving CN Aâ€‰2Îâ€‰v=3 and Xâ€‰2Î£+â€‰v=7 rotational levels. Journal of Chemical Physics, 1986, 85, 7098-7105.	1.2	91
5	Propensity rules in rotationally inelastic collisions of diatomic molecules in3Î£ electronic states. Journal of Chemical Physics, 1983, 79, 302-310.	1.2	86
6	Collisionâ€induced transitions between molecular hyperfine levels: Quantum formalism, propensity rules, and experimental study of CaBr(Xâ€‰2Î£+)+Ar. Journal of Chemical Physics, 1985, 83, 2191-2200.	1.2	86
7	Stateâ€resolved study of collisional energy transfer between Aâ€‰2Îâ€‰v=7 and Xâ€‰2Î£+â€‰v=11 rotational levels of CN. Journal of Chemical Physics, 1986, 85, 3860-3868.	1.2	84
8	Quantum interpretation of fully stateâ€selected rotationally inelastic collision experiments. Journal of Chemical Physics, 1977, 66, 59-66.	1.2	82
9	Energetics and spinâ€and Î›â€doublet selectivity in the infrared multiphoton dissociation HN3(XÌƒâ€‰1Aâ€™)â†’N2(Xâ€‰1Î£+g)+NH(X3Î£â¯,aâ€‰1Î”): Theory. Journal of Chemical Physics, 1988, 89, 1388-1400.	1.2	78
10	Product State Distributions and Angular Differential Cross Sections from Photoinitiated Reactions of Chlorine Atoms with Small Hydrocarbons. The Journal of Physical Chemistry, 1995, 99, 9843-9853.	2.9	76
11	Chemiluminescence from the Ca(4s3d 1D)+O2 reaction: Absolute cross sections, photon yield, and CaO dissociation energy. Journal of Chemical Physics, 1980, 73, 176-182.	1.2	73
12	The effect of reagent translation on product internal energy distributions: Laser fluorescence study of Al+O2. Journal of Chemical Physics, 1999, 67, 3854.	1.2	68
13	Potential energy surfaces for the interaction of BH(Xâ€‰1Î£+,Aâ€‰1Î) with Ar and a theoretical investigation of the stretchâ€bend levels of the ArBH(A) van der Waals molecule. Journal of Chemical Physics, 1994, 101, 2887-2902.	1.2	67
14	Spinâ€“orbit branching in the photofragmentation of HCl at long wavelength. Journal of Chemical Physics, 1998, 108, 4460-4466.	1.2	67
15	Stateâ€resolved inelastic cross sections from CN Aâ€‰2Î v=8 to Xâ€‰2Î£+ v=12: Quenching of the evenâ€“odd alternation in the final rotational state populations. Journal of Chemical Physics, 1987, 87, 2045-2050.	1.2	61
16	A study of the reactions Ca(1S,3P0, and 1D)+N2O under singleâ€collision conditions and at higher pressures: Chemiluminescence cross sections, photon yields, and collisional energy transfer in CaO* by N2O. Journal of Chemical Physics, 1981, 74, 6178-6187.	1.2	59
17	Experimental and theoretical characterization of the BAr van der Waals complex: The Xâ€‰2Î, Aâ€‰2Î£+, and Bâ€‰2Î£+ electronic states. Journal of Chemical Physics, 1993, 98, 8484-8495.	1.2	58
18	State-to-state inelastic scattering of Stark-decelerated OH radicals with Ar atoms. Physical Chemistry Chemical Physics, 2010, 12, 10660.	1.3	57

#	Article	IF	Citations
19	Collisional transfer between and quenching of the 3p 3P and 5P states of the oxygen atom. Chemical Physics Letters, 1988, 148, 299-308.	1.2	55
20	Potential energy surfaces for the interaction of CH(Xâ€‰2Î,Bâ€‰2Î£â^') with Ar and an assignment of the stretchâ€bend levels of the ArCH(B) van der Waals molecule. Journal of Chemical Physics, 1994, 101, 4547-4560.	1.2	55
21	LiH stateâ€toâ€state rotationally inelastic cross sections in collisions with HCl and DCl. Journal of Chemical Physics, 1979, 71, 1670-1682.	1.2	54
22	A joint experimental and theoretical study of Aâ€‰2Îâ†'Xâ€‰2Î£+ electronic energy transfer in the CN molecule induced by collisions with helium. Journal of Chemical Physics, 1993, 98, 8580-8592.	1.2	52
23	Kinetic model of atomic and molecular emissions in laser-induced breakdown spectroscopy of organic compounds. Analytical and Bioanalytical Chemistry, 2011, 400, 3193-3205.	1.9	51
24	Observation of highly excited bending levels in NCO(XÌƒâ€‰2Î). Journal of Chemical Physics, 1990, 93, 5448-5456.	1.2	48
25	Potential energy surfaces for the CN(Xâ€‰2Î£+,Aâ€Š2Î)Ar system and inelastic scattering within the A state. Journal of Chemical Physics, 2000, 112, 781-791.	1.2	48
26	The Electronic Spectrum of Methyleneimine. Journal of Physical Chemistry A, 2004, 108, 4433-4439.	1.1	48
27	Determination of state resolved rotationally inelastic cross sections: LiH(j=1) â€“Ar. Journal of Chemical Physics, 1977, 67, 3829-3830.	1.2	47
28	Rotationally inelastic collisions of LiH with He. III. Experimental determination of stateâ€toâ€state cross sections. Journal of Chemical Physics, 1980, 72, 6462-6465.	1.2	47
29	Oneâ€color photolysisâ€“ionization study of HN3: The N2 fragment internal energy distribution and Î¼â€vâ€ correlations. Journal of Chemical Physics, 1990, 93, 257-267.	1.2	47
30	Observation of the FeNC molecule by laser fluorescence excitation spectroscopy. Journal of Chemical Physics, 2001, 114, 2137-2143.	1.2	45
31	Radiative and nonradiative decay of the NH(ND)Aâ€‰3Î electronic state: Predissociation induced by the5Î£â^'state. Journal of Chemical Physics, 1991, 94, 1913-1922.	1.2	44
32	Spinâ€orbit effects in chemical reactions: The reaction of spinâ€orbit stateâ€selected Ca(3P0J) with Cl2, Br2, and CH3Cl. Journal of Chemical Physics, 1984, 81, 2375-2384.	1.2	43
33	Laserâ€fluorescence study of the reactions of alkaline earth atoms with BrCN: Spectroscopic observation of the alkaline earth monocyanides. Journal of Chemical Physics, 1976, 65, 1320-1326.	1.2	42
34	Dependence of the chemiluminescence cross section on spinâ€orbit state for the reaction of Ca(3P0J) with alkyl bromides. Journal of Chemical Physics, 1986, 84, 4332-4340.	1.2	41
35	Product State Resolved Study of the Cl + (CH3)3CD Reaction:Â Comparison of the Dynamics of Abstraction of Primary versus Tertiary Hydrogens. The Journal of Physical Chemistry, 1996, 100, 4365-4374.	2.9	41
36	The vibronic state distribution of the NCO(XÌƒâ€‰2Î) product from the CN+O2reaction. Journal of Chemical Physics, 1991, 95, 1696-1707.	1.2	40

#	Article	IF	Citations
37	Tensor cross sections and collisional depolarization of OH(Xâ€‰2Î) in collisions with helium. Journal of Chemical Physics, 2009, 130, 164315.	1.2	40
38	Laser fluorescence study of MgO formed from Mg(3s3pâ€‰3P0)+O2and N2O under singleâ€collision conditions. Journal of Chemical Physics, 1982, 76, 5375-5384.	1.2	37
39	Tensor cross sections and the collisional evolution of state multipoles: OH(XÎ2)â€“Ar. Journal of Chemical Physics, 2009, 130, 094303.	1.2	37
40	On the generation of preferential Î›â€doublet populations in the collisional relaxation of highly rotationally excited CH(Xâ€‰2Î). Journal of Chemical Physics, 1994, 101, 7468-7479.	1.2	36
41	Experimental and theoretical study of the Bâ€“Ne nonbonding interaction: The freeâ€boundBâ€‰2Î£+â€“Xâ€‰2Î electronic transition. Journal of Chemical Physics, 1995, 103, 2779-2786.	1.2	36
42	Experimental and theoretical study of rotationally inelastic collisions of highly rotationally excited CN(Aâ€Š2Î) with Ar. Journal of Chemical Physics, 2000, 112, 4474-4484.	1.2	36
43	Interference effects in rotational-state-resolved collisional energy transfer between the A2Î and X2Î£+ states of CN. Chemical Physics Letters, 1986, 125, 561-565.	1.2	35
44	Rotational alignment in inelastic collisions. Journal of Chemical Physics, 1977, 66, 4126-4132.	1.2	34
45	Rotational energy transfer within theBâ€‰3Îgv=3 manifold of molecular nitrogen. Journal of Chemical Physics, 1987, 87, 6915-6926.	1.2	34
46	Scaling relations in the rotational excitation of NH(Xâ€‰3â^â^) N=0 by argon. Journal of Chemical Physics, 1989, 90, 6110-6115.	1.2	34
47	Spectroscopic and Kinetic Investigation of Methylene Amidogen by Cavity Ring-Down Spectroscopy. Journal of Physical Chemistry A, 2003, 107, 2256-2263.	1.1	34
48	Resonances in rotationally inelastic scattering of NH3 and ND3 with H2. Journal of Chemical Physics, 2015, 143, 044312.	1.2	34
49	Rotationally inelastic scattering of OH by molecular hydrogen: Theory and experiment. Journal of Chemical Physics, 2015, 142, 204310.	1.2	34
50	A collaborative theoretical and experimental study of the structure and electronic excitation spectrum of the Bar and Bar2 complexes. Journal of Chemical Physics, 1997, 106, 6320-6331.	1.2	33
51	Photodissociation of CH stretch overtone excited CH3Cl and CHD2Cl(νCH=5): Cl spinâ€“orbit branching and atomic fragment yields. Journal of Chemical Physics, 1998, 109, 7810-7820.	1.2	32
52	A joint theoreticalâ€“experimental investigation of the lower bound states of the NO(Xâ€Š2Î)â€“Ar complex. Journal of Chemical Physics, 2000, 113, 73-85.	1.2	31
53	Singleâ€collision chemiluminescence study of the Ba(1S,3D)+NO2, N2O, O3reactions. Journal of Chemical Physics, 1983, 79, 5351-5359.	1.2	30
54	Selective rotational energy transfer from individual Î›-doublet levels of highly rotationally excited CN(A2Î). Chemical Physics Letters, 1998, 297, 506-514.	1.2	30

#	Article	IF	Citations
55	Experimental and theoretical study of rotationally inelastic polar molecule collisions:7LiHâ€“HCN. Journal of Chemical Physics, 1980, 72, 6513-6520.	1.2	29
56	Inelastic collisions of CaCl(Xâ€‰2Î£+) with Ar: A collaborative theoretical and experimental study. Journal of Chemical Physics, 1985, 83, 556-566.	1.2	29
57	Internal state distribution of OD produced from the O(3P)+ND2reaction. Journal of Chemical Physics, 1991, 95, 955-962.	1.2	29
58	Photodissociation of vibrationally excited CH3Cl: modification of the dissociation dynamics. Chemical Physics Letters, 1997, 275, 499-505.	1.2	29
59	Electronic spectroscopy of the Alâ€“H2 complex: Excited state dynamics and orbital alignment of the AlH(Aâ€Š1Î) product. Journal of Chemical Physics, 1998, 109, 8920-8928.	1.2	29
60	Rotationally inelastic collisions of a molecule in a 1Î” electronic state: NH(aâ€‰1Î”). Journal of Chemical Physics, 1989, 91, 5316-5323.	1.2	28
61	The rotational relaxation of NH(câ€‰1Î) in collisions with Ar: A combined theoretical and experimental investigation. Journal of Chemical Physics, 1995, 102, 4069-4083.	1.2	28
62	Experimental investigation of weakly bound B(2p,3s)â€“H2/D2complexes through laser fluorescence excitation spectroscopy. Journal of Chemical Physics, 1995, 103, 7966-7974.	1.2	28
63	Fluorescence excitation spectroscopy and dynamics of the ArAlH(Xâ€‰1Î£+,Aâ€‰1Î) van der Waals complex. Journal of Chemical Physics, 1995, 102, 2426-2439.	1.2	28
64	Stateâ€resolved inelastic collisions of single rotational, fineâ€structure, and Î› doublet levels of NH(Aâ€‰3Î) with helium: A combined experimental and theoretical study. Journal of Chemical Physics, 1996, 104, 1325-1337.	1.2	28
65	State-resolved rotationally inelastic collisions of highly rotationally excited CN(Aâ€Š2Î) with helium: Influence of the interaction potential. Journal of Chemical Physics, 2001, 115, 8393-8402.	1.2	28
66	Experimental and kinetic modeling study of the laser-induced breakdown spectroscopy plume from metallic lead in argon. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 926-934.	1.5	28
67	Dependence of elastic depolarization cross sections on the potential: OH(Xâ€‰Î2)-Ar and NO(Xâ€‰Î2)-Ar. Journal of Chemical Physics, 2009, 130, 204304.	1.2	28
68	Fluorescence excitation and depletion spectroscopy of the BAr complex: Electronic states correlating with the excited valence B(2s2p2â€‰2D) asymptote. Journal of Chemical Physics, 1997, 106, 6596-6606.	1.2	27
69	Theoretical investigation of rotationally inelastic collisions of CH2(Ã£) with helium. Journal of Chemical Physics, 2011, 134, 154307.	1.2	27
70	Observation and characterization of the ArBH(Xâ€‰1Î£+,Aâ€‰1Î) van der Waals complex through fluorescence excitation spectroscopy. Journal of Chemical Physics, 1994, 101, 2903-2913.	1.2	26
71	Experimental and theoretical study of the AlNe complex. Journal of Chemical Physics, 1998, 108, 3522-3530.	1.2	26
72	Electronic Spectrum of the Gallium Dimer. Journal of Physical Chemistry A, 2003, 107, 2642-2649.	1.1	26

#	Article	IF	Citations
73	The interaction of OH(X2Î) with H2: Ab initio potential energy surfaces and bound states. Journal of Chemical Physics, 2014, 141, 174309.	1.2	26
74	Timeâ€ofâ€flight velocity selection using pulsed tunable laser fluorescence detection. Review of Scientific Instruments, 1977, 48, 226-228.	0.6	24
75	Visible chemiluminescence from the reaction of metastable Sr with N20: Absolute cross section and photon yield. Journal of Chemical Physics, 1978, 69, 1779-1781.	1.2	24
76	State resolved cross sections for rotationally inelastic collisions of NH2(XÌƒâ€‰2B1) with helium. Journal of Chemical Physics, 1989, 90, 2617-2625.	1.2	24
77	EXPERIMENTAL STUDIES OF ROTATIONALLY INELASTIC STATE-RESOLVED COLLISIONS OF SMALL MOLECULAR FREE RADICALS. Advanced Series in Physical Chemistry, 1996, , 315-364.	1.5	24
78	Chemical reaction within the electronically excited B(2s22D)â€“H2 complex. Faraday Discussions, 1997, 108, 287-307.	1.6	24
79	Laser fluorescence excitation spectra of the AlNC and AlCN isomers. Journal of Chemical Physics, 1999, 110, 220-228.	1.2	24
80	Resonances in rotationally inelastic scattering of OH(X2Î) with helium and neon. Journal of Chemical Physics, 2012, 136, 144308.	1.2	24
81	Determination of the internal state distribution of NO produced from the H+NO2reaction. Journal of Chemical Physics, 1990, 92, 2389-2396.	1.2	23
82	Theoretical study of the interaction of AlH(Xâ€‰1Î£+,Aâ€‰1Î) with Ar: Potential energy surfaces and bendâ€“stretch levels of the ArAlH(X,A) van der Waals complex. Journal of Chemical Physics, 1995, 102, 2413-2425.	1.2	23
83	Fine-structure state resolved rotationally inelastic collisions of CH(Aâ€Š[sup 2]Î”,v=0) with Ar: A combined experimental and theoretical study. Journal of Chemical Physics, 2001, 114, 4479.	1.2	23
84	Kinetic modeling of the laser-induced breakdown spectroscopy plume from metallic lead. Applied Optics, 2003, 42, 5947.	2.1	23
85	Clarification of the electronic asymmetry of Î› doublets in 3Î electronic states of diatomic molecules. Journal of Chemical Physics, 1987, 87, 7118-7124.	1.2	22
86	Laser fluorescence excitation spectroscopy of BNe electronic states correlating with the excited valence B(2s2p2â€‰2D) atomic asymptote. Journal of Chemical Physics, 1996, 104, 599-606.	1.2	22
87	Observation of the weakly bound B(2s2p2â€‰2D)â€“H2 complex by fluorescence depletion spectroscopy. Journal of Chemical Physics, 1996, 104, 8165-8168.	1.2	22
88	The Reaction of Spinâ€“Orbit State-Selected Ca(PJ03) With CH3I, CH2I2, and SF6. Laser Chemistry, 1986, 6, 391-402.	0.5	21
89	Theoretical determination of rate constants for vibrational relaxation and reaction of OH(XÎ2,v=1) with O(P3) atoms. Journal of Chemical Physics, 2008, 129, 064306.	1.2	21
90	Investigation of the effect of reagent CN rotational excitation on the dynamics of the CN+O2reaction. Journal of Chemical Physics, 1995, 103, 6479-6489.	1.2	20

#	Article	IF	Citations
91	Electronic spectroscopy and excited state dynamics of the Alâ€“N2 complex. Chemical Physics, 1998, 239, 207-221.	0.9	20
92	Theoretical investigation of rotationally inelastic collisions of the methyl radical with helium. Journal of Chemical Physics, 2011, 135, 064306.	1.2	20
93	Theoretical investigation of rotationally inelastic collisions of CH2(XÌƒ) with helium. Journal of Chemical Physics, 2012, 136, 224306.	1.2	20
94	Measurement of the vibrational state dependence of the LiH Aâ€‰1Î£+ dipole moment. Journal of Chemical Physics, 1980, 73, 2049-2051.	1.2	19
95	Rotationally inelastic collisions between a molecule in a 2S+1Î£ electronic state and an openâ€shell target: General quantum analysis and experimental measurement of stateâ€resolved cross sections for CaCl(Xâ€‰2Î£+)+NO(Xâ€‰2Î£). Journal of Chemical Physics, 1986, 84, 1547-1553.	1.2	19
96	Comparison of laser-induced breakdown spectra of organic compounds with irradiation at 15 and 1064 Î¼m. Applied Optics, 2008, 47, G149.	2.1	19
97	The failure of rigid shell models for rotationally inelastic LiHâ€“He collisions. Journal of Chemical Physics, 1980, 73, 1233-1237.	1.2	18
98	The effect of incident spinâ€orbit state on the chemiluminescent reactions of Ba(3DJ) with several oxidants. Journal of Chemical Physics, 1986, 85, 4453-4462.	1.2	18
99	Boundâ€“free B2Î£+ â€“X2Î, A2Î£+ emission in the BAr van der Waals complex. Canadian Journal of Chemistry, 1994, 72, 821-827.	0.6	18
100	Inelastic collisions of fine structure and Î›-doublet resolved rotational states of PH(Aâ€‰3Î,â€‰v=0) with helium. Journal of Chemical Physics, 1997, 106, 7642-7653.	1.2	18
101	Molecular beam study of the 6Îâ€“Xâ€Š6Î” electronic transition in FeCl. Journal of Chemical Physics, 2000, 112, 10221-10227.	1.2	18
102	Free-Jet Electronic Spectroscopy of the PO2 Radical. Journal of Physical Chemistry A, 2001, 105, 7828-7833.	1.1	18
103	Rotationally inelastic scattering of ND₃with H₂as a probe of the intermolecular potential energy surface. Molecular Physics, 2015, 113, 3925-3933.	0.8	18
104	Interaction of Chiral Propylene Oxide (CH₃CHCH₂O) with Helium: Potential Energy Surface and Scattering Calculations. ACS Earth and Space Chemistry, 2019, 3, 964-972.	1.2	18
105	Predissociation of the câ€‰1Î state of NH (ND): The role of dipolar spinâ€“spin coupling. Journal of Chemical Physics, 1991, 94, 2364-2367.	1.2	17
106	Vibrationally mediated photodissociation of CH3Cl: the ν=3 and 4 CH stretch overtone levels. Chemical Physics Letters, 2001, 350, 63-70.	1.2	17
107	Experimental and Theoretical Study of the Electronic Spectrum of the Methylene Amidogen Radical (H2CN):Â Verification of the2A1â†2B2Assignment. Journal of Physical Chemistry A, 2006, 110, 7826-7834.	1.1	17
108	Combustion simulations with accurate transport properties for reactive intermediates. Combustion and Flame, 2015, 162, 2480-2486.	2.8	17

#	Article	IF	Citations
109	The interaction of NO(X2Î) with H2: Ab initio potential energy surfaces and bound states. Journal of Chemical Physics, 2017, 146, 114301.	1.2	17
110	The Photodissociation of Ground and Vibrationally Excited Halogenated Alkanes. Israel Journal of Chemistry, 1997, 37, 455-465.	1.0	16
111	Rotationally inelastic scattering of CD3 and CH3 with He: comparison of velocity map-imaging data with quantum scattering calculations. Chemical Science, 2013, 4, 4199.	3.7	16
112	Exact quantum scattering calculations of transport properties for the H2Oâ€“H system. Journal of Chemical Physics, 2013, 139, 194309.	1.2	16
113	Validity of energy gap representations of rotationally inelastic cross sections between polar molecules. Journal of Chemical Physics, 1980, 73, 3797-3803.	1.2	15
114	Stateâ€resolved electronic quenching of NH(aâ€‰1Î”) by Xe and CO. Journal of Chemical Physics, 1992, 97, 4871-4880.	1.2	15
115	Determination of the internal state distribution of NO(Xâ€‰2Î) produced in the O(3P)+NH(Xâ€‰3Î£â^') reaction. Journal of Chemical Physics, 1992, 97, 180-188.	1.2	15
116	Radiative and nonradiative decay of electronically excited NCO. Journal of Chemical Physics, 1996, 104, 8279-8291.	1.2	15
117	Electronic Spectroscopy of the Alâ^'CH4/CD4Complex. Journal of Physical Chemistry A, 1999, 103, 5910-5917.	1.1	15
118	Experimental study of rotationally inelastic collisions of AlH(Aâ€Š1Î) with Ar: State-to-state rate constants and Î›-doublet propensities. Journal of Chemical Physics, 2000, 113, 4124-4131.	1.2	15
119	Experimental and theoretical investigation of the rotational structure of the Alâ€“H2/D2 complex. Journal of Chemical Physics, 2001, 114, 8938-8947.	1.2	15
120	Vibrational relaxation of OH by oxygen atoms. Chemical Physics Letters, 2005, 415, 1-5.	1.2	15
121	Kinetic model of C/H/N/O emissions in laser-induced breakdown spectroscopy of organic compounds. Applied Optics, 2010, 49, C58.	2.1	15
122	Interaction of C2H with molecular hydrogen: Ab initio potential energy surface and scattering calculations. Journal of Chemical Physics, 2018, 148, 024304.	1.2	15
123	Experimental and theoretical study of the electronic spectrum of the BAr2 complex: Transition to the excited valence B(2s2p2â€Š2D) state. Journal of Chemical Physics, 2000, 112, 5037-5043.	1.2	14
124	Exact quantum scattering calculations of transport properties: CH2($ilde{X}^3$Xìƒ3B1,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1	1.2	14
125	Observation of NH(aâ€‰1Î”, v=1) from the H+N3 reaction. Journal of Chemical Physics, 1989, 90, 7603-7604.	1.2	13
126	Spectroscopy and excited state dynamics of the HNF (DNF) molecule. Journal of Chemical Physics, 1992, 96, 7333-7343.	1.2	13

#	Article	IF	Citations
127	Laser fluorescence study of the Pb+F2, Cl2 reactions: Internal state distribution of the PbCl product and radiative lifetimes of PbF(A,B) and PbCl(A). Journal of Chemical Physics, 1992, 96, 1030-1035.	1.2	13
128	Rotational analysis of the BÌƒ2Aâ€²â€²â†'XÌƒ2Aâ€²â€² origin band of the CH2CFO radical. Journal of Chemical Physics, 1997, 107, 9755-9758.	1.2	13
129	Electronic spectroscopy and excited state dynamics of the Alâ€“H2/D2 complex. Faraday Discussions, 2001, 118, 387-404.	1.6	13
130	Depolarization in H₂Oâ€“He collisions. Molecular Physics, 2010, 108, 1159-1169.	0.8	13
131	Transport Properties for Systems with Deep Potential Wells: H + O₂. Journal of Physical Chemistry A, 2014, 118, 11935-11942.	1.1	13
132	Hyperfine excitation of C2H in collisions with ortho- and para-H2. Monthly Notices of the Royal Astronomical Society, 2018, 479, 3227-3231.	1.6	13
133	Propensity rules in rotationally inelastic polar molecule collisions involving 2Î£+ molecules: CaCl(Xâ€‰2Î£+)â€“CH3Cl. Journal of Chemical Physics, 1984, 81, 3347-3348.	1.2	12
134	Collisionless and collision-induced B-X emission from laser-excited CN A 2Î v = 10 rotational levels. Chemical Physics Letters, 1986, 131, 331-334.	1.2	12
135	Experimental and theoretical study of Î›-doublet resolved rotationally inelastic collisions of highly rotationally excited CH(Aâ€Š2Î”,v=0) with Ar. Journal of Chemical Physics, 2001, 115, 800-809.	1.2	12
136	Experimental and Theoretical Study of State-Resolved Electronically Inelastic Collisions of Highly Rotationally Excited CN(A2Î) with Argon and Helium:â€‰ The Role of Gateway Levels. Journal of Physical Chemistry A, 2002, 106, 8345-8354.	1.1	12
137	Experimental and theoretical investigation of the temperature dependent electronic quenching of O(1D) atoms in collisions with Kr. Journal of Chemical Physics, 2018, 148, 124311.	1.2	12
138	Hyperfine excitation of SH+ in collisions with para- and ortho-H2. Monthly Notices of the Royal Astronomical Society, 2019, 487, 3427-3431.	1.6	12
139	Interaction of the SH+ ion with molecular hydrogen: Ab initio potential energy surface and scattering calculations. Journal of Chemical Physics, 2019, 150, 084308.	1.2	12
140	A molecular beam study of the H+N3 reaction. Product NH internal state distribution and electronic state branching ratio. Journal of Chemical Physics, 1990, 93, 4033-4042.	1.2	11
141	Determination of oxygen atom concentrations by cavity ring-down spectroscopy. Chemical Physics Letters, 2004, 400, 374-378.	1.2	11
142	Exact quantum scattering calculation of transport properties for free radicals: OH(X2Î)â€“helium. Journal of Chemical Physics, 2012, 137, 094306.	1.2	11
143	Theoretical investigation of collisional energy transfer in polyatomic intermediates. International Reviews in Physical Chemistry, 2013, 32, 229-265.	0.9	11
144	Differential and integral cross sections for the rotationally inelastic scattering of methyl radicals with H2 and D2. Journal of Chemical Physics, 2014, 140, 204318.	1.2	11

#	Article	IF	Citations
145	Rotationally inelastic scattering of methyl radicals with Ar and N2. Journal of Chemical Physics, 2015, 142, 014306.	1.2	11
146	Accurate transport properties for O(3P)â€“H and O(3P)â€“H2. Journal of Chemical Physics, 2016, 145, 164309.	1.2	11
147	Hyperfine excitation of CH in collisions with atomic and molecular hydrogen. Monthly Notices of the Royal Astronomical Society, 2018, 475, 5480-5486.	1.6	11
148	Interaction of the H2S molecule with molecular hydrogen: Ab initio potential energy surface and scattering calculations. Journal of Chemical Physics, 2020, 152, 074307.	1.2	11
149	Effect of atomic spinâ€orbit state on reactivity: Reaction of stateâ€selected Ca(3P0J) with Cl2. Journal of Chemical Physics, 1983, 79, 2086-2088.	1.2	10
150	Doppler line shapes in the photolysis of laser excited, aligned molecules: Application to the vibrationally mediated photodissociation of HN3. Journal of Chemical Physics, 1999, 111, 151-162.	1.2	10
151	Laser fluorescence excitation spectroscopy of the CAr van der Waals complex. Journal of Chemical Physics, 2000, 113, 602-610.	1.2	10
152	Determination of the internal state distribution of the SD product from the S(1D)+D2 reaction. Journal of Chemical Physics, 2005, 122, 024303.	1.2	10
153	Theoretical study of the vibrational relaxation of the methyl radical in collisions with helium. Journal of Chemical Physics, 2013, 138, 104317.	1.2	10
154	Collision dynamics of symmetric top molecules: A comparison of the rotationally inelastic scattering of CD3 and ND3 with He. Journal of Chemical Physics, 2014, 140, 134308.	1.2	10
155	Theoretical investigation of rotationally inelastic collisions of CH(X2Î) with hydrogen atoms. Journal of Chemical Physics, 2017, 146, 224308.	1.2	10
156	Radiative and Nonradiative Decay of the BH(b3Î£-) State:Â A Joint Experimental and Theoretical Study. The Journal of Physical Chemistry, 1996, 100, 5649-5653.	2.9	9
157	The 4s â†•3p Electronic Transition in Aluminum Atomâ‹¯Molecule Complexes:â€‰ Bound and Repulsive Excited States. Journal of Physical Chemistry A, 2001, 105, 11009-11017.	1.1	9
158	Laser spectroscopic study of the SiAr van der Waals complex. Journal of Chemical Physics, 2002, 116, 9239-9248.	1.2	9
159	Experimental and theoretical investigation of the AlH bâ€Š3Î£â‹“â€“aâ€‰3Î electronic transition. Journal of Chemical Physics, 2003, 118, 10477-10484.	1.2	9
160	Ab initio potential energy surfaces describing the interaction of CH(X2Î) with H2. Journal of Chemical Physics, 2016, 145, 114301.	1.2	9
161	Collisional excitation of ArH+ by hydrogen atoms. Monthly Notices of the Royal Astronomical Society, 2018, 477, 802-807.	1.6	9
162	Spectroscopic Study of Bâ‹¯Kr Nonbonding Interactions. Journal of Physical Chemistry A, 1997, 101, 3509-3513.	1.1	8

#	Article	IF	Citations
163	Collisional Quenching and Vibrational Energy Transfer in the A2Î£+ Electronic State of the CF Radical. Journal of Physical Chemistry A, 2001, 105, 29-33.	1.1	8
164	Quantum Scattering Calculations of Transport Properties for the Hâ€“N₂ and Hâ€“CH₄ Collision Pairs. Journal of Physical Chemistry A, 2016, 120, 7793-7799.	1.1	8
165	Collisional excitation of NH by H2: Potential energy surface and scattering calculations. Journal of Chemical Physics, 2021, 155, 134303.	1.2	8
166	Experimental and Theoretical Study of Rotationally Inelastic Collisions of CN(A²Î) with N₂. Journal of Physical Chemistry A, 2009, 113, 3922-3931.	1.1	7
167	Theoretical investigation of the dynamics of O(1Dâ†'3P) electronic quenching by collision with Xe. Journal of Chemical Physics, 2015, 143, 054306.	1.2	7
168	Accurate transport properties for Hâ€“CO and Hâ€“CO2. Journal of Chemical Physics, 2015, 143, 054303.	1.2	7
169	Collisional Quenching and Energy Transfer of thez5DJoStates of the Fe Atom. Journal of Physical Chemistry A, 2000, 104, 6345-6350.	1.1	6
170	Vibrational energy transfer involving Rennerâ€“Teller levels of the NCO(XÌƒ2Î) molecule. Chemical Physics Letters, 2003, 375, 532-539.	1.2	6
171	Laser fluorescence excitation spectroscopy of the GeAr van der Waals complex. Journal of Chemical Physics, 2003, 118, 1242-1252.	1.2	6
172	Collisional excitation of H2S by molecular hydrogen. Monthly Notices of the Royal Astronomical Society, 2020, 494, 5239-5243.	1.6	6
173	Photofragmentation excitation spectroscopy of the DNF molecule: Observation of the ND predissociation product. Journal of Chemical Physics, 1993, 98, 3554-3556.	1.2	5
174	Nonbonding Interactions of the Boron Atom in the Excited 2s²3s ²S Rydberg and 2s2p²²D Valence States. ACS Symposium Series, 1997, , 122-133.	0.5	5
175	Comparison of IR and UV cavity ring-down spectroscopy detection of transient intermediates: Pyrolysis of methyl azide to form methyleneimine. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2007, 67, 1019-1024.	2.0	5
176	Doppler-Resolved Kinetics of Saturation Recovery. Journal of Physical Chemistry A, 2015, 119, 7439-7450.	1.1	5
177	Theoretical investigation of rotationally inelastic collisions of CH(X2Î) with molecular hydrogen. Journal of Chemical Physics, 2016, 145, 234305.	1.2	5
178	Quantum statistical study of the C+ + OH â†' CO + H+/CO+ + H reaction: Reaction rate and product branching ratio at interstellar temperatures. Journal of Chemical Physics, 2019, 151, .	1.2	5
179	Interaction of the HCO radical with molecular hydrogen: Ab initio potential energy surface and scattering calculations. Journal of Chemical Physics, 2020, 152, 224304.	1.2	5
180	Collisional excitation of deuterated hydroxyl (OD) by molecular hydrogen. Monthly Notices of the Royal Astronomical Society, 2021, 505, 1987-1991.	1.6	5

#	Article	IF	Citations
181	Predissociation in theAÌƒâ€‰2Aâ€™ state of HNF (DNF): NH (ND) Photofragment excitation spectroscopy. Journal of Chemical Physics, 1994, 100, 4884-4893.	1.2	4
182	Fluorescence excitation spectroscopy of the Arâ€“HCO(XÌƒâ€‰2Aâ€²,BÌƒâ€‰2Aâ€²) van der Waals complex. Journal of Chemical Physics, 1997, 107, 680-690.	1.2	4
183	Observation of new electronic states of the Alâ€“H2/D2 complex. Chemical Physics, 2002, 283, 5-16.	0.9	4
184	Theoretical investigation of intersystem crossing between the aÌƒA11 and XÌƒB13 states of CH2 induced by collisions with helium. Journal of Chemical Physics, 2014, 141, 064312.	1.2	4
185	Electronic quenching of O(1D) by Xe: Oscillations in the product angular distribution and their dependence on collision energy. Journal of Chemical Physics, 2015, 143, 054307.	1.2	4
186	Pressure broadening calculations for OH in collisions with argon: Rotational, vibrational, and electronic transitions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 189, 105-111.	1.1	4
187	Calculation of the Rate of the C⁺Â+ÂHFÂâ†’ÂCF⁺Â+ÂH Reaction: Implications for Fluorine Chemistry in the Interstellar Medium. Astrophysical Journal, 2019, 872, 203.	1.6	4
188	Collisional excitation of methylene by molecular hydrogen. Monthly Notices of the Royal Astronomical Society, 2021, 508, 118-124.	1.6	4
189	Collisional Excitation and Non-LTE Modeling of Interstellar Chiral Propylene Oxide. Astrophysical Journal, 2022, 926, 3.	1.6	4
190	Laser fluorescence study of the S(1D)+CD4 reaction: determination of the SD product internal state distribution. Chemical Physics Letters, 2005, 402, 265-269.	1.2	3
191	Effect of Vibrational Excitation on the Collisional Removal of Free Radicals by Atoms:Â OH(v=1) + N. Journal of Physical Chemistry A, 2006, 110, 3388-3392.	1.1	3
192	The effect of nonadiabaticity on the C+ + HF reaction. Journal of Chemical Physics, 2018, 149, 204309.	1.2	3
193	Collisional excitation of the formyl radical (HCO) by molecular hydrogen. Monthly Notices of the Royal Astronomical Society, 2020, 498, 5361-5366.	1.6	3
194	Collisional excitation of isotopologues of carbon monoxide by molecular hydrogen. Monthly Notices of the Royal Astronomical Society, 2022, 514, 2214-2219.	1.6	3
195	Quantum theory of vector correlations in vibrationally mediated photodissociation. Journal of Chemical Physics, 2002, 116, 7948-7956.	1.2	2
196	Experimental and theoretical investigation of the 3sâ†2p transition in the BNe2 complex. Chemical Physics Letters, 2004, 392, 151-155.	1.2	2
197	TRANSIENT GAS-PHASE INTERMEDIATES IN THE DECOMPOSITION OF ENERGETIC MATERIALS. Advanced Series in Physical Chemistry, 2005, , 129-160.	1.5	2
198	Theoretical investigation of the relaxation of the bending mode of ${m CH}_2(ilde{X})$ CH 2(XÌƒ) by collisions with helium. Journal of Chemical Physics, 2014, 141, 214305.	1.2	2

#	Article	IF	Citations
199	Collisional excitation of isotopologs of H2S by molecular hydrogen: D2S and HDS. Monthly Notices of the Royal Astronomical Society, 0, , .	1.6	2
200	The interaction of methylene with molecular hydrogen: potential energy surface and inelastic collisions. Molecular Physics, 2021, 119, .	0.8	1
201	Collisional excitation of C+(2P) spin-orbit levels by molecular hydrogen revisited. Monthly Notices of the Royal Astronomical Society: Letters, 2020, 501, L38-L42.	1.2	1
202	Energetics and spin selectivity in the infrared multiphoton dissociation HN3(XÌƒ1Aâ€™)â†’N2(X1Î£g+)+NH(X3Î£â^’,a1Î”). AIP Conference Proceedings, 1989, , .	0.3	0
203	Radiative and Nonradiative Decay of Electronically Excited HNF and DNF. Israel Journal of Chemistry, 1994, 34, 25-32.	1.0	0
204	Femtosecond Laser-Induced Breakdown Spectroscopy of Trinitrotoluene. , 2007, , .		0
205	Femtosecond laser-induced breakdown spectroscopy of trinitrotoluene. , 2007, , .		0