Piergiorgio Casavecchia

List of Publications by Year
in descending order

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153 papers	7,008 citations	34076 52 h-index	74108 75 g-index
159 all docs	159 docs citations	159 times ranked	2007 citing authors

#	Article	IF	Citations
1	Combined crossed molecular beams and computational study on the N(²D)â€‰+â€‰HCCCN(X¹Î£⁺) reaction and implications for extra-terrestrial environments. Molecular Physics, 2022, 120, .	0.8	9
2	Unsaturated Dinitriles Formation Routes in Extraterrestrial Environments: A Combined Experimental and Theoretical Investigation of the Reaction between Cyano Radicals and Cyanoethene (C₂H₃CN). Journal of Physical Chemistry A, 2022, 126, 3569-3582.	1.1	13
3	A Computational Study on the Attack of Nitrogen and Oxygen Atoms to Toluene. Lecture Notes in Computer Science, 2021, , 620-631.	1.0	6
4	Crossed-Beam and Theoretical Studies of the O(³P, ¹D) + Benzene Reactions: Primary Products, Branching Fractions, and Role of Intersystem Crossing. Journal of Physical Chemistry A, 2021, 125, 8434-8453.	1.1	16
5	A crossed molecular beam investigation of the N(2D)Â+Âpyridine reaction and implications for prebiotic chemistry. Chemical Physics Letters, 2021, 779, 138852.	1.2	12
6	The Reaction N(²D) + CH₃CCH (Methylacetylene): A Combined Crossed Molecular Beams and Theoretical Investigation and Implications for the Atmosphere of Titan. Journal of Physical Chemistry A, 2021, 125, 8846-8859.	1.1	12
7	Rate rules for the reactions of oxygen atoms with terminal alkenes. Fuel, 2020, 263, 116536.	3.4	8
8	Theoretical Study of the Extent of Intersystem Crossing in the O(³P) + C₆H₆ Reaction with Experimental Validation. Journal of Physical Chemistry Letters, 2020, 11, 9621-9628.	2.1	23
9	The Italian National Project of Astrobiologyâ€"Life in Spaceâ€"Origin, Presence, Persistence of Life in Space, from Molecules to Extremophiles. Astrobiology, 2020, 20, 580-582.	1.5	10
10	Oxidation and nitridation of vitreous carbon at high temperatures. Carbon, 2020, 167, 388-402.	5.4	32
11	A Computational Study on the Insertion of N(2D) into a Câ€"H or Câ€"C Bond: The Reactions of N(2D) with Benzene and Toluene and Their Implications on the Chemistry of Titan. Lecture Notes in Computer Science, 2020, , 744-755.	1.0	7
12	The quest for a detailed comprehension of elementary reactions in combustion: A crossed molecular beam study of the O(3P) reactions with unsaturated C4 hydrocarbons. AIP Conference Proceedings, 2020, , .	0.3	0
13	Molecular beam studies of elementary reactions relevant in plasma/combustion chemistry: O(3P)â€‰+â€‰unsaturated hydrocarbons. Rendiconti Lincei, 2019, 30, 549-561.	1.0	4
14	A Computational Study of the Reaction N(2D)Â+ÂC6H6 Leading to Pyridine and Phenylnitrene. Lecture Notes in Computer Science, 2019, , 316-324.	1.0	10
15	Combined Experimental and Theoretical Studies of the O(³P) + 1-Butene Reaction Dynamics: Primary Products, Branching Fractions, and Role of Intersystem Crossing. Journal of Physical Chemistry A, 2019, 123, 9934-9956.	1.1	21
16	Crossed molecular beams and theoretical studies of the O(3P)+ 1,2-butadiene reaction: Dominant formation of propene+CO and ethylidene+ketene molecular channels. Chinese Journal of Chemical Physics, 2019, 32, 113-122.	0.6	14
17	Combined Experimentalâ€"Theoretical Study of the OH + CO â†' H + CO₂ Reaction Dynamics. Journal of Physical Chemistry Letters, 2018, 9, 1229-1236.	2.1	18
18	Direct observation of forward-scattering oscillations in the H+HDâ†'H2+D reaction. Nature Chemistry, 2018, 10, 653-658.	6.6	46

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19	A Theoretical Investigation of the Reaction N(2D)Â+ÂC6H6 and Implications for the Upper Atmosphere of Titan. Lecture Notes in Computer Science, 2018, , 763-772.	1.0	10
20	Formation of Nitrogen-Bearing Organic Molecules in the Reaction NHÂ+ÂC2H5: A Theoretical Investigation and Main Implications for Prebiotic Chemistry in Space. Lecture Notes in Computer Science, 2018, , 773-782.	1.0	3
21	Observation of H displacement and H2 elimination channels in the reaction of O(3P) with 1-butene from crossed beams and theoretical studies. Chemical Physics Letters, 2017, 683, 105-111.	1.2	14
22	The astrochemical observatory: Computational and theoretical focus on molecular chirality changing torsions around O â€“ O and S â€“ S bonds. AIP Conference Proceedings, 2017, , .	0.3	7
23	Crossed beam polyatomic reaction dynamics: recent advances and new insights. Chemical Society Reviews, 2017, 46, 7517-7547.	18.7	70
24	The Astrochemical Observatory: Experimental and Computational Focus on the Chiral Molecule Propylene Oxide as a Case Study. Lecture Notes in Computer Science, 2017, , 267-280.	1.0	12
25	Reaction Dynamics of O(³P) + Propyne: I. Primary Products, Branching Ratios, and Role of Intersystem Crossing from Crossed Molecular Beam Experiments. Journal of Physical Chemistry A, 2016, 120, 4603-4618.	1.1	24
26	Autobiography of Piergiorgio Casavecchia: Forty Years of Happily Crossing Beams. Journal of Physical Chemistry A, 2016, 120, 4568-4579.	1.1	0
27	Reaction Dynamics of O(³P) + Propyne: II. Primary Products, Branching Ratios, and Role of Intersystem Crossing from Ab Initio Coupled Triplet/Singlet Potential Energy Surfaces and Statistical Calculations. Journal of Physical Chemistry A, 2016, 120, 4619-4633.	1.1	31
28	Isomer-Specific Chemistry in the Propyne and Allene Reactions with Oxygen Atoms: CH₃CH + CO versus CH₂CH₂ + CO Products. Journal of Physical Chemistry Letters, 2016, 7, 1010-1015.	2.1	23
29	Experimental and Theoretical Studies on the Dynamics of the O(³P) + Propene Reaction: Primary Products, Branching Ratios, and Role of Intersystem Crossing. Journal of Physical Chemistry C, 2015, 119, 14632-14652.	1.5	65
30	A combined crossed molecular beam and quasiclassical trajectory study of the Titan-relevant N(2D) + D2O reaction. Molecular Physics, 2015, 113, 2296-2301.	0.8	11
31	A combined crossed molecular beams and theoretical study of the reaction CN+C2H4. Chemical Physics, 2015, 449, 34-42.	0.9	17
32	Reaction dynamics of oxygen atoms with unsaturated hydrocarbons from crossed molecular beam studies: primary products, branching ratios and role of intersystem crossing. International Reviews in Physical Chemistry, 2015, 34, 161-204.	0.9	50
33	Crossed Molecular Beams and Quasiclassical Trajectory Surface Hopping Studies of the Multichannel Nonadiabatic O(³P) + Ethylene Reaction at High Collision Energy. Journal of Physical Chemistry A, 2015, 119, 12498-12511.	1.1	49
34	Relevance of the Channel Leading to Formaldehyde + Triplet Ethylidene in the O(³P) + Propene Reaction under Combustion Conditions. Journal of Physical Chemistry Letters, 2014, 5, 4213-4218.	2.1	53
35	Dynamics of the O(3P) + C2H2 reaction from crossed molecular beam experiments with soft electron ionization detection. Physical Chemistry Chemical Physics, 2014, 16, 10008.	1.3	31
36	Quasiclassical Trajectory Calculations of the N(²D) + H₂O Reaction Elucidating the Formation Mechanism of HNO and HON Seen in Molecular Beam Experiments. Journal of Physical Chemistry Letters, 2014, 5, 3508-3513.	2.1	20

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37	Reaction dynamics and relative yields of the H- and CH3-displacement channels in the O+CH3CCH reaction. Chemical Physics Letters, 2014, 602, 58-62.	1.2	15
38	A Theoretical Study of Formation Routes and Dimerization of Methanimine and Implications for the Aerosols Formation in the Upper Atmosphere of Titan. Lecture Notes in Computer Science, 2013, , 47-56.	1.0	16
39	CRITICAL REVIEW OF N, N ⁺ , N ⁺ ₂ , N ⁺⁺ , And N ⁺⁺ ₂ MAIN PRODUCTION PROCESSES AND REACTIONS OF RELEVANCE TO TITAN'S ATMOSPHERE. Astrophysical Journal, Supplement Series, 2013, 204, 20.	3.0	118
40	Uncloaking the Quantum Nature of Inelastic Molecular Collisions. Science, 2013, 341, 1076-1077.	6.0	11
41	Combined crossed beam and theoretical studies of the C(1D) + CH4 reaction. Journal of Chemical Physics, 2013, 138, 024311.	1.2	40
42	Primary Products and Branching Ratios for Combustion Multi-Channel Bimolecular Reactions from Crossed Molecular Beam Studies. Green Energy and Technology, 2013, , 577-606.	0.4	3
43	A crossed beam study of the reaction CN+C2H4 at a high collision energy: The opening of a new reaction channel. Chemical Physics Letters, 2012, 553, 1-5.	1.2	20
44	Experimental and theoretical studies of the O(3P) + C2H4 reaction dynamics: Collision energy dependence of branching ratios and extent of intersystem crossing. Journal of Chemical Physics, 2012, 137, 22A532.	1.2	52
45	Combined Crossed Beam and Theoretical Studies of the N(²D) + C₂H₄Reaction and Implications for Atmospheric Models of Titan. Journal of Physical Chemistry A, 2012, 116, 10467-10479.	1.1	58
46	Crossed Molecular Beam Dynamics Studies of the O(³P) + Allene Reaction: Primary Products, Branching Ratios, and Dominant Role of Intersystem Crossing. Journal of Physical Chemistry Letters, 2012, 3, 75-80.	2.1	47
47	Intersystem crossing and dynamics in O(³ P)Â+ÂC ₂ H ₄ multichannel reaction: Experiment validates theory. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9733-9738.	3.3	102
48	Crossed molecular beam studies of bimolecular reactions of relevance in combustion. Energy, 2012, 43, 47-54.	4.5	25
49	The last mile of molecular reaction dynamics virtual experiments: the case of the OH(N = 1â€“10) + CO(j =) Tj ETQq1 1 0.784314 rgB	1.6	28
50	Theoretical Study of Reactions Relevant for Atmospheric Models of Titan: Interaction of Excited Nitrogen Atoms with Small Hydrocarbons. Lecture Notes in Computer Science, 2012, , 331-344.	1.0	19
51	Molecular collision dynamics. Physical Chemistry Chemical Physics, 2011, 13, 8073.	1.3	2
52	Crossed-beam dynamics studies of the radicalâ€“radical combustion reaction O(³P) + CH₃(methyl). Physical Chemistry Chemical Physics, 2011, 13, 8322-8330.	1.3	19
53	Low temperature kinetics, crossed beam dynamics and theoretical studies of the reaction S(1D) + CH4 and low temperature kinetics of S(1D) + C2H2. Physical Chemistry Chemical Physics, 2011, 13, 8485.	1.3	31
54	Crossed molecular beam studies of astronomically relevant bimolecular reactions. Rendiconti Lincei, 2011, 22, 173-181.	1.0	4

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55	An Extension of the Molecular Simulator GEMS to Calculate the Signal of Crossed Beam Experiments. Lecture Notes in Computer Science, 2011, , 453-465.	1.0	14
56	Crossed-beam universal-detection reactive scattering of radical beams characterized by laser-induced-fluorescence: the case of C₂and CN. Molecular Physics, 2010, 108, 1097-1113.	0.8	39
57	Formation of nitriles and imines in the atmosphere of Titan: combined crossed-beam and theoretical studies on the reaction dynamics of excited nitrogen atoms N(2D) with ethane. Faraday Discussions, 2010, 147, 189.	1.6	79
58	Dynamics of the C(¹D)+H₂reaction: A comparison of crossed molecular beam experiments with quantum mechanical and quasiclassical trajectory calculations on the first two singlet (1¹Aâ€² and 1¹Aâ€³) potential energy surfaces. Molecular Physics, 2010, 108, 373-380.	0.8	29
59	Combined Crossed Molecular Beam and Theoretical Studies of the N(²D) + CH₄ Reaction and Implications for Atmospheric Models of Titan. Journal of Physical Chemistry A, 2009, 113, 11138-11152.	1.1	90
60	Probing the dynamics of polyatomic multichannel elementary reactions by crossed molecular beam experiments with soft electron-ionization mass spectrometric detection. Physical Chemistry Chemical Physics, 2009, 11, 46-65.	1.3	100
61	Observation of organosulfur products (thiovinoxy, thioketene and thioformyl) in crossed-beam experiments and low temperature rate coefficients for the reaction S(1D) + C2H4. Physical Chemistry Chemical Physics, 2009, 11, 4701.	1.3	33
62	Crossed-Beam Dynamics, Low-Temperature Kinetics, and Theoretical Studies of the Reaction S(¹D) + C₂H₄. Journal of Physical Chemistry A, 2009, 113, 15328-15345.	1.1	38
63	Crossed-Beam and Theoretical Studies of the S(¹D) + C₂H₂ Reaction. Journal of Physical Chemistry A, 2009, 113, 4330-4339.	1.1	28
64	His Arrows and His Targets: A Tribute to Vincenzo Aquilanti. Journal of Physical Chemistry A, 2009, 113, 14181-14183.	1.1	2
65	Crossed molecular beam study of gas phase reactions relevant to the chemistry of planetary atmospheres: The case of C2+C2H2. Planetary and Space Science, 2008, 56, 1658-1673.	0.9	30
66	Beyond the Lennard-Jones model: a simple and accurate potential function probed by high resolution scattering data useful for molecular dynamics simulations. Physical Chemistry Chemical Physics, 2008, 10, 5489.	1.3	274
67	Unraveling the Dynamics of the C(³P,D) + C₂H₂ Reactions by the Crossed Molecular Beam Scattering Technique. Journal of Physical Chemistry A, 2008, 112, 1363-1379.	1.1	58
68	The Extent of Nonâ€"Born-Oppenheimer Coupling in the Reaction of Cl(² P) with para- H ₂. Science, 2008, 322, 573-576.	6.0	95
69	Crossed molecular beam studies of C(3P,1D) and C2(X1Î£+g,a3Îu) reactions with acetylene. Physica Scripta, 2008, 78, 058117.	1.2	8
70	Crossed beam studies of radicalâ€"radical reactions: O(3P) + C3H5(allyl). Physical Chemistry Chemical Physics, 2007, 9, 1307-1311.	1.3	36
71	Gas-Phase Reactions in Extraterrestrial Environments: Laboratory Investigations by Crossed Molecular Beams. Origins of Life and Evolution of Biospheres, 2007, 36, 443-450.	0.8	6
72	Experimental and Theoretical Differential Cross Sections for the N(2D) + H2Reactionâ€. Journal of Physical Chemistry A, 2006, 110, 817-829.	1.1	95

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73	Crossed-beam studies on the dynamics of the C + C2H2 interstellar reaction leading to linear and cyclic C3H + H and C3 + H2. Faraday Discussions, 2006, 133, 157.	1.6	35
74	Neutral-Neutral Gas-Phase Reactions In Extraterrestrial Environments: Laboratory Investigations By Crossed Molecular Beams. AIP Conference Proceedings, 2006, , .	0.3	6
75	Crossed molecular beam reactive scattering: from simple triatomic to multichannel polyatomic reactions. International Reviews in Physical Chemistry, 2006, 25, 109-163.	0.9	96
76	Dynamics of the O(1D) D2 reaction: A comparison between crossed molecular beam experiments and quasiclassical trajectory calculations on the lowest three potential energy surfaces. Molecular Physics, 2005, 103, 1703-1714.	0.8	26
77	Dynamics of the O(3P) + C2H4Reaction:Â Identification of Five Primary Product Channels (Vinoxy, Acetyl,) Tj ETQq1 1 0.784314 rgBT /O Soft Electron Ionization. Journal of Physical Chemistry A, 2005, 109, 3527-3530.	1.1	74
78	Dynamics of the C(D1)+D2 reaction: A comparison of crossed molecular-beam experiments with quasiclassical trajectory and accurate statistical calculations. Journal of Chemical Physics, 2005, 122, 234309.	1.2	66
79	Crossed beam studies of the reactions of atomic oxygen in the ground 3P and first electronically excited 1D states with hydrogen sulfide. Journal of Chemical Physics, 2004, 120, 9571-9582.	1.2	31
80	Dynamics of the insertion reaction C(1D) + H2: A comparison of crossed molecular beam experiments with quasiclassical trajectory and quantum mechanical scattering calculations. Physical Chemistry Chemical Physics, 2004, 6, 4957-4967.	1.3	72
81	Soft electron impact ionization in crossed molecular beam reactive scattering: The dynamics of the O(3P)+C2H2 reaction. Journal of Chemical Physics, 2004, 120, 4557-4560.	1.2	65
82	Onsager Heat of Transport Measured at then-Heptanol Liquidâˆ’Vapor Interface. Journal of Physical Chemistry B, 2004, 108, 2681-2685.	1.2	15
83	The dynamics of the prototype abstraction reaction Cl(2P3/2,1/2)+ H2: A comparison of crossed molecular beam experiments with exact quantum scattering calculations on coupled ab initio potential energy surfaces. Physical Chemistry Chemical Physics, 2004, 6, 5007.	1.3	36
84	CROSSED MOLECULAR BEAM REACTIVE SCATTERING: TOWARDS UNIVERSAL PRODUCT DETECTION BY SOFT ELECTRON-IMPACT IONIZATION. Advanced Series in Physical Chemistry, 2004, , 329-381.	1.5	5
85	Differential Cross Sections from Quantum Calculations on CoupledAb InitioPotential Energy Surfaces and Scattering Experiments forCl(P2)+H2Reactions. Physical Review Letters, 2003, 91, 013201.	2.9	54
86	Combined crossed-beam studies of C(3PJ)+C2H4â†’C3H3+H reaction dynamics between 0.49 and 30.8 kJâ€Šmolâˆ’1. Journal of Chemical Physics, 2003, 119, 10607-10617.	1.2	41
87	Dynamics of the C+C2H2 reaction from differential and integral cross-section measurements in crossed-beam experiments. Journal of Chemical Physics, 2002, 116, 5603-5611.	1.2	34
88	C + C2H2: A Key Reaction in Interstellar Chemistry. Journal of Physical Chemistry A, 2002, 106, 5541-5552.	1.1	78
89	Quantum Effects in the Differential Cross Sections for the Insertion ReactionN(D2)+H2. Physical Review Letters, 2002, 89, 013201.	2.9	101
90	Crossed beam studies of elementary reactions of N and C atoms and CN radicals of importance in combustion. Faraday Discussions, 2001, 119, 27-49.	1.6	61

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91	Dynamics of the N(2D) + D2Reaction from Crossed-Beam and Quasiclassical Trajectory Studiesâ€. Journal of Physical Chemistry A, 2001, 105, 2414-2422.	1.1	51
92	Experimental and theoretical differential cross sections for the reactions Cl+H2/D2. Journal of Chemical Physics, 2001, 114, 10662-10672.	1.2	56
93	A crossed-beam study of the reaction C(1D)+H2(X1Î£+, v=0)â†'CH(X2Î, vâ€²)+H(2S). Chemical Physics Letters, 2000, 327, 197-202.	1.2	61
94	Dynamics of the Cl+D2 reaction: a comparison of crossed molecular beam experiments with quasi-classical trajectory calculations on a new ab initio potential energy surface. Chemical Physics Letters, 2000, 328, 500-508.	1.2	36
95	Cyanomethylene Formation from the Reaction of Excited Nitrogen Atoms with Acetylene:Â A Crossed Beam and ab Initio Study. Journal of the American Chemical Society, 2000, 122, 4443-4450.	6.6	71
96	Comparative dynamics of Cl(2P) and O(3P) interactions with a hydrocarbon surface. Journal of Chemical Physics, 2000, 112, 5975-5984.	1.2	95
97	Chemical reaction dynamics with molecular beams. Reports on Progress in Physics, 2000, 63, 355-414.	8.1	256
98	Dynamics of the Cl+H2/D2 reaction: a comparison of crossed molecular beam experiments with quasiclassical trajectory and quantum mechanical calculations. Physical Chemistry Chemical Physics, 2000, 2, 599-612.	1.3	46
99	Statistical treatment of recoil energy and angular distributions in the products of the reactions O(1D, 3P)+ICH3â†'OI+CH3. Physical Chemistry Chemical Physics, 2000, 2, 741-745.	1.3	4
100	Observation of Nitrogen-Bearing Organic Molecules from Reactions of Nitrogen Atoms with Hydrocarbons:â€‰ A Crossed Beam Study of N(2D) + Ethylene. Journal of Physical Chemistry A, 2000, 104, 5655-5659.	1.1	70
101	Exploring the reaction dynamics of nitrogen atoms: A combined crossed beam and theoretical study of N(2D)+D2â†'ND+D. Journal of Chemical Physics, 1999, 110, 8857-8860.	1.2	87
102	CROSSED-BEAMSTUDIES OFREACTIONDYNAMICS. Annual Review of Physical Chemistry, 1999, 50, 347-376.	4.8	101
103	Reactive Scattering of Oxygen and Nitrogen Atoms. Accounts of Chemical Research, 1999, 32, 503-511.	7.6	77
104	Crossed beam studies of the O(3P,1D)+CH3I reactions: Direct evidence of intersystem crossing. Faraday Discussions, 1999, 113, 133-150.	1.6	36
105	Crossed molecular beams and quasiclassical trajectory studies of the reaction O(1D)+H2(D2). Journal of Chemical Physics, 1998, 108, 6698-6708.	1.2	89
106	Magnetic Analysis of Supersonic Beams of Atomic Oxygen, Nitrogen, and Chlorine Generated from a Radioâ€Frequency Discharge. Israel Journal of Chemistry, 1997, 37, 329-342.	1.0	96
107	Reactive scattering of ground-state and electronically excited oxygen atoms on a liquid hydrocarbon surface. Faraday Discussions, 1997, 108, 387-399.	1.6	62
108	Differential Scattering Cross Sections for HeCl2, NeCl2, and ArCl2:Â Multiproperty Fits of the Potential Energy Surfaces. Journal of Physical Chemistry A, 1997, 101, 6528-6537.	1.1	28

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109	A Crossed Molecular Beam Study of the Reaction O(1D) + HI â†' IO + H. Journal of Physical Chemistry A, 1997, 101, 6455-6462.	1.1	19
110	Dynamics of the Simplest Chlorine Atom Reaction: An Experimental and Theoretical Study. Science, 1996, 273, 1519-1522.	6.0	100
111	The dynamics of the reaction OH + D2 â†' HOD + D: Crossed beam experiments and quantum mechanical scattering calculations on ab initio potential energy surfaces. Chemical Physics, 1996, 207, 389-409.	0.9	114
112	On the dynamics of the O(1D) + CF3Br reaction. Chemical Physics Letters, 1996, 258, 323-329.	1.2	30
113	REACTIVE SCATTERING OF O(³P, ¹D), Cl(²P) AND OH RADICALS. Advanced Series in Physical Chemistry, 1996, , 365-437.	1.5	10
114	The HeCl2 potential: Atomâ€"atom and ab initio compared to experiment. Journal of Chemical Physics, 1995, 102, 8846-8854.	1.2	56
115	Reactive scattering of atoms and radicals. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 575.	1.7	142
116	The dynamics of the reaction of O(1D) with HBr studied by crossed molecular beams and time-resolved Fourier transform spectroscopy. Canadian Journal of Chemistry, 1994, 72, 888-902.	0.6	32
117	The enthalpy of formation of the HSO radical. Chemical Physics Letters, 1993, 211, 469-472.	1.2	33
118	Reaction dynamics of O(3p), O(1D) and OH(2Î) with simple molecules. , 1993, , 1-63.		4
119	Crossed beam studies of fourâ€atom reactions: The dynamics of OH+D2. Journal of Chemical Physics, 1993, 98, 2459-2462.	1.2	82
120	The HeCl2potential: A combined scatteringâ€spectroscopic study. Journal of Chemical Physics, 1993, 98, 178-185.	1.2	56
121	Crossed beam studies of fourâ€atom reactions: The dynamics of OH+CO. Journal of Chemical Physics, 1993, 98, 8341-8344.	1.2	134
122	Multiproperty determination of a new N2â€"Ar intermolecular interaction potential energy surface. Journal of Chemical Physics, 1993, 98, 7926-7939.	1.2	72
123	On the N2â€"He potential energy surface. Journal of Chemical Physics, 1991, 95, 5827-5845.	1.2	41
124	Dynamics of the reaction O(1D) + HCl â†' ClO + H from crossed-beam experiments. Chemical Physics Letters, 1991, 180, 34-40.	1.2	76
125	The effect of reagent electronic energy on the dynamics of chemical reactions: A highâ€resolution crossed beam study of O(3P,1D)+H2S. Journal of Chemical Physics, 1991, 94, 8611-8614.	1.2	50
126	The Neâ€"O2potential energy surface from highâ€resolution diffraction and glory scattering experiments and from the Zeeman spectrum. Journal of Chemical Physics, 1991, 95, 195-204.	1.2	35

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127	Classical trajectory calculation of transport and relaxation properties for N2â€“Ne mixtures. Journal of Chemical Physics, 1990, 93, 4699-4712.	1.2	20
128	Potential Energy Surfaces for Open Shell Species. NATO ASI Series Series B: Physics, 1990, , 123-141.	0.2	0
129	Improved potential energy surface for Heâ€“CO2. Journal of Chemical Physics, 1988, 89, 4671-4679.	1.2	62
130	The Neâ€“N2potential energy surface from highâ€resolution total differential scattering experiments and a closeâ€coupling and infiniteâ€orderâ€sudden analysis. Journal of Chemical Physics, 1988, 89, 3505-3518.	1.2	46
131	High Resolution Crossed Molecular Beam Studies of Van Der Waals Forces. , 1987, , 441-454.		3
132	Observation of high frequency quantum oscillations in elastic differential cross sections: A critical test of the Neâ€“Ar interaction potential. Journal of Chemical Physics, 1986, 84, 4828-4832.	1.2	31
133	Highâ€resolution total differential cross sections for scattering of helium by O2, N2, and NO. Journal of Chemical Physics, 1986, 85, 7011-7029.	1.2	108
134	Anisotropic intermolecular potentials for NOî—¸Ar and NOî—¸Kr from total differential cross section measurements. Chemical Physics Letters, 1984, 112, 445-451.	1.2	37
135	Reactive scattering of oxygen [O(3P)] with toluene. Journal of the American Chemical Society, 1984, 106, 4108-4111.	6.6	7
136	Rare gasâ€“halogen atom interaction potentials from crossed molecular beams experiments: I(2P3/2)+Kr, Xe(1S0). Journal of Chemical Physics, 1982, 77, 1878-1885.	1.2	63
137	A quasiclassical trajectory test for a potential energy surface of the Li+HF reaction. Journal of Chemical Physics, 1982, 77, 6341-6342.	1.2	44
138	Atomâ€“molecule interactions from multiproperty analysis. An integrated study of the dynamics for oxygenâ€“rare-gas systems. Faraday Discussions of the Chemical Society, 1982, 73, 257-273.	2.2	22
139	Reactive scattering of O(1D) + H2. Chemical Physics Letters, 1981, 82, 386-391.	1.2	117
140	Interaction potentials for Br(2P)+Ar, Kr, and Xe (1S) by the crossed molecular beams method. Journal of Chemical Physics, 1981, 75, 710-721.	1.2	51
141	A crossed molecular beam study of the O(1D2)+CH4 reaction. Journal of Chemical Physics, 1980, 73, 6351-6352.	1.2	55
142	Study of the reaction dynamics of Li+HF, HCl by the crossed molecular beams method. Journal of Chemical Physics, 1980, 73, 2833-2850.	1.2	143
143	A crossed molecular beams investigation of the reactions O(3P)+ C6H6, C6D6. Journal of Chemical Physics, 1980, 72, 4341-4349.	1.2	73
144	Decoupling approximations in the quantum mechanical treatment of Pâ€state atom collisions. Journal of Chemical Physics, 1980, 73, 1173-1180.	1.2	84

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145	Cross sections for excitation of Cd(5â€‰3P1) and Cd(5â€‰1P1) and of their magnetic sublevels in Na+â€“Cd collisions. Journal of Chemical Physics, 1979, 71, 3546-3547.	1.2	12
146	Coupledâ€channel study of halogen (2P) + rare gas (1S) scattering. Journal of Chemical Physics, 1979, 70, 5477-5488.	1.2	62
147	Crossed molecular beam studies on the interaction potentials for F(2P) + Ne,Ar,Kr(1S). Journal of Chemical Physics, 1979, 70, 2986-2990.	1.2	58
148	Crossed molecular beam studies on the interaction potentials for Cl(2P) + Xe(1S). Chemical Physics Letters, 1979, 61, 1-5.	1.2	45
149	Crossed molecular beam studies on the interaction potential for F(2P)+Xe(1S). Journal of Chemical Physics, 1978, 69, 2377.	1.2	43
150	Excitation of Hg(6â€‰3P1) by low energy alkali ion impact: Optical polarization and cross sections for magnetic sublevels. Journal of Chemical Physics, 1978, 68, 1499-1510.	1.2	19
151	Quantum-mechanical phase interference and optical polarization in low-energy Na+î—¸Hg inelastic collisions. Chemical Physics Letters, 1977, 47, 288-291.	1.2	6
152	Cross sections for excitation of the potassium resonance doublet in collisions between potassium atoms and alkali ions. Journal of Chemical Physics, 1976, 65, 5518-5521.	1.2	20
153	Total inelastic cross sections for potassium ionâ€“atom collisions: Oscillations in the velocity dependence and correlation with molecular structure. Journal of Chemical Physics, 1976, 64, 751-759.	1.2	28