Juergen Troe

List of Publications by Year in descending order

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199 papers	22,088 citations	26567 56 h-index	8835 145 g-index
200 all docs	200 docs citations	200 times ranked	7754 citing authors

#	Article	IF	Citations
1	Evaluated Kinetic Data for Combustion Modelling. Journal of Physical and Chemical Reference Data, 1992, 21, 411.	1.9	1,844
2	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume I - gas phase reactions of O_x, HO_x, NO_x and SO_x species. Atmospheric Chemistry and Physics, 2004, 4, 1461-1738.	1.9	1,597
3	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume II â€“ gas phase reactions of organic species. Atmospheric Chemistry and Physics, 2006, 6, 3625-4055.	1.9	1,508
4	Evaluated Kinetic Data for Combustion Modeling: Supplement II. Journal of Physical and Chemical Reference Data, 2005, 34, 757-1397.	1.9	1,189
5	Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry: Supplement IV. IUPAC Subcommittee on Gas Kinetic Data Evaluation for Atmospheric Chemistry. Journal of Physical and Chemical Reference Data, 1992, 21, 1125.	1.9	1,080
6	Evaluated Kinetic, Photochemical and Heterogeneous Data for Atmospheric Chemistry: Supplement V. â€‰ IUPAC Subcommittee on Gas Kinetic Data Evaluation for Atmospheric Chemistry. Journal of Physical and Chemical Reference Data, 1997, 26, 521-1011.	1.9	903
7	Predictive possibilities of unimolecular rate theory. The Journal of Physical Chemistry, 1979, 83, 114-126.	2.9	768
8	Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry: Supplement III. IUPAC Subcommittee on Gas Kinetic Data Evaluation for Atmospheric Chemistry. Journal of Physical and Chemical Reference Data, 1989, 18, 881-1097.	1.9	766
9	Theory of thermal unimolecular reactions at low pressures. I. Solutions of the master equation. Journal of Chemical Physics, 1977, 66, 4745-4757.	1.2	678
10	Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry: Supplement VI. IUPAC Subcommittee on Gas Kinetic Data Evaluation for Atmospheric Chemistry. Journal of Physical and Chemical Reference Data, 1997, 26, 1329-1499.	1.9	661
11	Theory of thermal unimolecular reactions at low pressures. II. Strong collision rate constants. Applications. Journal of Chemical Physics, 1977, 66, 4758-4775.	1.2	644
12	Specific Rate Constants of Unimolecular Processes II. Adiabatic Channel Model. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1974, 78, 240-252.	0.9	517
13	Theory of Thermal Unimolecular Reactions in the Fallâ€off Range. II. Weak Collision Rate Constants. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1983, 87, 169-177.	0.9	474
14	Evaluated kinetic and photochemical data for atmospheric chemistry. Journal of Physical and Chemical Reference Data, 1980, 9, 295-472.	1.9	446
15	Unravelling combustion mechanisms through a quantitative understanding of elementary reactions. Proceedings of the Combustion Institute, 2005, 30, 43-88.	2.4	417
16	Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry, Organic Species: Supplement VII. Journal of Physical and Chemical Reference Data, 1999, 28, 191-393.	1.9	338
17	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume III â€“ gas phase reactions of inorganic halogens. Atmospheric Chemistry and Physics, 2007, 7, 981-1191.	1.9	317
18	Theory of Thermal Unimolecular Reactions in the Fallâ€off Range. I. Strong Collision Rate Constants. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1983, 87, 161-169.	0.9	311

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19	Reaction Networks for Interstellar Chemical Modelling: Improvements and Challenges. Space Science Reviews, 2010, 156, 13-72.	3.7	225
20	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume IV â€“ gas phase reactions of organic halogen species. Atmospheric Chemistry and Physics, 2008, 8, 4141-4496.	1.9	221
21	Statistical adiabatic channel model for ionâ€“molecule capture processes. Journal of Chemical Physics, 1987, 87, 2773-2780.	1.2	218
22	Theory of thermal unimolecular reactions at high pressures. II. Analysis of experimental results. Journal of Chemical Physics, 1985, 83, 1010-1015.	1.2	207
23	Specific rate constants k(E,â€‰J) for unimolecular bond fissions. Journal of Chemical Physics, 1983, 79, 6017-6029.	1.2	202
24	Unimolecular processes in vibrationally highly excited cycloheptatrienes. I. Thermal isomerization in shock waves. Journal of Chemical Physics, 1979, 70, 5107-5116.	1.2	193
25	Theory of thermal unimolecular reactions at high pressures. Journal of Chemical Physics, 1981, 75, 226-237.	1.2	192
26	Statistical adiabatic channel model of ion-neutral dipole capture rate constants. Chemical Physics Letters, 1985, 122, 425-430.	1.2	187
27	Evaluated Kinetic and Photochemical Data for Atmospheric Chemistry: Supplement VIII, Halogen Species Evaluation for Atmospheric Chemistry. Journal of Physical and Chemical Reference Data, 2000, 29, 167-266.	1.9	183
28	Unimolecular Processes V: Maximum Free Energy Criterion for the High Pressure Limit of Dissociation Reactions. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1977, 81, 329-337.	0.9	169
29	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume VI â€“ heterogeneous reactions with liquid substrates. Atmospheric Chemistry and Physics, 2013, 13, 8045-8228.	1.9	167
30	The Polanyi Lecture. The colourful world of complex-forming bimolecular reactions. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 2303.	1.7	160
31	High pressure range of the addition of HO to HO, NO, NO2, and CO. I. Saturated laser induced fluorescence measurements at 298 K. Journal of Chemical Physics, 1995, 103, 2949-2958.	1.2	158
32	High-pressure falloff curves and specific rate constants for the reactions atomic hydrogen + molecular oxygen .dblharw. perhydroxyl .dblharw. hydroxyl + atomic oxygen. The Journal of Physical Chemistry, 1985, 89, 342-349.	2.9	122
33	Specific rate constants k(E,J) and product state distributions in simple bond fission reactions. II. Application to HOOHâ†’OH+OH. Journal of Chemical Physics, 1987, 86, 6171-6182.	1.2	122
34	Shock wave study of the unimolecular dissociation of H2O2 in its falloff range and of its secondary reactions. Physical Chemistry Chemical Physics, 2002, 4, 4392-4398.	1.3	109
35	The role of local density in the collisional deactivation of vibrationally highly excited azulene in supercritical fluids. Journal of Chemical Physics, 1997, 107, 8380-8390.	1.2	108
36	Experimental and modelling study of the recombination reaction H + O2 (+M) â† HO2 (+M) between 300 and 900 K, 1.5 and 950 bar, and in the bath gases M = He, Ar, and N2. Physical Chemistry Chemical Physics, 2008, 10, 4313.	1.3	89

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37	Simplified models for anharmonic numbers and densities of vibrational states. I. Application to NO2 and H3+. Chemical Physics, 1995, 190, 381-392.	0.9	88
38	Statistical adiabatic channel model for ionâ€“molecule capture processes. II. Analytical treatment of ionâ€“dipole capture. Journal of Chemical Physics, 1996, 105, 6249-6262.	1.2	85
39	Detailed modeling of the temperature and pressure dependence of the reaction H+O2 (+M)â†'HO2 (+M). Proceedings of the Combustion Institute, 2000, 28, 1463-1469.	2.4	84
40	Collisional deactivation of vibrationally highly excited polyatomic molecules. I. Theoretical analysis. Journal of Chemical Physics, 1982, 77, 3485-3492.	1.2	83
41	Statistical rate theory for the HO+Oâ‡"HO2â‡"H+O2 reaction system: SACM/CT calculations between 0 and 5000 K. Journal of Chemical Physics, 2000, 113, 11019-11034.	1.2	82
42	Classical trajectory calculations of the high pressure limiting rate constants and of specific rate constants for the reaction H+O2â†'HO2: dynamic isotope effects between tritium+O2 and muonium+O2. Physical Chemistry Chemical Physics, 2000, 2, 631-642.	1.3	79
43	Specific Rate Constants k(E) of the Dissociation of the Halobenzene Ions: Analysis by Statistical Unimolecular Rate Theories. Journal of Physical Chemistry A, 2009, 113, 573-582.	1.1	78
44	Theoretical studies of the HO+Oâ‡"HO2â‡"H+O2 reaction. II. Classical trajectory calculations on an ab initio potential for temperatures between 300 and 5000 K. Journal of Chemical Physics, 2001, 115, 3621-3628.	1.2	74
45	The thermal dissociation/recombination reaction of hydrogen peroxide<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>H</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:mo>+</mml:mo><mml:mtext>M</mml:mtext><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.8	72
46	Shock wave study of collisional energy transfer in the dissociation of nitrogen dioxide, nitrosyl chloride, ozone, and nitrous oxide. The Journal of Physical Chemistry, 1979, 83, 2083-2090.	2.9	73
47	Direct study of energy transfer of vibrationally highly excited CS2 molecules. Journal of Chemical Physics, 1985, 82, 1907-1919.	1.2	72
48	Approximate expressions for the yields of unimolecular reactions with chemical and photochemical activation. The Journal of Physical Chemistry, 1983, 87, 1800-1804.	2.9	71
49	Evaluated kinetic and photochemical data for atmospheric chemistry: Supplement III. International Journal of Chemical Kinetics, 1989, 21, 115-150.	1.0	69
50	High Temperature Ultraviolet Absorption Spectra of Polyatomic Molecules in Shock Waves. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1981, 85, 559-564.	0.9	68
51	Specific rate constants k(E,J) for the unimolecular dissociations of formaldehyde and formaldehyde-d2. The Journal of Physical Chemistry, 1984, 88, 4375-4380.	2.9	65
52	Temperature and pressure dependence of the addition reactions of HO to NO and to NO2. IV. Saturated laser-induced fluorescence measurements up to 1400 bar. Journal of Chemical Physics, 1998, 108, 5391-5397.	1.2	62
53	Measurement of internal energies by hot ultraviolet absorption spectroscopy: spectra of excited azulene molecules. The Journal of Physical Chemistry, 1985, 89, 4608-4612.	2.9	60
54	Modelling low-energy electronâ€“molecule capture processes. Physical Chemistry Chemical Physics, 2008, 10, 1270-1276.	1.3	60

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55	Toward a Quantitative Analysis of Association Reactions in the Atmosphere. Chemical Reviews, 2003, 103, 4565-4576.	23.0	58
56	Low-temperature behavior of capture rate constants for inverse power potentials. Journal of Chemical Physics, 2003, 118, 7313.	1.2	58
57	Classical trajectory and adiabatic channel study of the transition from adiabatic to sudden capture dynamics. I. Ionâ€“dipole capture. Journal of Chemical Physics, 1996, 105, 6263-6269.	1.2	56
58	Experimental and Theoretical Studies of the Benzylium+/Tropylium+ Ratios after Charge Transfer to Ethylbenzene. Journal of Physical Chemistry A, 2004, 108, 5600-5609.	1.1	56
59	Falloff Curves for the Reaction CH3+ O2(+ M) â† CH3O2(+ M) in the Pressure Range 2â^'1000 Bar and the Temperature Range 300â^'700 K. Journal of Physical Chemistry A, 2006, 110, 4442-4449.	1.1	56
60	Classical trajectory and adiabatic channel study of the transition from adiabatic to sudden capture dynamics. III. Dipoleâ€“dipole capture. Journal of Chemical Physics, 1996, 105, 6277-6284.	1.2	55
61	Classical trajectory and statistical adiabatic channel study of the dynamics of capture and unimolecular bond fission. V. Valence interactions between two linear rotors. Journal of Chemical Physics, 1998, 108, 9987-9998.	1.2	55
62	Classical trajectory and statistical adiabatic channel study of the dynamics of capture and unimolecular bond fission. IV. Valence interactions between atoms and linear rotors. Journal of Chemical Physics, 1998, 108, 5265-5280.	1.2	53
63	Low-energy electron attachment to SF6. I. Kinetic modeling of nondissociative attachment. Journal of Chemical Physics, 2007, 127, 244303.	1.2	53
64	Representation of â€œBroadâ€•Falloff Curves for Dissociation and Recombination Reactions. Zeitschrift Fur Physikalische Chemie, 2014, 228, 1-10.	1.4	53
65	Collisional energy transfer of vibrationally highly excited CS2. II. Temperature dependence of ã€Î”Eã€‰ from experiments in shock waves and laserâ€heated reactors. Journal of Chemical Physics, 1987, 87, 3867-3874.	1.2	52
66	Intracavity laser absorption spectroscopy of HOCl overtones. I. The 3v1+2v2 band and numbers of vibrational states. Journal of Chemical Physics, 1996, 104, 3189-3197.	1.2	51
67	TemperaturabhÃngigkeit der Ultraviolett-Spektren von H2O2und von HO2-Radikalen. Helvetica Chimica Acta, 1972, 55, 205-213.	1.0	49
68	Theory of two-channel thermal unimolecular reactions. 1. General formulation. The Journal of Physical Chemistry, 1980, 84, 3068-3072.	2.9	49
69	Rotational effects in complex-forming bimolecular reactions: Application to the reaction CH4+O2+. International Journal of Mass Spectrometry and Ion Processes, 1987, 80, 17-30.	1.9	49
70	Rapid Approximate Calculation of Numbers of Quantum States W(E,J) in the Phase Space Theory of Unimolecular Bond Fission Reactions. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 1327-1332.	0.9	49
71	Shock-wave study of the high-temperature uv absorption and the recombination of trifluoromethyl radicals. The Journal of Physical Chemistry, 1980, 84, 1681-1686.	2.9	48
72	Revisiting falloff curves of thermal unimolecular reactions. Journal of Chemical Physics, 2011, 135, 054304.	1.2	47

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73	The Dissociation-Recombination System CH₄ + Mâ‡ŒCH₃ + H + M: Reevaluated Experiments from 300 to 3000 K. Zeitschrift Fur Physikalische Chemie, 1990, 167, 129-149.	1.4	46
74	On the Model Dependence of Kinetic Shifts in Unimolecular Reactions:Â The Dissociation of the Cations of Benzene andn-Butylbenzeneâ€. Journal of Physical Chemistry A, 2006, 110, 1491-1499.	1.1	46
75	Activation of Methane by FeO⁺: Determining Reaction Pathways through Temperature-Dependent Kinetics and Statistical Modeling. Journal of Physical Chemistry A, 2014, 118, 2029-2039.	1.1	46
76	Low-energy electron attachment to SF6. II. Temperature and pressure dependences of dissociative attachment. Journal of Chemical Physics, 2007, 127, 244304.	1.2	45
77	Teaching an Old Dog New Tricks: Using the Flowing Afterglow to Measure Kinetics of Electron Attachment to Radicals, Ionâ€“Ion Mutual Neutralization, and Electron Catalyzed Mutual Neutralization. Advances in Atomic, Molecular and Optical Physics, 2012, 61, 209-294.	2.3	45
78	Classical trajectory and adiabatic channel study of the transition from adiabatic to sudden capture dynamics. II. Ionâ€“quadrupole capture. Journal of Chemical Physics, 1996, 105, 6270-6276.	1.2	43
79	Theory of Multichannel Thermal Unimolecular Reactions. 2. Application to the Thermal Dissociation of Formaldehyde. Journal of Physical Chemistry A, 2005, 109, 8320-8328.	1.1	43
80	Low-energy electron attachment to SF6. III. From thermal detachment to the electron affinity of SF6. Journal of Chemical Physics, 2007, 127, 244305.	1.2	43
81	Experimental and Modeling Study of the Reaction C2F4 (+ M) â‡” CF2 + CF2 (+ M). Journal of Physical Chemistry A, 2013, 117, 11420-11429.	1.1	43
82	Highâ€pressure range of the addition of HO to HO. III. Saturated laserâ€induced fluorescence measurements between 200 and 700 K. Journal of Chemical Physics, 1996, 105, 1001-1006.	1.2	41
83	Investigation of N2H4 and H2O2 decomposition in low and high pressure shock waves. Proceedings of the Combustion Institute, 1969, 12, 345-355.	0.3	38
84	Ultraviolet spectra of vibrationally highly excited CS2 molecules. Journal of Chemical Physics, 1984, 81, 1209-1214.	1.2	38
85	Classical trajectory and statistical adiabatic channel study of the dynamics of capture and unimolecular bond fission. VI. Properties of transitional modes and specific rate constants k(E,J). Journal of Chemical Physics, 2002, 117, 4201-4213.	1.2	38
86	Further Insight into the Reaction FeO⁺ + H₂ â†’ Fe⁺ + H₂O: Temperature Dependent Kinetics, Isotope Effects, and Statistical Modeling. Journal of Physical Chemistry A, 2014, 118, 6789-6797.	1.1	38
87	Analysis of the temperature and pressure dependence of the reaction HO + NO2 + M ? HONO2 + M. International Journal of Chemical Kinetics, 2001, 33, 878-889.	1.0	37
88	Refined Analysis of the Thermal Dissociation of Formaldehydeâ€. Journal of Physical Chemistry A, 2007, 111, 3862-3867.	1.1	37
89	The dissociation/recombination reaction CH4 (+M) â‡” CH3 + H (+M): A case study for unimolecular rate theory. Journal of Chemical Physics, 2012, 136, 214309.	1.2	37
90	New studies of the unimolecular reaction NO2O+NO. Part 2. Relation between high pressure rate constants and potential parameters. Physical Chemistry Chemical Physics, 1999, 1, 63-72.	1.3	35

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91	Analysis of Quantum Yields for the Photolysis of Formaldehyde at Î» > 310 nmâ€. Journal of Physical Chemistry A, 2007, 111, 3868-3874.	1.1	34
92	Collisional Stabilization and Thermal Dissociation of Highly Vibrationally Excited C9H12+Ions from the Reaction O2++ C9H12â†' O2+ C9H12+â€. Journal of Physical Chemistry A, 2004, 108, 9652-9659.	1.1	33
93	Towards Simplified Thermal and Specific Rigidity Factors for Ion-Molecule Reactions and Ion Fragmentations. Zeitschrift Fur Physikalische Chemie, 2009, 223, 347-357.	1.4	33
94	Approximate determination of rovibrational densities of states Ï(E,J) and numbers of states W(E,J). Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1994, 98, 1563-1574.	0.9	32
95	Pressure and temperature dependence of dissociative and non-dissociative electron attachment to CF3: Experiments and kinetic modeling. Journal of Chemical Physics, 2011, 135, 054306.	1.2	32
96	Electron Capture by Polarizable Dipolar Targets: Numerical and Analytically Approximated Capture Probabilities. Journal of Physical Chemistry A, 2011, 115, 6825-6830.	1.1	31
97	Shock Wave Study of the Thermal Decomposition of CF₃ and CF₂ Radicals. Journal of Physical Chemistry A, 2010, 114, 4755-4761.	1.1	30
98	Evaluated kinetic and photochemical data for atmospheric chemistry: volume VIII â€“ gas-phase reactions of organic species with four, or more, carbon atoms (â€‰â‰¥â€‰â€‰C₄). Atmospheric Chemistry and Physics, 2021, 21, 4797-4808.	1.9	30
99	High temperature UV absorption and recombination of methyl radicals in shock waves. Proceedings of the Combustion Institute, 1977, 16, 949-960.	0.3	29
100	Shock wave study of the UV spectrum of CF3I. Chemical Physics Letters, 1981, 82, 1-4.	1.2	29
101	Infrared multiphoton excitation of CF3I. II. Collisional energy transfer of vibrationally highly excited CF3I. Journal of Chemical Physics, 1989, 91, 900-905.	1.2	29
102	Prediction of Reduced Falloff Curves for Recombination Reactions at Low Temperatures. Zeitschrift Fur Physikalische Chemie, 2003, 217, 1031-1044.	1.4	28
103	The Reaction of O2+ + C8H10 (Ethylbenzene) as a Function of Pressure and Temperature. 2. Analysis of Collisional Energy Transfer of Highly Excited C8H10+. Journal of Physical Chemistry A, 2004, 108, 1574-1581.	1.1	28
104	Spin-inversion and spin-selection in the reactions FeO⁺ + H₂ and Fe⁺ + N₂O. Physical Chemistry Chemical Physics, 2015, 17, 19709-19717.	1.3	28
105	Iron cation catalyzed reduction of N2O by CO: gas-phase temperature dependent kinetics. Physical Chemistry Chemical Physics, 2013, 15, 11257.	1.3	26
106	SACM/CT Study of the dissociation/recombination dynamics of hydrogen peroxide on an ab initio potential energy surface : Part II. Specific rate constants k(E,J), thermal rate constants kâˆž(T), and lifetime distributions. Physical Chemistry Chemical Physics, 2008, 10, 3915.	1.3	25
107	Rates of complex formation in collisions of rotationally excited homonuclear diatoms with ions at very low temperatures: Application to hydrogen isotopes and hydrogen-containing ions. Journal of Chemical Physics, 2005, 122, 184311.	1.2	24
108	Statistical modeling of the reactions Fe⁺ + N₂O â†' FeO⁺ + N₂ and FeO⁺ + CO â†' Fe⁺ + CO₂. Physical Chemistry Chemical Physics, 2015, 17, 19700-19708.	1.3	24

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109	Infrared multiphoton excitation of CF3I. I. Transient ultraviolet absorption study of afterâ€pulse dissociation and excited state populations. Journal of Chemical Physics, 1989, 91, 890-899.	1.2	23
110	Pressure dependence of the reaction Hâ€‰+â€‰O2(+Ar)â€‰â†’â€‰HO2(+Ar) in the range 1â€“900 bar and 300â€“700 K. Physical Chemistry Chemical Physics, 2004, 6, 1997-1999.	1.3	23
111	Infrared multiphoton excitation dynamics of CF3I. I. Populations and dissociation rates of highly excited rovibrational states. Journal of Chemical Physics, 1992, 96, 8863-8871.	1.2	22
112	Rotational effects in broadening factors of fall-off curves of unimolecular dissociation reactions. Faraday Discussions, 2002, 119, 145.	1.6	22
113	Capture of asymmetric top dipolar molecules by ions: Rate constants for capture of H2O, HDO, and D2O by arbitrary ions. International Journal of Mass Spectrometry, 2009, 280, 42-49.	0.7	22
114	Electron attachment to POCl3. III. Measurement and kinetic modeling of branching fractions. Journal of Chemical Physics, 2011, 134, 094310.	1.2	22
115	Communication: Revised electron affinity of SF6 from kinetic data. Journal of Chemical Physics, 2012, 136, 121102.	1.2	22
116	Thermal decomposition of methane behind reflected shock waves. Proceedings of the Combustion Institute, 1971, 13, 147-154.	0.3	21
117	Experimental and theoretical study of the ionâ€“molecule association reaction NH4++NH3(+M)â†’N2H7+(+M). Journal of Chemical Physics, 2002, 117, 2557-2567.	1.2	21
118	A Simple Method Relating Specific Rate Constantsk(E,J) and Thermally Averaged Rate Constantskâ^ž(T) of Unimolecular Bond Fission and the Reverse Barrierless Association Reactionsâ€. Journal of Physical Chemistry A, 2006, 110, 6732-6741.	1.1	21
119	Temperature and Pressure Dependence of the Reaction 2CF₃ (+ M) â‡” C₂F₆ (+ M). Journal of Physical Chemistry A, 2010, 114, 4748-4754.	1.1	20
120	Exploring the Reactions of Fe⁺ and FeO⁺ with NO and NO₂. Journal of Physical Chemistry A, 2012, 116, 11500-11508.	1.1	20
121	Weak collision effects in dissociation reactions at high temperatures. Proceedings of the Combustion Institute, 1979, 17, 535-542.	0.3	19
122	Comment on â€œOn the high pressure rate constants for the H/Mu + O2 addition reactionsâ€™' by J. M. C. Marques and A. J. C. Varandas, Phys. Chem. Chem. Phys., 2001, 3, 505. Physical Chemistry Chemical Physics, 2001, 3, 2630-2631.	1.3	19
123	Dynamics of ionâ€“molecule complex formation at very low energies and temperatures. Physical Chemistry Chemical Physics, 2005, 7, 1540-1551.	1.3	19
124	Infrared multiphoton excitation dynamics of CF3I. II. Collisional effects on vibrational and rotational state populations. Journal of Chemical Physics, 1992, 96, 8872-8876.	1.2	18
125	Stark energy levels of symmetric top dipoles: Analytical expressions for arbitrary field strengths. Journal of Chemical Physics, 1994, 101, 1885-1889.	1.2	18
126	Quantum and classical calculations of adiabatic and nonadiabatic capture rates for anisotropic interactions. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1997, 101, 445-458.	0.9	18

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127	Thermal decomposition of ethylbenzene cations (C8H10+): experiments and modeling of falloff curves. International Journal of Mass Spectrometry, 2005, 241, 305-313.	0.7	18
128	Classical Trajectory Study of the Reaction between H and HCOâ€. Journal of Physical Chemistry A, 2007, 111, 6610-6614.	1.1	18
129	Anharmonic Rovibrational Numbers and Densities of States for HO₂, H₂CO, and H₂O₂. Journal of Physical Chemistry A, 2009, 113, 3940-3945.	1.1	18
130	The Importance of NO⁺(H₂O)₄ in the Conversion of NO⁺(H₂O)_n to H₃O⁺(H₂O)_n: I. Kinetics Measurements and Statistical Rate Modeling. Journal of Physical Chemistry A, 2011, 115, 7582-7590.	1.1	18
131	Direct measurement of near-threshold rate constants for unimolecular dissociation of CF3I after IR multiphoton excitation. Chemical Physics Letters, 1986, 127, 541-546.	1.2	17
132	The Dissociation-Recombination System CH₄ + M â‡” CH₃ + H + M: II. Evaluation of Experiments up to 5000 K and Temperature Dependence of <ã,”E>. Zeitschrift Fur Physikalische Chemie, 1992, 176, 161-171.	1.4	17
133	Electron attachment to POCl3: Measurement and theoretical analysis of rate constants and branching ratios as a function of gas pressure and temperature, electron temperature, and electron energy. Journal of Chemical Physics, 2006, 124, 124322.	1.2	17
134	On the accuracy of thermionic electron emission models. I. Electron detachment from SF6âˆ’. Journal of Chemical Physics, 2009, 130, 244303.	1.2	17
135	Experimental and modeling study of thermal rate coefficients and cross sections for electron attachment to C60. Journal of Chemical Physics, 2010, 132, 194307.	1.2	17
136	Classical Trajectory and Statistical Adiabatic Channel Study of the Dynamics of Capture and Unimolecular Bond Fission. VII. Thermal Capture and Specific Rate Constants k(E,J) for the Dissociation of Molecular Ions. Zeitschrift Fur Physikalische Chemie, 2005, 219, 715-741.	1.4	16
137	Quantum capture, adiabatic channel, and classical trajectory study of the high pressure rate constant of the reaction H+O2â†’HO2 between 0 and 5000K. Journal of Chemical Physics, 2008, 128, 204307.	1.2	16
138	Experimental and theoretical investigation of electron attachment to SF5Cl. Journal of Chemical Physics, 2008, 128, 094309.	1.2	16
139	Electron attachment to POCl3. II. Dependence of the attachment rate coefficients on gas and electron temperature. International Journal of Mass Spectrometry, 2011, 306, 123-128.	0.7	16
140	Relocking of intrinsic angular momenta in collisions of diatoms with ions: Capture of H2(j =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.2	16
141	Nonadiabatic effects in the statistical adiabatic channel model: The atom+diatom case. Journal of Chemical Physics, 1992, 97, 3318-3324.	1.2	15
142	Electron capture by finite-size polarizable molecules and clusters. Physical Chemistry Chemical Physics, 2010, 12, 9011.	1.3	15
143	Shock wave and modeling study of the reaction CF₄ (+M) â‡” CF₃ + F (+M). Physical Chemistry Chemical Physics, 2016, 18, 17592-17596.	1.3	15
144	SACM/CT Study of Product Energy Distributions in the Dissociation of n-Propylbenzene Cations. Zeitschrift Fur Physikalische Chemie, 2005, 219, 699-714.	1.4	14

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145	Experimental and theoretical study of the ion-ion mutual neutralization reactions Ar++SFnâ˜ (n=6, 5,) Tj ETQq1 1 0.784314 rgBT /Ove	1.2	13
146	Electron attachment to SF₆under well defined conditions: comparison of statistical modeling results to experiments. Journal of Physics: Conference Series, 2008, 115, 012019.	0.3	13
147	Refined Representation of Falloff Curves for the Reaction HO + NO2 + N2 â†' (HONO2, HOONO) + N2. Journal of Physical Chemistry A, 2012, 116, 6387-6393.	1.1	13
148	Electron attachment to CF3and CF3Br at temperatures up to 890 K: Experimental test of the kinetic modeling approach. Journal of Chemical Physics, 2013, 138, 204316.	1.2	13
149	Shock Wave Study of the Thermal Dissociations of C₃F₆ and c-C₃F₆. I. Dissociation of Hexafluoropropene. Journal of Physical Chemistry A, 2014, 118, 4880-4888.	1.1	13
150	Analysis by kinetic modeling of the temperature dependence of thermal electron attachment to CF3Br. Journal of Chemical Physics, 2012, 137, 024303.	1.2	12
151	Shock Wave Study of the Thermal Dissociations of C₃F₆ and c-C₃F₆. II. Dissociation of Hexafluorocyclopropane and Dimerization of CF₂. Journal of Physical Chemistry A, 2014, 118, 4873-4879.	1.1	12
152	Experimental and Modeling Study of the Temperature and Pressure Dependence of the Reaction C₂H₅ + O₂ (+ M) â†' C₂H₅O₂ (+) Tj ETQq0 0 0 rgBT /Ove	1.1	12
153	Quantum effects in the capture of charged particles by dipolar polarizable symmetric top molecules. I. General axially nonadiabatic channel treatment. Journal of Chemical Physics, 2013, 139, 084311.	1.2	11
154	Shock wave and modeling study of the thermal decomposition reactions of pentafluoroethane and 2-H-heptafluoropropane. Physical Chemistry Chemical Physics, 2014, 16, 9797-9807.	1.3	11
155	Kinetic and Spectroscopic Studies of the Reaction of CF₂ with H₂ in Shock Waves. Journal of Physical Chemistry A, 2017, 121, 7827-7834.	1.1	11
156	Axially Nonadiabatic Channel Treatment of Low-Energy Capture in Ion-Rotating Diatom Collisionsâ€. Journal of Physical Chemistry A, 2004, 108, 8703-8712.	1.1	10
157	Simplified models for anharmonic numbers and densities of vibrational states. II. All the bound states of HO2. Chemical Physics, 2008, 346, 186-192.	0.9	10
158	Quantum and Classical Fall of a Charged Particle onto a Stationary Dipolar Target. Journal of Physical Chemistry A, 2009, 113, 14212-14219.	1.1	10
159	Locking of the intrinsic angular momentum in the capture of quadrupole diatoms by ions. Molecular Physics, 2010, 108, 873-882.	0.8	10
160	Two-Channel Dissociation of Chemically and Thermally Activatedn-Butylbenzene Cations (C10H14+)â€. Journal of Physical Chemistry A, 2006, 110, 8467-8476.	1.1	9
161	Simplified models for anharmonic numbers and densities of vibrational states. Part III: Resonance states of HO2. Chemical Physics, 2008, 346, 193-197.	0.9	9
162	Mutual Capture of Dipolar Molecules at Low and Very Low Energies. I. Approximate Analytical Treatment. Journal of Physical Chemistry A, 2010, 114, 9762-9767.	1.1	9

#	Article	IF	Citations
163	Mutual Capture of Dipolar Molecules at Low and Very Low Energies. II. Numerical Study. Journal of Physical Chemistry A, 2011, 115, 5027-5037.	1.1	9
164	Quantum effects in the capture of charged particles by dipolar polarizable symmetric top molecules. II. Interplay between electrostatic and gyroscopic interactions. Journal of Chemical Physics, 2013, 139, 144315.	1.2	9
165	Simplified Representation of Partial and Total Rate Constants of Complex-Forming Bimolecular Reactions. Journal of Physical Chemistry A, 2015, 119, 12159-12165.	1.1	9
166	Shock wave studies of the pyrolysis of fluorocarbon oxygenates. I. The thermal dissociation of C₃F₆O and CF₃COF. Physical Chemistry Chemical Physics, 2017, 19, 3151-3158.	1.3	9
167	Shock Wave and Theoretical Modeling Study of the Dissociation of CH₂F₂. I. Primary Processes. Journal of Physical Chemistry A, 2017, 121, 7813-7819.	1.1	9
168	Experimental and modelling study of the multichannel thermal dissociations of CH₃F and CH₂F. Physical Chemistry Chemical Physics, 2018, 20, 2627-2636.	1.3	9
169	Threshold behavior and analytical fitting of partial wave capture probabilities for attractive Râ^'n potentials. Physical Chemistry Chemical Physics, 2009, 11, 9364.	1.3	8
170	Shock wave studies of the pyrolysis of fluorocarbon oxygenates. II. The thermal dissociation of C₄F₈O. Physical Chemistry Chemical Physics, 2017, 19, 3159-3164.	1.3	8
171	Shock wave study and theoretical modeling of the thermal decomposition of c-C4F8. Physical Chemistry Chemical Physics, 2015, 17, 32219-32224.	1.3	7
172	Analysis of the Pressure and Temperature Dependence of the Complex-Forming Bimolecular Reaction CH3OCH3 + Fe+. Journal of Physical Chemistry A, 2016, 120, 5264-5273.	1.1	7
173	Temperature and Pressure Dependences of the Reactions of Fe⁺ with Methyl Halides CH₃X (X = Cl, Br, I): Experiments and Kinetic Modeling Results. Journal of Physical Chemistry A, 2017, 121, 4058-4068.	1.1	7
174	Shock Wave and Theoretical Modeling Study of the Dissociation of CH₂F₂. II. Secondary Reactions. Journal of Physical Chemistry A, 2017, 121, 7820-7826.	1.1	7
175	Simplified Analysis and Representation of Multichannel Thermal Unimolecular Reactions. Journal of Physical Chemistry A, 2019, 123, 1007-1014.	1.1	7
176	On the meaning of â€œcollision rate constantsâ€•for ion-molecule reactions: Association of hydrogen atoms with C6H5+ and small alkyl radicals with C7H7+ ions. International Journal of Mass Spectrometry, 2020, 458, 116455.	0.7	7
177	Falloff Curves of the Reaction CF3 (+M) â†' CF2 + F (+M). Journal of Physical Chemistry A, 2020, 124, 1235-1239.	1.1	7
178	On the kinetic modeling of electron attachment to polyatomic molecules. Molecular Physics, 2012, 110, 1627-1635.	0.8	6
179	Electronic nonadiabatic effects in low temperature radical-radical reactions. I. C(3P) + OH(2Î). Journal of Chemical Physics, 2014, 141, 044302.	1.2	6
180	Falloff curves and mechanism of thermal decomposition of CF₃I in shock waves. Physical Chemistry Chemical Physics, 2019, 21, 23893-23899.	1.3	6

#	Article	IF	Citations
181	Dynamic orientation of diatomic fragments formed in the decomposition of statistical triatomic complexes. II. Classical simulation. Chemical Physics, 1995, 195, 283-289.	0.9	5
182	From quantum chemistry to dissociation kinetics: what we need to know. Molecular Physics, 2014, 112, 2374-2383.	0.8	5
183	Kinetics in the real world: linking molecules, processes, and systems. Physical Chemistry Chemical Physics, 2018, 20, 10561-10568.	1.3	5
184	Mechanistic details of the MnO+ + H2/D2 reaction through temperature-dependent kinetics and statistical modeling. International Journal of Mass Spectrometry, 2019, 435, 26-33.	0.7	5
185	Shock wave and modelling study of the UV spectra of perfluorocarbon iodides and perfluorocarbon radicals. Combustion and Flame, 2021, 224, 177-182.	2.8	5
186	Gas-Phase Anionic Metal Clusters are Model Systems for Surface Oxidation: Kinetics of the Reactions of M_n^{â€“} with O₂ (M = V, Cr, Co, Ni; n = 1â€“15). Journal of Physical Chemistry A, 2021, 125, 2069-2076.	1.1	4
187	High-Temperature Fluorocarbon Chemistry Revisited. Journal of Physical Chemistry A, 2021, 125, 5626-5632.	1.1	4
188	Shock wave and modelling study of the dissociation kinetics of C₂F₅I. Physical Chemistry Chemical Physics, 2021, 23, 4394-4403.	1.3	4
189	Contribution of the Radical-Complex Mechanism to the Rate of the Reaction CH₃+ O₂(+ M) â†’ CH₃O₂(+ M) at High Pressures. Journal of Physical Chemistry A, 2010, 114, 9963-9968.	1.1	3
190	Quantum capture of charged particles by rapidly rotating symmetric top molecules with small dipole moments: analytical comparison of the fly-wheel and adiabatic channel limits. Molecular Physics, 2013, 111, 2003-2011.	0.8	3
191	Calculations of the active mode and energetic barrier to electron attachment to CF₃ and comparison with kinetic modeling of experimental results. Physical Chemistry Chemical Physics, 2016, 18, 31064-31071.	1.3	3
192	Shock wave and modelling study of the dissociation pathways of (C₂F₅)₃N. Physical Chemistry Chemical Physics, 2019, 21, 9785-9792.	1.3	3
193	On the Competition Between Electron Autodetachment and Dissociation of Molecular Anions. Journal of the American Society for Mass Spectrometry, 2019, 30, 1828-1834.	1.2	2
194	Toward a quantitative analysis of the temperature dependence of electron attachment to SF6. Journal of Chemical Physics, 2020, 152, 124302.	1.2	2
195	Simplified Representation of Multichannel Thermal Unimolecular Reactions. II. Refined Parametrization of Formaldehyde Dissociation. Zeitschrift Fur Physikalische Chemie, 2020, 234, 1359-1369.	1.4	2
196	Shock wave and modelling study of the unimolecular dissociation of Si(CH₃)₂F₂: an access to spectroscopic and kinetic properties of SiF₂. Physical Chemistry Chemical Physics, 2021, 23, 22437-22442.	1.3	1
197	On the Betheâ€“Wignerâ€“Shapiro limit of the rate coefficient for the capture of a rotating quadrupolar polarisable diatom by an ion. Molecular Physics, 2017, 115, 432-436.	0.8	0
198	Theoretical modeling study of the reaction H + CF 4 â†’ HF + CF 3. International Journal of Chemical Kinetics, 2021, 53, 939-945.	1.0	0

#	Article	IF	Citations
199	Some Recent Advances in the Modeling of Ion-Molecule Association Reactions. , 2004, , 399-411.		0