

# F Javier Aoiz

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/343901/publications.pdf>

Version: 2024-02-01

269  
papers

8,848  
citations

38660

50  
h-index

76769

74  
g-index

273  
all docs

273  
docs citations

273  
times ranked

1873  
citing authors

#	ARTICLE	IF	CITATIONS
1	Product rotational polarization in photon-initiated bimolecular reactions. Journal of Chemical Physics, 1996, 105, 4964-4982.	1.2	211
2	Astronomical identification of CN <sup>-</sup> , the smallest observed molecular anion. Astronomy and Astrophysics, 2010, 517, L2.	2.1	207
3	Quantum mechanical and quasi-classical trajectory study of the C(1D)+H <sub>2</sub> reaction dynamics. Journal of Chemical Physics, 2003, 118, 565-568.	1.2	192
4	Recent results from quasiclassical trajectory computations of elementary chemical reactions. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 2483-2500.	1.7	188
5	Experimental Studies and Theoretical Predictions for the H + D <sub>2</sub> → HD + D Reaction. Science, 1995, 269, 207-210.	6.0	177
6	Quasiclassical state to state reaction cross sections for D+H <sub>2</sub> (v=0, j=0) → HD(v=0, j=0)+H. Formation and characteristics of short-lived collision complexes. Journal of Chemical Physics, 1992, 97, 7423-7436.	1.2	163
7	A unified quantal and classical description of the stereodynamics of elementary chemical reactions: State-resolved $\langle \hat{k} \cdot \hat{j} \rangle$ vector correlation for the H+D <sub>2</sub> (v=0, j=0) reaction. Journal of Chemical Physics, 1999, 111, 5368-5383.	1.2	115
8	The H+H <sub>2</sub> reactive system. Progress in the study of the dynamics of the simplest reaction. International Reviews in Physical Chemistry, 2005, 24, 119-190.	0.9	114
9	Chemical Reaction Rate Coefficients from Ring Polymer Molecular Dynamics: Theory and Practical Applications. Journal of Physical Chemistry A, 2016, 120, 8488-8502.	1.1	113
10	Classical dynamics for the F + H <sub>2</sub> → HF + H reaction on a new ab initio potential energy surface. A direct comparison with experiment. Chemical Physics Letters, 1994, 223, 215-226.	1.2	110
11	Chemical Reaction Rates from Ring Polymer Molecular Dynamics: Zero Point Energy Conservation in Mu + H <sub>2</sub> → MuH + H. Journal of Physical Chemistry Letters, 2012, 3, 493-497.	2.1	105
12	Quantum Effects in the Differential Cross Sections for the Insertion Reaction N(D <sub>2</sub> )+H <sub>2</sub> . Physical Review Letters, 2002, 89, 013201.	2.9	101
13	Dynamics of the Simplest Chlorine Atom Reaction: An Experimental and Theoretical Study. Science, 1996, 273, 1519-1522.	6.0	100
14	Experimental and Theoretical Differential Cross Sections for the N(2D) + H <sub>2</sub> Reaction. Journal of Physical Chemistry A, 2006, 110, 817-829.	1.1	95
15	Dynamics of the S(1D) + H <sub>2</sub> Insertion Reaction: A Combined Quantum Mechanical and Quasiclassical Trajectory Study. Journal of Physical Chemistry A, 2004, 108, 1616-1628.	1.1	92
16	Insertion and Abstraction Pathways in the Reaction O(D <sub>2</sub> )+H <sub>2</sub> → OH+H. Physical Review Letters, 2001, 86, 1729-1732.	2.9	91
17	The F+HD → DF(HF)+H(D) reaction revisited: Quasiclassical trajectory study on an ab initio potential energy surface and comparison with molecular beam experiments. Journal of Chemical Physics, 1995, 102, 9248-9262.	1.2	90
18	How Reactants Polarization Can Be Used to Change and Unravel Chemical Reactivity. Journal of Physical Chemistry A, 2005, 109, 6200-6217.	1.1	90

#	ARTICLE	IF	CITATIONS
19	Interference structures in the differential cross-sections for inelastic scattering of NO by Ar. <i>Nature Chemistry</i> , 2011, 3, 597-602.	6.6	90
20	Dynamics of Insertion Reactions of H <sub>2</sub> Molecules with Excited Atoms. <i>Journal of Physical Chemistry A</i> , 2006, 110, 12546-12565.	1.1	86
21	The dynamics of the hydrogen exchange reaction at 2.20 eV collision energy: Comparison of experimental and theoretical differential cross sections. <i>Journal of Chemical Physics</i> , 1999, 110, 9971-9981.	1.2	82
22	Is the simplest chemical reaction really so simple?. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 15-20.	3.3	82
23	Quantum mechanical and quasiclassical simulations of molecular beam experiments for the F+H <sub>2</sub> →HF+H reaction on two ab initio potential energy surfaces. <i>Journal of Chemical Physics</i> , 1998, 109, 7224-7237.	1.2	81
24	Spin-orbit effects in quantum mechanical rate constant calculations for the F+H <sub>2</sub> →HF+H reaction. <i>Journal of Chemical Physics</i> , 1999, 111, 4013-4024.	1.2	80
25	Analysis of product Doppler-broadened profiles generated from photoinitiated bimolecular reactions. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1993, 89, 1427.	1.7	79
26	A ring polymer molecular dynamics study of the isotopologues of the H + H <sub>2</sub> reaction. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 3655.	1.3	76
27	The O(1D)+H <sub>2</sub> reaction at 56 meV collision energy: A comparison between quantum mechanical, quasiclassical trajectory, and crossed beam results. <i>Journal of Chemical Physics</i> , 2002, 116, 10692-10703.	1.2	74
28	Dynamics of the insertion reaction C(1D) + H <sub>2</sub> : A comparison of crossed molecular beam experiments with quasiclassical trajectory and quantum mechanical scattering calculations. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 4957-4967.	1.3	72
29	A detailed quantum mechanical and quasiclassical trajectory study on the dynamics of the H+H <sub>2</sub> →H <sub>2</sub> +H exchange reaction. <i>Journal of Chemical Physics</i> , 2006, 125, 094314.	1.2	70
30	Cl+HD (v=1; j=1,2) reaction dynamics: Comparison between theory and experiment. <i>Journal of Chemical Physics</i> , 2000, 112, 670-685.	1.2	66
31	Quantum-instanton evaluation of the kinetic isotope effects. <i>Journal of Chemical Physics</i> , 2005, 123, 054108.	1.2	66
32	Dynamics of the C(D1)+D <sub>2</sub> reaction: A comparison of crossed molecular-beam experiments with quasiclassical trajectory and accurate statistical calculations. <i>Journal of Chemical Physics</i> , 2005, 122, 234309.	1.2	66
33	Effects of translational, rotational, and vibrational energy on the dynamics of the D+H <sub>2</sub> exchange reaction. A classical trajectory study. <i>Journal of Chemical Physics</i> , 1991, 94, 7991-8007.	1.2	65
34	Stress Test for Quantum Dynamics Approximations: Deep Tunneling in the Muonium Exchange Reaction D + HMu → DMu + H. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 4219-4224.	2.1	64
35	Implementation of a fast analytic ground state potential energy surface for the N(2D)+H <sub>2</sub> reaction. <i>Journal of Chemical Physics</i> , 2003, 119, 3063-3070.	1.2	62
36	Disagreement between theory and experiment in the simplest chemical reaction: Collision energy dependent rotational distributions for H+D <sub>2</sub> →HD(j=3, j=2)+D. <i>Journal of Chemical Physics</i> , 2004, 120, 3244-3254.	1.2	62

#	ARTICLE	IF	CITATIONS
37	Attractive and repulsive interactions in the inelastic scattering of NO by Ar: A comparison between classical trajectory and close-coupling quantum mechanical results. <i>Journal of Chemical Physics</i> , 2003, 119, 5860-5866.	1.2	61
38	Stereodynamics of the Reaction $O(1D_2) + H_2(v=0) \rightarrow OH(X^2\tilde{A}_1; v\tilde{A}=0, N\tilde{A}\tilde{A}, f) + H$ : State-Resolved Linear and Rotational Angular Momentum Distributions. <i>Journal of Physical Chemistry A</i> , 1997, 101, 7544-7557.	1.1	59
39	Ab Initio Simulation of Molecular Beam Experiments for the $F + H_2 \rightarrow HF + H$ Reaction. <i>Journal of Physical Chemistry A</i> , 1997, 101, 6403-6414.	1.1	59
40	A statistical quasiclassical trajectory model for atom-diatom insertion reactions. <i>Journal of Chemical Physics</i> , 2007, 126, 161101.	1.2	58
41	$O(1D_2) + H_2 \rightarrow OH + H$ The anatomy of a reaction. <i>Faraday Discussions</i> , 1997, 108, 375-386.	1.6	57
42	On the dynamics of the $H + D_2(v=0, j=0) \rightarrow HD + D$ reaction: A comparison between theory and experiment. <i>Journal of Chemical Physics</i> , 2008, 128, 014304.	1.2	57
43	Quantum mechanical and quasiclassical calculations for the $H + D_2 \rightarrow HD + D$ reaction: Reaction probabilities and differential cross sections. <i>Journal of Chemical Physics</i> , 1994, 101, 5781-5791.	1.2	56
44	Experimental and theoretical differential cross sections for the reactions $Cl + H_2/D_2$ . <i>Journal of Chemical Physics</i> , 2001, 114, 10662-10672.	1.2	56
45	Steric effects and quantum interference in the inelastic scattering of $NO(X) + Ar$ . <i>Chemical Science</i> , 2015, 6, 2202-2210.	3.7	56
46	Experimental and theoretical study of the $Li + HF(v=1) \rightarrow LiF + H$ reaction. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 541-548.	1.3	55
47	Quasiclassical Trajectory Study of the $F + CH_4$ Reaction Dynamics on a Dual-Level Interpolated Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 2005, 109, 8459-8470.	1.1	55
48	Reaction Cross Section and Rate Constant Calculations for the $D + H_2(v=0,1) \rightarrow HD + H$ Reaction on Three ab Initio Potential Energy Surfaces. A Quasiclassical Trajectory Study. <i>The Journal of Physical Chemistry</i> , 1996, 100, 4071-4083.	2.9	52
49	Product state-resolved stereodynamics: quasiclassical study of the reaction $(\text{I}) + (\text{I}^{1/2} + \text{I}^2) +$ . <i>Chemical Physics Letters</i> , 1996, 256, 561-568.	1.2	51
50	Quasi-classical trajectory calculations on a fast analytic potential energy surface for the $C(1D) + H_2$ reaction. <i>Chemical Physics Letters</i> , 2003, 374, 243-251.	1.2	51
51	A comparison of quantum and quasiclassical statistical models for reactions of electronically excited atoms with molecular hydrogen. <i>Journal of Chemical Physics</i> , 2008, 129, 094305.	1.2	51
52	An experimental and quasiclassical study of the product state resolved stereodynamics of the reaction $O(1D_2) + H_2(\tilde{I}\dots = 0) \rightarrow OH(X^2\tilde{A}_1; \tilde{I}\dots = 0, N, f) + H$ . <i>Chemical Physics Letters</i> , 1996, 262, 589-597.	1.2	50
53	Evidence for Scattering Resonances in the $H + D_2$ Reaction. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 2748-2752.	7.2	50
54	Experimental and quantum mechanical study of the $H + D_2$ reaction near 0.5 eV: The assessment of the $H_3$ potential energy surfaces. <i>Journal of Chemical Physics</i> , 1998, 108, 6160-6169.	1.2	48

#	ARTICLE	IF	CITATIONS
55	The dynamics of the $H^+ + D_2$ reaction: a comparison of quantum mechanical wavepacket, quasi-classical and statistical-quasi-classical results. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 1102-1115.	1.3	48
56	Influence of rotation and isotope effects on the dynamics of the $N(D_2) + H_2$ reactive system and of its deuterated variants. <i>Journal of Chemical Physics</i> , 2005, 123, 224301.	1.2	47
57	Quasiclassical determination of reaction probabilities as a function of the total angular momentum. <i>Journal of Chemical Physics</i> , 2005, 123, 094101.	1.2	47
58	Rotational alignment effects in $NO(X) + Ar$ inelastic collisions: An experimental study. <i>Journal of Chemical Physics</i> , 2013, 138, 104310.	1.2	47
59	Quasi-Classical Trajectory Study of the $F + D_2$ Reaction on a New ab Initio Potential Energy Surface. Comparison with Molecular Beam Experimental Results. <i>The Journal of Physical Chemistry</i> , 1994, 98, 10665-10670.	2.9	46
60	Product rotational polarization. The stereodynamics of the $F + H_2$ reaction. <i>Chemical Physics Letters</i> , 1997, 264, 487-494.	1.2	46
61	Dynamics of the $Cl + H_2/D_2$ reaction: a comparison of crossed molecular beam experiments with quasiclassical trajectory and quantum mechanical calculations. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 599-612.	1.3	46
62	Quasiclassical trajectory simulation of the $O(1D) + HCl \rightarrow OH + Cl$ , $ClO + H$ reactions on an improved potential energy surface. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 589-597.	1.3	46
63	The $H + D_2 \rightarrow HD + D$ Reaction. Quasiclassical Trajectory Study of Cross Sections, Rate Constants, and Kinetic Isotope Effect. <i>Journal of Physical Chemistry A</i> , 1997, 101, 6165-6176.	1.1	44
64	Stringent test of the statistical quasiclassical trajectory model for the $H_3^+$ exchange reaction: A comparison with rigorous statistical quantum mechanical results. <i>Journal of Chemical Physics</i> , 2007, 127, 174109.	1.2	44
65	Classical dynamics calculations for the $F + H_2 \rightarrow HF + H$ reaction on two recent potential energy surfaces. <i>Chemical Physics Letters</i> , 1994, 218, 422-432.	1.2	42
66	Reaction Cross Sections and Rate Constants for the $Cl + H_2(D_2) \rightarrow HCl(DCl) + H(D)$ Reaction from Quasiclassical Trajectory Calculations on an ab Initio Potential Energy Surface. <i>The Journal of Physical Chemistry</i> , 1996, 100, 18108-18115.	2.9	41
67	High resolution study of the $H + D_2 \rightarrow HD + D$ reaction dynamics at a collision energy of 2.2 eV. <i>Chemical Physics Letters</i> , 1997, 265, 129-136.	1.2	41
68	Product rotational angular momentum polarization in the reaction $O(1D_2) + H_2 \rightarrow OH + H$ . <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 571-580.	1.3	41
69	A detailed study of the dynamics of the $O(1D) + HCl \rightarrow OH + Cl$ , $ClO + H$ reactions. <i>Journal of Chemical Physics</i> , 2003, 119, 7871-7886.	1.2	41
70	Collisional depolarization of $OH(A)$ with $Ar$ : Experiment and theory. <i>Journal of Chemical Physics</i> , 2009, 130, 044306.	1.2	41
71	The effect of parity conservation on the spin-orbit conserving and spin-orbit changing differential cross sections for the inelastic scattering of $NO(X)$ by $Ar$ . <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 5420.	1.3	41
72	Seemingly Anomalous Angular Distributions in $H + D_2$ Reactive Scattering. <i>Science</i> , 2012, 336, 1687-1690.	6.0	41

#	ARTICLE	IF	CITATIONS
73	Spatial distributions of angular momenta in quantum and quasiclassical stereodynamics. Journal of Chemical Physics, 2004, 121, 9830-9843.	1.2	40
74	Quantum mechanical and quasiclassical trajectory study of state-to-state differential cross sections for the F+D <sub>2</sub> →DF+D reaction in the center-of-mass and laboratory frames. Physical Chemistry Chemical Physics, 1999, 1, 3415-3427.	1.3	39
75	Fully $\hat{v}$ -doublet resolved state-to-state differential cross-sections for the inelastic scattering of NO(X) with Ar. Physical Chemistry Chemical Physics, 2012, 14, 5403.	1.3	39
76	A quantum mechanical and quasi-classical trajectory study of the Cl+H <sub>2</sub> reaction and its isotopic variants: Dependence of the integral cross section on the collision energy and reagent rotation. Journal of Chemical Physics, 2001, 115, 2074-2081.	1.2	38
77	The H+D <sub>2</sub> reaction in the vicinity of the conical intersection. Journal of Chemical Physics, 1997, 106, 7862-7864.	1.2	37
78	Interpretation of Quantum and Classical Angular Momentum Polarization Moments. Physical Review Letters, 2004, 93, 083201.	2.9	37
79	Quasiclassical trajectory study of the Cl+CH <sub>4</sub> reaction dynamics on a quadratic configuration interaction with single and double excitation interpolated potential energy surface. Journal of Chemical Physics, 2006, 125, 124316.	1.2	37
80	A new perspective: imaging the stereochemistry of molecular collisions. Physical Chemistry Chemical Physics, 2015, 17, 30210-30228.	1.3	37
81	Dynamics of the Cl+D <sub>2</sub> 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
82	Quasi-classical treatment of the Stereodynamics of chemical reactions: $\mathbf{k} \cdot \mathbf{r} \cdot \mathbf{k}^2$ vector correlation for the Li+HF( $v=1, j=1$ )→LiF+H reaction. Journal of Chemical Physics, 2001, 114, 8880-8896.	1.2	36
83	Mechanism and control of the F+H <sub>2</sub> reaction at low and ultralow collision energies. Journal of Chemical Physics, 2006, 125, 133104.	1.2	36
84	Fully quantum state-resolved inelastic scattering between He and NO( $X^2$ ). Journal of Chemical Physics, 2007, 127, 031102.	1.2	36
85	The fully quantum state-resolved inelastic scattering of NO(X) + Ne: experiment and theory. Molecular Physics, 2013, 111, 1759-1771.	0.8	36
86	The dynamics of the O( <sup>1</sup> D)+HD reaction: A quasiclassical trajectory multisurface study. Journal of Chemical Physics, 2000, 113, 5339.	1.2	35
87	Inelastic Scattering of He Atoms and NO( $X^2$ ) Molecules: The Role of Parity on the Differential Cross Section. Journal of Physical Chemistry A, 2009, 113, 14636-14649.	1.1	35
88	OH <sup>+</sup> IN ASTROPHYSICAL MEDIA: STATE-TO-STATE FORMATION RATES, EINSTEIN COEFFICIENTS AND INELASTIC COLLISION RATES WITH He. Astrophysical Journal, 2014, 794, 33.	1.6	35
89	Collision energy dependence of the HD( $\hat{v}=2$ ) product rotational distribution of the H+D <sub>2</sub> reaction in the range 1.30–1.89 eV. Journal of Chemical Physics, 2004, 120, 3255-3264.	1.2	34
90	Dynamics of the D <sub>2</sub> + H <sub>2</sub> and H <sub>2</sub> + D <sub>2</sub> reactions: a detailed comparison between theory and experiment. Physical Chemistry Chemical Physics, 2012, 14, 3346.	1.3	34

#	ARTICLE	IF	CITATIONS
91	Quantum interference between H+D <sub>2</sub> quasiclassical reaction mechanisms. <i>Nature Chemistry</i> , 2015, 7, 661-667.	6.6	34
92	Reaction cross sections and rate constants for the F+H <sub>2</sub> (D <sub>2</sub> ) → HF(DF)+H(D) reactions from quasiclassical trajectory calculations on a potential energy surface. <i>Chemical Physics Letters</i> , 1996, 254, 341-348.	1.2	33
93	Quantum mechanical and quasi-classical rate constant calculations for the O(3P)+HCl → OH+Cl reaction. <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 1149-1158.	1.3	33
94	Forward scattering in the H+D <sub>2</sub> → HD+D reaction: Comparison between experiment and theoretical predictions. <i>Journal of Chemical Physics</i> , 2001, 115, 4534-4545.	1.2	33
95	Quantum mechanical limits to the control of atom-diatom chemical reactions through the polarisation of the reactants. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 1139-1150.	1.3	32
96	Rotational alignment effects in NO(X) + Ar inelastic collisions: A theoretical study. <i>Journal of Chemical Physics</i> , 2013, 138, 104309.	1.2	32
97	Fully quantum state-resolved inelastic scattering of NO(X) + Kr: Differential cross sections and product rotational alignment. <i>Journal of Chemical Physics</i> , 2014, 141, 164306.	1.2	32
98	Inelastic Scattering of NO by Kr: Rotational Polarization over a Rainbow. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3296-3301.	2.1	32
99	Stereodynamical Control of a Quantum Scattering Resonance in Cold Molecular Collisions. <i>Physical Review Letters</i> , 2019, 123, 043401.	2.9	32
100	Quasiclassical trajectory study of the Li+HF(v=0) → LiF+H reaction. <i>Chemical Physics Letters</i> , 1999, 299, 25-34.	1.2	31
101	Energy dependence of forward scattering in the differential cross section of the H+D <sub>2</sub> → HD(v=3, j=0)+D reaction. <i>Journal of Chemical Physics</i> , 2002, 117, 2546-2556.	1.2	31
102	Cold and ultracold dynamics of the barrierless D+ + H <sub>2</sub> reaction: Quantum reactive calculations for $\hat{r}^{-4}$ long range interaction potentials. <i>Journal of Chemical Physics</i> , 2015, 143, 204305.	1.2	31
103	Effect of reagent vibrational excitation on the dynamics of the Cl + HD → HCl(DCl) + D(H) reaction. <i>Chemical Physics Letters</i> , 1995, 247, 232-242.	1.2	30
104	The collisional depolarization of $\hat{r}^2S+1$ radicals by closed shell atoms: Theory and application to OH(A $\hat{r}^2\Sigma^+$ )+Ar. <i>Journal of Chemical Physics</i> , 2009, 130, 044305.	1.2	30
105			

#	ARTICLE	IF	CITATIONS
109	Classical reaction probabilities, cross sections and rate constants for the O(1D) + H <sub>2</sub> → OH + H reaction. <i>Chemical Physics Letters</i> , 1997, 278, 313-324.	1.2	28
110	Effect of rotational energy on the reaction Li+HF( $\bar{i}...=0,j$ ) → LiF+H: An experimental and computational study. <i>Journal of Chemical Physics</i> , 2005, 122, 244304.	1.2	28
111	Reaction dynamics of the D <sup>+</sup> + H <sub>2</sub> system. A comparison of theoretical approaches. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 12591.	1.3	28
112	Collisional depolarization of NO(A) by He and Ar studied by quantum beat spectroscopy. <i>Journal of Chemical Physics</i> , 2009, 131, .	1.2	27
113	A ring polymer molecular dynamics study of the Cl + O <sub>3</sub> reaction. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 2920.	1.3	27
114	The F + HD reaction: cross sections and rate constants on an ab initio potential energy surface. <i>Chemical Physics Letters</i> , 1996, 262, 175-182.	1.2	26
115	Effect of pendular orientation on the reactivity of H + DCl: a quasiclassical trajectory study. <i>Chemical Physics Letters</i> , 1998, 289, 132-140.	1.2	26
116	Low-Temperature Rotational Relaxation of N <sub>2</sub> Studied with Resonance-Enhanced Multiphoton Ionization. <i>Journal of Physical Chemistry A</i> , 1999, 103, 823-832.	1.1	26
117	Dynamics of the O(1D) D <sub>2</sub> reaction: A comparison between crossed molecular beam experiments and quasiclassical trajectory calculations on the lowest three potential energy surfaces. <i>Molecular Physics</i> , 2005, 103, 1703-1714.	0.8	26
118	Elastic Depolarization of OH(A) by He and Ar: A Comparative Study. <i>Journal of Physical Chemistry A</i> , 2009, 113, 15156-15170.	1.1	26
119	On the role of dynamical barriers in barrierless reactions at low energies: S(1 <i>&lt;i&gt;D&lt;/i&gt;</i> ) + H <sub>2</sub> . <i>Journal of Chemical Physics</i> , 2011, 135, 134313.	1.2	26
120	The effect of the reactant internal excitation on the dynamics of the C <sup>&lt;sup&gt;&lt;/sup&gt;</sup> + H <sub>2</sub> reaction. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 24800-24812.	1.3	26
121	State-resolved differential cross sections for the H+D <sub>2</sub> ( $v=0,j$ ) → HD( $v\hat{\in}^2,j\hat{\in}^2$ )+D reaction from quasiclassical trajectory calculations. <i>Chemical Physics Letters</i> , 1992, 198, 321-327.	1.2	25
122	F-D <sub>2</sub> state resolved reactive scattering at 180 and 240 meV collision energies. I. A high resolution crossed molecular beam experiment. <i>Chemical Physics</i> , 1996, 207, 227-243.	0.9	25
123	Rotational State Resolved Differential Cross Sections for the Reaction F + D <sub>2</sub> → DF + D at Collision Energies 140~240 meV. <i>Journal of Physical Chemistry A</i> , 1998, 102, 8695-8707.	1.1	25
124	Cumulative reaction probabilities: A comparison between quasiclassical and quantum mechanical results. <i>Journal of Chemical Physics</i> , 2006, 125, 144105.	1.2	25
125	Collisional angular momentum depolarization of OH(A) and NO(A) by Ar: A comparison of mechanisms. <i>Journal of Chemical Physics</i> , 2011, 135, 084306.	1.2	25
126	Can quasiclassical trajectory calculations reproduce the extreme kinetic isotope effect observed in the muonic isotopologues of the H + H <sub>2</sub> reaction?. <i>Journal of Chemical Physics</i> , 2011, 135, 034310.	1.2	25



#	ARTICLE	IF	CITATIONS
127	Side-impact collisions of Ar with NO. <i>Nature Chemistry</i> , 2019, 11, 662-668.	6.6	25
128	Further investigation of the HCl elimination in the photodissociation of vinyl chloride at 193 nm: a direct MP2/6-31G(d,p) trajectory study. <i>Chemical Physics Letters</i> , 2004, 386, 225-232.	1.2	24
129	Constraints at the transition state of the D + H <sub>2</sub> reaction: quantum bottlenecks vs. stereodynamics. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 5367.	1.3	24
130	Dynamics of the reactions of muonium and deuterium atoms with vibrationally excited hydrogen molecules: tunneling and vibrational adiabaticity. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 14596.	1.3	24
131	Quasi-classical trajectory study of the F+H <sub>2</sub> (D <sub>2</sub> ) <sup>+</sup> HF (DF)+H (D) reaction. Vibrationally state resolved integral and differential cross sections. <i>Chemical Physics Letters</i> , 1993, 204, 359-368.	1.2	23
132	Experimental and Theoretical Reaction Cross Sections for the H + HCl System. <i>Journal of Physical Chemistry A</i> , 2000, 104, 10452-10459.	1.1	23
133	The stereodynamics of the O(1D)+HD reaction on the ground $1\hat{A}^{\prime\prime}$ and excited $1\hat{A}^{\prime}$ potential energy surfaces. <i>Journal of Chemical Physics</i> , 2001, 114, 8328-8338.	1.2	23
134	A Direct Classical Trajectory Study of HCl Elimination from the 193 nm Photodissociation of Vinyl Chloride. <i>Journal of Physical Chemistry A</i> , 2003, 107, 7611-7618.	1.1	23
135	Non-intuitive rotational reorientation in collisions of NO(A $2\hat{\Sigma}^+$ ) with Ne from direct measurement of a four-vector correlation. <i>Nature Chemistry</i> , 2018, 10, 1148-1153.	6.6	23
136	Dynamical model for the $\alpha$ -translational excitation features in the atom-diatom reaction cross section. <i>Chemical Physics</i> , 1979, 44, 81-91.	0.9	22
137	F-D <sub>2</sub> state resolved reactive scattering at 180 and 240 meV collision energies. II. Quasi-classical cross sections. A comparison with the experimental results. <i>Chemical Physics</i> , 1996, 207, 245-259.	0.9	22
138	Cross Section for the H+H <sub>2</sub> O Abstraction Reaction: Experiment and Theory. <i>Physical Review Letters</i> , 2003, 90, 093201.	2.9	22
139	Classical stereodynamics in Ar + NO inelastic collisions. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 4407.	1.3	22
140	Quasiclassical Trajectory Study of the Collision-Induced Dissociation Dynamics of Ar + CH <sub>3</sub> SH Using an Ab Initio Interpolated Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 2006, 110, 1225-1231.	1.1	22
141	Quantum mechanical and quasiclassical trajectory scattering calculations for the C(D <sub>1</sub> )+H <sub>2</sub> reaction on the second excited $1\hat{A}^{\prime}$ potential energy surface. <i>Journal of Chemical Physics</i> , 2006, 124, 154314.	1.2	22
142	A new potential energy surface for OH(A $2\hat{\Sigma}^+$ ) + Ar: The van der Waals complex and scattering dynamics. <i>Journal of Chemical Physics</i> , 2008, 129, 054301.	1.2	22
143	Accurate Time-Dependent Wave Packet Study of the Li + H <sub>2</sub> Reaction and Its Isotopic Variants. <i>Journal of Physical Chemistry A</i> , 2012, 116, 132-138.	1.1	22
144	Understanding the reaction between muonium atoms and hydrogen molecules: zero point energy, tunnelling, and vibrational adiabaticity. <i>Molecular Physics</i> , 2013, 111, 3169-3181.	0.8	22

#	ARTICLE	IF	CITATIONS
145	Simple cross-section model for elementary reactions. <i>Chemical Physics Letters</i> , 1977, 51, 281-286.	1.2	21
146	A quasiclassical trajectory study of the $H+H_2O \rightarrow OH+H_2$ reaction dynamics at 1.4 eV collision energy on a new ab initio potential energy surface. <i>Chemical Physics Letters</i> , 2002, 356, 120-126.	1.2	21
147	Analysis of the $H + D_2$ reaction mechanism through consideration of the intrinsic reactant polarisation. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 4881-4896.	1.3	21
148	Ab Initio studies of the interaction potential for the $Xe \cdots NO(X^2\Sigma^+)$ van der Waals complex: Bound states and fully quantum and quasi-classical scattering. <i>Journal of Chemical Physics</i> , 2012, 137, 014312.	1.2	21
149	ACCURATE TIME-DEPENDENT WAVE PACKET STUDY OF THE $H^+ + LiH$ REACTION AT EARLY UNIVERSE CONDITIONS. <i>Astrophysical Journal</i> , 2012, 759, 31.	1.6	21
150	Accurate Time-Dependent Wave Packet Calculations for the $O^+ + H_2 \rightarrow OH^+ + H$ Ion-Molecule Reaction. <i>Journal of Physical Chemistry A</i> , 2015, 119, 11951-11962.	1.1	21
151	Stereodynamics in $NO(X) + Ar$ inelastic collisions. <i>Journal of Chemical Physics</i> , 2016, 144, 224301.	1.2	21
152	Chemiluminescence from the calcium ( $Ca^*(3P)$ ) + sulfur hexafluoride reaction: absolute cross section, photon yields, and electronic branching. <i>The Journal of Physical Chemistry</i> , 1987, 91, 2073-2075.	2.9	20
153	A theoretical study of the dynamics of the $O(1D)+HD$ reaction at 0.196 eV collision energy: comparison with experimental results. <i>Chemical Physics Letters</i> , 1999, 310, 277-286.	1.2	20
154	The $k_j - j$ vector correlation in inelastic and reactive scattering. <i>Journal of Chemical Physics</i> , 2011, 135, 084305.	1.2	20
155	The reaction $Hg + I_2 \rightarrow HgI + I$ revisited. <i>Journal of Chemical Physics</i> , 1983, 78, 3816-3831.	1.2	19
156	Photodissociation of dimethyl sulfide at 227.5 nm: resonance-enhanced multiphoton ionization of the methyl fragment. <i>Chemical Physics Letters</i> , 1999, 311, 159-166.	1.2	19
157	A quasiclassical trajectory and quantum mechanical study of the $O(1D) + D_2$ reaction dynamics. Comparison with high resolution molecular beam experiments. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 4379-4385.	1.3	19
158	The dynamics of the $H+D_2O \rightarrow OD+HD$ reaction at 2.5 eV: Experiment and theory. <i>Journal of Chemical Physics</i> , 2003, 118, 1162-1174.	1.2	19
159	Rovibrational product state distribution for inelastic $H+D_2$ collisions. <i>Journal of Chemical Physics</i> , 2004, 121, 6587-6590.	1.2	19
160	Cumulative reaction probabilities and transition state properties: A study of the $H^+ + H_2$ and $H^+ + D_2$ proton exchange reactions. <i>Journal of Chemical Physics</i> , 2009, 130, 184303.	1.2	19
161	Effects of reagent rotation on interferences in the product angular distributions of chemical reactions. <i>Chemical Science</i> , 2016, 7, 642-649.	3.7	19
162	Effect of rotation on the reactivity of the $D+H_2(\bar{l}/2=1) \rightarrow DH+H$ system at translational energies 0.25, 0.35 and 0.45 eV. <i>Chemical Physics Letters</i> , 1989, 161, 270-276.	1.2	18

#	ARTICLE	IF	CITATIONS
163	The D+H <sub>2</sub> (v=1,j) → HD(v=1,j)+H reaction. A detailed quasiclassical trajectory study. Journal of Chemical Physics, 1994, 100, 2789-2799.	1.2	18
164	Velocity map imaging and REMPI study of the photodissociation of CH <sub>3</sub> SCH <sub>3</sub> from the first absorption band. Chemical Physics Letters, 2000, 325, 146-152.	1.2	18
165	On the Conformational Memory in the Photodissociation of Formic Acid. Journal of Physical Chemistry A, 2005, 109, 2836-2839.	1.1	18
166	Quantum Mechanical Wave Packet and Quasiclassical Trajectory Calculations for the Li + H <sub>2</sub> Reaction. Journal of Physical Chemistry A, 2009, 113, 14657-14663.	1.1	18
167	A state-to-state dynamical study of the Br + H <sub>2</sub> reaction: comparison of quantum and classical trajectory results. Physical Chemistry Chemical Physics, 2012, 14, 13067.	1.3	18
168	Electronic Quenching of OH A <sup>2</sup> Σ <sup>+</sup> Induced by Collisions with Kr Atoms. Journal of Physical Chemistry A, 2013, 117, 13481-13490.	1.1	18
169	Rotational Orientation Effects in NO(X) + Ar Inelastic Collisions. Journal of Physical Chemistry A, 2015, 119, 12404-12416.	1.1	18
170	Quasiclassical trajectory study of the dynamics of the H+N[ <sub>2</sub> ]O reaction on a new potential energy surface. Journal of Chemical Physics, 2003, 118, 7303.	1.2	17
171	The H + N <sub>2</sub> O → OH + N <sub>2</sub> Reaction Dynamics on an Interpolated QCISD Potential Energy Surface. A Quasiclassical Trajectory Study. Journal of Physical Chemistry A, 2004, 108, 6611-6623.	1.1	17
172	Quasi-classical trajectory study of the dynamics of the H+H <sub>2</sub> O reaction: differential cross-sections and product rotational polarization. Chemical Physics Letters, 2000, 329, 517-525.	1.2	16
173	Angular momentum → scattering angle quantum correlation: a generalized deflection function. Chemical Science, 2018, 9, 4837-4850.	3.7	16
174	Molecular beam study of the K+C <sub>2</sub> H <sub>5</sub> I → KI+C <sub>2</sub> H <sub>5</sub> reaction cross section from 0.17 eV to 0.55 eV (c.m.). Chemical Physics, 1981, 59, 61-73.	0.9	15
175	Quasiclassical trajectory study of a two ends reaction: F+HD → HF (DF)+D (H). Comparison of vibrationally state-resolved integral and differential cross sections on three different surfaces. Chemical Physics Letters, 1993, 211, 72-81.	1.2	15
176	Elucidation of the O(1D) + HF → F + OH mechanism by means of quasiclassical trajectories. Physical Chemistry Chemical Physics, 2012, 14, 16338.	1.3	15
177	Origin of Collision-Induced Molecular Orientation. Physical Review Letters, 2013, 111, 183202.	2.9	15
178	Collisional depolarisation in electronically excited radicals. International Reviews in Physical Chemistry, 2014, 33, 79-123.	0.9	15
179	A direct classical trajectory study of the acetone photodissociation on the triplet surface. Journal of Chemical Physics, 2003, 119, 10618-10625.	1.2	14
180	Rotationally inelastic scattering of OH( <sup>2</sup> Π) by HCl( <sup>1</sup> Σ). Comparison of experiment and theory. Physical Chemistry Chemical Physics, 2004, 6, 4968-4974.	1.3	14

#	ARTICLE	IF	CITATIONS
181	The Dynamics of the O(1D) + HCl $\hat{\rightarrow}$ OH + Cl Reaction at a 0.26 eV Collision Energy: A Comparison between Theory and Experiment. <i>Journal of Physical Chemistry A</i> , 2009, 113, 14237-14250.	1.1	14
182	Multiple scattering mechanisms causing interference effects in the differential cross sections of H + D <sub>2</sub> $\hat{\rightarrow}$ HD( $v=4, j=0$ ) + D at 3.26 eV collision energy. <i>Journal of Chemical Physics</i> , 2016, 145, 024308.	1.2	14
183	Latest findings on the dynamics of the simplest chemical reaction. <i>Physica Scripta</i> , 2006, 73, C6-C13.	1.2	13
184	Energy dependent dynamics of the O(1D) + HCl reaction: A quantum, quasiclassical and statistical study. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8502.	1.3	13
185	Stereodynamics of the F + HD( $v=0, j=1$ ) reaction: direct vs. resonant mechanisms. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8345.	1.3	13
186	A new potential energy surface for OH(A $\hat{\Sigma}^+$ ) + Kr: The van der Waals complex and inelastic scattering. <i>Journal of Chemical Physics</i> , 2012, 137, 154305.	1.2	13
187	Surface-hopping trajectories for OH(A $\hat{\Sigma}^+$ ) + Kr: Extension to the 1A $\hat{\Sigma}^3$ state. <i>Journal of Chemical Physics</i> , 2015, 142, 144307.	1.2	13
188	Classical collision complexes in the D+H <sub>2</sub> ( $v=0, j=0$ ) $\hat{\rightarrow}$ HD( $v^{\text{TM}}, j^{\text{TM}}$ ) + H reaction. <i>Journal of Chemical Physics</i> , 1991, 95, 7767-7768.	1.2	12
189	Low-Temperature Rotational Relaxation of N <sub>2</sub> in Collisions with Ne. <i>Journal of Physical Chemistry A</i> , 2001, 105, 6976-6982.	1.1	12
190	Product lambda-doublet ratios as an imprint of chemical reaction mechanism. <i>Nature Communications</i> , 2016, 7, 13439.	5.8	12
191	Differential reaction cross section of the C <sub>2</sub> H <sub>5</sub> X(X=Br, I) + K $\hat{\rightarrow}$ KX + C <sub>2</sub> H <sub>5</sub> systems. <i>Molecular Physics</i> , 1981, 44, 1239-1256.	0.8	11
192	On the existence of resonances in the H+D <sub>2</sub> $\hat{\rightarrow}$ HD( $v=0, j=7$ ) + D reaction at collision energies 0.6-1.3 eV. <i>Journal of Chemical Physics</i> , 2001, 114, 8237-8239.	1.2	11
193	Quasi-classical trajectory study of H <sub>2</sub> elimination in the photodissociation of difluoroethylenes at 193 nm. <i>Journal of Chemical Physics</i> , 2003, 118, 6941-6945.	1.2	11
194	H + D <sub>2</sub> Reaction Dynamics in the Limit of Low Product Recoil Energy. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2959-2963.	2.1	11
195	Observed translational energy dependence of the K + C <sub>2</sub> H <sub>5</sub> $\hat{\rightarrow}$ KI + C <sub>2</sub> H <sub>5</sub> reaction cross section from 0.17 to 0.55 eV (c.m.). <i>Chemical Physics Letters</i> , 1980, 74, 398-399.	1.2	10
196	Dependence of the reaction cross section on the collision energy in reactions of Sr + RX. <i>Journal of Physical Chemistry</i> , 1991, 95, 8226-8232.	2.9	10
197	Translational energy dependence of the reaction cross section: Reactions of Sr+CH <sub>3</sub> I, CD <sub>3</sub> I, and CH <sub>3</sub> Br. <i>Journal of Chemical Physics</i> , 1992, 96, 1896-1903.	1.2	10
198	Comment on "Reaction cross sections for the H+D <sub>2</sub> ( $v=0,1$ ) system for collision energies up to 2.5 eV: A multiconfiguration time-dependent Hartree wave-packet propagation study". <i>J. Chem. Phys.</i> 110, 241 (1999). <i>Journal of Chemical Physics</i> , 1999, 111, 9891-9891.	1.2	10

#	ARTICLE	IF	CITATIONS
199	Photodissociation of CD <sub>3</sub> SCD <sub>3</sub> on the First Absorption Band: Translational and Internal Energy Transfer to the CD <sub>3</sub> Fragment Studied by Resonant Multiphoton Ionization and Time-of-Flight Spectrometry. <i>Journal of Physical Chemistry A</i> , 2000, 104, 10150-10158.	1.1	10
200	Photodissociation Dynamics of Dimethyl Sulfide Following Excitation within the First Absorption Band. <i>Journal of Physical Chemistry A</i> , 2004, 108, 7936-7948.	1.1	10
201	Velocity Map Imaging Study of the Photodissociation of CH <sub>3</sub> SH: Internal Energy Distribution of the SH Fragment. <i>ChemPhysChem</i> , 2006, 7, 1682-1686.	1.0	10
202	The canonical and other mechanisms of elementary chemical reactions. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 5794.	1.3	10
203	Rate coefficients from quantum and quasi-classical cumulative reaction probabilities for the S(1D) + H <sub>2</sub> reaction. <i>Journal of Chemical Physics</i> , 2012, 137, 164314.	1.2	10
204	Angular distributions for the inelastic scattering of NO(X <sup>2</sup> Π) with O <sub>2</sub> (X <sup>3</sup> Σ <sup>-</sup> g <sup>-</sup> ). <i>Journal of Chemical Physics</i> , 2017, 146, 204304.	1.2	10
205	Steric Effects in the Inelastic Scattering of NO(X) + Ar: Side-on Orientation. <i>Journal of Physical Chemistry A</i> , 2019, 123, 8787-8806.	1.1	10
206	Unveiling shape resonances in H + HF collisions at cold energies. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24943-24950.	1.3	10
207	Influence of the radical group upon total reaction cross-section molecular beam study of the K + RI → KI + R(R = CH <sub>3</sub> , C <sub>2</sub> H <sub>5</sub> , C <sub>3</sub> H <sub>7</sub> ) reactions. <i>Molecular Physics</i> , 1987, 62, 1207-1211.	0.8	9
208	Classical trajectory calculations for the D+H <sub>2</sub> (v=0, j=0) → HD(v, j)+H reaction: Differential and state-to-state cross sections in the 0.35–1.10 eV collision energy range. <i>Chemical Physics Letters</i> , 1990, 169, 243-252.	1.2	9
209	Near UV photodissociation of CD <sub>3</sub> SCD <sub>3</sub> : CD <sub>3</sub> fragment (v, J) vector correlations. <i>Chemical Physics Letters</i> , 2003, 373, 550-557.	1.2	9
210	Quantum mechanical mechanisms of inelastic and reactive H + D <sub>2</sub> (v = 0, j = 2) collisions. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 13626.	1.3	9
211	Theoretical study of the dynamics of Cl + O <sub>3</sub> reaction I. Ab initio potential energy surface and quasiclassical trajectory results. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8537.	1.3	9
212	Communication: Rate coefficients from quasiclassical trajectory calculations from the reverse reaction: The Mu + H <sub>2</sub> reaction re-visited. <i>Journal of Chemical Physics</i> , 2012, 137, 021102.	1.2	9
213	Beyond universality: Parametrizing ultracold complex-mediated reactions using statistical assumptions. <i>Physical Review A</i> , 2015, 91, .	1.0	9
214	Integral steric asymmetry in the inelastic scattering of NO(X <sup>2</sup> Π). <i>Journal of Chemical Physics</i> , 2017, 146, 014302.	1.2	9
215	Differential steric effects in the inelastic scattering of NO(X) + Ar: spin-orbit changing transitions. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14173-14185.	1.3	9
216	How reactant polarization can be used to change the effect of interference on reactive collisions. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14012-14022.	1.3	9

#	ARTICLE	IF	CITATIONS
217	Role of Low Energy Resonances in the Stereodynamics of Cold He + D <sub>2</sub> Collisions. Journal of Physical Chemistry Letters, 2022, 13, 4064-4072.	2.1	9
218	Molecular beam study of the radical group effect in the K + RI → KI + R (R = CH <sub>3</sub> , C <sub>2</sub> H <sub>5</sub> , nC <sub>3</sub> H <sub>7</sub> ) reactive collisions. Molecular Physics, 1986, 59, 707-720.	0.8	8
219	Quasiclassical trajectory study of the H+D <sub>2</sub> → HD+D reaction at a collision energy of 2.2 eV: A comparison with experimental results. Journal of Chemical Physics, 1996, 105, 6086-6087.	1.2	8
220	Reaction cross-sections for the H+HCl(DCl) reaction: a quasiclassical trajectory study. Chemical Physics Letters, 1999, 306, 179-186.	1.2	8
221	Low-Temperature Rotational Relaxation of CO in Self-Collisions and in Collisions with Ne and He. Journal of Physical Chemistry A, 2005, 109, 9402-9413.	1.1	8
222	Orientation effects in Cl + H <sub>2</sub> inelastic collisions: characterization of the mechanisms. Physical Chemistry Chemical Physics, 2012, 14, 2911.	1.3	8
223	Probing the location of the unpaired electron in spin-orbit changing collisions of NO with Ar. Physical Chemistry Chemical Physics, 2020, 22, 22289-22301.	1.3	8
224	Stereodynamic control of cold rotationally inelastic CO + HD collisions. Physical Chemistry Chemical Physics, 2021, 23, 19364-19374.	1.3	8
225	Controlling the Spin-Orbit Branching Fraction in Molecular Collisions. Journal of Physical Chemistry Letters, 2021, 12, 310-316.	2.1	8
226	Angle-velocity contour maps for the H+D <sub>2</sub> → HD+D reaction from quasiclassical trajectory calculations. Journal of Chemical Physics, 1994, 100, 758-759.	1.2	7
227	Gas phase molecular relaxation at very low temperatures. A comparative study of N <sub>2</sub> and its mixtures with He and Ne. Vacuum, 2002, 64, 417-423.	1.6	7
228	Low temperature rotational relaxation of N <sub>2</sub> in collisions with He. Chemical Physics Letters, 2003, 367, 500-506.	1.2	7
229	Dynamical regimes on the Cl + H <sub>2</sub> collisions: Inelastic rainbow scattering. Journal of Chemical Physics, 2011, 135, 064301.	1.2	7
230	Three-vector correlation in statistical reactions: the role of the triatomic parity. Physical Chemistry Chemical Physics, 2012, 14, 9977.	1.3	7
231	An experimental study of OH(A <sup>2</sup> Σ <sup>+</sup> ) + H <sub>2</sub> : Electronic quenching, rotational energy transfer, and collisional depolarization. Journal of Chemical Physics, 2017, 146, 244313.	1.2	7
232	New Stress Test for Ring Polymer Molecular Dynamics: Rate Coefficients of the O( <sup>3</sup> P) + HCl Reaction and Comparison with Quantum Mechanical and Quasiclassical Trajectory Results. Journal of Physical Chemistry A, 2019, 123, 7920-7931.	1.1	7
233	Signature of shape resonances on the differential cross sections of the S(1D)+H <sub>2</sub> reaction. Journal of Chemical Physics, 2021, 154, 124304.	1.2	7
234	Quantum study of reaction O( <sup>3</sup> P) + H <sub>2</sub> (v,j) → OH + H: OH formation in strongly UV-irradiated gas. Astronomy and Astrophysics, 2021, 648, A76.	2.1	7

#	ARTICLE	IF	CITATIONS
235	Argon ion laser excitation of supersonic seeded molecular beams of I2. <i>Chemical Physics</i> , 1983, 79, 321-339.	0.9	6
236	Measurement of the translational energy dependence of the cross section for the reaction of Sr+CH3I $\hat{\nu}$ SrI+CH3 from 0.1 $\hat{\nu}$ 1.0 eV. <i>Chemical Physics Letters</i> , 1991, 176, 499-503.	1.2	6
237	State-Resolved Stereodynamics of an Insertion Reaction O( <sup>1</sup> D <sub>2</sub> ) + H <sub>2</sub> ( <i>v</i> = 0, <i>j</i> ) $\hat{\nu}$ OH(X <sup>2</sup> <sub>1</sub> ; <i>v</i> $\hat{\nu}$ 2, N $\hat{\nu}$ 2, f $\hat{\nu}$ 2) + H. <i>Israel Journal of Chemistry</i> , 1997, 37, 317-327.		6
238	New findings regarding the NO angular momentum orientation in Ar $\hat{\nu}$ NO(2 $\hat{\nu}$ 1/2) collisions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 9826.	1.3	6
239	Comparative dynamics of the two channels of the reaction of D + MuH. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 9808-9818.	1.3	6
240	The collisional depolarization of OH(A $\hat{\nu}$ 2 $\hat{\nu}$ 1+) and NO(A $\hat{\nu}$ 2 $\hat{\nu}$ 1+) with Kr. <i>Journal of Chemical Physics</i> , 2014, 140, 054306.	1.2	6
241	New global potential energy surfaces of the ground 3 $\hat{\nu}$ A $\hat{\nu}$ 2 and 3 $\hat{\nu}$ A $\hat{\nu}$ 3 states of the O(3 $\hat{\nu}$ P) + H <sub>2</sub> system. <i>Journal of Chemical Physics</i> , 2019, 151, 094307.	1.2	6
242	Cross-sections for the H + H <sub>2</sub> O $\hat{\nu}$ OH + H <sub>2</sub> and H + D <sub>2</sub> O $\hat{\nu}$ OD + HD abstraction reactions. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 4991-4999.	1.3	5
243	UV Photodissociation Dynamics of CD <sub>3</sub> SOCD <sub>3</sub> : $\hat{\nu}$ Photofragment Translational and Internal Energy Distribution $\hat{\nu}$ . <i>Journal of Physical Chemistry A</i> , 2004, 108, 8048-8057.	1.1	5
244	Cumulative reaction probabilities and transition state properties: A study of the F+H <sub>2</sub> reaction and its deuterated isotopic variants. <i>Journal of Chemical Physics</i> , 2008, 129, 024305.	1.2	5
245	The Cl + O <sub>3</sub> reaction: a detailed QCT simulation of molecular beam experiments. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25471-25482.	1.3	5
246	$\hat{\nu}$ -Doublet Propensities for Reactions on Competing $\hat{\nu}$ A $\hat{\nu}$ 2 and $\hat{\nu}$ A $\hat{\nu}$ 3 Potential Energy Surfaces: O( <sup>3</sup> P) + N <sub>2</sub> and O( <sup>3</sup> P) + HCl. <i>Journal of Physical Chemistry A</i> , 2018, 122, 2739-2750.	1.1	5
247	Competing Dynamical Mechanisms in Inelastic Collisions of H + HF. <i>Journal of Physical Chemistry A</i> , 2019, 123, 9079-9088.	1.1	5
248	The F + HD( <i>v</i> = 0, 1; <i>j</i> = 0, 1) reactions: stereodynamical properties of orbiting resonances. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 8002-8012.	1.3	5
249	Photodissociation dynamics of dimethyl sulfoxide-d <sub>6</sub> at 210 nm: experimental evidence for a prompt anisotropic CD <sub>3</sub> channel. <i>Chemical Physics Letters</i> , 2004, 386, 419-424.	1.2	4
250	Vibrationally inelastic collisions of H+D <sub>2</sub> : A comparison of quantum mechanical, quasiclassical, and experimental results. <i>Journal of Chemical Physics</i> , 2009, 130, 031102.	1.2	4
251	A classical versus quantum mechanics study of the $\hat{\nu}$ OH $\hat{\nu}$ CO $\hat{\nu}$ H $\hat{\nu}$ CO $\hat{\nu}$ 2 (J $\hat{\nu}$ A=0) reaction. <i>Theoretical Chemistry Accounts</i> , 2012, 131, 1.	0.5	4
252	Quantum interference in chemical reactions. <i>Physics Today</i> , 2018, 71, 70-71.	0.3	4

#	ARTICLE	IF	CITATIONS
253	Experimental and theoretical studies of the Xe <sup>+</sup> OH(A/X) quenching system. Journal of Chemical Physics, 2018, 149, 184301.	1.2	4
254	Product rotational alignment in NO(X)+Kr collisions. Chemical Physics Letters, 2011, 512, 161-166.	1.2	3
255	Reaction Dynamics and Mechanism of the Cl + HD( <i>v</i> = 1) Reaction: A Quantum Mechanical Study. Journal of Physical Chemistry A, 2013, 117, 7030-7041.	1.1	3
256	The dynamics of the Hg + Br <sub>2</sub> reaction: elucidation of the reaction mechanism for the Br exchange reaction. Physical Chemistry Chemical Physics, 2017, 19, 16433-16445.	1.3	3
257	Unexpected dynamical effects change the lambda-doublet propensity in the tunneling region for the O( <sup>3</sup> P) + H <sub>2</sub> reaction. Physical Chemistry Chemical Physics, 2019, 21, 25389-25396.	1.3	3
258	Differential cross sections and collision-induced rotational alignment in inelastic scattering of NO(X) by Xe. Chinese Journal of Chemical Physics, 2020, 33, 217-233.	0.6	3
259	Non-adiabatic quantum dynamics of the electronic quenching OH(A <sup>2</sup> Σ <sup>+</sup> ) + Kr. Physical Chemistry Chemical Physics, 2020, 22, 17091-17105.	1.3	3
260	Near UV photodissociation of dimethyl sulphide: a direct mechanism on the second absorption band. Chemical Physics Letters, 2004, 394, 307-312.	1.2	2
261	The reactive collision mechanism evinced: stereodynamical control of the elementary Br + H <sub>2</sub> → H + HBr reaction. Physical Chemistry Chemical Physics, 2013, 15, 13513.	1.3	2
262	Influence of vibration in the reactive scattering of D + MuH: the effect of dynamical bonding. Physical Chemistry Chemical Physics, 2016, 18, 13530-13537.	1.3	2
263	Inelastic collision dynamics of oriented NO molecules with Kr atoms. Molecular Physics, 2022, 120, .	0.8	2
264	Search for the laser-induced crossed beam reaction of excited I <sub>2</sub> (B $\bar{3}$ ) with Hg. Chemical Physics, 1983, 79, 341-350.	0.9	1
265	A semiclassical treatment of the <i>b</i> → <i>a</i> , " <i>i</i> " → " <i>j</i> " correlation in atom-diatom collisions. Journal of Chemical Physics, 2015, 143, 064302.	1.2	1
266	How interference reveals geometric phase. Science, 2020, 368, 706-707.	6.0	1
267	Temperature dependence of the rate coefficient of formation of CN radical from C <sub>2</sub> +NH. Chemical Physics Letters, 2021, 771, 138493.	1.2	1
268	Influence of the Reactants Rotational Excitation on the H + D <sub>2</sub> ( <i>v</i> = 0, <i>j</i> ) Reactivity. Journal of Physical Chemistry A, 2015, 119, 12245-12254.	1.1	0
269	When experiment challenges theory: Scattering of vibrationally excited molecules in the cold collision energy regime. Natural Sciences, 2022, 2, e20210088.	1.0	0