

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Recalibration of a single-valued double many-body expansion potential energy surface for ground-state hydroperoxy and dynamics calculations for the oxygen atom + hydroxyl .fwdarw. oxygen + hydrogen atom reaction. The Journal of Physical Chemistry, 1990, 94, 8073-8080.	2.9	244
2	Predicting Catalysis:Â Understanding Ammonia Synthesis from First-Principles Calculations. Journal of Physical Chemistry B, 2006, 110, 17719-17735.	1.2	192
3	Extrapolating to the one-electron basis-set limit in electronic structure calculations. Journal of Chemical Physics, 2007, 126, 244105.	1.2	176
4	Intermolecular and Intramolecular Potentials: Topographical Aspects, Calculation, and Functional Representation via A Double Many-Body Expansion Method. Advances in Chemical Physics, 2007, , 255-338.	0.3	160
5	Basis-set extrapolation of the correlation energy. Journal of Chemical Physics, 2000, 113, 8880-8887.	1.2	151
6	Quasiclassical trajectory calculations of the thermal rate coefficients for the reactions H(D)+O2â†’OH(D)+O and O+OH(D)â†’O2+H(D) as a function of temperature. Journal of Chemical Physics, 1992, 96, 5137-5150.	1.2	125
7	Excitation function for H+O2 reaction: A study of zeroâ€point energy effects and rotational distributions in trajectory calculations. Journal of Chemical Physics, 1993, 99, 1076-1085.	1.2	120
8	Energy switching approach to potential surfaces: An accurate singleâ€valued function for the water molecule. Journal of Chemical Physics, 1996, 105, 3524-3531.	1.2	111
9	A realistic hydroperoxo(-X2A") potential energy surface from the double many-body expansion method. The Journal of Physical Chemistry, 1988, 92, 3732-3742.	2.9	83
10	A semiempirical method for correcting configuration interaction potential energy surfaces. Journal of Chemical Physics, 1989, 90, 4379-4391.	1.2	83
11	Four-atom bimolecular reactions with relevance in environmental chemistry: Theoretical work. International Reviews in Physical Chemistry, 2000, 19, 199-245.	0.9	82
12	Narrowing the error in electron correlation calculations by basis set re-hierarchization and use of the unified singlet and triplet electron-pair extrapolation scheme: Application to a test set of 106 systems. Journal of Chemical Physics, 2014, 141, 224113.	1.2	76
13	Accurate DMBE Potential Energy Surface For the N(2D) + H2(1Ë g +) Reaction Using an Improved Switching Function Formalism. Theoretical Chemistry Accounts, 2006, 116, 404-419.	0.5	73
14	Extrapolation to the Complete Basis Set Limit without Counterpoise. The Pair Potential of Helium Revisited^{â€}. Journal of Physical Chemistry A, 2010, 114, 8505-8516.	1.1	69
15	Method for quasiclassical trajectory calculations on potential energy surfaces defined from gradients and Hessians, and model to constrain the energy in vibrational modes. Journal of Chemical Physics, 1994, 100, 1908-1920.	1.2	66
16	Single-Valued DMBE Potential Energy Surface for HSO:Â A Distributedn-Body Polynomial Approach. Journal of Physical Chemistry A, 2001, 105, 5923-5932.	1.1	64
17	Accurate <i>ab initio</i> potential energy curves for the classic Liâ€F ionic-covalent interaction by extrapolation to the complete basis set limit and modeling of the radial nonadiabatic coupling. Journal of Chemical Physics, 2009, 131, 124128.	1.2	62
18	Extrapolation to the complete-basis-set limit and the implications of avoided crossings: The Xâ€%Î£1g+, Bâ€%Î³1g, and Bâ€%â€%Î£1g+ states of C2. Journal of Chemical Physics, 2008, 129, 234103.	1.2	60

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19	Implications of the O + OH reaction in hydroxyl nightglow modeling. Atmospheric Chemistry and Physics, 2013, 13, 1-13.	1.9	60
20	Double many-body expansion potential energy surface for ground state HSO ₂ . Physical Chemistry Chemical Physics, 2005, 7, 2305.	1.3	56
21	Double many-body expansion potential energy surface for ground-state HCN based on realistic long range forces and accurate ab initio calculations. Journal of Chemical Physics, 1997, 106, 9647-9658.	1.2	55
22	A detailed state-to-state low-energy dynamics study of the reaction O(3P)+OH(2̇)→O2(Ẋ)+H(2S) using a quasiclassical trajectory internal energy quantum mechanical threshold method. Journal of Chemical Physics, 1992, 97, 4050-4065.	1.2	52
23	Quasiclassical trajectory calculations of the thermal rate coefficient for the oxygen atom + hydroxyl .fwdarw. oxygen + hydrogen atom reaction on realistic double many-body expansion potential energy surfaces for ground-state hydroperoxy. The Journal of Physical Chemistry, 1988, 92, 4552-4555.	2.9	51
24	Accurate Double Many-Body Expansion Potential Energy Surface for N₃(⁴Ȧ) from Correlation Scaled ab Initio Energies with Extrapolation to the Complete Basis Set Limit. Journal of Physical Chemistry A, 2009, 113, 14424-14430.	1.1	51
25	Unimolecular and Bimolecular Calculations for HN ₂ . Journal of Physical Chemistry A, 2005, 109, 2356-2363.	1.1	50
26	Accurate <i>ab initio</i> double many-body expansion potential energy surface for ground-state H ₂ S by extrapolation to the complete basis set limit. Journal of Chemical Physics, 2009, 130, 134317.	1.2	50
27	Energy switching approach to potential surfaces. II. Two-valued function for the water molecule. Journal of Chemical Physics, 1997, 107, 867-878.	1.2	49
28	Dynamics of H(D)+O ₃ reactions on a double many-body expansion potential-energy surface for ground state HO ₃ . Journal of the Chemical Society, Faraday Transactions, 1997, 93, 2651-2656.	1.7	48
29	Semiclassical variational transition state calculations for the reactions of H and D with thermal and vibrationally excited H ₂ . International Journal of Chemical Kinetics, 1986, 18, 1065-1077.	1.0	47
30	Nuclear dynamics in the vicinity of the crossing seam: Theory and application to vibrational spectrum of H ₃ . Journal of Chemical Physics, 2000, 112, 2121-2127.	1.2	46
31	A realistic multi-sheeted potential energy surface for NO ₂ (2Ȧ) from the double many-body expansion method and a novel multiple energy-switching scheme. Journal of Chemical Physics, 2003, 119, 2596-2613.	1.2	46
32	Accurate <i>ab initio</i> potentials at low cost via correlation scaling and extrapolation: Application to CO(Ȧ1). Journal of Chemical Physics, 2007, 127, 114316.	1.2	45
33	<i>Ab Initio</i> Treatment of Bond-Breaking Reactions: Accurate Course of HO₃ Dissociation and Revisit to Isomerization. Journal of Chemical Theory and Computation, 2012, 8, 428-441.	2.3	45
34	Repulsive double many-body expansion potential energy surface for the reactions N(4S)+ H ₂ → NH(Ẋ)+ H from accurate ab initio calculations. Physical Chemistry Chemical Physics, 2005, 7, 2867.	1.3	44
35	New Double Many-Body Expansion Potential Energy Surface for Ground-State HCN from a Multiproperty Fit to Accurate ab Initio Energies and Rovibrational Calculations. Journal of Physical Chemistry A, 2006, 110, 485-493.	1.1	43
36	Geometric phase effects on transition-state resonances and bound vibrational states of H ₃ via a time-dependent wavepacket method. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 819-824.	1.7	42

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37	Can extrapolation to the basis set limit be an alternative to the counterpoise correction? A study on the helium dimer. <i>Theoretical Chemistry Accounts</i> , 2008, 119, 511-521.	0.5	40
38	Generalized Uniform Singlet- and Triplet-Pair Extrapolation of the Correlation Energy to the One Electron Basis Set Limit. <i>Journal of Physical Chemistry A</i> , 2008, 112, 1841-1850.	1.1	40
39	Are Vibrationally Excited Molecules a Clue for the "O ₃ Deficit Problem" and "HO _x Dilemma" in the Middle Atmosphere?. <i>Journal of Physical Chemistry A</i> , 2004, 108, 758-769.	1.1	39
40	Accurate Single-Valued Double Many-Body Expansion Potential Energy Surface for Ground-State HN ₂ . <i>Journal of Physical Chemistry A</i> , 2003, 107, 7923-7930.	1.1	38
41	Dynamics of X+CH ₄ (X=H,O,Cl) reactions: How reliable is transition state theory for fine-tuning potential energy surfaces?. <i>Journal of Chemical Physics</i> , 2006, 125, 064312.	1.2	38
42	Double many-body expansion potential energy surface for ground-state HO ₃ . <i>Molecular Physics</i> , 1997, 91, 301-318.	0.8	37
43	On the stability of the elusive HO ₃ radical. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 15619.	1.3	37
44	A LEPS potential for H ₃ from force field data. <i>Journal of Chemical Physics</i> , 1979, 70, 3786-3795.	1.2	36
45	Three-dimensional quantum mechanical rate constants for the reaction O+O ₃ →2O ₂ , employing a six-dimensional potential energy surface. <i>Journal of Chemical Physics</i> , 1995, 102, 3474-3476.	1.2	36
46	Dynamics Study of the N(4S) + O ₂ Reaction and Its Reverse. <i>Journal of Physical Chemistry A</i> , 2004, 108, 3556-3564.	1.1	36
47	Combined-hyperbolic-inverse-power-representation of potential energy surfaces: A preliminary assessment for H ₃ and HO ₂ . <i>Journal of Chemical Physics</i> , 2013, 138, 054120.	1.2	36
48	Accurate combined-hyperbolic-inverse-power-representation of <i>ab initio</i> potential energy surface for the hydroperoxyl radical and dynamics study of \$f O+OH\$O+OH reaction. <i>Journal of Chemical Physics</i> , 2013, 138, 134117.	1.2	36
49	Is HO ₃ minimum cis or trans? An analytic full-dimensional <i>ab initio</i> isomerization path. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 9796.	1.3	35
50	A realistic double many-body expansion potential energy surface for from a multiproperty fit to accurate <i>ab initio</i> energies and vibrational levels. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2002, 58, 629-647.	2.0	34
51	Energy switching approach to potential surfaces. III. Three-valued function for the water molecule. <i>Journal of Chemical Physics</i> , 1998, 108, 7623-7630.	1.2	32
52	Accurate Double Many-Body Expansion Potential Energy Surface for Ground-State HS ₂ Based on <i>ab Initio</i> Data Extrapolated to the Complete Basis Set Limit. <i>Journal of Physical Chemistry A</i> , 2011, 115, 5274-5283.	1.1	30
53	Accurate Potential Energy Surface for the 1 ² State of NH ₂ : Scaling of External Correlation Versus Extrapolation to the Complete Basis Set Limit. <i>Journal of Physical Chemistry A</i> , 2010, 114, 9644-9654.	1.1	29
54	Trajectory Surface Hopping Study of the Li + Li ₂ (X ¹ g ⁺) Dissociation Reaction. <i>Journal of Physical Chemistry A</i> , 1998, 102, 6057-6062.	1.1	28

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55	MODELING AND INTERPOLATION OF GLOBAL MULTI-SHEETED POTENTIAL ENERGY SURFACES. <i>Advanced Series in Physical Chemistry</i> , 2004, , 205-270.	1.5	28
56	Quasiclassical Trajectory Study of Atom-Exchange and Vibrational Relaxation Processes in Collisions of Atomic and Molecular Nitrogen. <i>Journal of Physical Chemistry A</i> , 2010, 114, 6063-6070.	1.1	28
57	Extrapolation of Hartree-Fock and multiconfiguration self-consistent-field energies to the complete basis set limit. <i>Theoretical Chemistry Accounts</i> , 2016, 135, 1.	0.5	28
58	Single-Valued Double Many-Body Expansion Potential Energy Surface of Ground-State SO ₂ . <i>Journal of Physical Chemistry A</i> , 2002, 106, 556-562.	1.1	27
59	Accurate <i>ab initio</i> based DMBE potential energy surface for the ground electronic state of N ₂ H ₂ . <i>Journal of Chemical Physics</i> , 2009, 131, 044309.	1.2	27
60	N(4S) + D ₂ : Accurate <i>ab initio</i> -based DMBE potential energy surfaces and surface-hopping dynamics. <i>Journal of Chemical Physics</i> , 2012, 137, 22A515.	1.2	27
61	Quasiclassical Trajectory Study of the Environmental Reaction O + HO ₂ → OH + O ₂ . <i>Journal of Physical Chemistry A</i> , 1998, 102, 6935-6941.	1.1	26
62	Anatomy of the S(1D) + H ₂ reaction: the dynamics on two new potential energy surfaces from quantum dynamics calculations. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 13645.	1.3	26
63	Ab Initio Based Double-Sheeted DMBE Potential Energy Surface for N ₃ (² A) and Exploratory Dynamics Calculations. <i>Journal of Physical Chemistry A</i> , 2011, 115, 12390-12398.	1.1	26
64	On the role of dynamical barriers in barrierless reactions at low energies: S(1D) + H ₂ . <i>Journal of Chemical Physics</i> , 2011, 135, 134313.	1.2	26
65	Potential Energy Surface for Ground-State H ₂ S via Scaling of the External Correlation, Comparison with Extrapolation to Complete Basis Set Limit, and Use in Reaction Dynamics. <i>Journal of Physical Chemistry A</i> , 2009, 113, 9213-9219.	1.1	25
66	Quasiclassical Trajectory Study of the C(¹ D) + H ₂ Reaction and Isotopomeric Variants: Kinetic Isotope Effect and CD/CH Branching Ratio. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7882-7890.	1.1	25
67	CBS extrapolation in electronic structure pushed to the end: a revival of minimal and sub-minimal basis sets. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 22084-22098.	1.3	25
68	Recalibrated Double Many-Body Expansion Potential Energy Surface and Dynamics Calculations for HN ₂ . <i>Journal of Physical Chemistry A</i> , 2007, 111, 1172-1178.	1.1	24
69	Accurate MRCI and CC Study of the Most Relevant Stationary Points and Other Topographical Attributes for the Ground-State C ₂ H ₂ Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 2010, 114, 13277-13287.	1.1	24
70	The Jahn-Teller effect in the triply degenerate electronic state of methane radical cation. <i>Journal of Chemical Physics</i> , 2011, 135, 174304.	1.2	24
71	A VTST Study of the H + O ₃ and O + HO ₂ Reactions Using a Six-dimensional DMBE Potential Energy Surface for Ground State HO ₃ . <i>Journal of Physical Chemistry A</i> , 2002, 106, 4077-4083.	1.1	23
72	Accurate <i>ab initio</i> -based molecular potentials: from extrapolation methods to global modelling. <i>Physica Scripta</i> , 2007, 76, C28-C35.	1.2	23

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73	Potential Energy Surfaces for the Low-Lying 2A'' States of HO ₂ via a Multivalued Double Many-Body Expansion: Modeling Basic Attributes. <i>The Journal of Physical Chemistry</i> , 1995, 99, 15846-15857.	2.9	22
74	Dynamics of the OH($\nu = 1,2,4$) + O ₃ atmospheric reaction. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 1439-1445.	1.3	22
75	Ab-Initio-Based Global Double Many-Body Expansion Potential Energy Surface for the Electronic Ground State of the Ammonia Molecule. <i>Journal of Physical Chemistry A</i> , 2010, 114, 6669-6680.	1.1	22
76	Electronic Quenching of N(² D) by N ₂ : Theoretical Predictions, Comparison with Experimental Rate Constants, and Impact on Atmospheric Modeling. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 2292-2297.	2.1	22
77	Double Many-Body Expansion Potential Energy Surface for O ₄ (3A), Dynamics of the O(3P) + O ₃ (1A ₁) Reaction, and Second Virial Coefficients of Molecular Oxygen. , 1991, , 55-78.		22
78	Quantum Dynamical Rate Constant for the H + O ₃ Reaction Using a Six-Dimensional Double Many-Body Expansion Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 1997, 101, 8817-8821.	1.1	21
79	Accurate Double Many-Body Expansion Potential Energy Surface for the Lowest Singlet State of Methylene. <i>Journal of Physical Chemistry A</i> , 2009, 113, 4175-4183.	1.1	21
80	$\langle i \rangle C \langle /i \rangle \langle sub \rangle \langle i \rangle n \langle /i \rangle \langle /sub \rangle$ ($\langle i \rangle n \langle /i \rangle = 2\hat{a}^4$): current status. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170145.	1.6	21
81	The double many-body expansion of potential energy surfaces from interacting 2S atoms. <i>International Journal of Quantum Chemistry</i> , 1987, 32, 563-574.	1.0	20
82	Dynamics Study of the H + ArO ₂ Multichannel Reaction. <i>The Journal of Physical Chemistry</i> , 1996, 100, 17513-17522.	2.9	20
83	Dynamics Study of the OH + O ₂ Branching Atmospheric Reaction. 2. Influence of Reactants Internal Energy in HO ₂ and O ₃ Formation. <i>Journal of Physical Chemistry A</i> , 2001, 105, 4395-4402.	1.1	20
84	On Extracting Subfemtosecond Data from Femtosecond Quantum Dynamics Calculations: The Methane Cation. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 3606-3616.	2.3	20
85	Dynamics Study of the Reaction Ar + HCN \hat{a} ' Ar + H + CN. <i>Journal of Physical Chemistry A</i> , 1998, 102, 6266-6273.	1.1	19
86	Steady-State Distributions of O ₂ and OH in the High Atmosphere and Implications in the Ozone Chemistry. <i>Journal of Physical Chemistry A</i> , 2003, 107, 3769-3777.	1.1	19
87	What are the Implications of Nonequilibrium in the O+OH and O+HO ₂ Reactions?. <i>ChemPhysChem</i> , 2005, 6, 453-465.	1.0	19
88	Accurate <i>ab initio</i> -based double many-body expansion potential energy surface for the adiabatic ground-state of the C ₃ radical including combined Jahn-Teller plus pseudo-Jahn-Teller interactions. <i>Journal of Chemical Physics</i> , 2015, 143, 074302.	1.2	19
89	The Jahn-Teller plus pseudo-Jahn-Teller vibronic problem in the C ₃ radical and its topological implications. <i>Journal of Chemical Physics</i> , 2016, 144, 064309.	1.2	19
90	On the variation of the electric quadrupole moment with internuclear distance and the atom- \hat{a} diatom long-range electrostatic interaction energy. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 435-439.	1.3	18

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91	Vibrational spectrum of Li ₃ first-excited electronic doublet state: Geometric-phase effects and statistical analysis. <i>International Journal of Quantum Chemistry</i> , 1999, 75, 89-109.	1.0	17
92	Dynamics Study of the OH + O ₂ Branching Atmospheric Reaction. 4. Influence of Vibrational Relaxation in Collisions Involving Highly Excited Species. <i>Journal of Physical Chemistry A</i> , 2002, 106, 5314-5322.	1.1	17
93	Dynamics of OH + O ₂ vibrational relaxation processes. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 4959-4969.	1.3	17
94	Ab Initio-Based Global Double Many-Body Expansion Potential Energy Surface for the First 2A ¹ Electronic State of NO ₂ . <i>Journal of Physical Chemistry A</i> , 2012, 116, 3023-3034.	1.1	17
95	Structural evolution of the methane cation in subfemtosecond photodynamics. <i>Journal of Chemical Physics</i> , 2015, 143, 014304.	1.2	17
96	Dynamics Study of the HO($\nu=0$) + O ₂ ($\nu=0$) Branching Atmospheric Reaction. 1. Formation of Hydroperoxyl Radical. <i>Journal of Physical Chemistry A</i> , 1999, 103, 4815-4822.	1.1	16
97	Spin-component-scaling second-order Møller-Plesset theory and its variants for economical correlation energies: Unified theoretical interpretation and use for quartet N ₃ . <i>Journal of Chemical Physics</i> , 2010, 133, 064104.	1.2	16
98	Accurate Determination of the Reaction Course in H ₂ + Y + YH (Y = O, S): Detailed Analysis of the Covalent- to Hydrogen-Bonding Transition. <i>Journal of Physical Chemistry A</i> , 2013, 117, 7393-7407.	1.1	16
99	Electronic Quenching in N(² D) + N ₂ Collisions: A State-Specific Analysis via Surface Hopping Dynamics. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 1872-1877.	2.3	16
100	Classical Trajectory Study of Mode Specificity and Rotational Effects in Unimolecular Dissociation of HO ₂ . <i>Journal of Physical Chemistry A</i> , 1997, 101, 5168-5173.	1.1	15
101	Vibrational spectrum of ground state Li ₃ and statistical analysis of the energy levels. <i>Molecular Physics</i> , 1999, 96, 1193-1206.	0.8	15
102	Approximate Quantum Mechanical Cross Sections and Rate Constants for the H + O ₃ Atmospheric Reaction Using Novel Elastic Optimum Angle Adiabatic Approaches. <i>Journal of Physical Chemistry A</i> , 1999, 103, 1967-1971.	1.1	15
103	Reply to the Comment on "On the high pressure rate constants for the H/Mu + O ₂ addition reactions" by L. B. Harding, J. Troe and V. G. Ushakov, <i>Phys. Chem. Chem. Phys.</i> , 2001, 3, 2630. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 2632-2633.	1.3	15
104	Extrapolating to the One-Electron Basis Set Limit in Polarizability Calculations. <i>Journal of Physical Chemistry A</i> , 2008, 112, 10413-10419.	1.1	15
105	Møller-Plesset perturbation energies and distances for HeC ₂₀ extrapolated to the complete basis set limit. <i>Journal of Computational Chemistry</i> , 2009, 30, 379-388.	1.5	15
106	Roadmap to spline-fitting potentials in high dimensions. <i>Journal of Mathematical Chemistry</i> , 2013, 51, 1729-1746.	0.7	15
107	Modeling Cusps in Adiabatic Potential Energy Surfaces. <i>Journal of Physical Chemistry A</i> , 2015, 119, 1415-1421.	1.1	15
108	CBS extrapolation of Hartree-Fock energy: Pople and Dunning basis sets hand-to-hand on the endeavour. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 8022-8034.	1.3	15

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109	Helium–fullerene pair interactions: An ab initio study by perturbation theory and coupled cluster methods. <i>International Journal of Quantum Chemistry</i> , 2011, 111, 416-429.	1.0	14
110	Quantum calculations for the S(1D)+H ₂ reaction employing the ground adiabatic electronic state. <i>Physica Scripta</i> , 2011, 84, 028102.	1.2	14
111	Application of the Unified Singlet and Triplet Electron-Pair Extrapolation Scheme with Basis Set Rehierarchization to Tensorial Properties. <i>Journal of Physical Chemistry A</i> , 2015, 119, 1208-1217.	1.1	14
112	Virial theorem decomposition as a tool for comparing and improving potential-energy surfaces: ground-state Li ₃ . <i>Journal of the Chemical Society, Faraday Transactions</i> , 1994, 90, 1381.	1.7	13
113	Dynamics Study of the Reaction S + O ₂ → SO + O and Its Reverse on a Single-Valued Double Many-Body Expansion Potential Energy Surface for Ground-State SO ₂ . <i>Journal of Physical Chemistry A</i> , 2003, 107, 5369-5374.	1.1	13
114	Generalized Born–Oppenheimer treatment of Jahn–Teller systems in Hilbert spaces of arbitrary dimension: theory and application to a three-state model potential. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8131.	1.3	13
115	Accurate Explicit-Correlation-MRCI-Based DMBE Potential-Energy Surface for Ground-State CNO. <i>Journal of Physical Chemistry A</i> , 2018, 122, 4198-4207.	1.1	13
116	Accurate CHIPR Potential Energy Surface for the Lowest Triplet State of C ₃ . <i>Journal of Physical Chemistry A</i> , 2019, 123, 8154-8169.	1.1	13
117	A Theoretical Study of Rate Coefficients for the O + NO Vibrational Relaxation. <i>Journal of Physical Chemistry A</i> , 2008, 112, 960-965.	1.1	12
118	Toward the modeling of the NO ₂ (sup>2</sup>A ₁) manifold. <i>International Journal of Quantum Chemistry</i> , 2011, 111, 3776-3785.	1.0	12
119	Quadratic coupling treatment of the Jahn-Teller effect in the triply-degenerate electronic state of \$CH_4^+\$: Can one account for floppiness?. <i>Journal of Chemical Physics</i> , 2012, 137, 214320.	1.2	12
120	Canonical and explicitly-correlated coupled cluster correlation energies of sub-kJ mol ⁻¹ accuracy via cost-effective hybrid-post-CBS extrapolation. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 9571-9584.	1.3	12
121	Exponentiating trajectories on a realistic potential energy surface for sodium trimer. <i>The Journal of Physical Chemistry</i> , 1992, 96, 5704-5709.	2.9	11
122	Monte Carlo Simulation Approach to Internal Partition Functions for van der Waals Molecules. <i>Journal of Physical Chemistry A</i> , 1999, 103, 8303-8308.	1.1	11
123	DYNAMICS OF O + O ₃ REACTION ON A NEW POTENTIAL ENERGY SURFACE FOR GROUND-TRIPLET TETRAOXYGEN: SPECTATOR BOND MECHANISM REVISITED. <i>Journal of Theoretical and Computational Chemistry</i> , 2002, 01, 31-43.	1.8	11
124	Energy-switching potential energy surface for the water molecule revisited: A highly accurate single-sheeted form. <i>Journal of Chemical Physics</i> , 2008, 129, 044302.	1.2	11
125	DIABATIC ELECTRONIC MANIFOLD OF HN ₂ (sup>2</sup>A ₁) AND N + NH REACTION DYNAMICS ON ITS LOWEST ADIABAT. <i>Journal of Theoretical and Computational Chemistry</i> , 2009, 08, 849-859.	1.8	11
126	A global CHIPR potential energy surface for ground-state C ₃ H and exploratory dynamics studies of reaction C ₂ + CH → C ₃ + H. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 24406-24418.	1.3	11

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127	Extrapolation in quantum chemistry: Insights on energetics and reaction dynamics. Journal of Theoretical and Computational Chemistry, 2020, 19, 2030001.	1.8	11
128	Dynamics Study of the OH + O ₂ Branching Atmospheric Reaction. 3. Dissociation in Collisions of Vibrationally Excited Reactants. Journal of Physical Chemistry A, 2001, 105, 7435-7440.	1.1	10
129	The O + NO(<i>v</i>) Vibrational Relaxation Processes Revisited. Journal of Physical Chemistry A, 2018, 122, 5299-5310.	1.1	10
130	Post-complete-basis-set extrapolation of conventional and explicitly correlated coupled-cluster energies: can the convergence to the CBS limit be diagnosed?. Physical Chemistry Chemical Physics, 2021, 23, 8717-8730.	1.3	10
131	SiS Formation in the Interstellar Medium through Si+SH Gas-phase Reactions. Astrophysical Journal, 2021, 920, 37.	1.6	10
132	Quantum Dynamical Rate Constant for the H + O ₃ Reaction Using a Six-Dimensional Double Many-Body Expansion Potential Energy Surface Revisited. Journal of Physical Chemistry A, 1998, 102, 8909-8912.	1.1	9
133	MRCI Calculation, Scaling of the External Correlation, and Modeling of Potential Energy Curves for HCl and OCl. Journal of Physical Chemistry A, 2000, 104, 6241-6246.	1.1	9
134	Dynamics of the Li + Li ₂ Reaction: Coexistence of Statistical and Direct Attributes. The Journal of Physical Chemistry, 1996, 100, 7480-7487.	2.9	8
135	Coupled <i>ab initio</i> potential energy surfaces for the two lowest ² Σ ⁺ electronic states of the C ₂ H molecule. Molecular Physics, 2000, 98, 1925-1938.	0.8	8
136	Vibrational Calculations for the HD ₂ First-Excited Electronic State Using a Coordinate-Transformation Technique. Journal of Physical Chemistry A, 2001, 105, 2246-2250.	1.1	8
137	Reply to the Comment on "Are Vibrationally Excited Molecules a Clue for the O ₃ Deficit Problem and HO _x Dilemma in the Middle Atmosphere?". Journal of Physical Chemistry A, 2005, 109, 2700-2702.	1.1	8
138	Sub-femtosecond quantum dynamics of the strong-field ionization of water to the X ² B ₁ and X ² A ₁ states of the cation. Physical Chemistry Chemical Physics, 2015, 17, 6545-6553.	1.3	8
139	Global Potential Energy Surface for HO ₂ ⁺ Using the CHIPR Method. Journal of Physical Chemistry A, 2019, 123, 1613-1621.	1.1	8
140	On the Rate Constant for the Association Reaction H + CN + Ar → HCN + Ar. Journal of Physical Chemistry A, 1999, 103, 6366-6372.	1.1	7
141	Dynamics and kinetics of the S + HO ₂ reaction: A theoretical study. International Journal of Chemical Kinetics, 2008, 40, 533-540.	1.0	7
142	Ab initio Based DMBE Potential Energy Surface for the Ground Electronic State of the C ₂ H Molecule. Journal of Physical Chemistry A, 2010, 114, 2655-2664.	1.1	7
143	Accurate Study of the Two Lowest Singlet States of HN ₃ : Stationary Structures and Energetics at the MRCI Complete Basis Set Limit. Journal of Physical Chemistry A, 2013, 117, 4044-4050.	1.1	7
144	Subfemtosecond Quantum Nuclear Dynamics in Water Isotopomers. Journal of Physical Chemistry A, 2015, 119, 4856-4863.	1.1	7

#	ARTICLE	IF	CITATIONS
145	Quasiclassical Study of the $C(^3P) + NO(X^2\hat{1})$ and $O(^3P) + CN(X^2\hat{1}\Sigma^+)$ Collisional Processes on an Accurate DMBE Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 2019, 123, 7195-7200.	1.1	7
146	Geometric phase effect in isotopomers of X_3 systems: Use of a split basis technique for the cone states of HD ₂ . <i>International Journal of Quantum Chemistry</i> , 2000, 80, 454-460.	1.0	6
147	Isotope effect on unimolecular dissociation of MuO_2 : a classical trajectory study. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 3583-3589.	1.3	6
148	Dynamics Study of the $O_2 + HO_2$ Atmospheric Reaction with Both Reactants Highly Vibrationally Excited. <i>Journal of Physical Chemistry A</i> , 2002, 106, 11911-11916.	1.1	6
149	Exploring the Utility of Many-Body Expansions: A Consistent Set of Accurate Potentials for the Lowest Quartet and Doublet States of the Azide Radical with Revisited Dynamics. <i>Journal of Physical Chemistry A</i> , 2014, 118, 10127-10133.	1.1	6
150	Single-Sheeted Double Many-Body Expansion Potential Energy Surface for Ground-State ClO_2 . <i>Journal of Physical Chemistry A</i> , 2014, 118, 4851-4862.	1.1	6
151	Multiple conical intersections in small linear parameter Jahn-Teller systems: the DMBE potential energy surface of ground-state C_3 revisited. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 10319-10331.	1.3	6
152	CHAPTER 17. Putting Together the Pieces: A Global Description of Valence and Long-Range Forces via Combined Hyperbolic Inverse Power Representation of the Potential Energy Surface. <i>RSC Theoretical and Computational Chemistry Series</i> , 0, , 408-445.	0.7	6
153	Three-Dimensional Time-Dependent Wavepacket Calculation of the Transition State Resonances for MuH_2 and MuD_2 : Resonance Energies and Widths. <i>The Journal of Physical Chemistry</i> , 1996, 100, 14598-14601.	2.9	5
154	Conical intersections between the two lowest $1A_1$ potential energy surfaces of HCN, and the role of three-body effects. <i>Journal of Chemical Physics</i> , 1997, 107, 10014-10028.	1.2	5
155	Geometric phase effect at N -fold electronic degeneracies in Jahn-Teller systems. <i>International Journal of Quantum Chemistry</i> , 2004, 99, 385-392.	1.0	5
156	Dynamics study of $ClO + O_2$ collisions and their role in the chemistry of stratospheric ozone. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 2179-2184.	1.3	5
157	Is HO_3^- multiple-minimum and floppy? Covalent to van der Waals isomerization and bond rupture of a peculiar anion. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16997-17007.	1.3	5
158	Difficulties and Virtues in Assessing the Potential Energy Surfaces of Carbon Clusters via DMBE Theory: Stationary Points of C_n ($n = 2 \times 10^4$) at the Focal Point. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3121-3130.	1.1	5
159	Accurate Potential Energy Surface for Quartet State HN_2 and Interplay of $N_4(S) + NH_3(\hat{1}\Sigma^+)$ versus $H + N_2(A) + N_3(\hat{1}\Sigma^+)$ Reactions. <i>Journal of Physical Chemistry A</i> , 2020, 124, 781-789.	1.1	5
160	Modelling adiabatic cusps in via 2×2 diabatic matrix. <i>Molecular Physics</i> , 2021, 119, e1904157.	0.8	5
161	Non-Bonding Atom-Diatom Potentials via A Double Many-Body Expansion Method. , 1987, , 357-371.		5
162	From six to eight $\hat{1}$ -electron bare rings of group-XIV elements and beyond: can planarity be deciphered from the "quasi-molecules" they embed?. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 8488-8507.	1.3	5

#	ARTICLE	IF	CITATIONS
163	Optimized Structural Data at the Complete Basis Set Limit via Successive Quadratic Minimizations. <i>Journal of Physical Chemistry A</i> , 2021, 125, 10657-10666.	1.1	5
164	Theoretical study of the O + HSO reaction. <i>International Journal of Chemical Kinetics</i> , 2009, 41, 455-462.	1.0	4
165	Effect of Initial Vibrational-State Excitation on Subfemtosecond Photodynamics of Water. <i>Journal of Physical Chemistry A</i> , 2015, 119, 12367-12375.	1.1	4
166	Nuclear dynamics in the vicinity of a crossing seam: Vibrational spectrum of HD ₂ revisited. <i>International Journal of Quantum Chemistry</i> , 2001, 83, 279-285.	1.0	3
167	Permutational Symmetry and the Role of Nuclear Spin in the Vibrational Spectra of Molecules in Doubly Degenerate Electronic States: The Trimers of 2 S Atoms. <i>Advances in Chemical Physics</i> , 2003, , 659-741.	0.3	3
168	Ab Initio Study of Hydrazinyl Radical: Toward a DMBE Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 2010, 114, 11663-11669.	1.1	3
169	Quasiclassical trajectory study of the rotational distribution for the O+NO(<i>v</i> = 0) fundamental vibrational excitation. <i>International Journal of Chemical Kinetics</i> , 2011, 43, 345-352.	1.0	3
170	Silane Radical Cation: A Theoretical Account on the Jahn-Teller Effect at a Triple Degeneracy. <i>Journal of Physical Chemistry A</i> , 2013, 117, 8794-8805.	1.1	3
171	Accurate DMBE potential-energy surface for CNO(2 <i>A</i>) and rate coefficients in C(3P)+NO collisions. <i>Journal of Chemical Physics</i> , 2021, 154, 034303.	1.2	3
172	Toward a Single-Valued DMBE Potential Energy Surface for CHNO(3A). 1. Diatomic Fragments. <i>Journal of Physical Chemistry A</i> , 1997, 101, 4828-4834.	1.1	2
173	Nascent versus Steady-State Rovibrational Distributions in the Products of the O(3P) + O ₃ (<i>X</i> ¹ A) Reaction. <i>Journal of Physical Chemistry A</i> , 2003, 107, 10926-10932.	1.1	2
174	Manifestation of external field effect in time-resolved photo-dissociation dynamics of LiF. <i>Chinese Physics B</i> , 2013, 22, 073303.	0.7	2
175	Optimal basis sets for CBS extrapolation of the correlation energy: $\sigma_V^{\langle b \rangle \langle i \rangle \langle j \rangle \langle d \rangle} Z$ and $\sigma_V^{\langle i \rangle \langle j \rangle \langle d \rangle} Z$. <i>Journal of Chemical Physics</i> , 2019, 150, 154106.	1.2	2
176	Quasiclassical Trajectory Study of the Si + SH Reaction on an Accurate Double Many-Body Expansion Potential Energy Surface. <i>Journal of Physical Chemistry A</i> , 2022, 126, 3555-3568.	1.1	2
177	Comparative trajectory surface hopping study for the Li+Li ₂ (<i>X</i> ¹ g ⁺), Na+Li ₂ (<i>X</i> ¹ g ⁺) and Li+Na ₂ (<i>X</i> ¹ g ⁺) dissociation reactions. <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 2657-2665.	1.3	1
178	Li + Li ₂ Dissociation Reaction Using the Self-Consistent Potential and Trajectory Surface Hopping Methods. <i>Journal of Physical Chemistry A</i> , 2002, 106, 3673-3680.	1.1	1
179	Dynamics of the O + ClO Reaction: Reactive and Vibrational Relaxation Processes. <i>Journal of Physical Chemistry A</i> , 2014, 118, 12120-12129.	1.1	1
180	Kinetics and dynamics of O + OClO reaction in a modified many-body expansion potential energy surface for ClO ₃ . <i>International Journal of Chemical Kinetics</i> , 2007, 39, 422-430.	1.0	0

#	ARTICLE	IF	CITATIONS
181	Dynamics study of a three-fold pseudo-Jahn-Teller system using the extended Longuet-Higgins formalism. <i>Journal of Chemical Sciences</i> , 2012, 124, 115-120.	0.7	0
182	Effect of initial vibrational excitation on the methane cation sub-femtosecond photodynamics. <i>Molecular Physics</i> , 2020, 118, e1752403.	0.8	0
183	On the Geometric Phase Effect in Jahn-Teller Systems. , 2003, , 707-766.		0