David J Nesbitt

List of Publications by Year
in descending order

208 papers	11,188 citations	36203 51 h-index	35952 97 g-index
219 all docs	219 docs citations	219 times ranked	8407 citing authors

#	Article	IF	Citations
1	Definition of the hydrogen bond (IUPAC Recommendations 2011). Pure and Applied Chemistry, 2011, 83, 1637-1641.	0.9	1,449
2	Defining the hydrogen bond: An account (IUPAC Technical Report). Pure and Applied Chemistry, 2011, 83, 1619-1636.	0.9	856
3	Nonexponential â€œblinkingâ€•kinetics of single CdSe quantum dots: A universal power law behavior. Journal of Chemical Physics, 2000, 112, 3117-3120.	1.2	669
4	â€œOnâ€/â€œoffâ€•fluorescence intermittency of single semiconductor quantum dots. Journal of Chemical Physics, 2001, 115, 1028-1040.	1.2	504
5	Origin and control of blinking in quantum dots. Nature Nanotechnology, 2016, 11, 661-671.	15.6	396
6	Slow vibrational relaxation in picosecond iodine recombination in liquids. Journal of Chemical Physics, 1982, 77, 2130-2143.	1.2	154
7	Molecular-crowding effects on single-molecule RNA folding/unfolding thermodynamics and kinetics. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8464-8469.	3.3	139
8	Vibrational mode mixing in terminal acetylenes: Highâ€resolution infrared laser study of isolated J states. Journal of Chemical Physics, 1990, 92, 2229-2243.	1.2	126
9	High sensitivity, highâ€resolution IR laser spectroscopy in slit supersonic jets: Application to N2HF Î½1and Î½5+Î½1â^'Î½5. Journal of Chemical Physics, 1987, 86, 3151-3165.	1.2	114
10	Visible absorption and magneticâ€rotation spectroscopy of 1CH2: The analysis of the bÌƒ 1B1 state. Journal of Chemical Physics, 1987, 86, 1172-1188.	1.2	113
11	Slit pulsed valve for generation of longâ€pathâ€length supersonic expansions. Review of Scientific Instruments, 1987, 58, 807-811.	0.6	113
12	Hindered internal rotation in jet cooled H2HF complexes. Journal of Chemical Physics, 1987, 87, 5621-5628.	1.2	111
13	High resolution IR laser spectroscopy of van der Waals complexes in slit supersonic jets: Observation and analysis of Î½1, Î½1+Î½2, and Î½1+2Î½3in ArHF. Journal of Chemical Physics, 1986, 85, 4890-4902.	1.2	103
14	Jet-cooled molecular radicals in slit supersonic discharges: Sub-Doppler infrared studies of methyl radical. Journal of Chemical Physics, 1997, 107, 5661-5675.	1.2	103
15	Highâ€resolution, slit jet infrared spectroscopy of hydrocarbons: Quantum state specific mode mixing in CH stretchâ€excited propyne. Journal of Chemical Physics, 1989, 91, 104-113.	1.2	98
16	Visible absorption and magneticâ€rotation spectroscopy of 1CH2: Analysis of the 1A1 state and the 1A1â€“3B1 coupling. Journal of Chemical Physics, 1987, 86, 1189-1205.	1.2	95
17	Synthesis and applications of RNAs with position-selective labelling and mosaic composition. Nature, 2015, 522, 368-372.	13.7	95
18	Stabilization and precise calibration of a continuousâ€wave difference frequency spectrometer by use of a simple transfer cavity. Review of Scientific Instruments, 1994, 65, 42-48.	0.6	94

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19	Single-Molecule Kinetics Reveal Cation-Promoted DNA Duplex Formation Through Ordering of Single-Stranded Helices. Biophysical Journal, 2013, 105, 756-766.	0.2	93
20	Mode specific internal and direct rotational predissociation in HeHF, HeDF, and HeHCl: van der Waals complexes in the weak binding limit. Journal of Chemical Physics, 1990, 93, 5387-5407.	1.2	92
21	High resolution, jetâ€cooled infrared spectroscopy of (HCl)2: Analysis of Î½1and Î½2HCl stretching fundamentals, interconversion tunneling, and modeâ€specific predissociation lifetimes. Journal of Chemical Physics, 1993, 99, 4346-4362.	1.2	92
22	Docking kinetics and equilibrium of a GAAA tetraloop-receptor motif probed by single-molecule FRET. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10505-10510.	3.3	92
23	Intramolecular dynamics of van der Waals molecules: An extended infrared study of ArHF. Journal of Chemical Physics, 1989, 91, 2790-2807.	1.2	88
24	Vibrational energy transfer from highly excited anharmonic oscillators. Dependence on quantum state and interaction potential. Journal of Chemical Physics, 1982, 76, 6002-6014.	1.2	85
25	Highâ€resolution infrared diode laser spectroscopy of (CO2)3: Vibrationally averaged structures, resonant dipole vibrational shifts, and tests of CO2â€“CO2 pair potentials. Journal of Chemical Physics, 1995, 103, 7685-7699.	1.2	84
26	Direct IR laser absorption spectroscopy of jetâ€cooled CO2HF complexes: Analysis of the Î½1HF stretch and a surprisingly low frequency Î½6intermolecular CO2bend. Journal of Chemical Physics, 1987, 86, 5337-5349.	1.2	77
27	Reactivity of vibrationally excited methane on nickel surfaces. Journal of Chemical Physics, 2001, 115, 5611-5619.	1.2	77
28	The nearâ€infrared spectrum of ONNHFâ€”direct evidence for geometric isomerism in a hydrogen bonded complex. Journal of Chemical Physics, 1987, 87, 1450-1451.	1.2	75
29	The infrared spectra of nitrous oxideâ€“HF isomers. Journal of Chemical Physics, 1989, 90, 4671-4680.	1.2	74
30	Slitâ€jet nearâ€infrared spectroscopy and internal rotor dynamics of the ArH2O van der Waals complex: An angular potentialâ€energy surface for internal H2O rotation. Journal of Chemical Physics, 1991, 95, 7917-7932.	1.2	73
31	Quantum state-resolved reactive scattering of F+CH4â†'HF(v,J)+CH3: Nascent HF(v,J) product state distributions. Journal of Chemical Physics, 2000, 113, 3670-3680.	1.2	73
32	Quantum yields for OH production from 193 and 248 nm photolysis of HNO3 and H2O2. Journal of Chemical Physics, 1993, 98, 6935-6946.	1.2	72
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37	Geometric isomerism in clusters: High resolution infrared spectroscopy of a noncyclic CO2 trimer. Journal of Chemical Physics, 1996, 105, 10210-10223.	1.2	71
38	Slit jet infrared spectroscopy of NeHF complexes: Internal rotor andJâ€dependent predissociation dynamics. Journal of Chemical Physics, 1989, 91, 722-731.	1.2	70
39	Quantum State-Resolved Energy Transfer Dynamics at Gasâ^'Liquid Interfaces:â€‰ IR Laser Studies of CO2 Scattering from Perfluorinated Liquids. Journal of Physical Chemistry B, 2005, 109, 16396-16405.	1.2	70
40	Plasmonic Near-Electric Field Enhancement Effects in Ultrafast Photoelectron Emission: Correlated Spatial and Laser Polarization Microscopy Studies of Individual Ag Nanocubes. Nano Letters, 2012, 12, 4823-4829.	4.5	68
41	Calculation of vibrationâ€“rotation spectra for rare gasâ€“HCl complexes. Journal of Chemical Physics, 1989, 90, 7000-7013.	1.2	66
42	Collisional alignment of CO2 rotational angular momentum states in a supersonic expansion. Journal of Chemical Physics, 1994, 100, 6372-6385.	1.2	66
43	Vibration, rotation, and parity specific predissociation dynamics in asymmetric OH stretch excited ArH2O: A half collision study of resonant Vâ€“V energy transfer in a weakly bound complex. Journal of Chemical Physics, 1992, 97, 8096-8110.	1.2	65
44	Quantum-State-Resolved CO2 Scattering Dynamics at the Gasâ^'Liquid Interface:â€‰ Incident Collision Energy and Liquid Dependence. Journal of Physical Chemistry B, 2006, 110, 17126-17137.	1.2	63
45	Energy-dependent cross sections and nonadiabatic reaction dynamics in F(2P3/2,2P1/2)+nâ€“H2â†'HF(v,J)+H. Journal of Chemical Physics, 1999, 111, 8404-8416.	1.2	62
46	Hydrogen bond spectroscopy in the near infrared: Outâ€ofâ€plane torsion and antigeared bend combination bands in (HF)2. Journal of Chemical Physics, 1996, 105, 4488-4503.	1.2	61
47	Probing hydrogen bond potentials via combination band spectroscopy: A near infrared study of the geared bend/van der Waals stretch intermolecular modes in (HF)2. Journal of Chemical Physics, 1996, 104, 6225-6243.	1.2	61
48	Concentration modulation spectroscopy with a pulsed slit supersonic discharge expansion source. Chemical Physics Letters, 2001, 344, 23-30.	1.2	59
49	Quantum state-resolved reactive scattering of F+H2 in supersonic jets: Nascent HF(v,J) rovibrational distributions via IR laser direct absorption methods. Journal of Chemical Physics, 1998, 109, 9306-9317.	1.2	55
50	Photodissociation dynamics in quantum stateâ€selected clusters: A test of the oneâ€atom cage effect in Arâ€“H2O. Journal of Chemical Physics, 1994, 101, 6356-6358.	1.2	54
51	High-resolution diode laser study of H2â€“H2O van der Waals complexes: H2O as proton acceptor and the role of large amplitude motion. Journal of Chemical Physics, 1999, 110, 156-167.	1.2	54
52	Entropic origin of Mg ²⁺ -facilitated RNA folding. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2902-2907.	3.3	53
53	Symmetry breaking in HCl and DCl dimers: A direct nearâ€infrared measurement of interconversion tunneling rates. Journal of Chemical Physics, 1989, 91, 4418-4419.	1.2	50
54	Metal Ion Dependence, Thermodynamics, and Kinetics for Intramolecular Docking of a GAAA Tetraloop and Receptor Connected by a Flexible Linker. Biochemistry, 2006, 45, 3664-3673.	1.2	50

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55	Stereodynamics in state-resolved scattering at the gasâ€“liquid interface. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 12684-12689.	3.3	50
56	Large amplitude skeletal isomerization as a promoter of intramolecular vibrational relaxation in CH stretch excited hydrocarbons. Journal of Chemical Physics, 1994, 101, 3421-3435.	1.2	49
57	High resolution mid-infrared spectroscopy of ArH2O: The v2 bend region of H2O. Journal of Chemical Physics, 1997, 106, 3078-3089.	1.2	49
58	Reactive scattering of F+HDâ†'HF(v,J)+D:â€‚HF(v,J) nascent product state distributions and evidence for quantum transition state resonances. Journal of Chemical Physics, 2002, 116, 5622-5632.	1.2	49
59	The dipole moment function and vibrational transition intensities of OH. Journal of Chemical Physics, 1989, 90, 5455-5465.	1.2	48
60	Enthalpy-Driven RNA Folding: Single-Molecule Thermodynamics of Tetraloopâ^'Receptor Tertiary Interaction. Biochemistry, 2009, 48, 2550-2558.	1.2	48
61	A study of the Î½1 fundamental and bendâ€excited hot band of DNN+ by velocity modulation absorption spectroscopy with an infrared difference frequency laser. Journal of Chemical Physics, 1984, 81, 5281-5287.	1.2	47
62	Weakly bound NeHF. Journal of Chemical Physics, 1989, 91, 711-721.	1.2	47
63	A spectroscopic puzzle in ArHF solved: The test of a new potential. Journal of Chemical Physics, 1992, 97, 8009-8018.	1.2	47
64	State-to-state reactive scattering of F+H2 in supersonic jets: Nascent rovibrational HF(v,J) distributions via direct IR laser absorption. Journal of Chemical Physics, 1997, 107, 8193-8196.	1.2	47
65	Infrared spectroscopy of Ar2CO2 trimer: Vibrationally averaged structures, solvent shifts, and threeâ€body effects. Journal of Chemical Physics, 1996, 104, 2202-2213.	1.2	46
66	Sequential solvation of HCl in argon: High resolution infrared spectroscopy of ArnHCl (n=1,2,3). Journal of Chemical Physics, 1997, 107, 1115-1127.	1.2	46
67	Dynamics of CO₂ Scattering off a Perfluorinated Self-Assembled Monolayer. Influence of the Incident Collision Energy, Mass Effects, and Use of Different Surface Models. Journal of Physical Chemistry A, 2009, 113, 3850-3865.	1.1	45
68	Single-Molecule Studies of the Lysine Riboswitch Reveal Effector-Dependent Conformational Dynamics of the Aptamer Domain. Biochemistry, 2012, 51, 9223-9233.	1.2	45
69	Intramolecular energy flow and nonadiabaticity in vibrationally mediated chemistry: Wave packet studies of Cl+H2O. Journal of Chemical Physics, 2002, 116, 1406-1416.	1.2	44
70	Rotationally inelastic scattering in CH4+He, Ne, and Ar: Stateâ€toâ€state cross sections via direct infrared laser absorption in crossed supersonic jets. Journal of Chemical Physics, 1996, 105, 3497-3516.	1.2	43
71	Quantum State-Resolved CO₂ Collisions at the Gasâ^'Liquid Interface:â€‰ Surface Temperature-Dependent Scattering Dynamics. Journal of Physical Chemistry B, 2008, 112, 507-519.	1.2	43
72	Ultrasensitive multispecies spectroscopic breath analysis for real-time health monitoring and diagnostics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	43

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73	Quantum-State-Resolved CO2Scattering Dynamics at the Gasâ^'Liquid Interface:Â Dependence on Incident Angleâ€. Journal of Physical Chemistry A, 2007, 111, 7420-7430.	1.1	41
74	Multiple intermolecular bend vibrational excitation of a hydrogen bond: An extended infrared study of OCOHF. Journal of Chemical Physics, 1990, 93, 7716-7730.	1.2	39
75	Breaking symmetry with hydrogen bonds: Vibrational predissociation and isomerization dynamics in HFâ€"DF and DFâ€"HF isotopomers. Journal of Chemical Physics, 1996, 104, 9313-9331.	1.2	39
76	OH stretch overtone spectroscopy and transition dipole alignment of HOD. Journal of Chemical Physics, 1998, 108, 72-80.	1.2	39
77	Direct evidence for nonadiabatic dynamics in atom+polyatom reactions: Crossed-jet laser studies of F+D2Oâ†'DF+OD. Journal of Chemical Physics, 2005, 123, 224307.	1.2	39
78	Laserâ€initiated chemical chain reactions. Journal of Chemical Physics, 1980, 72, 1722-1732.	1.2	38
79	High resolution near infrared spectroscopy of HClâ€"DCl and DClâ€"HCl: Relative binding energies, isomer interconversion rates, and mode specific vibrational predissociation. Journal of Chemical Physics, 1994, 100, 7250-7267.	1.2	38
80	Coherent Multiphoton Photoelectron Emission from Single Au Nanorods: The Critical Role of Plasmonic Electric Near-Field Enhancement. ACS Nano, 2013, 7, 87-99.	7.3	38
81	Slitâ€jet nearâ€infrared diode laser spectroscopy of (DCl)2: Î½1, Î½2DCl stretching fundamentals, tunneling dynamics, and the influence of large amplitude â€˜â€˜gearedâ€™â€™ intermolecular rotation. Journal of Chemical Physics, 1993, 99, 5045-5060.	1.2	37
82	State-Resolved Scattering at Room-Temperature Ionic Liquidâ^'Vacuum Interfaces: Anion Dependence and the Role of Dynamic versus Equilibrium Effects. Journal of Physical Chemistry Letters, 2010, 1, 674-678.	2.1	37
83	Br*(2P1/2)+H2(v=0,1): Laser studies of the competition between reactive pathways and inelastic energy transfer channels. Journal of Chemical Physics, 1980, 73, 6182-6190.	1.2	36
84	Bond-selective photofragmentation of jet-cooled HOD at 193 nm: Vibrationally mediated photochemistry with zero-point excitation. Journal of Chemical Physics, 1998, 109, 6631-6640.	1.2	36
85	Laser spectroscopy of jet-cooled ethyl radical: Infrared studies in the CH2 stretch manifold. Journal of Chemical Physics, 2000, 112, 1823-1834.	1.2	36
86	Monovalent and Divalent Promoted GAAA Tetraloop-Receptor Tertiary Interactions from Freely Diffusing Single-Molecule Studies. Biophysical Journal, 2008, 95, 3892-3905.	0.2	36
87	Mechanistic Insights into Cofactor-Dependent Coupling of RNA Folding and mRNA Transcription/Translation by a Cobalamin Riboswitch. Cell Reports, 2016, 15, 1100-1110.	2.9	36
88	Scattering dynamics in HF+He, Ne, and Ar: State-to-state cross sections, Dopplerimetry, and alignment measurement via direct infrared laser absorption in crossed supersonic jets. Journal of Chemical Physics, 1997, 106, 2248-2264.	1.2	35
89	High resolution vibrational overtone studies of HOD and H2O with single mode, injection seeded ring optical parametric oscillators. Journal of Chemical Physics, 1997, 107, 8854-8865.	1.2	34
90	Photodissociation dynamics of jet-cooled H2O and D2O in the non-Franckâ€"Condon regime: Relative absorption cross sections and product state distributions at 193 nm. Journal of Chemical Physics, 1997, 107, 6123-6135.	1.2	34

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91	High-resolution infrared spectroscopy of jet-cooled allyl radical (CH2â€“CHâ€“CH2): In-phase (Î½21) and out-of-phase (Î½13) antisymmetric CH2 stretching vibrations. Journal of Chemical Physics, 1998, 109, 7793-7802.	1.2	34
92	Thermodynamic Origins of Monovalent Facilitated RNA Folding. Biochemistry, 2012, 51, 3732-3743.	1.2	34
93	Highâ€resolution infrared overtone spectroscopy of ArHF via Nd:YAG/dye laser difference frequency generation. Journal of Chemical Physics, 1992, 97, 7967-7978.	1.2	33
94	Pairwise and nonpairwise additive forces in weakly bound complexes: High resolution infrared spectroscopy of ArnDF (n=1,2,3). Journal of Chemical Physics, 1995, 103, 2395-2411.	1.2	32
95	Rotationally inelastic scattering of jet cooled H2O with Ar: State-to-state cross sections and rotational alignment effects. Journal of Chemical Physics, 1999, 110, 8543-8554.	1.2	32
96	Plasmonic nanostar photocathodes for optically-controlled directional currents. Nature Communications, 2020, 11, 1367.	5.8	32
97	Intermolecular HF motion in ArnHF micromatrices (n=1,2,3,4): Classical and quantum calculations on a pairwise additive potential surface. Journal of Chemical Physics, 1992, 97, 6044-6056.	1.2	31
98	Beyond the Bornâ€“Oppenheimer approximation: High-resolution overtone spectroscopy of H2D+ and D2H+. Journal of Chemical Physics, 2002, 116, 6146-6158.	1.2	31
99	Jet cooled spectroscopy of H2DO+: Barrier heights and isotope-dependent tunneling dynamics from H3O+ to D3O+. Journal of Chemical Physics, 2006, 125, 144311.	1.2	31
100	Kinetic and Thermodynamic Origins of Osmolyte-Influenced Nucleic Acid Folding. Journal of Physical Chemistry B, 2015, 119, 3687-3696.	1.2	31
101	Plucking a hydrogen bond: A near infrared study of all four intermolecular modes in (DF)2. Journal of Chemical Physics, 1996, 105, 6645-6664.	1.2	30
102	Isotopic substitution of a hydrogen bond: A near infrared study of the intramolecular states in (DF)2. Journal of Chemical Physics, 1996, 104, 8197-8209.	1.2	30
103	Toward State-to-State Dynamics in Ultracold Collisions: Lessons from High-Resolution Spectroscopy of Weakly Bound Molecular Complexes. Chemical Reviews, 2012, 112, 5062-5072.	23.0	30
104	Laser initiated chain reactions: A generalized extension to complex chemical chain systems. Journal of Chemical Physics, 1981, 75, 4949-4959.	1.2	29
105	Investigation of internal rotor dynamics of NeDCl and ArDCl via infrared absorption spectroscopy. Journal of Chemical Physics, 1991, 94, 5796-5811.	1.2	29
106	Sublimation dynamics of CO2thin films: A high resolution diode laser study of quantum state resolved sticking coefficients. Journal of Chemical Physics, 1996, 105, 749-766.	1.2	29
107	Rotational predissociation, vibrational mixing, and van der Waals intermolecular potentials of NeDF. Journal of Chemical Physics, 1991, 94, 208-223.	1.2	28
108	High-resolution IR studies of hydrogen bonded clusters: Large amplitude dynamics in (HCl)n. Faraday Discussions, 2001, 118, 63-78.	1.6	27

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109	Slit Discharge IR Spectroscopy of a Jet-Cooled Cyclopropyl Radical:â€‰ Structure and Intramolecular Tunneling Dynamics. Journal of Physical Chemistry A, 2006, 110, 3059-3070.	1.1	27
110	Quantum-state resolved reactive scattering at the gas-liquid interface: F+squalaneâ€ˆ(C30H62) dynamics via high-resolution infrared absorption of nascent HF(v,J). Journal of Chemical Physics, 2008, 129, 194705.	1.2	27
111	Toward Three-Dimensional Quantum State-Resolved Collision Dynamics at the Gasâ€ˆLiquid Interface: Theoretical Investigation of Incident Angle. Journal of Physical Chemistry A, 2009, 113, 4613-4625.	1.1	27
112	Incorporation of isotopic, fluorescent, and heavy-atom-modified nucleotides into RNAs by position-selective labeling of RNA. Nature Protocols, 2018, 13, 987-1005.	5.5	27
113	Pressure broadening and collisional narrowing in OH(v=1â†0) rovibrational transitions with Ar, He, O2, and N2. Journal of Chemical Physics, 1994, 100, 2677-2689.	1.2	26
114	Supersonically cooled hydronium ions in a slit-jet discharge: High-resolution infrared spectroscopy and tunneling dynamics of HD2O+. Journal of Chemical Physics, 2005, 122, 224301.	1.2	26
115	Correlated Angular and Quantum State-Resolved CO₂ Scattering Dynamics at the Gasâ€ˆLiquid Interface. Journal of Physical Chemistry A, 2008, 112, 9324-9335.	1.1	26
116	Amino Acid Specific Effects on RNA Tertiary Interactions: Single-Molecule Kinetic and Thermodynamic Studies. Journal of Physical Chemistry B, 2016, 120, 10615-10627.	1.2	26
117	Multiphoton Scanning Photoionization Imaging Microscopy for Single-Particle Studies of Plasmonic Metal Nanostructures. Journal of Physical Chemistry C, 2011, 115, 83-91.	1.5	25
118	Single-Molecule FRET Kinetics of the Mn²⁺ Riboswitch: Evidence for Allosteric Mg²⁺ Control of â€œInduced-Fitâ€•vs â€œConformational Selectionâ€•Folding Pathways. Journal of Physical Chemistry B, 2019, 123, 2005-2015.	1.2	25
119	Biophysical Insights from Temperature-Dependent Single-Molecule FÃ¶rster Resonance Energy Transfer. Annual Review of Physical Chemistry, 2016, 67, 441-465.	4.8	24
120	Bond-breaking in quantum state selected clusters: Inelastic and nonadiabatic intracluster collision dynamics in Arâ€“H2Oâ†’Ar+H(2S)+OH(2Î1/2,3/2Â±;N). Journal of Chemical Physics, 2000, 112, 7449-7460.	1.2	23
121	The Role of Counterion Valence and Size in GAAA Tetraloopâ€“Receptor Docking/Undocking Kinetics. Journal of Molecular Biology, 2012, 423, 198-216.	2.0	23
122	Rigid bender analysis of van der Waals complexes: The intermolecular bending potential of a hydrogen bond. Journal of Chemical Physics, 1992, 96, 5712-5725.	1.2	22
123	Dynamics of collisional alignment in supersonic expansions: Trajectory studies of He+CO, O2, and CO2. Journal of Chemical Physics, 1999, 111, 6821-6833.	1.2	22
124	High-resolution infrared studies in slit supersonic discharges: CH2 stretch excitation of jet-cooled CH2Cl radical. Journal of Chemical Physics, 2006, 125, 054303.	1.2	22
125	Pulsed IR Heating Studies of Single-Molecule DNA Duplex Dissociation Kinetics and Thermodynamics. Biophysical Journal, 2014, 106, 220-231.	0.2	22
126	Single-Molecule Fluorescence Resonance Energy Transfer Studies of the Human Telomerase RNA Pseudoknot: Temperature-/Urea-Dependent Folding Kinetics and Thermodynamics. Journal of Physical Chemistry B, 2014, 118, 3853-3863.	1.2	22

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127	A study of the structure and dynamics of the hydronium ion by high resolution infrared laser spectroscopy. III. The Î½3 band of D3O+. Journal of Chemical Physics, 1990, 92, 3257-3260.	1.2	21
128	Probing threeâ€body intermolecular forces: Nearâ€infrared spectroscopy of Ar2HF and Ar2DF van der Waals modes. Journal of Chemical Physics, 1996, 105, 9421-9440.	1.2	21
129	Imaging nanostructures with scanning photoionization microscopy. Journal of Chemical Physics, 2006, 125, 154709.	1.2	20
130	Ab initio large-amplitude quantum-tunneling dynamics in vinyl radical: a vibrationally adiabatic approach. Physical Chemistry Chemical Physics, 2008, 10, 2113.	1.3	20
131	On probing ions at the gasâ€“liquid interface by quantum state-resolved molecular beam scattering: the curious incident of the cation in the night time. Faraday Discussions, 2012, 157, 297.	1.6	20
132	Quantum State Resolved 3D Velocity Map Imaging of Surface-Scattered Molecules: Incident Energy Effects in HCl + Self-Assembled Monolayer Collisions. Journal of Physical Chemistry C, 2016, 120, 16687-16698.	1.5	20
133	Smaller molecules crowd better: Crowder size dependence revealed by single-molecule FRET studies and depletion force modeling analysis. Journal of Chemical Physics, 2021, 154, 155101.	1.2	20
134	Vibrationally mediated photolysis dynamics of H2O in the vOH=3 manifold: Far off resonance photodissociation cross sections and OH product state distributions. Journal of Chemical Physics, 1999, 110, 8564-8576.	1.2	19
135	Real-Time Infrared Overtone Laser Control of Temperature in Picoliter H₂O Samples: â€œNanobathtubsâ€• for Single Molecule Microscopy. Journal of Physical Chemistry Letters, 2010, 1, 2264-2268.	2.1	19
136	Stereodynamics at the Gasâ^'Liquid Interface: Orientation and Alignment of CO₂ Scattered from Perfluorinated Liquid Surfaces. Journal of Physical Chemistry A, 2010, 114, 1398-1410.	1.1	19
137	Amino Acid Stabilization of Nucleic Acid Secondary Structure: Kinetic Insights from Single-Molecule Studies. Journal of Physical Chemistry B, 2018, 122, 9869-9876.	1.2	19
138	Inelastic Scattering of Radicals at the Gasâ€“Ionic Liquid Interface: Probing Surface Dynamics of BMIMâ€“Cl, BMIMâ€“BF₄, and BMIMâ€“Tf₂N by Rovibronic Scattering of NO [²Î_{1/2}(0.5)]. Journal of Physical Chemistry C, 2012, 116, 14284-14294.	1.5	18
139	Anomalously Strong Electric Near-Field Enhancements at Defect Sites on Au Nanoshells Observed by Ultrafast Scanning Photoemission Imaging Microscopy. Journal of Physical Chemistry C, 2013, 117, 22545-22559.	1.5	18
140	Size Effects in Gold Nanorod Light-to-Heat Conversion under Femtosecond Illumination. Journal of Physical Chemistry C, 2021, 125, 16268-16278.	1.5	18
141	State-to-state dynamics at the gas-liquid metal interface: Rotationally and electronically inelastic scattering of NO[2Î1/2(0.5)] from molten gallium. Journal of Chemical Physics, 2011, 134, 234703.	1.2	16
142	Sub-Doppler Spectroscopy of the trans-HOCO Radical in the OH Stretching Mode. Journal of Physical Chemistry A, 2013, 117, 13255-13264.	1.1	16
143	DNA Hairpin Hybridization under Extreme Pressures: A Single-Molecule FRET Study. Journal of Physical Chemistry B, 2020, 124, 110-120.	1.2	16
144	Vibrationally mediated dissociation dynamics of H2O in the vOH=2 polyad. Journal of Chemical Physics, 2003, 119, 10158-10168.	1.2	15

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145	Nonadiabatic Spinâ€“Orbit Excitation Dynamics in Quantum-State-Resolved NO(²Î_{1/2}) Scattering at the Gasâ€“Room Temperature Ionic Liquid Interface. Journal of Physical Chemistry C, 2015, 119, 8596-8607.	1.5	15
146	Angle- and Momentum-Resolved Photoelectron Velocity Map Imaging Studies of Thin Au Film and Single Supported Au Nanoshells. Journal of Physical Chemistry C, 2018, 122, 3970-3984.	1.5	15
147	Controlling the Spatial and Momentum Distributions of Plasmonic Carriers: Volume vs Surface Effects. ACS Nano, 2021, 15, 1566-1578.	7.3	15
148	Effects of Molecular Crowders on Single-Molecule Nucleic Acid Folding: Temperature-Dependent Studies Reveal True Crowding vs Enthalpic Interactions. Journal of Physical Chemistry B, 2021, 125, 13147-13157.	1.2	15
149	Slit jet infrared spectroscopy of hydrogen bonded N2HF isotopomers: Rotational Rydbergâ€“Kleinâ€“Rees analysis and H/D dependent vibrational predissociation rates. Journal of Chemical Physics, 1994, 100, 775-785.	1.2	14
150	High resolution Dopplerimetry of correlated angular and quantum state-resolved CO2 scattering dynamics at the gasâ€“liquid interface. Physical Chemistry Chemical Physics, 2010, 12, 14294.	1.3	14
151	Stateâ€resolved rotational energy transfer in open shell collisions: Cl(2P3/2)+HCl. Journal of Chemical Physics, 1995, 102, 7046-7058.	1.2	13
152	Probing potential surfaces for hydrogen bonding: Near-infrared combination band spectroscopy of van der Waals stretch (Î½4) and geared bend (Î½5) vibrations in (HCl)2. Journal of Chemical Physics, 2002, 116, 6132-6145.	1.2	13
153	Quantum state-resolved molecular scattering of NO (2Î1/2) at the gas-[Cnmim][Tf2N] room temperature ionic liquid interface: Dependence on alkyl chain length, collision energy, and temperature. AIP Advances, 2016, 6, .	0.6	13
154	Tests of Kramersâ€™ Theory at the Single-Molecule Level: Evidence for Folding of an Isolated RNA Tertiary Interaction at the Viscous Speed Limit. Journal of Physical Chemistry B, 2018, 122, 8796-8804.	1.2	13
155	Novel Heat-Promoted Folding Dynamics of the yybP-ykoY Manganese Riboswitch: Kinetic and Thermodynamic Studies at the Single-Molecule Level. Journal of Physical Chemistry B, 2019, 123, 5412-5422.	1.2	13
156	Sequential Folding of the Nickel/Cobalt Riboswitch Is Facilitated by a Conformational Intermediate: Insights from Single-Molecule Kinetics and Thermodynamics. Journal of Physical Chemistry B, 2020, 124, 7348-7360.	1.2	13
157	High pressure single-molecule FRET studies of the lysine riboswitch: cationic and osmolytic effects on pressure induced denaturation. Physical Chemistry Chemical Physics, 2020, 22, 15853-15866.	1.3	13
158	Jet-cooled infrared spectroscopy in slit supersonic discharges: Symmetric and antisymmetric CH2 stretching modes of fluoromethyl (CH2F) radical. Journal of Chemical Physics, 2006, 125, 054304.	1.2	12
159	Quantum-state-resolved studies of aqueous evaporation dynamics: NO ejection from a liquid water microjet. Journal of Chemical Physics, 2019, 150, 044201.	1.2	12
160	Kinetic Studies of the Photogeneration of Silver Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 9861-9870.	1.5	11
161	Multiphoton photoelectron emission microscopy of single Au nanorods: combined experimental and theoretical study of rod morphology and dielectric environment on localized surface plasmon resonances. Physical Chemistry Chemical Physics, 2013, 15, 10616.	1.3	11
162	Ultrafast Laser Studies of Two-Photon Excited Fluorescence Intermittency in Single CdSe/ZnS Quantum Dots. Nano Letters, 2015, 15, 7781-7787.	4.5	11

#	Article	IF	Citations
163	Polarization-Controlled Directional Multiphoton Photoemission from Hot Spots on Single Au Nanoshells. Journal of Physical Chemistry C, 2018, 122, 14805-14813.	1.5	11
164	Single-molecule kinetic studies of DNA hybridization under extreme pressures. Physical Chemistry Chemical Physics, 2020, 22, 23491-23501.	1.3	11
165	Single molecule studies of quantum dot fluorescence intermittency: evidence for both dark and light-assisted blinking dynamics. Molecular Physics, 2009, 107, 1867-1878.	0.8	10
166	Single-Molecule FRET Reveals Three Conformations for the TLS Domain of Brome Mosaic Virus Genome. Biophysical Journal, 2015, 109, 2625-2636.	0.2	10
167	Angle-resolved molecular beam scattering of NO at the gas-liquid interface. Journal of Chemical Physics, 2017, 147, 054704.	1.2	10
168	Cluster photofragmentation dynamics: Quasiclassical trajectory studies of Arnâ€“H2S and Arnâ€“SH (n=1,2). Journal of Chemical Physics, 2000, 113, 10962-10972.	1.2	9
169	Probing hydrogen bond potential surfaces for out-of-plane geometries: Near-infrared combination band torsional (Î½6) spectroscopy in (HCl)2. Journal of Chemical Physics, 2003, 118, 10137-10148.	1.2	9
170	Spectroscopy and Dynamics of Jet-Cooled Polyynes in a Slit Supersonic Discharge: Sub-Doppler Infrared Studies of Diacetylene HCCCCH. Journal of Physical Chemistry A, 2015, 119, 7940-7950.	1.1	9
171	Near infrared overtone (νOH = 2 â†•0) spectroscopy of Neâ€“H2O clusters. Journal of Chemical Physics, 2017, 146, 104204.	1.2	9
172	Chirality-Dependent Amino Acid Modulation of RNA Folding. Journal of Physical Chemistry B, 2020, 124, 11561-11572.	1.2	9
173	Stateâ€resolved differential scattering in openâ€shell collisions: Cl(2P3/2)+HCl from highâ€resolution infraredâ€laser Dopplerimetry. Journal of Chemical Physics, 1996, 104, 3555-3566.	1.2	8
174	Continuous angular control over anisotropic photoemission from isotropic gold nanoshells. Journal of Chemical Physics, 2020, 153, 101101.	1.2	8
175	Regulating and Directionally Controlling Electron Emission from Gold Nanorods with Silica Coatings. Nano Letters, 2022, 22, 644-651.	4.5	8
176	Sub-Doppler infrared spectroscopy of CH2D radical in a slit supersonic jet: Isotopic symmetry breaking in the CH stretching manifold. Journal of Chemical Physics, 2012, 136, 234308.	1.2	7
177	Plasmon Mediated Multiphoton Photoemission Microscopy of Au Nanoholes and Nanohole Dimers. Journal of Physical Chemistry C, 2014, 118, 6959-6971.	1.5	7
178	High resolution spectroscopy of jet cooled phenyl radical: The Î½1 and Î½2â€ˆa1 symmetry Câ€“H stretching modes. Journal of Chemical Physics, 2016, 145, 044304.	1.2	7
179	Sub-Doppler infrared spectroscopy of resonance-stabilized hydrocarbon intermediates: Î½₃/Î½₄ CH stretch modes and CH₂ internal rotor dynamics of benzyl radical. Physical Chemistry Chemical Physics, 2017, 19, 29812-29821.	1.3	7
180	Sub-Doppler slit jet infrared spectroscopy of astrochemically relevant cations: Symmetric (Î½1) and antisymmetric (Î½6) NH stretching modes in ND2H2+. Journal of Chemical Physics, 2018, 148, 014304.	1.2	7

#	Article	IF	Citations
181	High-resolution sub-Doppler infrared spectroscopy of atmospherically relevant Criegee precursor CH2I radicals: CH2 stretch vibrations and â€œcharge-sloshingâ€•dynamics. Journal of Chemical Physics, 2018, 148, 174308.	1.2	7
182	Probability oscillations in single pass curve crossings: Semiclassical predictions of nonmonotonic dependence on crossing velocity. Journal of Chemical Physics, 1986, 84, 1554-1564.	1.2	6
183	Spectroscopy in slit supersonic jet discharges: fine and hyperfine structure calculations for asymmetric top radicals with multiple nuclear spins. Molecular Physics, 2007, 105, 467-475.	0.8	6
184	Sub-Doppler infrared spectroscopy and formation dynamics of triacetylene in a slit supersonic expansion. Journal of Chemical Physics, 2016, 144, 074301.	1.2	6
185	Quantum State and Doppler-Resolved Scattering of Thermal/Hyperthermal DCl at the Gasâ€“Liquid Interface: Support for a Simple â€œLever Armâ€•Model of the Energy-Transfer Dynamics. Journal of Physical Chemistry C, 2019, 123, 3449-3460.	1.5	6
186	High-resolution infrared spectroscopy of jet cooled CH2Br radicals: The symmetric CH stretch manifold and absence of nuclear spin cooling. Journal of Chemical Physics, 2020, 152, 134305.	1.2	6
187	Sub-Doppler infrared spectroscopy of CH2OH radical in a slit supersonic jet: Vibration-rotation-tunneling dynamics in the symmetric CH stretch manifold. Journal of Chemical Physics, 2017, 146, 194307.	1.2	5
188	Nuclear spin/parity dependent spectroscopy and predissociation dynamics in νOH = 2 â†•0 overtone excited Neâ€“H2O clusters: Theory and experiment. Journal of Chemical Physics, 2017, 147, 214304.	1.2	5
189	Quantum-State-Resolved Scattering of NO(²Î_{1/2}) from Hot Molten Au(liq): On the Role of Thermal Electronâ€“Hole Pairs in Vibrational Excitation Dynamics. Journal of Physical Chemistry C, 2018, 122, 17161-17169.	1.5	5
190	Low-Energy CO Scattering at the Gasâ€“Liquid Interface: Experimental/Theoretical Evidence for a Novel Subthermal Impulsive Scattering (STIS) Channel. Journal of Physical Chemistry C, 2020, 124, 28006-28017.	1.5	5
191	Infrared spectroscopy of jet-cooled HCCl singlet chlorocarbene diradical: CH stretching and vibrational coupling dynamics. Journal of Chemical Physics, 2018, 149, 074303.	1.2	4
192	Pushing Camera-Based Single-Molecule Kinetic Measurements to the Frame Acquisition Limit with Stroboscopic smFRET. Journal of Physical Chemistry B, 2021, 125, 6080-6089.	1.2	4
193	Sub-Doppler infrared spectroscopy of propargyl radical (H2CCCH) in a slit supersonic expansion. Journal of Chemical Physics, 2015, 142, 244313.	1.2	3
194	Synergistic SHAPE/Single-Molecule Deconvolution of RNA Conformation under Physiological Conditions. Biophysical Journal, 2018, 114, 1762-1775.	0.2	3
195	Sub-Doppler slit jet infrared spectroscopy of astrochemically relevant cations: The NH stretching mode in ND3H+. Journal of Chemical Physics, 2018, 149, 144303.	1.2	3
196	Nonadiabatic Dynamics at the Gasâ€“Molten Metal Interface: State-to-State Resolved Scattering of NO from Hot Gallium (600â€“1000 K). Journal of Physical Chemistry C, 2021, 125, 341-353.	1.5	3
197	Lysine-Dependent Entropy Effects in the B. subtilis Lysine Riboswitch: Insights from Single-Molecule Thermodynamic Studies. Journal of Physical Chemistry B, 2022, 126, 69-79.	1.2	3
198	Molecular Spectroscopy at Low Temperatures: A High Resolution Infrared Retrospective. , 2008, , 231-294.		2

#	Article	IF	Citations
199	High-resolution infrared spectroscopy of jet cooled trans-deuteroxycarbonyl (trans-DOCO) radical. Journal of Chemical Physics, 2019, 150, 194304.	1.2	2
200	High-resolution infrared spectroscopy of HCF in the CH stretch region. Journal of Chemical Physics, 2020, 152, 014305.	1.2	2
201	Measuring Excess Heat Capacities of Deoxyribonucleic Acid (DNA) Folding at the Single-Molecule Level. Journal of Physical Chemistry B, 2021, 125, 9719-9726.	1.2	2
202	Suppressed-Doppler slit jet infrared spectroscopy of astrochemically relevant cations: Î½1 and Î½4 NH stretching modes in NH3D+. Journal of Chemical Physics, 2019, 151, 084302.	1.2	1
203	State-Resolved Studies of OCS Scattering at the Gasâ€“Liquid Interface: Tests of Landauâ€”Teller/Rapp Theory for Rotational vs Vibrational Energy Transfer. Journal of Physical Chemistry C, 2021, 125, 22786-22796.	1.5	1
204	Formation and detection of metastable formic acid in a supersonic expansion: High resolution infrared spectroscopy of the jet-cooled cis-HCOOH conformer. Journal of Chemical Physics, 2022, 156, .	1.2	1
205	High-resolution CH stretch spectroscopy of jet-cooled cyclopentyl radical: First insights into equilibrium structure, out-of-plane puckering, and IVR dynamics. Journal of Chemical Physics, 2022, 157, .	1.2	1
206	High-resolution spectroscopy of jet-cooled CH5+: Progress. , 2015, , .		0
207	High-resolution infrared spectroscopy of supersonically cooled singlet carbenes: Bromomethylene (HCBr) in the CH stretch region. Journal of Chemical Physics, 2022, 156, 014304.	1.2	0
208	High Resolution Infrared Spectroscopy of Highly Reactive Chemical Intermediates: Berkeley Inspiration and a C.B. Moore Retrospective. ACS Symposium Series, 0, , 307-332.	0.5	0