RichardÂ N Zare

List of Publications by Year
in descending order

407 papers	23,119 citations	6606 79 h-index	14197 128 g-index
444 all docs	444 docs citations	444 times ranked	16433 citing authors

#	Article	IF	Citations
1	Advances in Asphaltene Science and the Yenâ€“Mullins Model. Energy & Fuels, 2012, 26, 3986-4003.	2.5	789
2	One-Pot Synthesis of Protein-Embedded Metalâ€“Organic Frameworks with Enhanced Biological Activities. Nano Letters, 2014, 14, 5761-5765.	4.5	754
3	Drug Release from Electric-Field-Responsive Nanoparticles. ACS Nano, 2012, 6, 227-233.	7.3	434
4	Cavity ringâ€down spectroscopy for quantitative absorption measurements. Journal of Chemical Physics, 1995, 102, 2708-2717.	1.2	429
5	OPTICAL DETECTION OF SINGLE MOLECULES. Annual Review of Biophysics and Biomolecular Structure, 1997, 26, 567-596.	18.3	409
6	UV Irradiation of Polycyclic Aromatic Hydrocarbons in Ices: Production of Alcohols, Quinones, and Ethers. Science, 1999, 283, 1135-1138.	6.0	352
7	Optimizing Chemical Reactions with Deep Reinforcement Learning. ACS Central Science, 2017, 3, 1337-1344.	5.3	291
8	Microfluidic Platforms for Single-Cell Analysis. Annual Review of Biomedical Engineering, 2010, 12, 187-201.	5.7	287
9	Spontaneous generation of hydrogen peroxide from aqueous microdroplets. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19294-19298.	3.3	287
10	Optimization of Molecules via Deep Reinforcement Learning. Scientific Reports, 2019, 9, 10752.	1.6	243
11	Chemical Transformations in Individual Ultrasmall Biomimetic Containers. Science, 1999, 283, 1892-1895.	6.0	236
12	Packaging and delivering enzymes by amorphous metal-organic frameworks. Nature Communications, 2019, 10, 5165.	5.8	234
13	Reaction of Cl with vibrationally excited CH4 and CHD3: Stateâ€toâ€state differential cross sections and steric effects for the HCl product. Journal of Chemical Physics, 1995, 103, 7313-7335.	1.2	228
14	Evidence for Island Structures as the Dominant Architecture of Asphaltenes. Energy & Fuels, 2011, 25, 1597-1604.	2.5	220
15	Bondâ€specific chemistry: OD:OH product ratios for the reactions H+HOD(100) and H+HOD(001). Journal of Chemical Physics, 1991, 95, 8647-8648.	1.2	217
16	MYC oncogene overexpression drives renal cell carcinoma in a mouse model through glutamine metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6539-6544.	3.3	211
17	Micrometer-Sized Water Droplets Induce Spontaneous Reduction. Journal of the American Chemical Society, 2019, 141, 10585-10589.	6.6	205
18	Acceleration of reaction in charged microdroplets. Quarterly Reviews of Biophysics, 2015, 48, 437-444.	2.4	204

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19	Microdroplet fusion mass spectrometry for fast reaction kinetics. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3898-3903.	3.3	197
20	Interdisciplinary Research: From Belief to Reality. Science, 1999, 283, 642-643.	6.0	193
21	Observation and interpretation of a time-delayed mechanism in the hydrogen exchange reaction. Nature, 2002, 416, 67-70.	13.7	187
22	Molecular assessment of surgical-resection margins of gastric cancer by mass-spectrometric imaging. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2436-2441.	3.3	185
23	Selection rules for the photoionization of diatomic molecules. Journal of Chemical Physics, 1990, 93, 3033-3038.	1.2	180
24	Strong Electric Field Observed at the Interface of Aqueous Microdroplets. Journal of Physical Chemistry Letters, 2020, 11, 7423-7428.	2.1	177
25	Preparation and Characterization of Monolithic Porous Capillary Columns Loaded with Chromatographic Particles. Analytical Chemistry, 1998, 70, 5103-5107.	3.2	175
26	Diagnosis of prostate cancer by desorption electrospray ionization mass spectrometric imaging of small metabolites and lipids. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3334-3339.	3.3	174
27	Radiative lifetimes of the alkaline earth monohalides. Journal of Chemical Physics, 1974, 60, 2330-2339.	1.2	171
28	Effect of atomic reagent approach geometry on reactivity: Reactions of aligned Ca(1P1) with HCl, Cl2, and CCl4. Journal of Chemical Physics, 1982, 77, 2416-2429.	1.2	168
29	Abiotic production of sugar phosphates and uridine ribonucleoside in aqueous microdroplets. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12396-12400.	3.3	166
30	Potassium tert-Butoxide-Catalyzed Dehydrogenative Câ€“H Silylation of Heteroaromatics: A Combined Experimental and Computational Mechanistic Study. Journal of the American Chemical Society, 2017, 139, 6867-6879.	6.6	160
31	Syntheses of Isoquinoline and Substituted Quinolines in Charged Microdroplets. Angewandte Chemie - International Edition, 2015, 54, 14795-14799.	7.2	158
32	Effect of reagent orientation and rotation upon product state distribution in the reaction Sr+HF (v=1,J) â†’SrF(vâ€², Jâ€²) +H. Journal of Chemical Physics, 1978, 69, 5199-5201.	1.2	149
33	Picturing the Transition-State Region and Understanding Vibrational Enhancement for the Cl + CH4â†’ HCl + CH3Reaction. The Journal of Physical Chemistry, 1996, 100, 7938-7947.	2.9	143
34	Determination of population and alignment of the ground state using twoâ€photon nonresonant excitation. Journal of Chemical Physics, 1986, 85, 6874-6897.	1.2	139
35	Photofragment angular momentum distributions in the molecular frame: Determination and interpretation. Journal of Chemical Physics, 1999, 110, 3341-3350.	1.2	139
36	Stateâ€toâ€state reaction rates: Ba+HF(v=0,1) â†’ BaF(v=0â€“12)+H. Journal of Chemical Physics, 1976, 64, 1774-1783.	1.2	138

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37	Can all bulk-phase reactions be accelerated in microdroplets?. Analyst, The, 2017, 142, 1399-1402.	1.7	133
38	Photopolymerized Solâ˜Gel Monoliths for Capillary Electrochromatography. Analytical Chemistry, 2001, 73, 3921-3926.	3.2	127
39	Direct inelastic scattering of N2 from Ag(111). I. Rotational populations and alignment. Journal of Chemical Physics, 1988, 89, 2558-2571.	1.2	126
40	Asphaltene Molecular-Mass Distribution Determined by Two-Step Laser Mass Spectrometry. Energy & Fuels, 2009, 23, 1162-1168.	2.5	125
41	Spontaneous formation of gold nanostructures in aqueous microdroplets. Nature Communications, 2018, 9, 1562.	5.8	124
42	Quantum control of molecular collisions at 1 kelvin. Science, 2017, 358, 356-359.	6.0	121
43	The MYC Oncogene Cooperates with Sterol-Regulated Element-Binding Protein to Regulate Lipogenesis Essential for Neoplastic Growth. Cell Metabolism, 2019, 30, 556-572.e5.	7.2	120
44	Highâ€resolution angleâ€and energyâ€resolved photoelectron spectroscopy of NO: Partial wave decomposition of the ionization continuum. Journal of Chemical Physics, 1989, 91, 2216-2234.	1.2	119
45	Alteration of the lipid profile in lymphomas induced by MYC overexpression. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10450-10455.	3.3	118
46	Detecting Reaction Intermediates in Liquids on the Millisecond Time Scale Using Desorption Electrospray Ionization. Angewandte Chemie - International Edition, 2011, 50, 250-254.	7.2	116
47	Highly active enzymeâ€“metal nanohybrids synthesized in proteinâ€“polymer conjugates. Nature Catalysis, 2019, 2, 718-725.	16.1	115
48	Core extraction for measuring stateâ€toâ€state differential cross sections of bimolecular reactions. Journal of Chemical Physics, 1995, 103, 7299-7312.	1.2	114
49	Ionic and Neutral Mechanisms for Câ€“H Bond Silylation of Aromatic Heterocycles Catalyzed by Potassium tert-Butoxide. Journal of the American Chemical Society, 2017, 139, 6880-6887.	6.6	111
50	Oncogene KRAS activates fatty acid synthase, resulting in specific ERK and lipid signatures associated with lung adenocarcinoma. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4300-4305.	3.3	110
51	Going beyond electrospray: mass spectrometric studies of chemical reactions in and on liquids. Chemical Science, 2016, 7, 39-55.	3.7	109
52	State-to-state differential cross sections from photoinitiated bulb reactions. Chemical Physics Letters, 1993, 212, 155-162.	1.2	108
53	Biased Diffusion, Optical Trapping, and Manipulation of Single Molecules in Solution. Journal of the American Chemical Society, 1996, 118, 6512-6513.	6.6	107
54	Photofragment Helicity Caused by Matter-Wave Interference from Multiple Dissociative States. , 1998, 281, 1346-1349.		104

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55	Condensing water vapor to droplets generates hydrogen peroxide. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30934-30941.	3.3	104
56	Identification of Fleeting Electrochemical Reaction Intermediates Using Desorption Electrospray Ionization Mass Spectrometry. Journal of the American Chemical Society, 2015, 137, 7274-7277.	6.6	103
57	Laser-Based Mass Spectrometric Assessment of Asphaltene Molecular Weight, Molecular Architecture, and Nanoaggregate Number. Energy & Fuels, 2015, 29, 2833-2842.	2.5	102
58	Imaging of Proteins in Tissue Samples Using Nanospray Desorption Electrospray Ionization Mass Spectrometry. Analytical Chemistry, 2015, 87, 11171-11175.	3.2	101
59	Effect of vibrational excitation on the molecular beam reactions of Ca and Sr with HF and DF. Journal of Chemical Physics, 1978, 68, 3360-3365.	1.2	98
60	Abiotic synthesis of purine and pyrimidine ribonucleosides in aqueous microdroplets. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 36-40.	3.3	98
61	Simple model for the electric field and spatial distribution of ions in a microdroplet. Journal of Chemical Physics, 2020, 152, 184702.	1.2	98
62	Oral squamous cell carcinoma diagnosed from saliva metabolic profiling. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16167-16173.	3.3	98
63	A search for modeâ€selective chemistry: The unimolecular dissociation of tâ€butyl hydroperoxide induced by vibrational overtone excitation. Journal of Chemical Physics, 1982, 77, 4447-4458.	1.2	97
64	Catalytic Carbonylative Spirolactonization of Hydroxycyclopropanols. Journal of the American Chemical Society, 2016, 138, 10693-10699.	6.6	97
65	Resonance-enhanced multiphoton ionization of molecular hydrogen via the E,F1Î£g+ state: Photoelectron energy and angular distributions. Chemical Physics Letters, 1984, 105, 22-27.	1.2	96
66	Comparison of experimental and theoretical integral cross sections for D+H2(v=1, j=1)â†'HD(vâ€™=1, jâ€™)+H. Journal of Chemical Physics, 1991, 95, 1648-1662.	1.2	96
67	Capturing fleeting intermediates in a catalytic Câ€“H amination reaction cycle. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18295-18299.	3.3	93
68	Advances in Capillary Electrochromatography:Â Rapid and High-Efficiency Separations of PAHs. Analytical Chemistry, 1998, 70, 4787-4792.	3.2	91
69	Chemoselective Pd-Catalyzed Oxidation of Polyols: Synthetic Scope and Mechanistic Studies. Journal of the American Chemical Society, 2013, 135, 7593-7602.	6.6	91
70	Internalâ€state distribution of recombinative hydrogen desorption from Si(100). Journal of Chemical Physics, 1992, 96, 3995-4006.	1.2	87
71	Effect of atomic reagent approach geometry on electronic state branching: The Ca(1P1) + HCl reaction. Journal of Chemical Physics, 1981, 75, 3636-3637.	1.2	85
72	Dynamics for the Cl+C2H6â†'HCl+C2H5 reaction examined through stateâ€specific angular distributions. Journal of Chemical Physics, 1996, 105, 7550-7559.	1.2	84

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73	On-Line Preconcentration in Capillary Electrochromatography Using a Porous Monolith Together with Solvent Gradient and Sample Stacking. Analytical Chemistry, 2001, 73, 5557-5563.	3.2	83
74	Vibrational Control in the Reaction of Methane with Atomic Chlorine. Journal of the American Chemical Society, 2001, 123, 12714-12715.	6.6	83
75	Detection of the Shortâ€Lived Radical Cation Intermediate in the Electrooxidation of N,Nâ€Dimethylaniline by Mass Spectrometry. Angewandte Chemie - International Edition, 2015, 54, 11183-11185.	7.2	83
76	Lifetimeâ€separated spectroscopy: Observation and rotational analysis of the BaO Aâ€² 1Î state. Journal of Chemical Physics, 1975, 62, 2050-2059.	1.2	82
77	Hadamard Transform Time-of-Flight Mass Spectrometry. Analytical Chemistry, 1998, 70, 3735-3741.	3.2	82
78	Is the simplest chemical reaction really so simple?. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15-20.	3.3	82
79	LprG-Mediated Surface Expression of Lipoarabinomannan Is Essential for Virulence of Mycobacterium tuberculosis. PLoS Pathogens, 2014, 10, e1004376.	2.1	82
80	Twoâ€Phase Reactions in Microdroplets without the Use of Phaseâ€Transfer Catalysts. Angewandte Chemie - International Edition, 2017, 56, 3562-3565.	7.2	82
81	Recombinative desorption of H2 on Si(100)â€(2Ã—1) and Si(111)â€(7Ã—7): Comparison of internal state distributions. Journal of Chemical Physics, 1992, 97, 1520-1530.	1.2	81
82	Laser-Based Mass Spectrometric Determination of Aggregation Numbers for Petroleum- and Coal-Derived Asphaltenes. Energy & Fuels, 2014, 28, 475-482.	2.5	81
83	Aqueous microdroplets containing only ketones or aldehydes undergo Dakin and Baeyerâ€“Villiger reactions. Chemical Science, 2019, 10, 10974-10978.	3.7	81
84	Measurement of product alignment in beamâ€“gas chemiluminescent reactions. Journal of Chemical Physics, 1981, 75, 2222-2230.	1.2	80
85	Determination of orientation of the ground state using twoâ€photon nonresonant excitation. Journal of Chemical Physics, 1988, 88, 6707-6732.	1.2	79
86	Enantiomeric separation of amino acids and nonprotein amino acids using a particle-loaded monolithic column. Electrophoresis, 2000, 21, 3145-3151.	1.3	79
87	Pancreatic Cancer Surgical Resection Margins: Molecular Assessment by Mass Spectrometry Imaging. PLoS Medicine, 2016, 13, e1002108.	3.9	79
88	Chemiluminescence detection in capillary electrophoresis. Journal of High Resolution Chromatography, 1992, 15, 133-135.	2.0	78
89	Reaction dynamics of atomic chlorine with methane: Importance of methane bending and torsional excitation in controlling reactivity. Journal of Chemical Physics, 1998, 109, 9719-9727.	1.2	78
90	Complete description of twoâ€photon (1+1â€™) ionization of NO deduced from rotationally resolved photoelectron angular distributions. Journal of Chemical Physics, 1991, 95, 1757-1767.	1.2	77

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91	Adsorption of Crystal Violet to the Silicaâˆ'Water Interface Monitored by Evanescent Wave Cavity Ring-Down Spectroscopy. Journal of Physical Chemistry B, 2003, 107, 7070-7075.	1.2	76
92	Measurements of Cl-atom photofragment angular momentum distributions in the photodissociation of Cl2 and ICl. Journal of Chemical Physics, 1999, 110, 3351-3359.	1.2	75
93	Personal Information from Latent Fingerprints Using Desorption Electrospray Ionization Mass Spectrometry and Machine Learning. Analytical Chemistry, 2017, 89, 1369-1372.	3.2	75
94	Cold quantum-controlled rotationally inelastic scattering of HD with H2 and D2 reveals collisional partner reorientation. Nature Chemistry, 2018, 10, 561-567.	6.6	74
95	Ultrafast enzymatic digestion of proteins by microdroplet mass spectrometry. Nature Communications, 2020, 11, 1049.	5.8	74
96	Depolarization of optically prepared molecules by two randomly oriented spins. Molecular Physics, 1985, 55, 1-9.	0.8	73
97	Fluorescence Polarization Anisotropy in Microdroplets. Journal of Physical Chemistry Letters, 2018, 9, 2928-2932.	2.1	72
98	Effect of reagent rotation on product energy disposal in the light atom transfer reaction O(3P)+HCl(v=2,J=1,6,9)â†'OH(vâ€™,Nâ€™)+Cl(2P). Journal of Chemical Physics, 1991, 94, 2704-2712.	1.2	71
99	Distinguishing malignant from benign microscopic skin lesions using desorption electrospray ionization mass spectrometry imaging. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6347-6352.	3.3	71
100	High-Resolution Live-Cell Imaging and Analysis by Laser Desorption/Ionization Droplet Delivery Mass Spectrometry. Analytical Chemistry, 2016, 88, 5453-5461.	3.2	70
101	Rapid Hydrogenâ€“Deuterium Exchange in Liquid Droplets. Journal of the American Chemical Society, 2017, 139, 6851-6854.	6.6	70
102	Nanomaterial Preparation by Extrusion through Nanoporous Membranes. Small, 2018, 14, e1703493.	5.2	69
103	Sprayed Water Microdroplets Are Able to Generate Hydrogen Peroxide Spontaneously. Journal of the American Chemical Society, 2022, 144, 7606-7609.	6.6	69
104	Alignment of CN from 248 nm photolysis of ICN: A new model of the Aì*f* continuum dissociation dynamics. Journal of Chemical Physics, 1987, 87, 303-313.	1.2	67
105	Alignment and orientation of N2 scattered from Ag(111). Journal of Chemical Physics, 1987, 87, 3247-3249.	1.2	67
106	Molecularâ€orbital decomposition of the ionization continuum for a diatomic molecule by angleâ€and energyâ€resolved photoelectron spectroscopy. I. Formalism. Journal of Chemical Physics, 1996, 104, 4554-4567.	1.2	67
107	Electrically controlled release of insulin using polypyrrole nanoparticles. Nanoscale, 2017, 9, 143-149.	2.8	67
108	Comparison of reagent translation and vibration on the dynamics of the endothermic reaction Sr+HF. Journal of Chemical Physics, 1980, 72, 6250-6257.	1.2	66

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109	Effect of reagent translation on the dynamics of the exothermic reaction Ba+HF. Journal of Chemical Physics, 1980, 72, 6237-6249.	1.2	66
110	Multiphoton ionization photoelectron spectroscopy of phenol: Vibrational frequencies and harmonic force field for the 2B1 cation. Journal of Chemical Physics, 1985, 82, 5329-5339.	1.2	66
111	Measurement of circular dichroism in rotationally resolved photoelectron angular distributions following the photoionization of NO Aâ€‰2Î£+. Journal of Chemical Physics, 1992, 97, 4948-4957.	1.2	66
112	Measurement of relative stateâ€toâ€state rate constants for the reaction D+H2(v,â€‰j)â†'HD(vâ€™,â€‰jâ€™)+H. Journal of Chemical Physics, 1992, 97, 7323-7341.	1.2	66
113	The H+D2 reaction: Quantumâ€state distributions at collision energies of 1.3 and 0.55 eV. Journal of Chemical Physics, 1989, 91, 7514-7529.	1.2	65
114	Nanoaggregates of Diverse Asphaltenes by Mass Spectrometry and Molecular Dynamics. Energy & Fuels, 2017, 31, 9140-9151.	2.5	63
115	Screening for genetic mutations. Nature, 1996, 380, 207-207.	13.7	62
116	Transient Ru-methyl formate intermediates generated with bifunctional transfer hydrogenation catalysts. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2246-2250.	3.3	62
117	Effect of breaking cylindrical symmetry on photoelectron angular distributions resulting from resonanceâ€enhanced twoâ€photon ionization. Journal of Chemical Physics, 1991, 95, 1746-1756.	1.2	61
118	Site-selective bromination of sp³ Câ€“H bonds. Chemical Science, 2018, 9, 100-104.	3.7	61
119	Radiative Lifetime of the B 1Îu State of K2. Journal of Chemical Physics, 1970, 53, 3094-3100.	1.2	60
120	Measurement of the stateâ€specific differential cross section for the H+D2â†'HD(vâ€²=4, Jâ€²=3)+D reaction at a collision energy of 2.2 eV. Journal of Chemical Physics, 1995, 103, 5157-5160.	1.2	60
121	Comparing Laser Desorption/Laser Ionization Mass Spectra of Asphaltenes and Model Compounds. Energy & Fuels, 2010, 24, 3589-3594.	2.5	60
122	Internalâ€state distributions of H2 desorbed from monoâ€and dihydride species on Si(100). Journal of Chemical Physics, 1992, 97, 3704-3709.	1.2	59
123	Differential cross section polarization moments: Location of the D-atom transfer in the transition-state region for the reactions Cl+C2D6â†'DCl(vâ€²=0,Jâ€²=1)+C2D5 and Cl+CD4â†'DCl(vâ€²=0,Jâ€²=1)+CD3. Journal of Chemical Physics, 1997, 107, 9392-9405.	1.2	59
124	My Life with LIF: A Personal Account of Developing Laser-Induced Fluorescence. Annual Review of Analytical Chemistry, 2012, 5, 1-14.	2.8	59
125	Fall, recovery, and characterization of the Novato L6 chondrite breccia. Meteoritics and Planetary Science, 2014, 49, 1388-1425.	0.7	59
126	Polarized photofluorescence excitation spectroscopy. Molecular Physics, 1979, 38, 2049-2055.	0.8	58

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127	â€œOnâ€Dropletâ€•Chemistry: The Cycloaddition of Diethyl Azodicarboxylate and Quadricyclane. Angewandte Chemie - International Edition, 2017, 56, 15083-15087.	7.2	58
128	Vibrationally stateâ€selected reactions of ammonia ions. I. NH+3(v)+D2. Journal of Chemical Physics, 1986, 84, 5527-5535.	1.2	57
129	2+1 resonantly enhanced multiphoton ionization of CO via the Eâ€‰1Îâ€“Xâ€‰1Î£+ transition: From measured ion signals to quantitative population distributions. Journal of Chemical Physics, 1990, 93, 8557-8564.	1.2	57
130	Modes of Activation of Organometallic Iridium Complexes for Catalytic Water and Câ€“H Oxidation. Inorganic Chemistry, 2014, 53, 423-433.	1.9	57
131	D+H2(v=1, J=1): Rovibronic state to rovibronic state reaction dynamics. Journal of Chemical Physics, 1990, 92, 2107-2109.	1.2	56
132	Two-color resonant four-wave mixing: Analytical expressions for signal intensity. Journal of Chemical Physics, 1997, 106, 3090-3102.	1.2	56
133	Droplet Spray Ionization from a Glass Microscope Slide: Real-Time Monitoring of Ethylene Polymerization. Analytical Chemistry, 2015, 87, 8057-8062.	3.2	56
134	Assessment and control of organic and other contaminants associated with the Stardust sample return from comet 81P/Wild 2. Meteoritics and Planetary Science, 2010, 45, 406-433.	0.7	55
135	Preparative microdroplet synthesis of carboxylic acids from aerobic oxidation of aldehydes. Chemical Science, 2018, 9, 5207-5211.	3.7	55
136	Channel-specific angular distributions of HCl and CH3 products from the reaction of atomic chlorine with stretch-excited methane. Journal of Chemical Physics, 2002, 117, 3232-3242.	1.2	54
137	High-precision optical measurements of ¹³ C/ ¹² C isotope ratios in organic compounds at natural abundance. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10928-10932.	3.3	54
138	The H+paraâ€H2 reaction: Influence of dynamical resonances on H2 (vâ€™=1, jâ€‰â€™=1 and 3) integral cross sections. Journal of Chemical Physics, 1991, 94, 1069-1080.	1.2	53
139	Injection of Ultrasmall Samples and Single Molecules into Tapered Capillaries. Analytical Chemistry, 1997, 69, 1801-1807.	3.2	53
140	Minimization of Fragmentation and Aggregation by Laser Desorption Laser Ionization Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2013, 24, 1116-1122.	1.2	53
141	Sprayed water microdroplets containing dissolved pyridine spontaneously generate pyridyl anions. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200991119.	3.3	53
142	Primitive angular distribution studies of internal states in crossedâ€beam reactions using laser fluorescence detection. Journal of Chemical Physics, 1974, 61, 2464-2465.	1.2	51
143	Application of ion imaging to the atomâ€“molecule exchange reaction: H+HIâ†’H2+I. Journal of Chemical Physics, 1991, 94, 4672-4675.	1.2	51
144	Electroresponsive nanoparticles for drug delivery on demand. Nanoscale, 2016, 8, 9310-9317.	2.8	51

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145	Determination of population, alignment, and orientation using laser induced fluorescence with unresolved emission. Journal of Chemical Physics, 1988, 88, 7357-7368.	1.2	50
146	Chemoselective Nâ€Alkylation of Indoles in Aqueous Microdroplets. Angewandte Chemie - International Edition, 2020, 59, 3069-3072.	7.2	50
147	Highly parallel and efficient single cell mRNA sequencing with paired picoliter chambers. Nature Communications, 2020, 11, 2118.	5.8	50
148	Population and alignment of N2 scattered from Ag(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1987, 5, 513-517.	0.9	49
149	Strategy for On-Line Preconcentration in Chromatographic Separations. Analytical Chemistry, 2001, 73, 5539-5543.	3.2	49
150	Catalytic Role of Multinuclear Palladiumâ€“Oxygen Intermediates in Aerobic Oxidation Followed by Hydrogen Peroxide Disproportionation. Journal of the American Chemical Society, 2015, 137, 13632-13646.	6.6	49
151	Mechanism of Catalytic Oxidation of Styrenes with Hydrogen Peroxide in the Presence of Cationic Palladium(II) Complexes. Journal of the American Chemical Society, 2017, 139, 12495-12503.	6.6	49
152	Comparison of the Ca+HF(DF) and Sr+HF(DF) reaction dynamics. Journal of Chemical Physics, 1988, 89, 6283-6294.	1.2	47
153	Speed-Dependent Photofragment Orientation in the Photodissociation of OCS at 223 nm. Journal of Physical Chemistry A, 1999, 103, 10144-10148.	1.1	47
154	Teaching Effective Communication in a Writing-Intensive Analytical Chemistry Course. Journal of Chemical Education, 2003, 80, 904.	1.1	47
155	A Study of Heterogeneous Catalysis by Nanoparticleâ€Embedded Paperâ€Spray Ionization Mass Spectrometry. Angewandte Chemie - International Edition, 2016, 55, 12807-12811.	7.2	47
156	Observation of electrochemically generated nitrenium ions by desorption electrospray ionization mass spectrometry. Chemical Science, 2016, 7, 329-332.	3.7	47
157	Enhancement of reaction rate in small-sized droplets: A combined analytical and simulation study. Journal of Chemical Physics, 2018, 148, 244704.	1.2	47
158	Integral rate constant measurements of the reaction H +D2O â†' HD(vâ€™, jâ€™)+OD. Journal of Chemical Physics, 1993, 98, 4636-4643.	1.2	46
159	Hadamard Transform Time-of-Flight Mass Spectrometry: More Signal, More of the Time. Angewandte Chemie - International Edition, 2003, 42, 30-35.	7.2	46
160	Constant Asphaltene Molecular and Nanoaggregate Mass in a Gravitationally Segregated Reservoir. Energy & Fuels, 2014, 28, 3010-3015.	2.5	46
161	Theoretical study of collinear Be+FH(v1) â†'BeF(v2) +H. Journal of Chemical Physics, 1978, 69, 3790-3806.	1.2	45
162	Information on the impact parameter dependence of the Ba+HIâ€‰â†'â€‰BaI(Î½=8)+H reaction. Journal of Chemical Physics, 1986, 85, 856-864.	1.2	45

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163	Effects of different population, orientation, and alignment relaxation rates in resonant fourâ€wave mixing. Journal of Chemical Physics, 1996, 104, 3947-3955.	1.2	45
164	Characterization of a Hadamard transform time-of-flight mass spectrometer. Review of Scientific Instruments, 2000, 71, 1306-1318.	0.6	45
165	Stark-induced adiabatic Raman passage for preparing polarized molecules. Journal of Chemical Physics, 2011, 135, 024201.	1.2	45
166	Rotational line strengths for the photoionization of diatomic molecules. Journal of Chemical Physics, 1992, 97, 2891-2899.	1.2	44
167	Celecoxib Nanoparticles for Therapeutic Angiogenesis. ACS Nano, 2015, 9, 9416-9426.	7.3	44
168	Scale-up of microdroplet reactions by heated ultrasonic nebulization. Chemical Science, 2019, 10, 9367-9373.	3.7	44
169	Vibrationally stateâ€selected reactions of ammonia ions. III. NH+3(v)+ND3 and ND+3(v)+NH3. Journal of Chemical Physics, 1987, 87, 3453-3460.	1.2	43
170	Molecular TennisFlat Smashes and Wicked Cuts. Accounts of Chemical Research, 2000, 33, 199-205.	7.6	43
171	Surface-imprinted polymers in microfluidic devices. Science China Chemistry, 2012, 55, 469-483.	4.2	43
172	The interaction of CO with Ni(111): Rainbows and rotational trapping. Journal of Chemical Physics, 1993, 98, 9134-9147.	1.2	42
173	BIOSENSORS IN CHEMICAL SEPARATIONS. Annual Review of Biophysics and Biomolecular Structure, 1998, 27, 165-198.	18.3	42
174	Angular Distributions for the Cl + C2H6â†' HCl + C2H5Reaction Observed via Multiphoton Ionization of the C2H5Radical. Journal of Physical Chemistry A, 1998, 102, 2270-2273.	1.1	42
175	Electrooxidation of Alcohols Catalyzed by Amino Alcohol Ligated Ruthenium Complexes. Journal of the American Chemical Society, 2013, 135, 14299-14305.	6.6	42
176	Electrically controlled drug release using pH-sensitive polymer films. Nanoscale, 2018, 10, 10087-10093.	2.8	42
177	Measurement of the HD(vâ€²=2,Jâ€²=3) product differential cross section for the H+D2 exchange reaction at 1.55Â±0.05â€ŠeV using the photoloc technique. Journal of Chemical Physics, 1999, 111, 1022-1034.	1.2	41
178	Seemingly Anomalous Angular Distributions in H + D ₂ Reactive Scattering. Science, 2012, 336, 1687-1690.	6.0	41
179	Observation of radiationless processes in a molecular beam. Journal of Chemical Physics, 1976, 64, 1242-1243.	1.2	40
180	Probing the dynamics of hydrogen recombination on Si(100). Journal of Chemical Physics, 1991, 95, 5482-5485.	1.2	39

#	Article	IF	Citations
181	Photolysis of ICl causes mass-dependent interference in the Cl(2P3/2) photofragment angular momentum distributions. Journal of Chemical Physics, 1998, 108, 8291-8294.	1.2	39
182	State-resolved differential and integral cross sections for the reaction H+D2â†'HD(vâ€²=3,jâ€²=0â€“7)+D at 1.64 eV collision energy. Journal of Chemical Physics, 2002, 116, 6634-6639.	1.2	39
183	Conductive Polymer Spray Ionization Mass Spectrometry for Biofluid Analysis. Analytical Chemistry, 2018, 90, 12878-12885.	3.2	39
184	Angular distribution of product internal states using laser fluorescence detection: The Ba+KCl reaction. Journal of Chemical Physics, 1976, 64, 2632.	1.2	38
185	Relationship between bipolar moments and molecule-frame polarization parameters in Doppler photofragment spectroscopy. Journal of Chemical Physics, 1999, 111, 8751-8754.	1.2	38
186	Microdroplets Accelerate Ring Opening of Epoxides. Journal of the American Society for Mass Spectrometry, 2018, 29, 1036-1043.	1.2	38
187	Identification of diagnostic metabolic signatures in clear cell renal cell carcinoma using mass spectrometry imaging. International Journal of Cancer, 2020, 147, 256-265.	2.3	38
188	UV photolysis of quinoline in interstellar ice analogs. Meteoritics and Planetary Science, 2006, 41, 785-796.	0.7	37
189	Trinuclear Pd₃O₂ Intermediate in Aerobic Oxidation Catalysis. Angewandte Chemie - International Edition, 2014, 53, 5648-5652.	7.2	37
190	Comparison of near-threshold reactivity of ground-state and spin-orbit excited chlorine atoms with methane. Journal of Chemical Physics, 2001, 115, 179-183.	1.2	36
191	Microdroplet fusion mass spectrometry: accelerated kinetics of acid-induced chlorophyll demetallation. Quarterly Reviews of Biophysics, 2017, 50, e2.	2.4	36
192	Photodissociation dynamics of triatomic molecules. Molecular Physics, 1983, 50, 49-63.	0.8	35
193	Rotational and vibrational effects in the Eâ€‰1Î£+gâ€“Xâ€‰1Î£+g twoâ€photon transitions of H2, HD, and D2. Journal of Chemical Physics, 1991, 95, 205-213.	1.2	35
194	Influence of vibrational excitation and collision energy on the ionâ€molecule reaction NH+3(Î½2)+ND3. Journal of Chemical Physics, 1994, 101, 3772-3786.	1.2	35
195	Novel method for the production of finely spaced Bradburyâ€“Nielson gates. Review of Scientific Instruments, 2001, 72, 4354-4357.	0.6	35
196	Optical preparation of H2 rovibrational levels with almost complete population transfer. Journal of Chemical Physics, 2013, 139, 074204.	1.2	35
197	Strong Concentration Enhancement of Molecules at the Interface of Aqueous Microdroplets. Journal of Physical Chemistry B, 2020, 124, 9938-9944.	1.2	35
198	Differential cross sections for H+D2â†'HD(vâ€²=1,â€ŠJâ€²=1,5,8)+D at 1.7 eV. Journal of Chemical Physics, 1999, 111, 1035-1042.	1.2	34

#	Article	IF	Citations
199	Distribution of Rovibrational Product States for the â€œPromptâ€•Reaction H + D2(v= 0,j= 0â^'4) â†' HD(vâ€˜ =) Tj ETQq1 1 0.78431	1.1	34
200	CHEMISTRY: Enhanced: Resonances in Reaction Dynamics. Science, 2006, 311, 1383-1385.	6.0	34
201	Quantum interference between Hâ€‰+â€‰D2 quasiclassical reaction mechanisms. Nature Chemistry, 2015, 7, 661-667.	6.6	34
202	Mechanistic analysis of a copper-catalyzed Câ€“H oxidative cyclization of carboxylic acids. Chemical Science, 2017, 8, 7003-7008.	3.7	34
203	1,4-Benzoquinone antimicrobial agents against Staphylococcus aureus and Mycobacterium tuberculosis derived from scorpion venom. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12642-12647.	3.3	34
204	Anatomy of an Elementary Chemical Reaction. Journal of Chemical Education, 1998, 75, 1105.	1.1	33
205	Rotational analysis of congested spectra: Application of population labeling to the BaI Câ€“X system. Journal of Chemical Physics, 1981, 75, 5575-5577.	1.2	32
206	Microdroplet Ultrafast Reactions Speed Antibody Characterization. Analytical Chemistry, 2021, 93, 3997-4005.	3.2	32
207	Analysis of underivatized amino acids by capillary electrophoresis using constant potential amperometric detection. Electrophoresis, 1995, 16, 493-497.	1.3	31
208	Molecularâ€•orbital decomposition of the ionization continuum for a diatomic molecule by angleâ€•and energyâ€•resolved photoelectron spectroscopy. II. Ionization continuum of NO. Journal of Chemical Physics, 1996, 104, 4568-4580.	1.2	31
209	Determination of differential-cross-section moments from polarization-dependent product velocity distributions of photoinitiated bimolecular reactions. Journal of Chemical Physics, 1997, 107, 9382-9391.	1.2	31
210	Separation of related opiate compounds using capillary electrochromatography. Electrophoresis, 2000, 21, 737-742.	1.3	31
211	Effect of sequence length, sequence frequency, and data acquisition rate on the performance of a Hadamard transform time-of-flight mass spectrometer. Journal of the American Society for Mass Spectrometry, 2001, 12, 1302-1311.	1.2	31
212	Cell-Type-Specific Metabolic Profiling Achieved by Combining Desorption Electrospray Ionization Mass Spectrometry Imaging and Immunofluorescence Staining. Analytical Chemistry, 2020, 92, 13281-13289.	3.2	31
213	HD (v = 1, j = 2, m) orientation controls HDâ€“He rotationally inelastic scattering near 1 K. Journal of Chemical Physics, 2019, 150, 174301.	1.2	30
214	Metabolite therapy guided by liquid biopsy proteomics delays retinal neurodegeneration. EBioMedicine, 2020, 52, 102636.	2.7	30
215	Mechanistic Insights into Two-Phase Radical Câ€“H Arylations. ACS Central Science, 2015, 1, 456-462.	5.3	29
216	Miniaturized Linear Wire Ion Trap Mass Analyzer. Analytical Chemistry, 2016, 88, 7800-7806.	3.2	29

#	Article	IF	Citations
217	Formation of Polymeric Nanocubes by Selfâ€Assembly and Crystallization of Dithiolaneâ€Containing Triblock Copolymers. Angewandte Chemie - International Edition, 2017, 56, 16357-16362.	7.2	29
218	Spatial localization of charged molecules by salt ions in oil-confined water microdroplets. Science Advances, 2020, 6, .	4.7	29
219	Adipocytes Provide Fatty Acids to Acute Lymphoblastic Leukemia Cells. Frontiers in Oncology, 2021, 11, 665763.	1.3	29
220	Dependence of diatomic photofragment fluorescence polarization on triatomic predissociation lifetime. Molecular Physics, 1981, 43, 1419-1428.	0.8	28
221	Photoionization dynamics of the NO Aâ€‰2Î£+ state deduced from energyâ€•and angleâ€resolved photoelectron spectroscopy. Journal of Chemical Physics, 1993, 99, 6537-6544.	1.2	28
222	Differential cross sections for H+D2â†'HD (vâ€²=2,â€ŠJâ€²=0,3,5)+D at 1.55 eV. Journal of Chemical Physics, 1999, 111, 2490-2498.	1.2	28
223	Mechanistic analysis of an asymmetric palladium-catalyzed conjugate addition of arylboronic acids to Î²-substituted cyclic enones. Chemical Science, 2015, 6, 1917-1922.	3.7	28
224	Chemoselective Nâ€Alkylation of Indoles in Aqueous Microdroplets. Angewandte Chemie, 2020, 132, 3093-3096.	1.6	28
225	Laser isotope separation using an intracavity absorption technique. Journal of Chemical Physics, 1975, 63, 5503-5505.	1.2	27
226	Quantum mechanical double slit for molecular scattering. Science, 2021, 374, 960-964.	6.0	27
227	Quantitative detection of hydrogen peroxide in rain, air, exhaled breath, and biological fluids by NMR spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	27
228	Coherent superposition of M-states in a single rovibrational level of H2 by Stark-induced adiabatic Raman passage. Journal of Chemical Physics, 2014, 140, 074201.	1.2	26
229	Cooperative catalysis by a single-atom enzyme-metal complex. Nature Communications, 2022, 13, 2189.	5.8	26
230	Fluorescence of the KH molecule. Journal of Chemical Physics, 1974, 60, 1182-1182.	1.2	25
231	Evidence for inhomogeneous broadening in vibrational overtone transitions: Formation of 1, 3â€cyclohexadiene from cisâ€1, 3, 5â€hexatriene. Journal of Chemical Physics, 1985, 82, 4791-4801.	1.2	25
232	Photodissociation of O2 via the Herzberg continuum: Measurements of O-atom alignment and orientation. Journal of Chemical Physics, 2003, 118, 10566-10574.	1.2	25
233	Direct Copper(III) Formation from O₂ and Copper(I) with Histamine Ligation. Journal of the American Chemical Society, 2016, 138, 9986-9995.	6.6	25
234	Impact of Laboratory-Induced Thermal Maturity on Asphaltene Molecular Structure. Energy & Fuels, 2016, 30, 7025-7036.	2.5	25

#	Article	IF	Citations
235	In Situ Mass Spectrometric Screening and Studying of the Fleeting Chain Propagation of Aniline. Analytical Chemistry, 2018, 90, 7154-7157.	3.2	25
236	Selective Synthesis in Microdroplets of 2â€Phenylâ€2,3â€dihydrophthalazineâ€1,4â€dione from Phenyl Hydrazine with Phthalic Anhydride or Phthalic Acid. Chemistry - A European Journal, 2019, 25, 1466-1471.	1.7	25
237	Spraying Small Water Droplets Acts as a Bacteriocide. QRB Discovery, 2020, 1, .	0.6	25
238	Reaction of chloroauric acid with histidine in microdroplets yields a catalytic Auâ€“(His)₂complex. Chemical Science, 2020, 11, 2558-2565.	3.7	25
239	Dynamics of kinematically constrained bimolecular reactions having constant product recoil energy. Journal of Chemical Physics, 1987, 86, 3968-3977.	1.2	24
240	Rotationally resolved photoelectron spectra from vibrational autoionization of NO Rydberg levels. Journal of Chemical Physics, 1997, 106, 2239-2247.	1.2	24
241	Visualizing Chemistry. Journal of Chemical Education, 2002, 79, 1290.	1.1	24
242	Construction and calibration of an instrument for three-dimensional ion imaging. Journal of Chemical Physics, 2006, 125, 133503.	1.2	24
243	Twoâ€Phase Reactions in Microdroplets without the Use of Phaseâ€Transfer Catalysts. Angewandte Chemie, 2017, 129, 3616-3619.	1.6	24
244	Polymerâ€spray mass spectrometric detection and quantitation of hydrophilic compounds and some narcotics. Rapid Communications in Mass Spectrometry, 2017, 31, 1651-1658.	0.7	24
245	Influence of Inlet Capillary Temperature on the Microdroplet Chemistry Studied by Mass Spectrometry. Journal of Physical Chemistry A, 2019, 123, 7704-7709.	1.1	24
246	Measurement of the cross section for H+D2â†'HD(vâ€²=3,jâ€²=0)+D as a function of angle and energy. Journal of Chemical Physics, 2003, 119, 4662-4670.	1.2	23
247	The Role of Abcb5 Alleles in Susceptibility to Haloperidol-Induced Toxicity in Mice and Humans. PLoS Medicine, 2015, 12, e1001782.	3.9	23
248	Scaffold-mediated BMP-2 minicircle DNA delivery accelerated bone repair in a mouse critical-size calvarial defect model. Journal of Biomedical Materials Research - Part A, 2016, 104, 2099-2107.	2.1	23
249	Nanotip Ambient Ionization Mass Spectrometry. Analytical Chemistry, 2016, 88, 5542-5548.	3.2	23
250	On-demand electrically controlled drug release from resorbable nanocomposite films. Nanoscale, 2017, 9, 16429-16436.	2.8	23
251	Ultra-low voltage triggered release of an anti-cancer drug from polypyrrole nanoparticles. Nanoscale, 2018, 10, 9773-9779.	2.8	23
252	Effect of indistinguishable nuclei on product rotational distributions: The H+HIâ†'H2+I reaction. Journal of Chemical Physics, 1989, 90, 4625-4627.	1.2	22

#	Article	IF	Citations
253	Polycyclic aromatic hydrocarbons in asteroid 2008 TC₃: Dispersion of organic compounds inside asteroids. Meteoritics and Planetary Science, 2010, 45, 1710-1717.	0.7	22
254	Preparation of a selected high vibrational energy level of isolated molecules. Journal of Chemical Physics, 2016, 145, 154203.	1.2	22
255	Combining Desorption Electrospray Ionization Mass Spectrometry Imaging and Machine Learning for Molecular Recognition of Myocardial Infarction. Analytical Chemistry, 2018, 90, 12198-12206.	3.2	22
256	Restricted intramolecular rotation of fluorescent molecular rotors at the periphery of aqueous microdroplets in oil. Scientific Reports, 2020, 10, 16859.	1.6	22
257	Electrocatalytic redox neutral [3 + 2] annulation of N-cyclopropylanilines and alkenes. Chemical Science, 2021, 12, 969-975.	3.7	22
258	Microdroplets can act as electrochemical cells. Journal of Chemical Physics, 2022, 156, 054705.	1.2	22
259	Construction of a shuttered timeâ€ofâ€flight mass spectrometer for selective ion detection. Review of Scientific Instruments, 1989, 60, 717-719.	0.6	21
260	Probing Excited Electronic States Using Vibrationally Mediated Photolysis:Â Application to Hydrogen Iodideâ€. Journal of Physical Chemistry A, 2004, 108, 7806-7813.	1.1	21
261	Two New Devices for Identifying Electrochemical Reaction Intermediates with Desorption Electrospray Ionization Mass Spectrometry. Analytical Chemistry, 2017, 89, 3191-3198.	3.2	21
262	Quantitative Determination of HD Internal State Distributions via (2+1) REMPI. Israel Journal of Chemistry, 1989, 29, 369-382.	1.0	20
263	Speciation and decomposition pathways of ruthenium catalysts used for selective Câ€“H hydroxylation. Chemical Science, 2014, 5, 3309-3314.	3.7	20
264	Mechanistic Study of Ruthenium-Catalyzed Câ€“H Hydroxylation Reveals an Unexpected Pathway for Catalyst Arrest. Journal of the American Chemical Society, 2019, 141, 972-980.	6.6	20
265	Potassium Trimethylsilanolate-Promoted, Anhydrous Suzukiâ€“Miyaura Cross-Coupling Reaction Proceeds via the â€œBoronate Mechanismâ€: Evidence for the Alternative Fork in the Trail. Journal of the American Chemical Society, 2022, 144, 4345-4364.	6.6	20
266	Microprobe two-step laser mass spectrometry as an analytical tool for meteoritic samples. Symposium - International Astronomical Union, 1997, 178, 305-320.	0.1	19
267	Patch Clamp Detection in Capillary Electrophoresis. Analytical Chemistry, 1997, 69, 3427-3434.	3.2	19
268	Peak Height Precision in Hadamard Transform Time-of-Flight Mass Spectra. Journal of the American Society for Mass Spectrometry, 2005, 16, 1117-1130.	1.2	19
269	Scattering kinematics: Transformation of differential cross sections between two moving frames. Journal of Chemical Physics, 1978, 69, 1737-1741.	1.2	18
270	Overtoneâ€induced isomerization of allyl isocyanide. Journal of Chemical Physics, 1988, 89, 5704-5714.	1.2	18

#	Article	IF	Citations
271	Experimental determination of the specific opacity function for the Ba+HIâ†'BaI(v=0)+H reaction. Journal of Chemical Physics, 1992, 96, 2786-2798.	1.2	18
272	Determination of absolute thermal rate constants for the charge-transfer reaction DBr+(2âˆ†,v+)+HBrâ†'HBr+(2âˆ†â€²,vâ€²+)+DBr. Journal of Chemical Physics, 1992, 96, 4293-4302.	1.2	18
273	Comparison of microprobe two-step laser desorption/laser ionization mass spectrometry and gas chromatography/ mass spectrometry studies of polycyclic aromatic hydrocarbons in ancient	1.2	18
274	Preparation of highly polarized nuclei: Observation and control of time-dependent polarization transfer from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">H</mml:mi><mmultiscripts><mml:mi mathvariant="normal">Cl</mml:mi><mprescripts /><none /><mml:mn>35</mml:mn></mmultiscripts></mml:mrow></mml:math>molecular rotation to<mml:	1.0	18
275	Communication: Transfer of more than half the population to a selected rovibrational state of H2 by Stark-induced adiabatic Raman passage. Journal of Chemical Physics, 2013, 138, 051101.	1.2	18
276	Differential Cross Sections for the H + D₂ â†' HD(vâ€² = 3, jâ€² = 4â€“10) + D Reaction above the Conical Intersection. Journal of Physical Chemistry A, 2015, 119, 12036-12042.	1.1	18
277	SU086, an inhibitor of HSP90, impairs glycolysis and represents a treatment strategy for advanced prostate cancer. Cell Reports Medicine, 2022, 3, 100502.	3.3	18
278	Monitoring Enzymatic Reactions in Real Time Using Venturi Easy Ambient Sonic-Spray Ionization Mass Spectrometry. Analytical Chemistry, 2016, 88, 6195-6198.	3.2	17
279	An Alkaloid from Scorpion Venom: Chemical Structure and Synthesis. Journal of Natural Products, 2018, 81, 1899-1904.	1.5	17
280	Teflon Spray Ionization Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2020, 31, 234-239.	1.2	17
281	Rotational assignment using phase relationships in opticalâ€“optical double resonance: The BaI Câ€‰2Îâ€“Xâ€‰2Î£+ system. Journal of Chemical Physics, 1985, 82, 4449-4459.	1.2	16
282	Desorption Electrospray Ionization: Achieving Rapid Sampling Rates. Analytical Chemistry, 2009, 81, 9035-9040.	3.2	16
283	Diamondosomes: Submicron Colloidosomes with Nanodiamond Shells. Particle and Particle Systems Characterization, 2014, 31, 1067-1071.	1.2	16
284	In situ DESI-MSI lipidomic profiles of mucosal margin of oral squamous cell carcinoma. EBioMedicine, 2021, 70, 103529.	2.7	16
285	SDHB knockout and succinate accumulation are insufficient for tumorigenesis but dual SDHB/NF1 loss yields SDHx-like pheochromocytomas. Cell Reports, 2022, 38, 110453.	2.9	16
286	Product internalâ€state distribution for the reaction H+HIâ†'H2+I. Journal of Chemical Physics, 1991, 95, 1663-1670.	1.2	15
287	Guided ion beam measurement of the product branching ratios for the ionâ€molecule reaction N++O2 as a function of collision energy. Journal of Chemical Physics, 1994, 101, 3763-3771.	1.2	15
288	Energy and angular momentum control of the specific opacity functions in the Ba+HIâ†'BaI+H reaction. Journal of Chemical Physics, 1996, 104, 7947-7964.	1.2	15

#	Article	IF	Citations
289	New Developments in Capillary Electrophoresis. Development and Improvement of Capillary Electrophoresis. Formation of a reverse parabolic flow profile with electroosmosis in capillary zone electrophoresis and the behavior of zone progress related to the application of a pulsed electric field.. Bunseki Kagaku, 1997, 46, 409-414.	0.1	15
290	Scattering of xenon from Ni(111): Collision-induced corrugation and energy transfer dynamics. Journal of Chemical Physics, 2000, 112, 1975-1983.	1.2	15
291	Correlated energy disposal and scattering dynamics of the Cl CD4(Î½3 = 2) reaction. Molecular Physics, 2005, 103, 1837-1846.	0.8	15
292	Search for Brâ^— production in the D+DBr reaction. Journal of Chemical Physics, 2010, 132, 084301.	1.2	15
293	Pomeranzâ€“Fritsch Synthesis of Isoquinoline: Gas-Phase Collisional Activation Opens Additional Reaction Pathways. Journal of the American Chemical Society, 2017, 139, 14352-14355.	6.6	15
294	Mechanistic Analysis of the Câ€“H Amination Reaction of Menthol by CuBr₂ and Selectfluor. Journal of Organic Chemistry, 2018, 83, 5681-5687.	1.7	15
295	Supersonic beams of mixed gases: A method for studying cold collisions. Chemical Physics, 2018, 514, 150-153.	0.9	15
296	Nonresonant Photons Catalyze Photodissociation of Phenol. Journal of the American Chemical Society, 2019, 141, 1067-1073.	6.6	15
297	Shape resonance determined from angular distribution in D2 (v = 2, j = 2) + He â†' D2 (v = 2, j = 0) + He cold scattering. Journal of Chemical Physics, 2021, 154, 104309.	1.2	15
298	ORIENTATION AND ALIGNMENT OF THE PRODUCTS OF BIMOLECULAR REACTIONS. Advanced Series in Physical Chemistry, 1996, , 936-1063.	1.5	15
299	Quasiclassical trajectory simulation of the kinematically constrained reaction Ba+HIâ†'BaI+H. Journal of Chemical Physics, 1992, 97, 6208-6214.	1.2	14
300	Differential cross sections for H + D₂â†' HD(vâ€² = 2, jâ€² = 0,3,6,9) + D at center-of-mass collision energies of 1.25, 1.61, and 1.97 eV. Physical Chemistry Chemical Physics, 2011, 13, 8175-8179.	1.3	14
301	The Hydrogen Games and Other Adventures in Chemistry. Annual Review of Physical Chemistry, 2013, 64, 1-19.	4.8	14
302	Multiple scattering mechanisms causing interference effects in the differential cross sections of H + D2 â†' HD(vâ€² = 4, â€‰jâ€²) + D at 3.26 eV collision energy. Journal of Chemical Physics, 2016, 145, 024308.	3.2	14
303	Proof of concept for identifying cystic fibrosis from perspiration samples. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24408-24412.	3.3	14
304	Effects of Weak Electrolytes on Electric Double Layer Ion Distributions. Journal of Physical Chemistry Letters, 2020, 11, 8302-8306.	2.1	14
305	Harnessing the Power of Adiabatic Curve Crossing to Populate the Highly Vibrationally Excited <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml		

#	Article	IF	Citations
307	Dynamics of recombinative desorption of H2 and D2 from Cu(110), Cu(111), and sulfurâ€covered Cu(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1985, 3, 1649-1654.	0.9	13
308	Reactions Ã la mode. Nature, 1993, 365, 105-106.	13.7	13
309	Glucose-Driven Fuel Cell Constructed from Enzymes and Filter Paper. Journal of Chemical Education, 2011, 88, 1283-1286.	1.1	13
310	Disagreement between theory and experiment grows with increasing rotational excitation of HD(vâ€², j â€²) product for the H + D2 reaction. Journal of Chemical Physics, 2013, 138, 094310.	1.2	13
311	Mechanistic Study of Isotactic Poly(propylene oxide) Synthesis using a Tethered Bimetallic Chromium Salen Catalyst. ACS Catalysis, 2020, 10, 8960-8967.	5.5	13
312	Capturing Reactive Carbanions by Microdroplets. Journal of the American Chemical Society, 2022, 144, 7573-7577.	6.6	13
313	Screening of Receptor Antagonists Using Agonist-Activated Patch Clamp Detection in Chemical Separations. Analytical Chemistry, 1998, 70, 2468-2474.	3.2	12
314	Protein Analysis by Ambient Ionization Mass Spectrometry Using Trypsin-Immobilized Organosiloxane Polymer Surfaces. Analytical Chemistry, 2015, 87, 12324-12330.	3.2	12
315	An ultrasonically powered implantable device for targeted drug delivery. , 2016, 2016, 541-544.		12
316	â€œOnâ€Dropletâ€•Chemistry: The Cycloaddition of Diethyl Azodicarboxylate and Quadricyclane. Angewandte Chemie, 2017, 129, 15279-15283.	1.6	12
317	Early detection of unilateral ureteral obstruction by desorption electrospray ionization mass spectrometry. Scientific Reports, 2019, 9, 11007.	1.6	12
318	Absolute Quantitation of Oxidizable Peptides by Coulometric Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2019, 30, 2398-2407.	1.2	12
319	Stark-induced adiabatic Raman passage examined through the preparation of D2 (v = 2, j =) Tj ETQq1 1 0.784314 rgBT	1.2	12
320	Effect of relative humidity on hydrogen peroxide production in water droplets. QRB Discovery, 2021, 2, .	0.6	12
321	Fluorescence polarization of a diatomic fragment following photodissociation of a triatomic precursor. Molecular Physics, 1990, 70, 1159-1162.	0.8	11
322	Can stimulated Raman pumping cause large population transfers in isolated molecules?. Journal of Chemical Physics, 2011, 135, 184202.	1.2	11
323	Angular and internal state distributions of H2+ generated by (2 + 1) resonance enhanced multiphoton ionization of H2 using time-of-flight mass spectrometry. Journal of Chemical Physics, 2016, 144, 214201.	1.2	11
324	Stark-induced adiabatic Raman ladder for preparing highly vibrationally excited quantum states of molecular hydrogen. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 144005.	0.6	11

#	Article	IF	Citations
325	Accelerated Oxidation of Organic Sulfides by Microdroplet Chemistry. Journal of Organic Chemistry, 2021, 86, 5011-5015.	1.7	11
326	Hydrogenâ€“Deuterium Exchange Desorption Electrospray Ionization Mass Spectrometry Visualizes an Acidic Tumor Microenvironment. Analytical Chemistry, 2021, 93, 10411-10417.	3.2	11
327	Anisotropic dynamics of resonant scattering between a pair of cold aligned diatoms. Nature Chemistry, 2022, 14, 658-663.	6.6	11
328	A lowâ€temperature source for the generation of uranium vapor. Journal of Chemical Physics, 1976, 64, 431-432.	1.2	10
329	Challenges of metagenomics and single-cell genomics approaches for exploring cyanobacterial diversity. Photosynthesis Research, 2015, 126, 135-146.	1.6	10
330	Location of carbonâ€“carbon double bonds in unsaturated lipids using microdroplet mass spectrometry. Analyst, The, 2021, 146, 2550-2558.	1.7	10
331	Laser Ablation Electrospray Ionization Achieves 5 Î¼m Resolution Using a Microlensed Fiber. Analytical Chemistry, 2022, 94, 10278-10282.	3.2	10
332	Numerical computation of 9-jsymbols. Molecular Physics, 1988, 65, 1263-1268.	0.8	9
333	TWO-STEP LASER MASS SPECTROMETRY. Advances in Multi-photon Processes and Spectroscopy, 1991, , 1-167.	0.6	9
334	N2 Product Internal-State Distributions for the Steady-State Reactions of NO with H2 and NH3 on the Pt(100) Surface. Journal of Physical Chemistry B, 2001, 105, 8725-8728.	1.2	9
335	Trinuclear Pd₃O₂ Intermediate in Aerobic Oxidation Catalysis. Angewandte Chemie, 2014, 126, 5754-5758.	1.6	9
336	Stark-Induced Adiabatic Passage Processes to Selectively Prepare Vibrationally Excited Single and Superposition of Quantum States. , 2018, , 1-46.		9
337	Real-time mass-spectrometric screening of droplet-scale electrochemical reactions. Analyst, The, 2018, 143, 4247-4250.	1.7	9
338	Photon catalysis of deuterium iodide photodissociation. Physical Chemistry Chemical Physics, 2019, 21, 14195-14204.	1.3	9
339	The CM carbonaceous chondrite regolith Diepenveen. Meteoritics and Planetary Science, 2019, 54, 1431-1461.	0.7	9
340	Coulometryâ€assisted quantitation in spray ionization mass spectrometry. Journal of Mass Spectrometry, 2021, 56, e4628.	0.7	9
341	Distinguishing between Isobaric Ions Using Microdroplet Hydrogenâ€“Deuterium Exchange Mass Spectrometry. Metabolites, 2021, 11, 728.	1.3	9
342	Insights into electrochemiluminescence dynamics by synchronizing real-time electrical, luminescence, and mass spectrometric measurements. Chemical Science, 2022, 13, 6244-6253.	3.7	9

#	Article	IF	Citations
343	Where's the Chemistry in Science Museums?. Journal of Chemical Education, 1996, 73, A198.	1.1	8
344	Design and characterization of a late-mixing pulsed nozzle. Review of Scientific Instruments, 2004, 75, 556-558.	0.6	8
345	Simultaneous Measurement of Reactive and Inelastic Scattering: Differential Cross Section of the Hâ€¯+â€¯HDâ€¯â†’â€¯HD(vâ€²,â€¯jâ€²)â€¯+â€¯H Reaction. Zeitschrift Fur Physikalische Chemie, 2013, 227, .	1.4	8
346	Big cohort metabolomic profiling of serum for oral squamous cell carcinoma screening and diagnosis. Natural Sciences, 2022, 2, .	1.0	8
347	Introducing Nafion for In Situ Desalting and Biofluid Profiling in Spray Mass Spectrometry. Frontiers in Chemistry, 2021, 9, 807244.	1.8	8
348	Capture of Hydroxyl Radicals by Hydronium Cations in Water Microdroplets. Angewandte Chemie, 2022, 134, .	1.6	8
349	Effect of intensity on fragment internal state distributions in the infrared multiphoton dissociation of vinyl cyanide. Journal of Chemical Physics, 1982, 76, 2390-2398.	1.2	7
350	Vibrational and Translational Energy Effects in the Reaction of Ammonia Ions with Water Molecules. Journal of Physical Chemistry A, 1998, 102, 9593-9598.	1.1	7
351	Reaction of state-selected ammonia ions with methane. Journal of Chemical Physics, 1999, 111, 2507-2512.	1.2	7
352	On the Love of Teaching and the Challenge of Online Learning: A Few Reflections. Journal of Chemical Education, 2000, 77, 1106.	1.1	7
353	Capillary electrophoresis separation and native laser-induced fluorescence detection of metallotexaphyrins. Journal of Separation Science, 2002, 25, 819-824.	1.3	7
354	Formation of Polymeric Nanocubes by Selfâ€Assembly and Crystallization of Dithiolaneâ€Containing Triblock Copolymers. Angewandte Chemie, 2017, 129, 16575-16580.	1.6	7
355	Strong, Nonresonant Radiation Enhances Cisâ€“Trans Photoisomerization of Stilbene in Solution. Journal of Physical Chemistry A, 2020, 124, 5999-6008.	1.1	7
356	Laser Fluorometric Determination of Aflatoxin B1 in Corn. Journal of the Association of Official Analytical Chemists, 1979, 62, 564-569.	0.2	6
357	Application of Ion Chromatography to the Investigation of Real-World Samples. Journal of Chemical Education, 2004, 81, 1299.	1.1	6
358	Nanoparticles decorated with granulocyte-colony stimulating factor for targeting myeloid cells. Nanoscale, 2020, 12, 2752-2763.	2.8	6
359	On-Column Radioisotope Detection for Capillary Electrophoresis. ACS Symposium Series, 1990, , 60-89.	0.5	5
360	Microprobe laser mass spectrometry studies of polycyclic aromatic hydrocarbon distributions on harbor sediments and coals. Israel Journal of Chemistry, 2001, 41, 105-110.	1.0	5

#	Article	IF	Citations
361	A Study of Heterogeneous Catalysis by Nanoparticleâ€Embedded Paperâ€Spray Ionization Mass Spectrometry. Angewandte Chemie, 2016, 128, 12999-13003.	1.6	5
362	Peptide and protein assays using customizable bio-affinity arrays combined with ambient ionization mass spectrometry. Chemical Science, 2021, 12, 10810-10816.	3.7	5
363	Ultrafast enzymatic digestion of deoxyribonucleic acid in aqueous microdroplets for sequence discrimination and identification. QRB Discovery, 2021, 2, e4.	0.6	5
364	Effect of Relative Humidity in Air on the Transmission of Respiratory Viruses. Molecular Frontiers Journal, 2021, 05, 5-16.	0.9	5
365	The perils of machine learning in designing new chemicals and materials. Nature Machine Intelligence, 2022, 4, 314-315.	8.3	5
366	Strange Fizzical Attraction. 2004 James Flack Norris Award, sponsored by the Northeastern Section of the ACS. Journal of Chemical Education, 2005, 82, 673.	1.1	4
367	Why some pool shots are more difficult than others. Resonance, 2014, 19, 116-122.	0.2	4
368	Upgrading Asphaltenes by Oil Droplets Striking a Charged TiO2-Immobilized Paper Surface. Energy & Fuels, 2017, 31, 12685-12690.	2.5	4
369	Quantum interference in chemical reactions. Physics Today, 2018, 71, 70-71.	0.3	4
370	A Bi-Axial Quantum State That Controls Molecular Collisions Like a Double-Slit Interferometer. Frontiers in Physics, 2021, 9, .	1.0	4
371	MassExplorer: a computational tool for analyzing desorption electrospray ionization mass spectrometry data. Bioinformatics, 2021, 37, 3688-3690.	1.8	4
372	Polymer substrate with surface solvent reservoir for polymer-spray mass spectrometric analysis of hydrophilic drugs. Talanta Open, 2021, 4, 100048.	1.7	4
373	Thermal and Catalytic Decomposition of 2-Hydroxyethylhydrazine and 2-Hydroxyethylhydrazinium Nitrate Ionic Liquid. Journal of Physical Chemistry A, 2022, 126, 373-394.	1.1	4
374	Optimizing Coaxial Sonic Spray Geometry for Generating Water Microdroplets. Analytical Chemistry, 2022, 94, 3762-3766.	3.2	4
375	Coherent Preparation of Highly Vibrating and Rotating D₂ Molecules. Journal of Physical Chemistry Letters, 0, , 4682-4687.	2.1	4
376	Effect of pulse intensity distributions on fragment internal energy in the infrared multiphoton dissociation of vinyl cyanide. Journal of Chemical Physics, 1982, 77, 2895-2901.	1.2	3
377	Field programming to achieve uniform sensitivity for on-line detection in electrophoresis. Electrophoresis, 1994, 15, 225-227.	1.3	3
378	Determination of Photodestruction Quantum Yields Using Capillary Electro-Phoresis: Application too-Phthalalde-Hyde/Î²-Mercaptoethanol-Labeled Amino Acids. Journal of Liquid Chromatography and Related Technologies, 1995, 18, 3833-3846.	0.9	3

#	Article	IF	Citations
379	Measurement of the rotational distribution for the OD product from the reaction ND3++D2Oâ†'ND4++OD under translationally thermal conditions. Journal of Chemical Physics, 1997, 107, 772-778.	1.2	3
380	Spinning molecules to bits. Nature, 2000, 407, 33-34.	13.7	3
381	Vibrational and collisional energy effects in the reaction of ammonia ions with methylamine. Journal of Chemical Physics, 2001, 115, 124-132.	1.2	3
382	Irradiation of Dye-Doped Microspheres with a Strongly Focused Laser Beam Results in Alignment upon Optical Trapping. Nano Letters, 2002, 2, 207-210.	4.5	3
383	Performance of chemically modified plastic blood collection tubes. Clinical Biochemistry, 2016, 49, 90-99.	0.8	3
384	What Role Does the Electric Double Layer Play in Redox Reactions at Planar Electrostatically Charged Insulating Surfaces?. Topics in Catalysis, 0, , 1.	1.3	3
385	No More Pencils, No More Books. Journal of Chemical Education, 2009, 86, 142.	1.1	2
386	American Universities at Risk. Angewandte Chemie - International Edition, 2013, 52, 112-113.	7.2	2
387	Carl Djerassi (1923-2015). Angewandte Chemie - International Edition, 2015, 54, 5001-5002.	7.2	2
388	HYDROGEN RECOMBINATIVE DESORPTION DYNAMICS. Advanced Series in Physical Chemistry, 1995, , 977-1043.	1.5	2
389	Softening of fused-silica capillaries during particle packing. Electrophoresis, 2000, 21, 1430-1431.	1.3	1
390	Questions to Chemical Educators from the Chemistry Community. ACS Symposium Series, 2008, , 11-18.	0.5	1
391	Reaction dynamics: concluding remarks. Faraday Discussions, 2012, 157, 501.	1.6	1
392	Better Practices in Scientific Publishing. Angewandte Chemie - International Edition, 2016, 55, 2606-2607.	7.2	1
393	Making Materials That Hate Water to Love Water: The Transformative Power of Chemistry. Molecular Frontiers Journal, 2017, 01, 10-15.	0.9	1
394	Spraying Model PAHs on a Charged TiO2 Surface for High-Efficiency Degradation. Energy & Fuels, 2020, 34, 4289-4295.	2.5	1
395	Detection of Concealed Explosive. Science, 1990, 248, 1471-1472.	6.0	1
396	Detection of Concealed Explosive. Science, 1990, 248, 1471-1472.	6.0	1

#	Article	IF	Citations
397	Cell-Based Ambient Venturi Autosampling and Matrix-Assisted Laser Desorption Ionization Mass Spectrometric Imaging of Secretory Products. Analytical Chemistry, 2022, 94, 3456-3466.	3.2	1
398	Collaborative Research: The Good, the Bad, and the Beautiful. ACS Symposium Series, 2007, , 259-270.	0.5	0
399	Charting a Course for Chemistry Education. Journal of Chemical Education, 2009, 86, 145.	1.1	0
400	Why Help a Growing Scientific Giant?. Angewandte Chemie, 2011, 123, 8352-8353.	1.6	0
401	Dâ€‰+â€‰C(CH3)4â€‰â†'â€‰HD (vâ€‰â€²,â€‰jâ€‰â€²)â€‰+â€‰C(CH3)3CH2: possible concerted flow of vibration energy Molecular Physics, 2012, 110, 1713-1720.	0.8	0
402	Wissenschaftliches Publizieren â€“ neue Ideen fÃ¼r ein faires System. Angewandte Chemie, 2016, 128, 2652-2653.	1.6	0
403	Fall and rise of a D2O ice cube in liquid H2O. Resonance, 2016, 21, 453-456.	0.2	0
404	Making Materials That Hate Water to Love Water: The Transformative Power of Chemistry. , 2019, , 269-281.		0
405	Effect of Relative Humidity on Hydrogen Peroxide Production in Water Droplets â€“ CORRIGENDUM. QRB Discovery, 2021, 2, .	0.6	0
406	CONCENTRATION GRADIENTS INSIDE MICRODROPLETS. International Conference on Miniaterized Systems for Chemistry and Life Sciences [proceedings], 2020, 2020, 212-213.	0.0	0
407	Azapodophyllotoxin Causes Lymphoma and Kidney Cancer Regression by Disrupting Tubulin and Monoglycerols. ACS Medicinal Chemistry Letters, 2022, 13, 615-622.	1.3	0