

Jesse Beauchamp

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1839718/jesse-beauchamp-publications-by-citations.pdf>
Version: 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

217 papers	11,619 citations	59 h-index	94 g-index
328 ext. papers	12,275 ext. citations	11.5 avg, IF	5.96 L-index

#	Paper	IF	Citations
217	Transition metal-hydrogen and metal-carbon bond strengths: the keys to catalysis. <i>Chemical Reviews</i> , 1990 , 90, 629-688	68.1	640
216	Particle phase acidity and oligomer formation in secondary organic aerosol. <i>Environmental Science & Technology</i> , 2004 , 38, 6582-9	10.3	323
215	Ion Cyclotron Resonance Spectroscopy. <i>Annual Review of Physical Chemistry</i> , 1971 , 22, 527-561	15.7	323
214	Deuterium Exchange Reactions as a Probe of Biomolecule Structure. Fundamental Studies of Gas Phase H/D Exchange Reactions of Protonated Glycine Oligomers with D ₂ O, CD ₃ OD, CD ₃ CO ₂ D, and ND ₃ . <i>Journal of the American Chemical Society</i> , 1995 , 117, 12840-12854	16.4	303
213	The chemistry of atomic transition-metal ions: insight into fundamental aspects of organometallic chemistry. <i>Accounts of Chemical Research</i> , 1989 , 22, 315-321	24.3	286
212	Gas phase basicities and relative proton affinities of compounds between water and ammonia from pulsed ion cyclotron resonance thermal equilibria measurements. <i>Journal of the American Chemical Society</i> , 1977 , 99, 5417-5429	16.4	203
211	Binding of lithium(1+) ion to Lewis bases in the gas phase. Reversals in methyl substituent effects for different reference acids. <i>Journal of the American Chemical Society</i> , 1978 , 100, 501-508	16.4	195
210	Intrinsic acid-base properties of molecules. Binding energies of lithium(1+) ion to .pi.- and n-donor bases. <i>Journal of the American Chemical Society</i> , 1975 , 97, 5920-5921	16.4	175
209	Multiphoton dissociation of molecules with low power continuous wave infrared laser radiation. <i>Journal of the American Chemical Society</i> , 1978 , 100, 3248-3250	16.4	173
208	Photoelectron spectroscopy of methyl, ethyl, isopropyl, and tert-butyl radicals. Implications for the thermochemistry and structures of the radicals and their corresponding carbonium ions. <i>Journal of the American Chemical Society</i> , 1979 , 101, 4067-4074	16.4	172
207	Droplet Evaporation and Discharge Dynamics in Electrospray Ionization. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 9957-9967	2.8	167
206	Freeze-Dried Biomolecules: FT-ICR Studies of the Specific Solvation of Functional Groups and Clathrate Formation Observed by the Slow Evaporation of Water from Hydrated Peptides and Model Compounds in the Gas Phase. <i>Journal of the American Chemical Society</i> , 1998 , 120, 11758-11765	16.4	155
205	Salt Bridge Chemistry Applied to Gas-Phase Peptide Sequencing: Selective Fragmentation of Sodiated Gas-Phase Peptide Ions Adjacent to Aspartic Acid Residues. <i>Journal of the American Chemical Society</i> , 1998 , 120, 3188-3195	16.4	150
204	Reaction of Cr ⁺ , Mn ⁺ , Fe ⁺ , Co ⁺ , and Ni ⁺ with O ₂ and N ₂ O. Examination of the translational energy dependence of the cross sections of endothermic reactions. <i>Journal of Chemical Physics</i> , 1982 , 76, 2449-2457	3.0	134
203	Dynamics of field-induced droplet ionization: time-resolved studies of distortion, jetting, and progeny formation from charged and neutral methanol droplets exposed to strong electric fields. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 8244-50	3.4	133
202	Kinetic energy release distributions as a probe of transition-metal-mediated hydrogen-hydrogen, carbon-hydrogen, and carbon-carbon bond formation processes: reactions of cobalt and nickel ions with alkanes. <i>Journal of the American Chemical Society</i> , 1988 , 110, 1-14	16.4	119
201	Nanocrystalline Aggregation of Serine Detected by Electrospray Ionization Mass Spectrometry: Origin of the Stable Homochiral Gas-Phase Serine Octamer. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 1219-1228	3.4	118

200	Bioconjugates for tunable peptide fragmentation: free radical initiated peptide sequencing (FRIPS). <i>Journal of the American Chemical Society</i> , 2005 , 127, 12436-7	16.4	117
199	Thermochemical properties and ion-molecule reactions of the alkyl halides in the gas phase by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1972 , 94, 2798-2807	16.4	116
198	Periodic trends in transition metal-hydrogen, metal-carbon, and metal-oxygen bond dissociation energies. Correlation with reactivity and electronic structure. <i>Journal of the American Chemical Society</i> , 1981 , 103, 6501-6502	16.4	112
197	A Versatile Trapped Ion Cell for Ion Cyclotron Resonance Spectroscopy. <i>Review of Scientific Instruments</i> , 1972 , 43, 509-512	1.7	112
196	Detection and investigation of allyl and benzyl radicals by photoelectron spectroscopy. <i>Journal of the American Chemical Society</i> , 1978 , 100, 3290-3294	16.4	110
195	Salt bridge stabilization of charged zwitterionic arginine aggregates in the gas phase. <i>Journal of the American Chemical Society</i> , 2001 , 123, 3577-83	16.4	107
194	Ion-Cyclotron Double Resonance. <i>Journal of Chemical Physics</i> , 1966 , 45, 1062-1063	3.9	107
193	Theory of Collision-Broadened Ion Cyclotron Resonance Spectra. <i>Journal of Chemical Physics</i> , 1967 , 46, 1231-1243	3.9	98
192	Ion beam studies of the reactions of atomic cobalt ions with alkanes: determination of metal-hydrogen and metal-carbon bond energies and an examination of the mechanism by which transition metals cleave carbon-carbon bonds. <i>Journal of the American Chemical Society</i> , 1981 , 103, 784-791	16.4	97
191	An Ion Ejection Technique for the Study of Ion-Molecule Reactions with Ion Cyclotron Resonance Spectroscopy. <i>Review of Scientific Instruments</i> , 1969 , 40, 123-128	1.7	97
190	Gas-phase ion chemistry of fluoromethanes by ion cyclotron resonance spectroscopy. New techniques for the determination of carbonium ion stabilities. <i>Journal of the American Chemical Society</i> , 1974 , 96, 1269-1278	16.4	94
189	Proton Affinities of H ₂ S and H ₂ O. <i>Journal of Chemical Physics</i> , 1968 , 48, 1783-1789	3.9	93
188	Complete thermodynamic analysis of the anomalous order of amine basicities in solution. <i>Journal of the American Chemical Society</i> , 1972 , 94, 4724-4726	16.4	92
187	Transition-metal ion mediated carbon-hydrogen and carbon-carbon bond activation of alkanes: dynamical coupling between entrance and exit channel transition states. <i>Journal of the American Chemical Society</i> , 1991 , 113, 2359-2369	16.4	88
186	Structural and Energetic Constraints on Gas Phase Hydrogen/Deuterium Exchange Reactions of Protonated Peptides with D ₂ O, CD ₃ OD, CD ₃ CO ₂ D, and ND ₃ . <i>Journal of the American Chemical Society</i> , 1994 , 116, 9765-9766	16.4	87
185	Determination of the metal-hydrogen and metal-methyl bond dissociation energies of the second-row, Group 8 transition metal cations. <i>Journal of the American Chemical Society</i> , 1984 , 106, 4403-4411	16.4	86
184	Hydrocarbon activation by gas-phase lanthanide cations: interaction of praseodymium (Pr ⁺), europium (Eu ⁺), and gadolinium (Gd ⁺) with small alkanes, cycloalkanes, and alkenes. <i>Journal of the American Chemical Society</i> , 1988 , 110, 15-24	16.4	85
183	Gas-phase studies of alkene oxidation by transition-metal oxides. Ion-beam studies of CrO ⁺ . <i>Journal of the American Chemical Society</i> , 1986 , 108, 5663-8	16.4	82

- 182 Theoretical studies of transition-metal hydrides. 1. Bond energies for MH^+ with $M = Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu,$ and Zn . *Journal of the American Chemical Society*, **1986**, 108, 582-584 16.4 81
- 181 Molecular activation with low-intensity CW infrared laser radiation. Multiphoton dissociation of ions derived from diethyl ether. *Journal of the American Chemical Society*, **1979**, 101, 5503-5512 16.4 79
- 180 Sequential deuterium exchange reactions of protonated benzenes with water- d_2 in the gas phase by ion cyclotron resonance spectroscopy. *Journal of the American Chemical Society*, **1975**, 97, 6893-6894 16.4 79
- 179 Carbenium ion stabilities in the gas phase and solution. An ion cyclotron resonance study of bromide transfer reactions involving alkali ions, alkyl carbenium ions, acyl cations, and cyclic halonium ions. *Journal of the American Chemical Society*, **1977**, 99, 5964-5972 16.4 78
- 178 Acid-base properties of molecules in excited electronic states utilizing ion cyclotron resonance spectroscopy. *Journal of the American Chemical Society*, **1977**, 99, 3214-3225 16.4 76
- 177 Ion cyclotron resonance of olefins. I. Study of the ion-molecule reactions in electron-impacted ethylene. *The Journal of Physical Chemistry*, **1968**, 72, 3599-3612 75
- 176 Cooperative Salt Bridge Stabilization of Gas-Phase Zwitterions in Neutral Arginine Clusters. *Journal of Physical Chemistry A*, **2002**, 106, 32-34 2.8 73
- 175 Low-Energy Dissociation Pathways of Small Deprotonated Peptides in the Gas Phase. *Journal of the American Chemical Society*, **1994**, 116, 7787-7796 16.4 73
- 174 Gas-phase basicities and pyridine substituent effects. *Journal of the American Chemical Society*, **1972**, 94, 1369-1370 16.4 72
- 173 Activation of carbon-hydrogen and carbon-carbon bonds by transition-metal ions in the gas phase. Exhibition of unique reactivity by scandium ions. *Journal of the American Chemical Society*, **1984**, 106, 8117-8122 16.4 71
- 172 Photoelectron spectroscopy of 1-propyl, 1-butyl, isobutyl, neopentyl, and 2-butyl radicals: free radical precursors to high-energy carbonium ion isomers. *Journal of the American Chemical Society*, **1984**, 106, 3917-3927 16.4 71
- 171 Energetics and structure of the 1- and 2-adamantyl radicals and their corresponding carbonium ions by photoelectron spectroscopy. *Journal of the American Chemical Society*, **1986**, 108, 2162-9 16.4 69
- 170 Stabilities of isomeric halonium ions $C_2H_4X^+$ ($X = \text{chlorine, bromine}$) by photoionization mass spectrometry and ion cyclotron resonance spectroscopy. General considerations of the relative stabilities of cyclic and acyclic isomeric onium ions. *Journal of the American Chemical Society*, **1979**, 101, 1239-1248 16.4 69
- 169 Gas-phase synthesis of charged copper and silver Fischer carbenes from diazomalonates: mechanistic and conformational considerations in metal-mediated wolff rearrangements. *Journal of the American Chemical Society*, **2003**, 125, 4478-86 16.4 68
- 168 Field-Induced Droplet Ionization Mass Spectrometry. *Journal of Physical Chemistry B*, **2003**, 107, 14161-14163 16.4 67
- 167 Selective Binding of Crown Ethers to Protonated Peptides Can Be Used To Probe Mechanisms of H/D Exchange and Collision-Induced Dissociation Reactions in the Gas Phase. *Journal of the American Chemical Society*, **1998**, 120, 5800-5805 16.4 67
- 166 Gas-phase ion chemistry of iron pentacarbonyl by ion cyclotron resonance spectroscopy. New insights into the properties and reactions of transition metal complexes in the absence of complicating solvation phenomena. *Journal of the American Chemical Society*, **1975**, 97, 4808-4814 16.4 67
- 165 Endothermic reactions of uranium ions with N_2 , D_2 , and CD_4 . *Journal of Chemical Physics*, **1977**, 66, 4683-4688 16.4 67

164	Probing the mechanism of electron capture and electron transfer dissociation using tags with variable electron affinity. <i>Journal of the American Chemical Society</i> , 2009 , 131, 5444-59	16.4	66
163	Application of alkali ions in chemical ionization mass spectrometry. <i>Analytical Chemistry</i> , 1976 , 48, 825-828	7.8	64
162	Experimental and theoretical investigation into the correlation between mass and ion mobility for choline and other ammonium cations in N ₂ . <i>Analytical Chemistry</i> , 2008 , 80, 1928-36	7.8	62
161	Activation of carbon-hydrogen and carbon-carbon bonds in alkanes by first-row Group VIII atomic transition-metal ions in the gas-phase. Mechanistic details from a study of deuterium and ¹³ C-labeled hydrocarbons. <i>Organometallics</i> , 1983 , 2, 1818-1829	3.8	61
160	Methyl substituent effects in protonated aliphatic amines and their radical cations. <i>Journal of the American Chemical Society</i> , 1972 , 94, 4728-4729	16.4	60
159	Activation of alkanes by ruthenium, rhodium, and palladium ions in the gas phase: striking differences in reactivity of first- and second-row metal ions. <i>Journal of the American Chemical Society</i> , 1986 , 108, 5675-83	16.4	59
158	Reactions of alkali ions with organic molecules in the gas phase. Low energy pathways for carbonium ion formation and novel methods for generating alkali ion complexes with π - and n-donor bases. <i>Journal of the American Chemical Society</i> , 1975 , 97, 924-926	16.4	59
157	Solvent effects of water and fluorosulfuric acid on proton transfer equilibria and the energies of solvation of gaseous onium ions. <i>Journal of the American Chemical Society</i> , 1978 , 100, 1240-1249	16.4	59
156	Evaporation and discharge dynamics of highly charged multicomponent droplets generated by electrospray ionization. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 1411-9	2.8	57
155	Carbon-hydrogen bond activation as the initial step in the Co ⁺ -mediated demethanation of propane: the critical role of angular momentum at the rate-limiting transition state. <i>Journal of the American Chemical Society</i> , 1990 , 112, 5663-5665	16.4	57
154	Spontaneous chiral separation in noncovalent molecular clusters. <i>Chirality</i> , 2001 , 13, 703-6	2.1	56
153	Cobalt carbene ion: Reactions of Co ⁺ with C ₂ H ₄ , cyclo-C ₃ H ₆ , and cyclo-C ₂ H ₄ O. <i>Journal of Chemical Physics</i> , 1981 , 74, 2819-2826	3.9	56
152	Formation of chromium carbene ions by reaction of electronically excited chromium ions with methane in the gas phase. <i>Journal of the American Chemical Society</i> , 1981 , 103, 962-963	16.4	54
151	Quantitative metal-ligand bond dissociation energies in the gas phase by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1976 , 98, 3998-4000	16.4	54
150	Ion cyclotron resonance studies of endothermic reactions of UFB ⁺ generated by surface ionization. <i>Journal of Chemical Physics</i> , 1976 , 64, 929-935	3.9	54
149	Theoretical studies of transition-metal hydrides. 3. SrH ⁺ through CdH ⁺ . <i>Journal of the American Chemical Society</i> , 1987 , 109, 5565-5573	16.4	53
148	Probing interfacial chemistry of single droplets with field-induced droplet ionization mass spectrometry: physical adsorption of polycyclic aromatic hydrocarbons and ozonolysis of oleic acid and related compounds. <i>Analytical Chemistry</i> , 2006 , 78, 3800-6	7.8	52
147	Evaporation and discharge dynamics of highly charged droplets of heptane, octane, and p-xylene generated by electrospray ionization. <i>Analytical Chemistry</i> , 2002 , 74, 6291-7	7.8	51

- 146 Gas-phase studies of alkane oxidation by transition-metal oxides. Selective oxidation by CrO^+ . *Journal of the American Chemical Society*, **1986**, 108, 7502-9 16.4 51
- 145 Competition between proton transfer and elimination in the reactions of strong bases with fluoroethanes in the gas phase. Influence of base strength on reactivity. *Journal of the American Chemical Society*, **1976**, 98, 1160-1165 16.4 51
- 144 Cholesterol provides nonsacrificial protection of membrane lipids from chemical damage at air-water interface. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 3255-3260 11.5 50
- 143 Determination of Ion Transit Times in an Ion Cyclotron Resonance Spectrometer. *Review of Scientific Instruments*, **1971**, 42, 1632-1638 1.7 49
- 142 Properties and reactions of organometallic fragments in the gas phase. Ion beam studies of hydridoiron(1+) ion. *Journal of the American Chemical Society*, **1984**, 106, 2543-2549 16.4 48
- 141 Properties and reactions of ketene in the gas phase by ion cyclotron resonance spectroscopy and photoionization mass spectrometry. Proton affinity, site specificity of protonation, and heat of formation of ketene. *Journal of the American Chemical Society*, **1978**, 100, 3478-3483 16.4 47
- 140 Potential of ion cyclotron resonance spectroscopy for the study of the intrinsic properties and reactivity of transition metal complexes in the gas phase. Ion-molecule reactions of iron pentacarbonyl. *Journal of the American Chemical Society*, **1971**, 93, 4924-4926 16.4 47
- 139 Properties and reactions of manganese methylene complexes in the gas phase. The importance of strong metal-carbene bonds for effective olefin metathesis catalysts. *Journal of the American Chemical Society*, **1979**, 101, 6449-6450 16.4 46
- 138 Ion cyclotron resonance studies of radiative and dissociative electron attachment processes at low pressures. *Journal of Chemical Physics*, **1980**, 72, 4223-4227 3.9 46
- 137 Nickel ions effect a highly specific 1,4-dehydrogenation of hydrocarbons in the gas phase: metallacycles are not involved. *Journal of the American Chemical Society*, **1982**, 104, 6293-6297 16.4 46
- 136 Nucleophilic attack protonated oxiranes in the gas phase. Identification of the $\text{C}_2\text{H}_5\text{O}^+$ isomeric ion corresponding to protonated ethylene oxide. *Journal of the American Chemical Society*, **1974**, 96, 1260-1264 16.4 46
- 135 Ion-molecule reactions of 2-butanol by ion cyclotron resonance spectroscopy. *Journal of the American Chemical Society*, **1972**, 94, 2638-2646 16.4 46
- 134 Biomimetic reagents for the selective free radical and acid-base chemistry of glycans: application to glycan structure determination by mass spectrometry. *Journal of the American Chemical Society*, **2013**, 135, 10684-92 16.4 45
- 133 Proton Affinities and Photoelectron Spectra of Phenylalanine and N-Methyl- and N,N-Dimethylphenylalanine. Correlation of Lone Pair Ionization Energies with Proton Affinities and Implications for N-Methylation as a Method to Effect Site Specific Protonation of Peptides. *Journal of the American Chemical Society*, **1994**, 116, 5257-5264 16.4 45
- 132 What is wrong with gas-phase chromium? A comparison of the unreactive chromium(1+) cation with the alkane-activating molybdenum cation. *Organometallics*, **1988**, 7, 194-199 3.8 45
- 131 Ion beam studies of organometallic chemistry. High energy "sampling" of reaction intermediates involved in carbon-carbon bond cleavage by transition metals. *Journal of the American Chemical Society*, **1980**, 102, 1736-1738 16.4 45
- 130 Photoionization and ion cyclotron resonance studies of the reaction $\text{C}_2\text{H}_4^+ + \text{C}_2\text{H}_4 \rightarrow \text{C}_3\text{H}_5^+ + \text{CH}_3$. *Journal of Chemical Physics*, **1975**, 62, 1623-1631 3.9 45
- 129 Photochemistry of organic ions in the gas phase. Comparison of the gas phase photodissociation and solution absorption spectra of benzoyl cation, protonated benzene, and protonated mesitylene. *Journal of the American Chemical Society*, **1976**, 98, 3136-3139 16.4 45

128	Interfacial reactions of ozone with surfactant protein B in a model lung surfactant system. <i>Journal of the American Chemical Society</i> , 2010 , 132, 2254-63	16.4	44
127	Ion-molecule reactions and gas-phase basicity of ferrocene. <i>Journal of the American Chemical Society</i> , 1975 , 97, 4814-4817	16.4	44
126	Photoionization and ion cyclotron resonance studies of the ion chemistry of ethylene oxide. <i>Journal of Chemical Physics</i> , 1976 , 65, 4929-4939	3.9	44
125	The interaction of ions with nonpolar neutrals: The collision broadening of ion cyclotron resonance lines of ions in hydrogen and methane. <i>Journal of Chemical Physics</i> , 1976 , 64, 2735-2746	3.9	44
124	Chemical consequences of strong hydrogen bonding in the reactions of organic ions in the gas phase. Interaction of remote functional groups. <i>Journal of the American Chemical Society</i> , 1972 , 94, 3671-3672	16.4	44
123	Theoretical studies of transition-metal methyl ions, MCH ₃ ⁺ (M = Sc, Cr, Mn, Zn, Y, Mo, Tc, Pd, Cd). <i>Journal of the American Chemical Society</i> , 1987 , 109, 5573-5580	16.4	42
122	Product kinetic energy release distributions as a probe of the energetics and mechanisms of organometallic reactions involving the formation of metallacyclobutanes in the gas phase. <i>Journal of the American Chemical Society</i> , 1989 , 111, 1991-2001	16.4	41
121	Thermochemistry of silaethylene and methylsilylene from experiment and theory. <i>Journal of the American Chemical Society</i> , 1988 , 110, 24-30	16.4	41
120	Photoelectron spectroscopy of isomeric C ₄ H ₇ radicals. Implications for the thermochemistry and structures of the radicals and their corresponding carbonium ions. <i>Journal of the American Chemical Society</i> , 1984 , 106, 7336-7347	16.4	41
119	Mapping disulfide bonds in insulin with the Route 66 Method: selective cleavage of S-C bonds using alkali and alkaline earth metal enolate complexes. <i>Journal of the American Society for Mass Spectrometry</i> , 2009 , 20, 157-66	3.5	40
118	Gas phase ion chemistry and photochemistry of ions generated from perfluoropropylene. Photodissociation of the perfluoroallyl cation. <i>Journal of the American Chemical Society</i> , 1974 , 96, 6260-6266	16.4	40
117	Relationship between orbital ionization energies and molecular properties. Proton affinities and photoelectron spectra of nitriles. <i>Journal of the American Chemical Society</i> , 1976 , 98, 2081-2085	16.4	40
116	Designer reagents for mass spectrometry-based proteomics: clickable cross-linkers for elucidation of protein structures and interactions. <i>Analytical Chemistry</i> , 2012 , 84, 2662-9	7.8	39
115	Slow multiphoton excitation as a probe of bimolecular and unimolecular reaction energetics. Multiphoton dissociation of proton-bound alcohol dimers. <i>Journal of the American Chemical Society</i> , 1981 , 103, 3292-3296	16.4	39
114	Dissociative electron attachment reactions of transition metal carbonyls and their apparent influence on the thermalization of electrons by CO ₂ . <i>Journal of Chemical Physics</i> , 1982 , 76, 2959-2964	3.9	39
113	Singlet-triplet energy gaps in fluorine-substituted methylenes and silylenes. <i>Journal of Chemical Physics</i> , 1990 , 93, 4986-4993	3.9	38
112	Infrared photochemistry of ethylene clusters. <i>Journal of Chemical Physics</i> , 1980 , 72, 6805-6806	3.9	38
111	Ion-beam studies of the reactions of atomic cobalt ions with alkenes. <i>Journal of the American Chemical Society</i> , 1981 , 103, 6624-6628	16.4	38

110	Precise determination of stabilities of primary, secondary, and tertiary silicenium ions from kinetics and equilibria of hydride-transfer reactions in the gas phase. A quantitative comparison of the stabilities of silicenium and carbonium ions in the gas phase. <i>Journal of the American Chemical Society</i> , 1989 , 111, 900-906	16.4	37
109	Relation of nitrogen lone pair interactions to thermodynamic parameters associated with amine basicities. <i>Journal of the American Chemical Society</i> , 1974 , 96, 1604-1606	16.4	37
108	Photoionization mass spectrometry of the fluoromethylsilanes (CH ₃) _n F _{4-n} Si (n = 1-4). <i>Journal of the American Chemical Society</i> , 1977 , 99, 2085-2089	16.4	37
107	Ion-molecule reactions of tert-butyl alcohol by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1974 , 96, 6243-6251	16.4	36
106	Chain-length effects upon the interaction of remote functional groups. Low energy electron impact mass spectra of .alpha.,.omega.-dialkoxyalkanes examined by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1975 , 97, 2355-2362	16.4	36
105	Reactions of fluoroethylenes with strong bases in the gas phase. <i>Journal of the American Chemical Society</i> , 1977 , 99, 5017-5022	16.4	35
104	Methyl and fluorine substituent effects on the gas-phase Lewis acidities of silanes by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1977 , 99, 4992-4999	16.4	35
103	Reactions of strong bases with alkyl halides in the gas phase. New look at E2 base-induced elimination reactions without solvent participation. <i>Journal of the American Chemical Society</i> , 1974 , 96, 3595-3602	16.4	34
102	Metal atoms as superbases: the gas phase proton affinity of uranium. <i>Journal of the American Chemical Society</i> , 1977 , 99, 3162-3163	16.4	34
101	Chemistry in Nanodroplets: Studies of Protonation Sites of Substituted Anilines in Water Clusters Using FT-ICR. <i>Journal of the American Chemical Society</i> , 2000 , 122, 9201-9205	16.4	33
100	Photoelectron spectroscopy of the o-, m-, and p-methylbenzyl radicals. Implications for the thermochemistry of the radicals and ions. <i>Journal of the American Chemical Society</i> , 1986 , 108, 5441-5443	16.4	33
99	Properties and reactions of trimethyl phosphite, trimethyl phosphate, triethyl phosphate, and trimethyl phosphorothionate by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1980 , 102, 1327-1332	16.4	33
98	Relative stabilities of carbonium ions in the gas phase and solution. Comparison of cyclic and acyclic alkylcarbonium ions, acyl cations and cyclic halonium ions. <i>Journal of the American Chemical Society</i> , 1974 , 96, 7552-7554	16.4	33
97	Mass Spectrometric Study of Acoustically Levitated Droplets Illuminates Molecular-Level Mechanism of Photodynamic Therapy for Cancer Involving Lipid Oxidation. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 8082-8086	16.4	32
96	Fundamental studies of the energetics and dynamics of ligand dissociation and exchange processes at transition-metal centers in the gas phase: Mn(CO) _x ⁺ , x = 1-6. <i>Journal of the American Chemical Society</i> , 1989 , 111, 2401-2409	16.4	32
95	Mechanistic and kinetic study of alkane activation by titanium(II) and vanadium(II) in the gas phase. Lifetimes of reaction intermediates. <i>Journal of the American Chemical Society</i> , 1986 , 108, 7509-17	16.4	32
94	Proton affinity and gas-phase ion chemistry of hydrogen fluoride. <i>Inorganic Chemistry</i> , 1975 , 14, 1229-1232	16.4	32
93	Chemistry without solvents: properties and reactions of organometallic complexes in the gas phase. <i>Pure and Applied Chemistry</i> , 1979 , 51, 967-978	2.1	32

92	Identifying the presence of a disulfide linkage in peptides by the selective elimination of hydrogen disulfide from collisionally activated alkali and alkaline earth metal complexes. <i>Journal of the American Chemical Society</i> , 2008 , 130, 1245-57	16.4	31
91	Fourier transform ion cyclotron resonance study of multiply charged aggregates of small singly charged peptides formed by electrospray ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 1999 , 10, 347-351	3.5	31
90	Photoionization mass spectrometry of 2-fluoropropane and 2,2-difluoropropane. A novel determination of the proton affinity of vinyl fluoride and 1,1-difluoroethylene. <i>Journal of the American Chemical Society</i> , 1976 , 98, 2705-2709	16.4	31
89	Time resolved studies of interfacial reactions of ozone with pulmonary phospholipid surfactants using field induced droplet ionization mass spectrometry. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 9496-503	3.4	30
88	Compact ambient pressure pyroelectric ion source for mass spectrometry. <i>Analytical Chemistry</i> , 2007 , 79, 3945-8	7.8	30
87	Energetics of the rearrangement of neutral and ionized perfluorocyclopropane to perfluoropropylene. Use of infrared multiphoton dissociation spectra to identify structural isomers of molecular ions. <i>Journal of the American Chemical Society</i> , 1981 , 103, 3967-3971	16.4	30
86	Infrared spectra of gas-phase ions and their use in elucidating reaction mechanisms. Identification of C ₇ H ₇ ⁺ structural isomers by multiphoton electron detachment using a low-power infrared laser. <i>Journal of the American Chemical Society</i> , 1981 , 103, 6499-6501	16.4	30
85	Ion-beam studies of the reactions of atomic cobalt ions with cycloalkanes in the gas phase. Formation and decomposition of chemically activated metallacycles. <i>Journal of the American Chemical Society</i> , 1981 , 103, 6628-6632	16.4	30
84	Real-Time Studies of Iron Oxalate-Mediated Oxidation of Glycolaldehyde as a Model for Photochemical Aging of Aqueous Tropospheric Aerosols. <i>Environmental Science & Technology</i> , 2016 , 50, 12241-12249	10.3	29
83	Thermochemical properties and gas-phase ion chemistry of phenylsilane investigated by FT-ICR spectrometry. Identification of parent- and fragment-ion structural isomers by their specific reactivities. <i>Journal of the American Chemical Society</i> , 1993 , 115, 10805-10811	16.4	29
82	Infrared multiphoton dissociation spectrum of CF ₃ Mn(CO) ₃ (NO) ⁻ . <i>Journal of the American Chemical Society</i> , 1990 , 112, 2066-2069	16.4	29
81	Basicities and ion-molecule reactions of the methylphosphines in the gas phase by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1974 , 96, 6252-6259	16.4	29
80	Metal carbene chemistry. Formation and reactions of (η ⁵ -C ₅ H ₅)Fe(CO) _n (CH ₂) ⁺ (n = 1,2) in the gas phase by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1978 , 100, 2584-2585	16.4	29
79	Xenon as a nucleophile in gas-phase displacement reactions: formation of the methyl xenonium ion. <i>Science</i> , 1971 , 173, 1237-8	33.3	29
78	Click chemistry facilitates formation of reporter ions and simplified synthesis of amine-reactive multiplexed isobaric tags for protein quantification. <i>Journal of the American Chemical Society</i> , 2012 , 134, 2672-80	16.4	28
77	Nucleophilic reactions of anions with trimethyl phosphate in the gas phase by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1980 , 102, 935-938	16.4	27
76	Multiphoton infrared laser activation of organometallic species: a novel probe of the potential energy surfaces for reactions of cobalt ions with C ₅ H ₁₀ isomers. <i>Journal of the American Chemical Society</i> , 1985 , 107, 5074-5080	16.4	26
75	Hydrogen bonding constrains free radical reaction dynamics at serine and threonine residues in peptides. <i>Journal of Physical Chemistry A</i> , 2014 , 118, 8380-92	2.8	25

74	Chemical Ionization of TNT and RDX with Trimethylsilyl Cation. <i>Analytical Chemistry</i> , 1997 , 69, 1092-1101	7.8	25
73	Reactions of transition-metal ions with methylsilanes in the gas phase. The formation and characteristics of strong transition metal-silylene bonds. <i>Journal of the American Chemical Society</i> , 1986 , 108, 5668-75	16.4	25
72	Effects of molecular structure on basicity. Gas-phase proton affinities of cyclic phosphites. <i>Journal of the American Chemical Society</i> , 1980 , 102, 932-935	16.4	25
71	Acid-base properties and gas-phase ion chemistry of trimethylborane. <i>Journal of the American Chemical Society</i> , 1976 , 98, 1433-1440	16.4	25
70	Gas-phase ion chemistry of azomethane by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1972 , 94, 2425-2431	16.4	25
69	Reactions of difluoromethyl(1+) with n-donor bases by ion cyclotron resonance spectroscopy. Proton affinity of difluorocarbene. <i>Journal of the American Chemical Society</i> , 1975 , 97, 6682-6685	16.4	24
68	Properties and reactions of uranium hexafluoride by ion cyclotron resonance spectroscopy. <i>Journal of Chemical Physics</i> , 1976 , 64, 718-723	3.9	24
67	Selective molecular recognition of arginine by anionic salt bridge formation with bis-phosphate crown ethers: implications for gas phase peptide acidity from adduct dissociation. <i>Journal of the American Society for Mass Spectrometry</i> , 2004 , 15, 616-24	3.5	23
66	Molecular mousetraps: gas-phase studies of the covalent coupling of noncovalent complexes initiated by reactive carbenes formed by controlled activation of diazo precursors. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 1012-5	16.4	23
65	Determination of carbonium ion stabilities by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1972 , 94, 8934-8936	16.4	23
64	Mechanisms and energetics of free radical initiated disulfide bond cleavage in model peptides and insulin by mass spectrometry. <i>Chemical Science</i> , 2015 , 6, 4550-4560	9.4	22
63	Subtle Changes in Lipid Environment Have Profound Effects on Membrane Oxidation Chemistry. <i>Journal of the American Chemical Society</i> , 2018 , 140, 17492-17498	16.4	22
62	Time resolved study of hydroxyl radical oxidation of oleic acid at the air-water interface. <i>Chemical Physics Letters</i> , 2017 , 683, 76-82	2.5	21
61	Electron impact ionization of phenylsilane. Evidence for the formation of phenylsilyl and silacycloheptatrienyl cations. <i>Journal of the American Chemical Society</i> , 1992 , 114, 3573-3574	16.4	21
60	Efficient multiphoton dissociation of CF ₃ I ⁺ in the metastable X 2E1/2 excited state using cw infrared laser radiation. <i>Journal of Chemical Physics</i> , 1981 , 74, 5100-5105	3.9	21
59	Ion-molecule reactions of nitric oxide(1+) ion with organic molecules by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1975 , 97, 5714-5718	16.4	21
58	Application of Ion Cyclotron Resonance to the Study of Inelastic Excitation by Low-Energy Electrons. <i>Journal of Chemical Physics</i> , 1969 , 51, 470-471	3.9	21
57	Mass spectrometric sampling of a liquid surface by nanoliter droplet generation from bursting bubbles and focused acoustic pulses: application to studies of interfacial chemistry. <i>Analytical Chemistry</i> , 2015 , 87, 3336-44	7.8	20

56	Gas phase proton affinities of molecules in excited electronic states by ion cyclotron resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1976 , 98, 265-266	16.4	20
55	Abiotic synthesis of ATP from AMP in the gas phase: implications for the origin of biologically important molecules from small molecular clusters. <i>International Journal of Mass Spectrometry</i> , 2003 , 227, 147-159	1.9	19
54	Positive ion chemistry of fluoromethylsilanes, (CH ₃) _n SiF _{4-n} (n = 1-3), by ion cyclotron resonance spectroscopy. Fluorine and methyl substituent effects on the relative stabilities of siliconium ions, R ⁺ , and disilylfluoronium ions, RR ⁺ , in the gas phase. <i>Journal of the American Chemical Society</i> , 1976 , 98, 5781-5788	16.4	19
53	Effects of alkyl and fluoroalkyl substitution on the heterolytic and homolytic bond dissociation energies of protonated amines. <i>Journal of the American Chemical Society</i> , 1977 , 99, 326-330	16.4	19
52	Eradicating mass spectrometric glycan rearrangement by utilizing free radicals. <i>Chemical Science</i> , 2016 , 7, 5390-5397	9.4	19
51	Slow Evaporation of Water from Hydrated Salen Transition Metal Complexes in the Gas Phase Reveals Details of Metal Ligand Interactions. <i>Journal of the American Chemical Society</i> , 1999 , 121, 10152-10156	16.4	18
50	Organometallic Reaction Energetics from Product Kinetic Energy Release Distributions. <i>ACS Symposium Series</i> , 1990 , 34-54	0.4	18
49	Selective enhancement of bimolecular reaction rates by over three orders of magnitude using low intensity CW infrared laser radiation. <i>Journal of the American Chemical Society</i> , 1980 , 102, 3967-3969	16.4	18
48	Ion chemistry and gas-phase basicity of nickelocene by ion cyclotron resonance spectroscopy. <i>Inorganic Chemistry</i> , 1976 , 15, 665-668	5.1	17
47	Ion cyclotron resonance investigation of the decarbonylation of aldehydes by (eta.5-cyclopentadienyl)nickel(1+). <i>Journal of the American Chemical Society</i> , 1976 , 98, 5700-5702	16.4	17
46	Negative ion chemistry of (eta.5-cyclopentadienyl)dicarbonylcobalt in the gas phase by ion cyclotron resonance spectroscopy. The pi-acceptor ability of phosphorus trifluoride compared to carbon monoxide. <i>Inorganic Chemistry</i> , 1977 , 16, 3135-3139	5.1	17
45	Acid-base properties of 1-methyl-1,4-dihydroborabenzene, CH ₃ BC ₅ H ₆ . <i>Journal of the American Chemical Society</i> , 1978 , 100, 3737-3742	16.4	17
44	Cluster-phase reactions: gas-phase phosphorylation of peptides and model compounds with triphosphate anions. <i>Journal of the American Chemical Society</i> , 2005 , 127, 4084-90	16.4	16
43	Cluster phase chemistry: gas-phase reactions of anionic sodium salts of dicarboxylic acid clusters with water molecules. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 7777-86	2.8	16
42	Dustbuster: a compact impact-ionization time-of-flight mass spectrometer for in situ analysis of cosmic dust. <i>Review of Scientific Instruments</i> , 2002 , 73, 185-189	1.7	16
41	Chemical consequences of strong hydrogen bonding in the reactions of organic ions in the gas phase. Base induced elimination reactions. <i>Journal of the American Chemical Society</i> , 1974 , 96, 637-639	16.4	15
40	Electronic spectroscopy of trans-azomethane by electron impact. <i>Journal of Chemical Physics</i> , 1975 , 62, 3424	3.9	15
39	Ion cyclotron resonance investigations of alkylation of (eta.5-cyclopentadienyl)nickel(1+) and (eta.5-cyclopentadienyl)iron(1+) by methyl halides in the gas phase. <i>Inorganic Chemistry</i> , 1978 , 17, 68-70	5.1	15

38	Acidity, basicity, and gas-phase ion chemistry of hydrogen selenide by ion cyclotron resonance spectroscopy. <i>Inorganic Chemistry</i> , 1972 , 11, 960-963	5.1	15
37	Host-Guest Complexation of Amphiphilic Molecules at the Air-Water Interface Prevents Oxidation by Hydroxyl Radicals and Singlet Oxygen. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 12684-12688	16.4	14
36	Studying interfacial reactions of cholesterol sulfate in an unsaturated phosphatidylglycerol layer with ozone using field induced droplet ionization mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2012 , 23, 141-52	3.5	14
35	Site Selective .sigma.-Bond Metathesis Reactions of Sc(CD ₃) ₂ ⁺ with [2,2-D ₂]Propane, [1,1,1,4,4,4-D ₆]-n-Butane, and [2-D]Isobutane. <i>Organometallics</i> , 1994 , 13, 3733-3736	3.8	14
34	Probing the OH Oxidation of Pinonic Acid at the Air-Water Interface Using Field-Induced Droplet Ionization Mass Spectrometry (FIDI-MS). <i>Journal of Physical Chemistry A</i> , 2018 , 122, 6445-6456	2.8	13
33	Kinetic energy release distributions as a probe of ligation effects on potential energy surfaces in organometallic reactions. Reversible dehydrogenation of cycloalkenes by iron cation. <i>Journal of the American Chemical Society</i> , 1990 , 112, 9372-9378	16.4	13
32	Acidity, basicity, and ion-molecule reactions of arsine in the gas phase by ion cyclotron resonance spectroscopy. <i>Inorganic Chemistry</i> , 1974 , 13, 1511-1517	5.1	13
31	Fluorine and alkyl substituent effects on the gas-phase Lewis acidities of boranes by ion cyclotron resonance spectroscopy. <i>Inorganic Chemistry</i> , 1977 , 16, 2437-2443	5.1	13
30	Investigation of the Mechanism of Electron Capture and Electron Transfer Dissociation of Peptides with a Covalently Attached Free Radical Hydrogen Atom Scavenger. <i>International Journal of Mass Spectrometry</i> , 2015 , 390, 49-55	1.9	11
29	Properties and reactions of phosphorus trifluoride in the gas phase by ion cyclotron resonance spectroscopy. Energetics of formation of PF ₂ ⁺ , PF ₄ ⁺ , HPF ₃ ⁺ , and CH ₃ PF ₃ ⁺ . <i>Inorganic Chemistry</i> , 1978 , 17, 1585-1588	5.1	11
28	Multiphoton Dissociation of Molecules with Low Power CW Infrared Lasers. <i>Springer Series in Chemical Physics</i> , 1978 , 362-373	0.3	11
27	Gas-phase organometallic chemistry. Mechanism and energetics of methane formation resulting from protonation of pentacarbonylmethylmanganese. <i>Journal of the American Chemical Society</i> , 1979 , 101, 245-246	16.4	10
26	Equilibrium studies of gas phase ion-molecule reactions. Ion cyclotron resonance results for the reaction CO ₂ H ⁺ + CH ₄ ? CH ₅ ⁺ + CO ₂ . <i>Journal of Chemical Physics</i> , 1975 , 62, 1998-1999	3.9	10
25	Switched ferroelectric plasma ionizer (SwiFerr) for ambient mass spectrometry. <i>Analytical Chemistry</i> , 2011 , 83, 38-43	7.8	9
24	Hypervelocity microparticle impact studies using a novel cosmic dust mass spectrometer. <i>Journal of Geophysical Research</i> , 2003 , 108,		9
23	Properties and reactions of uranium(IV) tetrahydroborate by ion cyclotron mass spectrometry. <i>Inorganic Chemistry</i> , 1979 , 18, 1349-1353	5.1	8
22	Easily fabricated ion source for characterizing mixtures of organic compounds by direct analysis in real time mass spectrometry. <i>Analytical Methods</i> , 2017 , 9, 5065-5074	3.2	7
21	Cluster Phase Reactions: Alkylation of Triphosphate and DNA Anions with Alkylammonium Cations. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 10030-10034	2.8	7

20	Group and Site Selective σ -Bond Metathesis Reactions of $\text{CH}_3\text{ScCH}_2\text{CH}_3^+$ with [2,2-D ₂]Propane, [1,1,1,4,4,4-D ₆]-n-Butane, [2-D]-Isobutane, and n-Pentane. <i>Organometallics</i> , 1995 , 14, 4366-4373	3.8	7
19	Basicity and ion-molecule reactions of trimethylarsine in the gas phase determined by ion cyclotron resonance spectroscopy. <i>Inorganic Chemistry</i> , 1975 , 14, 2887-2889	5.1	7
18	Nucleophilic reactions of anions with PF ₃ and OPF ₃ in the gas phase by ion cyclotron resonance spectroscopy. <i>Inorganic Chemistry</i> , 1978 , 17, 1589-1595	5.1	7
17	Chemical consequences of strong hydrogen bonding in the reactions of organic ions in the gas phase. Induced fragmentation of aliphatic alcohols. <i>Journal of the American Chemical Society</i> , 1971 , 93, 5925-5927	16.4	7
16	Nitrogen and Carbon Monoxide as Nucleophilic Reagents in Gas Phase Displacement Reactions: a Novel Means of Nitrogen Fixation. <i>Nature: Physical Science</i> , 1971 , 231, 204-205		7
15	Mass Spectrometric Study of Acoustically Levitated Droplets Illuminates Molecular-Level Mechanism of Photodynamic Therapy for Cancer Involving Lipid Oxidation. <i>Angewandte Chemie</i> , 2019 , 131, 8166-8170	3.6	6
14	Ionization mechanism of the ambient pressure pyroelectric ion source (APPIS) and its applications to chemical nerve agent detection. <i>Journal of the American Society for Mass Spectrometry</i> , 2009 , 20, 2093-2095	3.5	6
13	Cluster phase chemistry: collisions of vibrationally excited cationic dicarboxylic acid clusters with water molecules initiate dissociation of cluster components. <i>Journal of Physical Chemistry A</i> , 2007 , 111, 5954-67	2.8	6
12	σ -Bond Metathesis Reactions of $\text{Sc}(\text{CH}_3)_2^+$ with Secondary C-H Bonds: Reactivity with Cyclohexane and Cyclopentane. <i>Organometallics</i> , 1996 , 15, 5368-5373	3.8	6
11	Ion molecule reactions in vinyl fluoride by photoionization. Effects of vibrational excitation on major reaction pathways. <i>Journal of Chemical Physics</i> , 1976 , 65, 3196-3202	3.9	6
10	Resin and Magnetic Nanoparticle-Based Free Radical Probes for Glycan Capture, Isolation, and Structural Characterization. <i>Analytical Chemistry</i> , 2019 , 91, 15387-15396	7.8	6
9	Infrared Photochemistry of Gas Phase Ions. <i>Lecture Notes in Quantum Chemistry II</i> , 1982 , 43-97	0.6	5
8	A microfluidic-based bubble generation platform enables analysis of physical property change in phospholipid surfactant layers by interfacial ozone reaction. <i>Lab on A Chip</i> , 2012 , 12, 5243-8	7.2	4
7	Host-Guest Complexation of Amphiphilic Molecules at the Air-Water Interface Prevents Oxidation by Hydroxyl Radicals and Singlet Oxygen. <i>Angewandte Chemie</i> , 2020 , 132, 12784-12788	3.6	3
6	Molecular Mousetraps: Gas-Phase Studies of the Covalent Coupling of Noncovalent Complexes Initiated by Reactive Carbenes Formed by Controlled Activation of Diazo Precursors. <i>Angewandte Chemie</i> , 2003 , 115, 1042-1045	3.6	3
5	Fundamental Gas Phase Studies of the Mechanism and Thermochemistry of Organometallic Reactions 1992 , 287-320		3
4	A compact time-of-flight mass spectrometer for high-flux cosmic dust analysis. <i>Journal of Geophysical Research</i> , 2004 , 109,		2
3	Mass spectrometer calibration of Cosmic Dust Analyzer. <i>Journal of Geophysical Research</i> , 2003 , 108, n/a-n/a		2

- 2 Simple pressure gauge for uranium hexafluoride. *Review of Scientific Instruments*, **1979**, 50, 1640 1.7 2
- 1 Robert C. Dunbar (1943-2017). *European Journal of Mass Spectrometry*, **2019**, 25, 4-7 1.1