

Diethard K Bohme

List of Publications by Year in descending order

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citations

201674

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times ranked

1673
citing authors

#	ARTICLE	IF	CITATIONS
1	Gas-Phase Catalysis by Atomic and Cluster Metal Ions: The Ultimate Single-Site Catalysts. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 2336-2354.	13.8	782
2	Endohedral Cluster Compounds: Inclusion of Helium within C ₆₀ and C ₇₀ through Collision Experiments. <i>Angewandte Chemie International Edition in English</i> , 1991, 30, 884-886.	4.4	291
3	Reactions of Atomic Cations with Methane: Gas Phase Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2009, 113, 5602-5611.	2.5	133
4	Gas-Phase Reactions of Transition-Metal Ions with Molecular Oxygen: Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2002, 106, 4581-4590.	2.5	129
5	Gas-Phase Reactions of Carbon Dioxide with Atomic Transition-Metal and Main-Group Cations: Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2006, 110, 1232-1241.	2.5	119
6	An inductively coupled plasma/selected-ion flow tube mass spectrometric study of the chemical resolution of isobaric interferences. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 1207-1210.	3.0	91
7	A novel inductively coupled plasma/selected-ion flow tube mass spectrometer for the study of reactions of atomic and atomic oxide ions. <i>International Journal of Mass Spectrometry</i> , 2000, 194, L1-L5.	1.5	88
8	Gas-phase ion/molecule reactions of corannulene, a fullerene subunit. <i>Journal of the American Chemical Society</i> , 1993, 115, 11636-11637.	13.7	81
9	Endohedral fullerene-noble gas clusters formed with high-energy bimolecular reactions of C _x n ⁺ (x = 1-10). <i>Journal of Physical Chemistry</i> , 1997, 101, 10784-10791.	1.6	77
10	Charge transfer from polycharged ions: C _n +60 as a model system. <i>Chemical Physics Letters</i> , 1993, 204, 473-480.	2.6	70
11	Electron-transfer reactions with buckminsterfullerene, C ₆₀ , in the gas phase. <i>International Reviews in Physical Chemistry</i> , 1994, 13, 163-185.	2.3	57
12	Selected-ion flow tube study of charge transfer from fullerene dications: "bracketing" the second ionization energies of C ₆₀ and C ₇₀ . <i>The Journal of Physical Chemistry</i> , 1992, 96, 6121-6123.	2.9	56
13	Fullerene dications as initiators of polymerization with 1,3-butadiene in the gas phase: chemistry directed by electrostatics?. <i>Journal of the American Chemical Society</i> , 1992, 114, 9665-9666.	13.7	50
14	Sequential Ligation of Mg ⁺ , Fe ⁺ , (c-C ₅ H ₅)Mg ⁺ , and (c-C ₅ H ₅)Fe ⁺ with Ammonia in the Gas Phase: Transition from Coordination to Solvation in the Sequential Ligation of Mg ⁺ . <i>Journal of Physical Chemistry A</i> , 1998, 102, 9803-9810.	2.5	48
15	Derivatization of the fullerene dications C ₆₀ ²⁺ and C ₇₀ ²⁺ by ion-molecule reactions in the gas phase. <i>Journal of the American Chemical Society</i> , 1992, 114, 9177-9181.	13.7	45
16	Heavy Water Reactions with Atomic Transition-Metal and Main-Group Cations: Gas Phase Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2007, 111, 8561-8573.	2.5	44
17	Proton transfer from a fullerene dication: bracketing the gas-phase acidity of C ₆₀ H ₂ ²⁺ . <i>Journal of the American Chemical Society</i> , 1993, 115, 6290-6294.	13.7	43
18	Periodic Trends in Reactions of Benzene Clusters of Transition Metal Cations, M(C ₆ H ₆) _{1,2} ⁺ , with Molecular Oxygen. <i>Journal of Physical Chemistry A</i> , 2002, 106, 9705-9717.	2.5	42

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19	Enhanced reactivity of fullerene cations containing adjacent pentagons. <i>Nature</i> , 1993, 365, 426-429.	27.8	39
20	Hydrogenation of fullerene cations in the gas phase: reactions of fullerene cations and dications with atomic and molecular hydrogen. <i>Journal of the American Chemical Society</i> , 1992, 114, 6268-6269.	13.7	38
21	Kinetics and thermodynamics for the bonding of benzene to 20 main-group atomic cations: formation of half-sandwiches, full-sandwiches and beyond. <i>International Journal of Mass Spectrometry</i> , 2003, 227, 563-575.	1.5	38
22	Laboratory Studies of Ion/Molecule Reactions of Fullerenes: Chemical Derivatization of Fullerenes within Dense Interstellar Clouds and Circumstellar Shells. <i>Astrophysical Journal</i> , 2000, 540, 869-885.	4.5	38
23	Gas-Phase Reactions of Atomic Lanthanide Cations with Ammonia: Room-Temperature Kinetics and Periodicity in Reactivity. <i>Journal of Physical Chemistry A</i> , 2010, 114, 241-246.	2.5	30
24	Gas-phase reactions of fullerene monocations, dications, and trications with nitriles. <i>Journal of the American Chemical Society</i> , 1993, 115, 9701-9707.	13.7	29
25	Gas-phase association reactions of fullerene cations: modelling the influence of charge state and other molecular parameters on association efficiency. <i>Canadian Journal of Chemistry</i> , 1994, 72, 577-586.	1.1	28
26	Gas-Phase Coordination of Mg ⁺ , (c-C ₅ H ₅)Mg ⁺ , and (c-C ₅ H ₅) ₂ Mg ⁺ with Small Inorganic Ligands. <i>Journal of Physical Chemistry A</i> , 1999, 103, 6373-6382.	2.5	28
27	Ionic origins of carbenes in space. <i>Nature</i> , 1986, 319, 473-474.	27.8	27
28	Buckminsterfullerene cations: New dimensions in gas-phase ion chemistry. <i>Mass Spectrometry Reviews</i> , 2009, 28, 672-693.	5.4	27
29	First steps towards a gas-phase acidity ladder for derivatized fullerene dications. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1993, 124, 145-156.	1.8	26
30	Repeated addition of atomic hydrogen to fullerene cations, dications and trications. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1995, 145, 79-88.	1.8	26
31	Fullerene Dications and Trications as Initiators in the Gas-Phase "Ball-and-Chain" Polymerization of Allene and Propyne: A Observation of a Remarkable Periodicity in Chain Growth with Allene. <i>Journal of the American Chemical Society</i> , 1997, 119, 2040-2049.	13.7	25
32	Interconversion of ROC ⁺ and RCO ⁺ (R = H and CH ₃): Gas-Phase Catalysis by Argon and Dinitrogen. <i>Journal of Physical Chemistry A</i> , 1998, 102, 478-483.	2.5	25
33	Unprecedented double-electron transfer to a triply charged cation: Reactions of C ₆₀ ³⁺ with anthracene, corannulene, benzo[<i>rst</i>]pentaphene and pyrene. <i>Organic Mass Spectrometry</i> , 1993, 28, 1005-1008.	1.3	24
34	Laboratory measurements of gas-phase reactions of polyatomic carbon ions C _n ⁺ (n=1-6) and C _n H ⁺ (n=2-5) with carbon monoxide. <i>Journal of Chemical Physics</i> , 1987, 87, 6934-6938.	3.0	23
35	Experimental evidence for the influence of charge on the adsorption capacity of carbon dioxide on charged fullerenes. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3048-3055.	2.8	19
36	Fullerene Dications as Initiators for Gas-Phase "Ball-and-Chain" Polymerization of Ethylene Oxide; Termination by Cyclization. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 206-207.	4.4	18

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37	Reactivity Pattern in the Room-Temperature Activation of NH_3 by the Main-Group Atomic Ions Ga^+ , Ge^+ , As^+ and Se^+ . <i>European Journal of Inorganic Chemistry</i> , 2010, 2010, 1516-1521.	2.0	18
38	Strong Closed-Shell Interactions: Observed Formation of BaRg_2^+ Molecules in the Gas Phase at Room Temperature. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 41-44.	4.6	18
39	Two isomers of SF_5 and SF_5^+ : Structures and energetics. <i>Journal of Chemical Physics</i> , 1994, 100, 1759-1760.	3.0	17
40	A novel chemical reactor suited for studies of biophysical chemistry: Construction and evaluation of a selected ion flow tube utilizing an electrospray ion source and a triple quadrupole detection system. <i>International Journal of Mass Spectrometry</i> , 2007, 265, 295-301.	1.5	16
41	Gas-phase reactions of singly and multiply-charged fullerene cations, C_{60}^x+ ($x = 1-3$), with iron pentacarbonyl: kinetic control by Coulombic barriers. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1997, 165-166, 249-255.	1.8	14
42	Building Carbon Bridges on and between Fullerenes in Helium Nanodroplets. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1440-1445.	4.6	14
43	Generation and hydrogenation of adjacent-pentagon fullerenes: astrochemical considerations. <i>Monthly Notices of the Royal Astronomical Society</i> , 1994, 268, 938-942.	4.4	13
44	Isomer-Specific Trends with Charge State in Gas-Phase Reactions of Fullerene Cations, C_{60}^x+ ($x = 1-3$), with Nitromethane and Methyl Nitrite: A Polymethoxylation of C_{60} Dications. <i>Journal of the American Chemical Society</i> , 1997, 119, 7055-7060.	13.7	13
45	Fullerene ion chemistry: a journey of discovery and achievement. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150321.	3.4	13
46	Ion formation upon electron collisions with valine embedded in helium nanodroplets. <i>European Physical Journal D</i> , 2016, 70, 1.	1.3	13
47	Ligation kinetics as a probe for relativistic effects: Ligation of atomic coinage metal cations with ammonia. <i>International Journal of Mass Spectrometry</i> , 2017, 413, 81-84.	1.5	13
48	Unprecedented proton transfer to ammonia from fullerene dications derivatized with ammonia. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1992, 116, R7-R11.	1.8	12
49	A quantum-chemical study of the geometries and electronic structures of ArO and $[\text{Ar},\text{O},\text{H}]^+$: proton affinities of singlet and triplet ArO . <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 2271-2274.	2.8	12
50	Collision-induced dissociation evidence for charge separation and "ball-and-chain" propagation in the addition of 1-butene to C_{60}^{2+} . <i>Journal of the American Society for Mass Spectrometry</i> , 1996, 7, 261-265.	2.8	11
51	The influence of surface strain on the chemical reactivity of fullerene ions: addition reactions with cyclopentadiene and 1,3-cyclohexadiene. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1997, 167-168, 519-524.	1.8	11
52	Selected-ion flow tube studies of reactions of C_{60}^n+ ($n = 1, 2, 3$) with chlorinated ethylenes. <i>International Journal of Mass Spectrometry</i> , 1999, 192, 215-223.	1.5	11
53	Proton transfer reactions of derivatized fullerene trications. <i>Journal of the American Society for Mass Spectrometry</i> , 1998, 9, 114-120.	2.8	10
54	Hydrogenated Gold Clusters from Helium Nanodroplets: Cluster Ionization and Affinities for Protons and Hydrogen Molecules. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 1906-1913.	2.8	10

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55	Carbocationic polymerization in the gas phase: Initiation reactions of BF with olefinic monomers. Die Makromolekulare Chemie Rapid Communications, 1987, 8, 87-92.	1.1	9
56	Proton elimination in charge-separation reactions with hydrogen halides driven by chemical-bond formation with triply-charged C60 cations. Chemical Physics Letters, 1996, 258, 203-206.	2.6	9
57	Heavy water reactions with alkaline-earth metal dications in the gas phase: Kinetics at room temperature. International Journal of Mass Spectrometry, 2009, 280, 38-41.	1.5	9
58	Ligation kinetics as a probe for relativistic effects in ion chemistry: Gas-phase ligation of Ni+, Pd+ and Pt+ at room temperature. International Journal of Mass Spectrometry, 2017, 418, 193-197.	1.5	9
59	Ligation kinetics as a probe for relativistic effects in ion chemistry: Gas-phase ligation of late atomic transition metal cations with OCS and CH3Cl at room temperature. International Journal of Mass Spectrometry, 2018, 429, 101-106.	1.5	9
60	Early atomic transition metal cations reacting with ammonia at room temperature: H2 elimination and NH3 ligation kinetics across and down the periodic table. International Journal of Mass Spectrometry, 2019, 435, 181-187.	1.5	9
61	Gas-phase reactions of fullerene cations C60x+ (x = 1-3) with pyridine and pyrrole: formation of "ball-and-chain" and "spindle" isomers and their interconversion. International Journal of Mass Spectrometry, 1998, 179-180, 267-275.	1.5	8
62	Chemical Stability and Reactivity of Deprotonated Oligonucleotides (DNA) in the Gas Phase: Protonation and Solvation with Hydrogen Bromide. Journal of Physical Chemistry B, 2008, 112, 10375-10381.	2.6	8
63	Ligation kinetics as a probe for gas-phase ligand field effects: Ligation of atomic transition metal cations with ammonia at room temperature. European Journal of Mass Spectrometry, 2019, 25, 44-49.	1.0	6
64	Experimental and theoretical studies of the basicity and proton affinity of SiF4 and the structure of SiF4H+. Journal of the American Society for Mass Spectrometry, 1999, 10, 848-855.	2.8	5
65	Selected-ion flow tube studies of reactions of C60n+ (n = 1, 2, 3) with vinyl fluoride: polymerization initiated by C60+3+. European Journal of Mass Spectrometry, 1999, 5, 471.	0.7	5
66	Trimethylation and Differential Mobility Spectroscopy in Quantitative Peptide Analysis: Increasing Selectivity and Sensitivity through Ion/Molecule Chemistry. ChemPlusChem, 2013, 78, 1049-1052.	2.8	5
67	Ligation Kinetics as a Probe for Non-Covalent Electrostatic Bonding and Electron Solvation of Alkali and Alkaline Earth Cations with Ammonia. Journal of the American Society for Mass Spectrometry, 2019, 30, 1850-1856.	2.8	4
68	A Quantum-Chemical Study of the C2H3F2+ and C2H3Cl2+ Isomers and Their Interconversion. CBS-QB3 Proton Affinities of Difluoroethenes and Dichloroethenes. Journal of Physical Chemistry A, 1999, 103, 7872-7882.	2.5	3
69	Hydrogenated gold clusters from helium nanodroplets: displacement of H2 by H2O. European Physical Journal D, 2020, 74, 1.	1.3	3
70	Probing relativistic effects in the gas-phase CS2 ligation of late transition metal cations (groups 9-11) with rate measurements and quantum chemical calculations of ligation energies. International Journal of Mass Spectrometry, 2021, 462, 116525.	1.5	3
71	Collision and Reaction Cells. , 2009, , 336-384.		2
72	Toward ICP-SIFT mass spectrometry and atomic cation ligation as a probe of relativistic effects" A personal journey. Mass Spectrometry Reviews, 2021, , .	5.4	2

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73	Charge state chemistry: What a difference a charge makes in gas-phase chemistry!. International Journal of Mass Spectrometry, 2022, 472, 116674.	1.5	2
74	Fluorinated Organosilicon Cations: A Comparison of Potential Energy Surfaces for SiC ₂ X _n +where X is H or F and n= 1, 3, and 5. Journal of Physical Chemistry A, 1999, 103, 11161-11171.	2.5	1
75	Canadian mass spectrometry: Environmental and biological applications. Mass Spectrometry Reviews, 2010, 29, 525-525.	5.4	1
76	Relativistic Effects in the Ligation of Atomic Coinage Metal Cations with O ₂ and C ₆ H ₆ : Anomalous Formation of Relativistic Mono- and Bis-adducts with Au ⁺ . Journal of the American Society for Mass Spectrometry, 2022, 33, 1419-1426.	2.8	1
77	Astrochemistry of Magnesium Cations with Hydrogen Cyanide and Cyanoacetylene: Possible Formation of Cyclic Tetramers of Cyanoacetylene. AIP Conference Proceedings, 2006, , .	0.4	0