

# Diethard K Bohme

## List of Publications by Year in descending order

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77  
papers

3,125  
citations

201674

27  
h-index

155660

55  
g-index

78  
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78  
docs citations

78  
times ranked

1673  
citing authors

#	ARTICLE	IF	CITATIONS
1	Charge state chemistry: What a difference a charge makes in gas-phase chemistry!. International Journal of Mass Spectrometry, 2022, 472, 116674.	1.5	2
2	Relativistic Effects in the Ligation of Atomic Coinage Metal Cations with O <sub>2</sub> and C <sub>6</sub> H <sub>6</sub> : Anomalous Formation of Relativistic Mono- and Bis-adducts with Au <sup>+</sup> . Journal of the American Society for Mass Spectrometry, 2022, 33, 1419-1426.	2.8	1
3	Probing relativistic effects in the gas-phase CS <sub>2</sub> 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
4	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
5	Hydrogenated gold clusters from helium nanodroplets: displacement of H <sub>2</sub> by H <sub>2</sub> O. European Physical Journal D, 2020, 74, 1.	1.3	3
6	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
7	Early atomic transition metal cations reacting with ammonia at room temperature: H <sub>2</sub> elimination and NH <sub>3</sub> ligation kinetics across and down the periodic table. International Journal of Mass Spectrometry, 2019, 435, 181-187.	1.5	9
8	Hydrogenated Gold Clusters from Helium Nanodroplets: Cluster Ionization and Affinities for Protons and Hydrogen Molecules. Journal of the American Society for Mass Spectrometry, 2019, 30, 1906-1913.	2.8	10
9	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
10	Ligation kinetics as a probe for relativistic effects in ion chemistry: Gas-phase ligation of late atomic transition metal cations with OCS and CH <sub>3</sub> Cl at room temperature. International Journal of Mass Spectrometry, 2018, 429, 101-106.	1.5	9
11	Ligation kinetics as a probe for relativistic effects: Ligation of atomic coinage metal cations with ammonia. International Journal of Mass Spectrometry, 2017, 413, 81-84.	1.5	13
12	Ligation kinetics as a probe for relativistic effects in ion chemistry: Gas-phase ligation of Ni <sup>+</sup> , Pd <sup>+</sup> and Pt <sup>+</sup> at room temperature. International Journal of Mass Spectrometry, 2017, 418, 193-197.	1.5	9
13	Building Carbon Bridges on and between Fullerenes in Helium Nanodroplets. Journal of Physical Chemistry Letters, 2016, 7, 1440-1445.	4.6	14
14	Fullerene ion chemistry: a journey of discovery and achievement. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150321.	3.4	13
15	Ion formation upon electron collisions with valine embedded in helium nanodroplets. European Physical Journal D, 2016, 70, 1.	1.3	13
16	Experimental evidence for the influence of charge on the adsorption capacity of carbon dioxide on charged fullerenes. Physical Chemistry Chemical Physics, 2016, 18, 3048-3055.	2.8	19
17	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
18	Reactivity Pattern in the Room-Temperature Activation of NH <sub>3</sub> by the Main-Group Atomic Ions Ga <sup>+</sup> , Ge <sup>+</sup> , As <sup>+</sup> and Se <sup>+</sup> . European Journal of Inorganic Chemistry, 2010, 2010, 1516-1521.	2.0	18

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19	Canadian mass spectrometry: Environmental and biological applications. <i>Mass Spectrometry Reviews</i> , 2010, 29, 525-525.	5.4	1
20	Strong Closed-Shell Interactions: Observed Formation of BaRg <sup>2+</sup> Molecules in the Gas Phase at Room Temperature. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 41-44.	4.6	18
21	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
22	Buckminsterfullerene cations: New dimensions in gas-phase ion chemistry. <i>Mass Spectrometry Reviews</i> , 2009, 28, 672-693.	5.4	27
23	Heavy water reactions with alkaline-earth metal dications in the gas phase: Kinetics at room temperature. <i>International Journal of Mass Spectrometry</i> , 2009, 280, 38-41.	1.5	9
24	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
25	Collision and Reaction Cells. , 2009, , 336-384.		2
26	Chemical Stability and Reactivity of Deprotonated Oligonucleotides (DNA) in the Gas Phase: Protonation and Solvation with Hydrogen Bromide. <i>Journal of Physical Chemistry B</i> , 2008, 112, 10375-10381.	2.6	8
27	Heavy Water Reactions with Atomic Transition-Metal and Main-Group Cations: A Gas Phase Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2007, 111, 8561-8573.	2.5	44
28	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
29	Gas-Phase Reactions of Carbon Dioxide with Atomic Transition-Metal and Main-Group Cations: A Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2006, 110, 1232-1241.	2.5	119
30	Astrochemistry of Magnesium Cations with Hydrogen Cyanide and Cyanoacetylene: Possible Formation of Cyclic Tetramers of Cyanoacetylene. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	0
31	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
32	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
33	Periodic Trends in Reactions of Benzene Clusters of Transition Metal Cations, M(C <sub>6</sub> H <sub>6</sub> ) <sub>1,2+</sub> , with Molecular Oxygen. <i>Journal of Physical Chemistry A</i> , 2002, 106, 9705-9717.	2.5	42
34	Gas-Phase Reactions of Transition-Metal Ions with Molecular Oxygen: A Room-Temperature Kinetics and Periodicities in Reactivity. <i>Journal of Physical Chemistry A</i> , 2002, 106, 4581-4590.	2.5	129
35	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
36	A quantum-chemical study of the geometries and electronic structures of ArO and [Ar,O,H] <sup>+</sup> : proton affinities of singlet and triplet ArO. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 2271-2274.	2.8	12

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37	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
38	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
39	Selected-ion flow tube studies of reactions of C <sub>60</sub> n <sup>+</sup> (n = 1, 2, 3) with chlorinated ethylenes. <i>International Journal of Mass Spectrometry</i> , 1999, 192, 215-223.	1.5	11
40	Experimental and theoretical studies of the basicity and proton affinity of SiF <sub>4</sub> and the structure of SiF <sub>4</sub> H <sup>+</sup> . <i>Journal of the American Society for Mass Spectrometry</i> , 1999, 10, 848-855.	2.8	5
41	Gas-Phase Coordination of Mg <sup>+</sup> , (c-C <sub>5</sub> H <sub>5</sub> )Mg <sup>+</sup> , and (c-C <sub>5</sub> H <sub>5</sub> ) <sub>2</sub> Mg <sup>+</sup> with Small Inorganic Ligands. <i>Journal of Physical Chemistry A</i> , 1999, 103, 6373-6382.	2.5	28
42	A Quantum-Chemical Study of the C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> <sup>+</sup> and C <sub>2</sub> H <sub>3</sub> Cl <sub>2</sub> <sup>+</sup> Isomers and Their Interconversion. CBS-QB3 Proton Affinities of Difluoroethenes and Dichloroethenes. <i>Journal of Physical Chemistry A</i> , 1999, 103, 7872-7882.	2.5	3
43	Fluorinated Organosilicon Cations: A Comparison of Potential Energy Surfaces for SiC <sub>2</sub> X <sub>n</sub> <sup>+</sup> where X Is H or F and n = 1, 3, and 5. <i>Journal of Physical Chemistry A</i> , 1999, 103, 11161-11171.	2.5	1
44	Selected-ion flow tube studies of reactions of C <sub>60</sub> n <sup>+</sup> (n = 1, 2, 3) with vinyl fluoride: polymerization initiated by C <sub>60</sub> <sup>+</sup> . <i>European Journal of Mass Spectrometry</i> , 1999, 5, 471.	0.7	5
45	Gas-phase reactions of fullerene cations C <sub>60</sub> x <sup>+</sup> (x = 1-3) with pyridine and pyrrole: formation of ball-and-chain and spindle isomers and their interconversion. <i>International Journal of Mass Spectrometry</i> , 1998, 179-180, 267-275.	1.5	8
46	Proton transfer reactions of derivatized fullerene trications. <i>Journal of the American Society for Mass Spectrometry</i> , 1998, 9, 114-120.	2.8	10
47	Interconversion of ROC <sup>+</sup> and RCO <sup>+</sup> (R = H and CH <sub>3</sub> ): Gas-Phase Catalysis by Argon and Dinitrogen. <i>Journal of Physical Chemistry A</i> , 1998, 102, 478-483.	2.5	25
48	Sequential Ligation of Mg <sup>+</sup> , Fe <sup>+</sup> , (c-C <sub>5</sub> H <sub>5</sub> )Mg <sup>+</sup> , and (c-C <sub>5</sub> H <sub>5</sub> )Fe <sup>+</sup> with Ammonia in the Gas Phase: Transition from Coordination to Solvation in the Sequential Ligation of Mg <sup>+</sup> . <i>Journal of Physical Chemistry A</i> , 1998, 102, 9803-9810.	2.5	48
49	Fullerene Dications and Trications as Initiators in the Gas-Phase Ball-and-Chain Polymerization of Allene and Propyne: 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
50	Isomer-Specific Trends with Charge State in Gas-Phase Reactions of Fullerene Cations, C <sub>60</sub> x <sup>+</sup> (x = 1-3), with Nitromethane and Methyl Nitrite: Polymethoxylation of C <sub>60</sub> . <i>Journal of the American Chemical Society</i> , 1997, 119, 7055-7060.	13.7	13
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	Gas-phase reactions of singly and multiply-charged fullerene cations, C <sub>60</sub> x <sup>+</sup> (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
53	Proton elimination in charge-separation reactions with hydrogen halides driven by chemical-bond formation with triply-charged C <sub>60</sub> cations. <i>Chemical Physics Letters</i> , 1996, 258, 203-206.	2.6	9
54	Collision-induced dissociation evidence for charge separation and ball-and-chain propagation in the addition of 1-butene to C <sub>60</sub> <sup>2+</sup> . <i>Journal of the American Society for Mass Spectrometry</i> , 1996, 7, 261-265.	2.8	11

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55	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
56	Electron-transfer reactions with buckminsterfullerene, C <sub>60</sub> , in the gas phase. <i>International Reviews in Physical Chemistry</i> , 1994, 13, 163-185.	2.3	57
57	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
58	Two isomers of SF <sub>5</sub> and SF <sub>5</sub> <sup>+</sup> : Structures and energetics. <i>Journal of Chemical Physics</i> , 1994, 100, 1759-1760.	3.0	17
59	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
60	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
61	Unprecedented double-electron transfer to a triply charged cation: Reactions of C <sub>60</sub> <sup>3+</sup> with anthracene, corannulene, benzo[ <i>a</i> ]pentaphene and pyrene. <i>Organic Mass Spectrometry</i> , 1993, 28, 1005-1008.	1.3	24
62	Charge transfer from polycharged ions: C <sub>n</sub> +C <sub>60</sub> as a model system. <i>Chemical Physics Letters</i> , 1993, 204, 473-480.	2.6	70
63	Enhanced reactivity of fullerene cations containing adjacent pentagons. <i>Nature</i> , 1993, 365, 426-429.	27.8	39
64	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
65	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
66	Proton transfer from a fullerene dication: bracketing the gas-phase acidity of C <sub>60</sub> H <sub>2</sub> <sup>2+</sup> . <i>Journal of the American Chemical Society</i> , 1993, 115, 6290-6294.	13.7	43
67	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
68	Selected-ion flow tube study of charge transfer from fullerene dications: "bracketing" the second ionization energies of C <sub>60</sub> and C <sub>70</sub> . <i>The Journal of Physical Chemistry</i> , 1992, 96, 6121-6123.	2.9	56
69	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
70	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
71	Derivatization of the fullerene dications C <sub>60</sub> <sup>2+</sup> and C <sub>70</sub> <sup>2+</sup> by ion-molecule reactions in the gas phase. <i>Journal of the American Chemical Society</i> , 1992, 114, 9177-9181.	13.7	45
72	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

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73	Endohedral fullerene-noble gas clusters formed with high-energy bimolecular reactions of $C_n^+$ ( $x = 1$ ) Tj ETQq1 1 0.784314 rgBT /Overfoc	1.6	77
74	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
75	Laboratory measurements of gas-phase reactions of polyatomic carbon ions $C_n^+$ ( $n=1-6$ ) and $C_nH^+$ ( $n=2-5$ ) with carbon monoxide. <i>Journal of Chemical Physics</i> , 1987, 87, 6934-6938.	3.0	23
76	Carbocationic polymerization in the gas phase: Initiation reactions of $BF_3$ with olefinic monomers. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1987, 8, 87-92.	1.1	9
77	Ionic origins of carbenes in space. <i>Nature</i> , 1986, 319, 473-474.	27.8	27