Thomas Weiske

List of Publications by Year
in descending order

75 papers	3,217 citations	126907 33 h-index	155660 55 g-index
82 all docs	82 docs citations	82 times ranked	1511 citing authors

#	Article	IF	Citations
1	Experiment and Theory Clarify: Sc + Receives One Oxygen Atom from SO 2 to Form ScO + , which Proves to be a Catalyst for the Hidden Oxygenâ€Exchange with SO 2. ChemPhysChem, 2021, , .	2.1	2
2	Frontispiece: Counterâ€Intuitive Gasâ€Phase Reactivities of [V₂]⁺ and [V₂O]⁺ towards CO₂ Reduction: Insight from Electronic Structure Calculations. Angewandte Chemie - International Edition, 2020, 59, .	13.8	0
3	On the Crucial Role of Isolated Electronic States in the Thermal Reaction of ReC + with Dihydrogen. Angewandte Chemie, 2020, 132, 9456-9462.	2.0	3
4	Revisiting the Intriguing Electronic Features of the BeOBeC Carbyne and Some Isomers: A Quantumâ€Chemical Assessment. Angewandte Chemie - International Edition, 2020, 59, 17261-17265.	13.8	2
5	Frontispiz: Counterâ€Intuitive Gasâ€Phase Reactivities of [V₂]⁺ and [V₂O]⁺ towards CO₂ Reduction: Insight from Electronic Structure Calculations. Angewandte Chemie, 2020, 132, .	2.0	0
6	On the Crucial Role of Isolated Electronic States in the Thermal Reaction of ReC⁺ with Dihydrogen. Angewandte Chemie - International Edition, 2020, 59, 9370-9376.	13.8	7
7	Revisiting the Intriguing Electronic Features of the BeOBeC Carbyne and Some Isomers: A Quantumâ€Chemical Assessment. Angewandte Chemie, 2020, 132, 17414-17418.	2.0	0
8	Counterâ€Intuitive Gasâ€Phase Reactivities of [V₂]⁺ and [V₂O]⁺ towards CO₂ Reduction: Insight from Electronic Structure Calculations. Angewandte Chemie, 2020, 132, 12406-12412.	2.0	1
9	Counterâ€Intuitive Gasâ€Phase Reactivities of [V₂]⁺ and [V₂O]⁺ towards CO₂ Reduction: Insight from Electronic Structure Calculations. Angewandte Chemie - International Edition, 2020, 59, 12308-12314.	13.8	10
10	A Reactionâ€Induced Localization of Spin Density Enables Thermal Câˆ'H Bond Activation of Methane by Pristine FeC₄⁺. Chemistry - A European Journal, 2019, 25, 12940-12945.	3.3	22
11	Complete cleavage of the Nâ‰¡N triple bond by Ta₂N⁺via degenerate ligand exchange at ambient temperature: A perfect catalytic cycle. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21416-21420.	7.1	60
12	Reassessment of the Mechanisms of Thermal Câˆ'H Bond Activation of Methane by Cationic Magnesium Oxides: A Critical Evaluation of the Suitability of Different Density Functionals. ChemPhysChem, 2019, 20, 1812-1821.	2.1	5
13	Intrinsic Reactivity of Diatomic 3d Transition-Metal Carbides in the Thermal Activation of Methane: Striking Electronic Structure Effects. Journal of the American Chemical Society, 2019, 141, 599-610.	13.7	39
14	Ta₂⁺-mediated ammonia synthesis from N₂and H₂at ambient temperature. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11680-11687.	7.1	84
15	Oriented external electric fields as mimics for probing the role of metal ions and ligands in the thermal gas-phase activation of methane. Dalton Transactions, 2018, 47, 15271-15277.	3.3	23
16	Thermal Oâ€"H Bond Activation of Water As Mediated by Heteronuclear [Al₂Mg₂O₅]^{â€¢+}: Evidence for Oxygen-Atom Scrambling. Journal of the American Chemical Society, 2018, 140, 9275-9281.	13.7	13
17	Unexpected Mechanistic Variants in the Thermal Gas-Phase Activation of Methane. Organometallics, 2017, 36, 8-17.	2.3	91
18	Electrostatic and Charge-Induced Methane Activation by a Concerted Double Câ€"H Bond Insertion. Journal of the American Chemical Society, 2017, 139, 1684-1689.	13.7	96

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19	Hidden Hydride Transfer as a Decisive Mechanistic Step in the Reactions of the Unligated Gold Carbide [AuC]⁺ with Methane under Ambient Conditions. Angewandte Chemie, 2016, 128, 13266-13269.	2.0	22
20	On the Origin of Roomâ€“temperature, Au⁺â€mediated Coupling of a Methylene Ligand with H₂. Implications for the Mechanism of Methane Dehydrogenation.. ChemistrySelect, 2016, 1, 444-447.	1.5	10
21	Hidden Hydride Transfer as a Decisive Mechanistic Step in the Reactions of the Unligated Gold Carbide [AuC]⁺ with Methane under Ambient Conditions. Angewandte Chemie - International Edition, 2016, 55, 13072-13075.	13.8	54
22	Electronic Origins of the Variable Efficiency of Room-Temperature Methane Activation by Homo- and Heteronuclear Cluster Oxide Cations [XYO₂]⁺ (X, Y = Al, Si, Mg): Competition between Proton-Coupled Electron Transfer and Hydrogen-Atom Transfer. Journal of the American Chemical Society, 2016, 138, 7973-7981.	13.7	90
23	Effect of Adduct Formation with Molecular Nitrogen on the Measured Collisional Cross Sections of Transition Metalâ€“1,10-Phenanthroline Complexes in Traveling Wave Ion-Mobility Spectrometry: N₂ Is Not Always an â€œInertâ€• Buffer Gas. Analytical Chemistry, 2015, 87, 9769-9776.	6.5	14
24	Thermal Ethane Activation by Bare [V₂O₅]⁺ and [Nb₂O₅]⁺ Cluster Cations: on the Origin of Their Different Reactivities. Chemistry - A European Journal, 2014, 20, 6672-6677.	3.3	24
25	On divorcing isomers, dissecting reactivity, and resolving mechanisms of propane CH and aryl CX (X=halogen) bond activations mediated by a ligated copper(III) oxo complex. Chemical Physics Letters, 2014, 608, 408-424.	2.6	30
26	Thermal Methane Activation by a Binary Vâ€“Nb Transitionâ€Metal Oxide Cluster Cation: A Further Example for the Crucial Role of Oxygenâ€Centered Radicals. Chemistry - A European Journal, 2013, 19, 11496-11501.	3.3	29
27	Direct Conversion of Methane into Formaldehyde Mediated by [Al₂O₃]^{.+} at Room Temperature. Angewandte Chemie - International Edition, 2012, 51, 3703-3707.	13.8	98
28	Structure of the Oxygen-Rich Cluster Cation Al₂O₇⁺and its Reactivity toward Methane and Water. Journal of the American Chemical Society, 2011, 133, 16930-16937.	13.7	73
29	Catalytic Redox Reactions in the CO/N₂O System Mediated by the Bimetallic Oxideâ€Cluster Couple AlVO₃⁺/AlVO₄⁺. Angewandte Chemie - International Edition, 2011, 50, 12351-12354.	13.8	66
30	Structural Aspects of Long-Lived C7H82+ Dications Generated by the Electron Ionization of Toluene. Journal of Physical Chemistry A, 2006, 110, 2970-2978.	2.5	34
31	Oxidative Degradation of Small Cationic Vanadium Clusters by Molecular Oxygen: On the Way from V+n (n = 2â€”5) to VO+m (m = 1, 2).. ChemInform, 2003, 34, no.	0.0	0
32	Oxidative Degradation of Small Cationic Vanadium Clusters by Molecular Oxygen:â€‰ On the Way from Vn+ (n = 2â^'5) to VOm+ (m = 1, 2). Journal of Physical Chemistry A, 2003, 107, 2855-2859.	2.5	83
33	Dissociation behavior of ionized valeramide. International Journal of Mass Spectrometry, 2002, 214, 155-170.	1.5	14
34	Dissociation behavior of Cu(urea)+ complexes generated by electrospray ionization. International Journal of Mass Spectrometry, 2002, 219, 729-738.	1.5	150
35	Revisiting the Mechanism of the Unimolecular Fragmentation of Protonated Fluorobenzene. Journal of Physical Chemistry A, 1999, 103, 4609-4620.	2.5	22
36	Gas-Phase Ion Chemistry of Dimethyl Peroxide with the Bare Transition-Metal Cations Cr+, Mn+, Fe+, and Co+. Journal of the American Chemical Society, 1995, 117, 7711-7718.	13.7	40

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37	High-energy collisions of Kr@C60+. with helium. Evidence for the formation of HeKr@C60+.. Chemical Physics Letters, 1994, 227, 87-90.	2.6	27
38	Transfer Hydrogenation and Deuteration of Buckminsterfullerene C60 by 9,10-Dihydroanthracene and 9,9â€²,10,10â€²[D4]Dihydroanthracene. Angewandte Chemie International Edition in English, 1993, 32, 584-586.	4.4	136
39	Transferhydrierung und â€deuterierung von Buckminsterfulleren C₆₀ durch 9,10â€Dihydroâ€anthracen bzw. 9,9â€²,10,10â€²â€[D₄]Dihydroanthracen. Angewandte Chemie, 1993, 105, 609-611.	2.0	34
40	Experiments aimed at generating the long-sought-after ethylenedione (Oî—¸Cî—¸Cî—¸O) by neutralizationî—¸reionization mass spectrometry. International Journal of Mass Spectrometry and Ion Processes, 1993, 125, 75-79.	1.8	42
41	Experimental evidence for the existence of the protonitronium dication (HONO2+) in the gas phase and ab initio molecular orbital calculations of its potential energy surface. Journal of the American Chemical Society, 1993, 115, 6312-6316.	13.7	36
42	Combined ab initio MO and experimental studies on unimolecular hydrogen fluoride loss from protonated fluorobenzene in the gas phase. Journal of the American Chemical Society, 1993, 115, 2015-2020.	13.7	63
43	High-energy collisions of carbon cluster cations with helium: experimental support for the existence of imperfect fullerene structures. The Journal of Physical Chemistry, 1993, 97, 20-22.	2.9	22
44	Application of thermal kinetics to small carbon ion clusters. The Journal of Physical Chemistry, 1993, 97, 6592-6597.	2.9	33
45	The neutralizationâ€"reionization mass spectrum of C+60. International Journal of Mass Spectrometry and Ion Processes, 1992, 113, R23-R29.	1.8	31
46	Chemical signatures of Buckminsterfullerene, C60, under chemical ionization conditions. International Journal of Mass Spectrometry and Ion Processes, 1992, 116, R13-R21.	1.8	11
47	High-energy collisions of organofullerene cations with helium. Ligand evaporation caused by encapsulation of the noble gas atom. Chemical Physics Letters, 1992, 199, 640-642.	2.6	12
48	The Neutralization of HeC60Ë™+ in the Gas Phase: Compelling Evidence for the Existence of an Endohedral Structure for He@C60. Angewandte Chemie International Edition in English, 1992, 31, 183-185.	4.4	96
49	Sequential Insertion of3He and4He in C60Ë™+. Angewandte Chemie International Edition in English, 1992, 31, 605-606.	4.4	19
50	Cationic and neutral nitrosamide: viable molecules in the dilute gas phase. Chemical Physics Letters, 1992, 199, 643-647.	2.6	13
51	Ab initio MO calculation on the energy barrier for the penetration of a benzene ring by a helium atom. Model studies for the formation of endohedral He@C60+ complexes by high-energy bimolecular reactions. Chemical Physics Letters, 1992, 193, 97-100.	2.6	46
52	Endohedral fullerene-noble gas clusters formed with high-energy bimolecular reactions of Cxn+ (x =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 [illegible]	1.6	77
53	Beweis der Existenz einer endohedralen He@C₆₀â€Struktur durch Gasphasenneutralisation von HeC^{.+}₆₀. Angewandte Chemie, 1992, 104, 242-244.	2.0	32
54	Sequentieller Einbau von ³He und ⁴He in C. Angewandte Chemie, 1992, 104, 639-640.	2.0	8

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55	Injection of helium atoms into doubly and triply charged carbon (C60) cations. The Journal of Physical Chemistry, 1991, 95, 8451-8452.	2.9	79
56	Generation and characterization of neutral and cationic 3-sila-cyclopropenylidene in the gas phase. International Journal of Mass Spectrometry and Ion Processes, 1991, 107, 369-376.	1.8	134
57	Endohedral Cluster Compounds: Inclusion of Helium within C60â€¢âŠ• and C70â€¢âŠ• through Collision Experiments. Angewandte Chemie International Edition in English, 1991, 30, 884-886.	4.4	291
58	Formation of endohedral carbon-cluster noble-gas compounds with high-energy bimolecular reactions: C60Hen+ (n=1,2). Chemical Physics Letters, 1991, 186, 459-462.	2.6	86
59	Activation of carbon-hydrogen and carbon-carbon bonds of 4-octyne in the gas phase by bare transition-metal ions M+ (M = chromium, manganese, iron). Organometallics, 1988, 7, 898-902.	2.3	23
60	Generation of the distonic ion CH2NH3.bul.+: nucleophilic substitution of the ketene cation radical by ammonia and unimolecular decarbonylation of ionized acetamide. Journal of the American Chemical Society, 1987, 109, 4810-4818.	13.7	70
61	The CH2+ dication: Metastable or not? A combined theoretical and experimental investigation. Chemical Physics Letters, 1987, 142, 147-152.	2.6	24
62	The mechanism of methyl loss from ionized methoxypentamethyldisilane: anchimeric assistance versus direct bond cleavage.. Journal of Organometallic Chemistry, 1987, 336, 105-113.	1.8	9
63	Gas-phase dissociations of ionized methyl isopropyl ether. A case for ion / neutral complexes?. International Journal of Mass Spectrometry and Ion Processes, 1987, 76, 117-119.	1.8	12
64	CNH2+: Laboratory generation of a proposed interstellar species. Chemical Physics Letters, 1986, 132, 69-71.	2.6	7
65	Study of ion structures produced by the reaction of 2-propyl cations with water and methanol; covalently bound v. Hydrogen-bridged adducts. Organic Mass Spectrometry, 1986, 21, 665-671.	1.3	48
66	Hydroxyacetylene: Generation and Characterization of the Neutral Molecule, Radical Cation and Dication in the Gas Phase. Angewandte Chemie International Edition in English, 1986, 25, 282-284.	4.4	52
67	Aminoacetylene and Its Mono- and Dicationâ€"Identification of Potentially Interstellar Molecules. Angewandte Chemie International Edition in English, 1986, 25, 827-828.	4.4	28
68	Massenspektrometrischer Nachweis von Aminoacetylen sowie seinem Monoâ€•und Dikation. Angewandte Chemie, 1986, 98, 834-835.	2.0	3
69	The CCl4 dication revisited. International Journal of Mass Spectrometry and Ion Processes, 1986, 72, 313-315.	1.8	10
70	Intrinsic alkyl radical properties inferred from the study of unimolecular dissociations of gaseous carboxylic acid cation radicals. Tetrahedron, 1986, 42, 6245-6251.	1.9	38
71	Cl2C?Cl?Cl??, Cl2C?Cl?Br??, and Br2C?Br?Cl?? by Gas-Phase Decarbonylation of CX3COY??. Angewandte Chemie International Edition in English, 1985, 24, 869-870.	4.4	19
72	Stereoisomeric fragment ions arising from decomposition of enol cation radicals of different internal energy content. Organic Mass Spectrometry, 1984, 19, 617-622.	1.3	5

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73	Reactivity of CH2?X?CH3?? (X ? Cl, Br) with Electrophiles and Nucleophiles in the Gas Phase, a Fourier Transform Ion Cyclotron Resonance Investigation. Angewandte Chemie International Edition in English, 1984, 23, 733-734.	4.4	22
74	On the detailed pathway of the methyl loss from ionized methyl isobutyrate in the gas phase. Journal of the American Chemical Society, 1984, 106, 1167-1168.	13.7	23
75	Methyl-Eliminierung aus dem metastabilen Homoadamantan-Radikalkation / Methyl Loss from Metastable Homoadamantane Cation Radical. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 1980, 35, 207-211.	0.7	5