Maria Schlangen

List of Publications by Year in Descending Order

156 papers	4,126 citations	34 h-index	56 g-index
165 ext. papers	4,464 ext. citations	7.7 avg, IF	5.73 L-index

#	Paper	IF	Citations
156	Direct Identification of Acetaldehyde Formation and Characterization of the Active Site in the [VPO] /C H Couple by Gas-Phase Vibrational Spectroscopy. *Angewandte Chemie - International Edition*, **2019**, 58, 18868-18872	16.4	10
155	Tuning the Reactivities of the Heteronuclear [Al V O] (n=1, 2) Cluster Oxides towards Methane by Varying the Composition of the Metal Centers. *Chemistry - A European Journal*, **2019**, 25, 2967-2971	4.8	5
154	Thermal Activation of CH and H as Mediated by the Ruthenium Oxide Cluster Ions [RuO] (x=1-3): On the Influence of Oxidation States. *Chemistry - A European Journal*, **2019**, 25, 3550-3559	4.8	6
153	O Bond Formation and Liberation of Dioxygen Mediated by N5-Coordinate Non-Heme Iron(IV) Complexes. *Angewandte Chemie*, **2019**, 131, 13606-13612	3.6	1
152	O-O Bond Formation and Liberation of Dioxygen Mediated by N -Coordinate Non-Heme Iron(IV) Complexes. *Angewandte Chemie - International Edition*, **2019**, 58, 13472-13478	16.4	6
151	Direct Identification of Acetaldehyde Formation and Characterization of the Active Site in the [VPO4].+/C2H4 Couple by Gas-Phase Vibrational Spectroscopy. *Angewandte Chemie*, **2019**, 131, 19044-19048	3.6	6
150	er die besondere Rolle des Stickstoffliganden in den durch [NbN]+ katalysierten Redoxreaktionen von N2O/CO in der Gasphase. *Angewandte Chemie*, **2019**, 131, 3674-3678	3.6	0
149	On the Remarkable Role of the Nitrogen Ligand in the Gas-Phase Redox Reaction of the N O/CO Couple Catalyzed by [NbN]. *Angewandte Chemie - International Edition*, **2019**, 58, 3635-3639	16.4	10
148	Intermediates of N-Heterocyclic Carbene (NHC) Dimerization Probed in the Gas Phase by Ion Mobility Mass Spectrometry: C-H???:C Hydrogen Bonding Versus Covalent Dimer Formation. *Chemistry - A European Journal*, **2019**, 25, 2511-2518	4.8	10
147	On the Origin of the Distinctly Different Reactivity of Ruthenium in [MO] /CH Systems (M=Fe, Ru, Os). *Angewandte Chemie - International Edition*, **2018**, 57, 5934-5937	16.4	8
146	Ligand Effects on the Reactivity of [CoX]+ (X = CN, F, Cl, Br, O, OH) Towards CO2: Gas-Phase Generation of the Elusive Cyanoformate by [Co(CN)]+ and [Fe(CN)]+. *Topics in Catalysis*, **2018**, 61, 575-584	2.3	7
145	Direkte Umwandlung von Methan zu protoniertem Formaldehyd bei Raumtemperatur in der Gasphase: Zur Rolle von Quecksilber unter den Oxidkationen der Zinktriade. *Angewandte Chemie*, **2018**, 130, 3306-3310	3.6	5
144	Direct Room-Temperature Conversion of Methane into Protonated Formaldehyde: The Gas-Phase Chemistry of Mercury among the Zinc Triad Oxide Cations. *Angewandte Chemie - International Edition*, **2018**, 57, 3251-3255	16.4	11
143	er die Ursachen der deutlich unterschiedlichen Reaktivit von Ruthenium unter den [MO]+/CH4-Systemen (M=Fe, Ru, Os). *Angewandte Chemie*, **2018**, 130, 6039-6043	3.6	3
142	Selective C-O Coupling Hidden in the Thermal Reaction of [Al CuO] with Methane. *Chemistry - A European Journal*, **2018**, 24, 14649-14653	4.8	4
141	The Electric Field as a "Smart" Ligand in Controlling the Thermal Activation of Methane and Molecular Hydrogen. *Angewandte Chemie - International Edition*, **2018**, 57, 14635-14639	16.4	23
140	Elektrisches Feld als marter Ligandenersatz zur kontrollierten thermischen Aktivierung von Methan und molekularem Wasserstoff. *Angewandte Chemie*, **2018**, 130, 14845-14849	3.6	1

139	Selective Nitrogen-Atom Transfer Driven by a Highly Efficient Intersystem Crossing in the [CeON] /CH System. *Angewandte Chemie - International Edition*, **2018**, 57, 15902-15906	16.4	8
138	Mechanistic aspects of methane activation promoted by [MO3]+ (M = Mn, Re). *International Journal of Mass Spectrometry*, **2018**, 434, 240-245	1.9	2
137	Selektive Übertragung eines Stickstoffatoms im [CeON]+/CH4-System durch hocheffizientes Intersystem Crossing. *Angewandte Chemie*, **2018**, 130, 16129-16133	3.6	2
136	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	4.3	16
135	Unexpected Mechanistic Variants in the Thermal Gas-Phase Activation of Methane. *Organometallics* , **2017**, 36, 8-17	3.8	80
134	On the Origin of Reactivity Enhancement/Suppression upon Sequential Ligation: [Re(CO)] /CH (x=0-3) Couples. *Angewandte Chemie - International Edition*, **2017**, 56, 2951-2954	16.4	8
133	Sequential Gas-Phase Activation of Carbon Dioxide and Methane by [Re(CO)]: The Sequence of Events Matters!. *Journal of the American Chemical Society*, **2017**, 139, 6169-6176	16.4	18
132	On the Origin of the Remarkably Variable Reactivities of [AlCeO] (x=2-4) towards Methane as a Function of Oxygen Content. *Angewandte Chemie - International Edition*, **2017**, 56, 413-416	16.4	15
131	Gas-phase reactions of cationic molybdenum and tungsten monoxide with ethanol: a combined experimental/computational exercise. *Structural Chemistry*, **2017**, 28, 403-413	1.8	7
130	Metal-Free, Room-Temperature Oxygen-Atom Transfer in the N O/CO Redox Couple as Catalyzed by [Si O] (x=2-5). *Angewandte Chemie - International Edition*, **2017**, 56, 9990-9993	16.4	11
129	Control of Product Distribution and Mechanism by Ligation and Electric Field in the Thermal Activation of Methane. *Angewandte Chemie - International Edition*, **2017**, 56, 10219-10223	16.4	47
128	Metal-Dependent Strengthening and Weakening of M-H and M-C Bonds by an Oxo Ligand: Thermal Gas-Phase Activation of Methane by [OMH] and [MH] (M=Mo, Ti). *Chemistry - A European Journal*, **2017**, 23, 12346-12352	4.8	6
127	Electronic Origin of the Competitive Mechanisms in the Thermal Activation of Methane by the Heteronuclear Cluster Oxide [Al ZnO]. *Angewandte Chemie - International Edition*, **2017**, 56, 14297-14300	16.4	5
126	Thermal Methane Activation by the Metal-Free Cluster Cation [Si O]. *Chemistry - A European Journal*, **2017**, 23, 1498-1501	4.8	9
125	Electrostatic and Charge-Induced Methane Activation by a Concerted Double C-H Bond Insertion. *Journal of the American Chemical Society*, **2017**, 139, 1684-1689	16.4	75
124	Spin-Selective, Competitive Hydrogen-Atom Transfer versus CH O-Generation from the CH /[ReO] Couple at Ambient Conditions. *Chemistry - A European Journal*, **2017**, 23, 17469-17472	4.8	8
123	On the Electronic Origin of Remarkable Ligand Effects on the Reactivities of [NiL] Complexes (L=C H , C H N, CN) towards Methane. *Chemistry - A European Journal*, **2017**, 23, 14430-14433	4.8	4
122	Ursachen der unterschiedlichen Reaktivität von [AlCeOx]+ (x=2–4) gegenüber Methan in Abhängigkeit vom Sauerstoffgehalt. *Angewandte Chemie*, **2017**, 129, 424-428	3.6	8

121	R□ktitelbild: Steuerung der Produktverteilung und der Mechanismen der thermischen Aktivierung von Methan durch Ligandeneffekte und elektrische Felder (Angew. Chem. 34/2017). *Angewandte Chemie*, **2017**, 129, 10382-10382	3.6	
120	Elektronische Ursache konkurrierender Mechanismen bei der thermischen Aktivierung von Methan durch das heteronukleare Clusteroxid [Al2ZnO4].+. *Angewandte Chemie*, **2017**, 129, 14486-14490	3.6	2
119	Metallfreier, durch [Si2Ox].+ (x=2□) katalysierter Sauerstofftransfer im N2O/CO-Redoxpaar bei Raumtemperatur. *Angewandte Chemie*, **2017**, 129, 10122-10126	3.6	7
118	Steuerung der Produktverteilung und der Mechanismen der thermischen Aktivierung von Methan durch Ligandeneffekte und elektrische Felder. *Angewandte Chemie*, **2017**, 129, 10353-10357	3.6	9
117	On the Origin of Reactivity Enhancement/Suppression upon Sequential Ligation: [Re(CO)x]+/CH4 (x=0□) Couples. *Angewandte Chemie*, **2017**, 129, 2997-3000	3.6	2
116	Striking Doping Effects on Thermal Methane Activation Mediated by the Heteronuclear Metal Oxides [XAlO] (X=V, Nb, and Ta). *Chemistry - A European Journal*, **2017**, 23, 788-792	4.8	15
115	Efficient Room-Temperature Methane Activation by the Closed-Shell, Metal-Free Cluster [OSiOH](+) : A Novel Mechanistic Variant. *Chemistry - A European Journal*, **2016**, 22, 14257-63	4.8	12
114	Efficient Room-Temperature Activation of Methane by TaN(+) under C-N Coupling. *Angewandte Chemie - International Edition*, **2016**, 55, 11678-81	16.4	15
113	On the Activation of Methane and Carbon Dioxide by [HTaO](+) and [TaOH](+) in the Gas Phase: A Mechanistic Study. *Chemistry - A European Journal*, **2016**, 22, 10581-9	4.8	16
112	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	16.4	41
111	Thermal Methane Activation by [Si O] and [Si O H] : Reactivity Enhancement by Hydrogenation. *Angewandte Chemie - International Edition*, **2016**, 55, 13345-13348	16.4	4
110	The Unique Gas-Phase Chemistry of the [AuO](+) /CH4 Couple: Selective Oxygen-Atom Transfer to, Rather than Hydrogen-Atom Abstraction from, Methane. *Angewandte Chemie - International Edition* , **2016**, 55, 10877-80	16.4	15
109	The Origin of the Efficient, Thermal Chemisorption of Methane by the Heteronuclear Metal-Oxide Cluster [Al TaO]. *Angewandte Chemie - International Edition*, **2016**, 55, 14867-14871	16.4	13
108	Thermische Methanaktivierung durch [Si2O5].+ und [Si2O5H2].+: Reaktivit□tssteigerung durch Hydrierung. *Angewandte Chemie*, **2016**, 128, 13540-13543	3.6	2
107	Thermische Dehydrierung von Methan durch [ReN]+. *Angewandte Chemie*, **2016**, 128, 15085-15089	3.6	7
106	Zum Ursprung der effizienten thermischen Chemisorption von Methan durch den heteronuklearen Metalloxidcluster [Al2TaO5]+. *Angewandte Chemie*, **2016**, 128, 15090-15094	3.6	9
105	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, 7973-81	16.4	74
104	Unravelling Mechanistic Aspects of the Gas-Phase Ethanol Conversion: An Experimental and Computational Study on the Thermal Reactions of MO2 (+) (M=Mo, W) with Ethanol. *Chemistry - A European Journal*, **2016**, 22, 3077-83	4.8	8

103	Differences and Commonalities in the Gas-Phase Reactions of Closed-Shell Metal Dioxide Clusters [MO2](+) (M=V, Nb, and Ta) with Methane. *Chemistry - A European Journal*, **2016**, 22, 7225-8	4.8	30
102	Bond Activation by Metal-Carbene Complexes in the Gas Phase. *Accounts of Chemical Research*, **2016**, 49, 494-502	24.3	59
101	Penetrating the Elusive Mechanism of Copper-Mediated Fluoromethylation in the Presence of Oxygen through the Gas-Phase Reactivity of Well-Defined [LCuO](+) Complexes with Fluoromethanes (CH(4-n)Fn, n = 1-3). *Journal of the American Chemical Society*, **2016**, 138, 3125-35	16.4	27
100	Mechanistic aspects of CO2 activation mediated by phenyl yttrium cation: A combined experimental/theoretical study. *Journal of Catalysis*, **2016**, 343, 68-74	7.3	9
99	Spinabhängige, thermische Aktivierung von Methan durch den geschlossenschaligen Cluster [TaO3]+. *Angewandte Chemie*, **2016**, 128, 7374-7377	3.6	18
98	Thermische Aktivierung von Methan durch [HfO].+ und [XHfO]+ (X=F, Cl, Br, I): ein außergewöhnlicher Ligandeneffekt und dessen Ursache. *Angewandte Chemie*, **2016**, 128, 7816-7819	3.6	9
97	Spin-Selective Thermal Activation of Methane by Closed-Shell [TaO3](.). *Angewandte Chemie - International Edition*, **2016**, 55, 7257-60	16.4	32
96	Thermal Activation of Methane by [HfO](.+) and [XHfO](+) (X=F, Cl, Br, I) and the Origin of a Remarkable Ligand Effect. *Angewandte Chemie - International Edition*, **2016**, 55, 7685-8	16.4	18
95	Breaking and Making of Carbon-Carbon Bonds by Lanthanides and Third-Row Transition Metals. *Chemistry - A European Journal*, **2016**, 22, 3073-6	4.8	8
94	Mechanistic Aspects of the Holmium-Mediated, Reciprocal Hydrogen/Sulfur Exchange in the Gas Phase: C6 H5 CH3 +CH2 S-k6 H5 CHS+CH4. *Chemistry - A European Journal*, **2016**, 22, 4336-9	4.8	2
93	Efficient Room-Temperature, Au(+)-Mediated Coupling of a Carbene Ligand with Methane To Generate C2Hx (x = 4, 6). *Angewandte Chemie - International Edition*, **2016**, 55, 441-4	16.4	31
92	Au+-vermittelte, effiziente Kupplung eines Carbenliganden mit Methan: Bildung von C2Hx (x=4, 6) bei Raumtemperatur. *Angewandte Chemie*, **2016**, 128, 452-455	3.6	14
91	Thermal Dehydrogenation of Methane by [ReN]. *Angewandte Chemie - International Edition*, **2016**, 55, 14863-14866	16.4	14
90	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	3.6	18
89	Die Chemie von [AuO]+/CH4 in der Gasphase: Selektive Sauerstoffatom-Übertragung auf, statt Wasserstoffatom-Abstraktion von Methan. *Angewandte Chemie*, **2016**, 128, 11036-11039	3.6	5
88	Effiziente, thermische Aktivierung von Methan durch TaN+ unter C-N-Kupplung. *Angewandte Chemie*, **2016**, 128, 11851-11855	3.6	7
87	Mechanistic Variants in Gas-Phase Metal-Oxide Mediated Activation of Methane at Ambient Conditions. *Journal of the American Chemical Society*, **2016**, 138, 11368-77	16.4	68
86	On the Origin of Room-Temperature, Au+-mediated Coupling of a Methylene Ligand with H2. Implications for the Mechanism of Methane Dehydrogenation.. *ChemistrySelect*, **2016**, 1, 444-447	1.8	10

85	Mechanistic aspects of the gas-phase coupling of thioanisole and chlorobenzene to dibenzothiophene catalyzed by atomic Ho(+). *Physical Chemistry Chemical Physics*, **2015**, 17, 9564-8	3.6	3
84	Activation of Methane and Carbon Dioxide Mediated by Transition-Metal Doped Magnesium Oxide Clusters [MMgO](+/0/-) (M=Sc-Zn). *Chemistry - A European Journal*, **2015**, 21, 7780-9	4.8	28
83	Carbon-Atom Extrusion from Halobenzenes and Its Coupling with a Methylene Ligand to Form Acetylene. *Chemistry - A European Journal*, **2015**, 21, 9629-31	4.8	8
82	Effect of adduct formation with molecular nitrogen on the measured collisional cross sections of transition metal-1,10-phenanthroline complexes in traveling wave ion-mobility spectrometry: N2 is not always an "inert" buffer gas. *Analytical Chemistry*, **2015**, 87, 9769-76	7.8	11
81	Distinct mechanistic differences in the hydrogen-atom transfer from methane and water by the heteronuclear oxide cluster [Ga2 MgO4](.). *Angewandte Chemie - International Edition*, **2015**, 54, 12298-302	16.4	24
80	On the role of the electronic structure of the heteronuclear oxide cluster [Ga2Mg2O5](.+) in the thermal activation of methane and ethane: an unusual doping effect. *Angewandte Chemie - International Edition*, **2015**, 54, 5074-8	16.4	33
79	Zur Rolle der Elektronenstruktur des heteronuklearen Oxidclusters [Ga2Mg2O5].+ in der thermischen Aktivierung von Methan und Ethan: ein ungewöhnlicher Dotierungseffekt. *Angewandte Chemie*, **2015**, 127, 5163-5167	3.6	15
78	"Stripping" the carbon atom of methyl halide by a cationic holmium complex: a gas-phase study. *Chemistry - A European Journal*, **2015**, 21, 14305-8	4.8	2
77	Deutlich unterschiedliche Mechanismen der Wasserstoffatomabstraktion aus Methan und Wasser durch den heteronuklearen Oxidcluster [Ga2MgO4].+. *Angewandte Chemie*, **2015**, 127, 12472-12477	3.6	9
76	Zum Mechanismus des Wasserstoffatomtransfers von Wasser auf den heteronuklearen Oxidcluster [Ga2Mg2O5].+: außergewöhnliche Effekte der elektronischen Struktur. *Angewandte Chemie*, **2015**, 127, 12028-12032	3.6	6
75	On the Mechanisms of Hydrogen-Atom Transfer from Water to the Heteronuclear Oxide Cluster [Ga2 Mg2 O5](.+) : Remarkable Electronic Structure Effects. *Angewandte Chemie - International Edition*, **2015**, 54, 11861-4	16.4	16
74	Ligand-Controlled CO2 Activation Mediated by Cationic Titanium Hydride Complexes, [LTiH](+) (L=Cp2 , O). *Chemistry - A European Journal*, **2015**, 21, 8483-90	4.8	29
73	Frontispiece: Distinct Mechanistic Differences in the Hydrogen-Atom Transfer from Methane and Water by the Heteronuclear Oxide Cluster [Ga2MgO4].+. *Angewandte Chemie - International Edition*, **2015**, 54, n/a-n/a	16.4	1
72	Mechanistic aspects of the gas-phase reactions of halobenzenes with bare lanthanide cations: a combined experimental/theoretical investigation. *Chemistry - A European Journal*, **2015**, 21, 2123-31	4.8	10
71	Thermal ethane activation by bare [VO]+ and [NbO]+ cluster cations: on the origin of their different reactivities. *Chemistry - A European Journal*, **2014**, 20, 6672-7	4.8	22
70	Mechanisms of Metal-Mediated C–N Coupling Processes: A Synergistic Relationship between Gas-Phase Experiments and Computational Chemistry **2014**, 1-16		3
69	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	2.5	29
68	Highly regioselective hydride transfer, oxidative dehydrogenation, and hydrogen-atom abstraction in the thermal gas-phase chemistry of [Zn(OH)](+)/C3H8. *Physical Chemistry Chemical Physics*, **2014**, 16, 26617-23	3.6	11

67	Toward extension of the gas-phase basicity scale by novel pyridine containing guanidines. *International Journal of Mass Spectrometry*, **2013**, 354-355, 113-122	1.9	15
66	C-N coupling in the gas-phase reactions of ammonia and [M(CH)]+ (M = Ni, Pd, Pt): a combined experimental/computational exercise. *Dalton Transactions*, **2013**, 42, 4153-62	4.3	14
65	On the Origin of the Surprisingly Sluggish Redox Reaction of the N2O/CO Couple Mediated by [Y2O2]+. and [YAlO2]+. Cluster Ions in the Gas Phase. *Angewandte Chemie*, **2013**, 125, 1264-1268	3.6	22
64	On the origin of the surprisingly sluggish redox reaction of the N2O/CO couple mediated by [Y2O2]+ and [YAlO2]+ cluster ions in the gas phase. *Angewandte Chemie - International Edition*, **2013**, 52, 1226-30	16.4	55
63	Isomer-selective thermal activation of methane in the gas phase by [HMO]+ and [M(OH)]+ (M=Ti and V). *Angewandte Chemie - International Edition*, **2013**, 52, 6097-101	16.4	38
62	Single and double N-H bond activation of ammonia by [Al2O3]: room temperature formation of the aminyl radical and nitrene. *Angewandte Chemie - International Edition*, **2013**, 52, 9513-7	16.4	6
61	Structure and chemistry of the heteronuclear oxo-cluster [VPO4]: a model system for the gas-phase oxidation of small hydrocarbons. *Journal of the American Chemical Society*, **2013**, 135, 3711-21	16.4	64
60	Gas-phase reactions of cationic vanadium-phosphorus oxide clusters with C2H(x) (x=4, 6): a DFT-based analysis of reactivity patterns. *Chemistry - A European Journal*, **2013**, 19, 3017-28	4.8	23
59	Thermal Activation of Ammonia by Transition-Metal Hydroxide Cations. *ChemPlusChem*, **2013**, 78, 886	2.8	
58	Thermal Activation of Ammonia by Transition-Metal Hydroxide Cations. *ChemPlusChem*, **2013**, 78, 952-958	2.8	3
57	Thermal methane activation by a binary V-Nb transition-metal oxide cluster cation: a further example for the crucial role of oxygen-centered radicals. *Chemistry - A European Journal*, **2013**, 19, 11496-501	4.8	25
56	Mechanistic aspects of gas-phase hydrogen-atom transfer from methane to [CO]() and [SiO]() : why do they differ?. *Chemistry - A European Journal*, **2013**, 19, 6662-9	4.8	22
55	Einfache und doppelte N-H-Aktivierung in NH3 durch [Al2O3].+: Erzeugung des Aminylradikals und von Nitren bei Raumtemperatur. *Angewandte Chemie*, **2013**, 125, 9691-9695	3.6	1
54	Isomerenabhängige, thermische Aktivierung von Methan durch [HMO]+ und [M(OH)]+ (M=Ti und V) in der Gasphase. *Angewandte Chemie*, **2013**, 125, 6213-6217	3.6	21
53	Mechanistic aspects and elementary steps of N-H bond activation of ammonia and C-N coupling induced by gas-phase ions: a combined experimental/computational exercise. *Chemistry - A European Journal*, **2012**, 18, 40-9	4.8	34
52	Effects of Ligands, Cluster Size, and Charge State in Gas-Phase Catalysis: A Happy Marriage of Experimental and Computational Studies. *Catalysis Letters*, **2012**, 142, 1265-1278	2.8	117
51	Neutral Metal Atoms Acting as a Leaving Group in Gas-Phase SN2 Reactions: M(CH3)+ + NH3 -k CH3NH3+ + M (M = Zn, Cd, Hg). *Organometallics*, **2012**, 31, 3816-3824	3.8	26
50	C-N- und C-C-Bindungsknüpfung in der Reaktion von Isobuten mit Ni(NH2)+ mit C2H4: Mechanistische Erkenntnisse über die metallvermittelte Hydroaminierung eines nichtaktivierten Olefins. *Angewandte Chemie*, **2012**, 124, 3541-3546	3.6	8

49	Thermische Wasserstoffabstraktion aus Methan – zur Rolle von Radikalen und Spinzuständen in der Chemie von Oxoclustern. *Angewandte Chemie*, **2012**, 124, 5638-5650	3.6	111
48	Direkte Umwandlung von Methan zu Formaldehyd durch kationisches [Al2O3].+ bei Raumtemperatur. *Angewandte Chemie*, **2012**, 124, 3763-3767	3.6	36
47	Zur Reaktion von YAlO3.+ mit Methan bei Raumtemperatur: Dotierung macht Y2O3.+ reaktiver und Al2O3.+ selektiver. *Angewandte Chemie*, **2012**, 124, 6093-6096	3.6	30
46	C-N and C-C bond formations in the thermal reactions of "bare" Ni(NH2)+ with C2H4: mechanistic insight on the metal-mediated hydroamination of an unactivated olefin. *Angewandte Chemie - International Edition*, **2012**, 51, 3483-8	16.4	21
45	Thermal hydrogen-atom transfer from methane: the role of radicals and spin states in oxo-cluster chemistry. *Angewandte Chemie - International Edition*, **2012**, 51, 5544-55	16.4	338
44	Direct conversion of methane into formaldehyde mediated by [Al2O3]+ at room temperature. *Angewandte Chemie - International Edition*, **2012**, 51, 3703-7	16.4	89
43	Thermal reactions of YAlO3+ with methane: increasing the reactivity of Y2O3+ and the selectivity of Al2O3+ by doping. *Angewandte Chemie - International Edition*, **2012**, 51, 5991-4	16.4	62
42	Thermal ammonia activation by cationic transition-metal hydrides of the first row--small but mighty. *Chemistry - an Asian Journal*, **2012**, 7, 1214-20	4.5	17
41	Structure of the oxygen-rich cluster cation Al2O7+ and its reactivity toward methane and water. *Journal of the American Chemical Society*, **2011**, 133, 16930-7	16.4	69
40	Probing elementary steps of nickel-mediated bond activation in gas-phase reactions: Ligand- and cluster-size effects. *Journal of Catalysis*, **2011**, 284, 126-137	7.3	47
39	Darstellung, Reaktivität gegenüber Kohlenwasserstoffen und elektronische Struktur von heteronuclearen Vanadium-Phosphor-Sauerstoff-Clusterionen. *Angewandte Chemie*, **2011**, 123, 1466-1470	3.6	42
38	Effiziente und selektive Monomethylierung kontra N-H-Bindungsaktivierung von Ammoniak: atomares Zink als Abgangsgruppe in einer SN2-Reaktion von „nacktem" Zn(CH3)+ und NH3. *Angewandte Chemie*, **2011**, 123, 5499-5503	3.6	13
37	Über die Rolle von [CuO]+ bei spinselektiven Wasserstoff- und Sauerstoff-Übertragungen in der Aktivierung von Methan. *Angewandte Chemie*, **2011**, 123, 5068-5072	3.6	59
36	Redoxreaktionen des CO/N2O-Systems, katalysiert durch das bimetallische Oxidclusterpaar AlVO3+/AlVO4+. *Angewandte Chemie*, **2011**, 123, 12559-12562	3.6	30
35	Generation, reactivity towards hydrocarbons, and electronic structure of heteronuclear vanadium phosphorous oxygen cluster ions. *Angewandte Chemie - International Edition*, **2011**, 50, 1430-4	16.4	70
34	Efficient and selective gas-phase monomethylation versus N-H bond activation of ammonia by "bare" Zn(CH3)+: atomic zinc as a leaving group in an SN2 reaction. *Angewandte Chemie - International Edition*, **2011**, 50, 5387-91	16.4	23
33	Diatomic [CuO]+ and its role in the spin-selective hydrogen- and oxygen-atom transfers in the thermal activation of methane. *Angewandte Chemie - International Edition*, **2011**, 50, 4966-9	16.4	145
32	Catalytic redox reactions in the CO/N2O system mediated by the bimetallic oxide-cluster couple AlVO3+/AlVO4+. *Angewandte Chemie - International Edition*, **2011**, 50, 12351-4	16.4	63

31	Directed, remote gas-phase C-H and C-C bond activations by metal oxide cations anchored to a nitrile group. *Chemistry - A European Journal*, **2011**, 17, 1783-8	4.8	17
30	Thermal activation of N-H bonds by transition-metal oxide cations: does a hierarchy exist in the first row?. *Chemistry - A European Journal*, **2011**, 17, 3886-92	4.8	14
29	Thermal activation of methane and ethene by bare MO^+ (M=Ge, Sn, and Pb): a combined theoretical/experimental study. *Chemistry - A European Journal*, **2011**, 17, 9619-25	4.8	44
28	Metal-dependent alternative activation of O-H and C-H bonds of methanol: on the formation and structure of "bare" [M,C,H3,O]+ complexes (M = Fe, Co, Ni) in the gas phase. *Chemical Communications*, **2010**, 46, 1878-80	5.8	20
27	Selective C?H versus O?H Bond Activation of CH3OH upon Electrospraying Methanolic Solutions of MX2 (M=Fe, Co, Ni; X=Br, I): A DFT Study. *ChemCatChem*, **2010**, 2, 799-802	5.2	17
26	Conversion of methane to methanol: nickel, palladium, and platinum (d9) cations as catalysts for the oxidation of methane by ozone at room temperature. *Chemistry - A European Journal*, **2010**, 16, 11605-10	4.8	76
25	Coordination chemistry of nickel(II) nitrate with superbasic guanidines as studied by electrospray mass spectrometry. *International Journal of Mass Spectrometry*, **2010**, 290, 22-31	1.9	8
24	DFT Studies on the Thermal Activation of Molecular Oxygen by Bare [Ni(H)(OH)]+. *Helvetica Chimica Acta*, **2009**, 92, 151-164	2	10
23	Facile Dissociation of [(LNiII)2E2] Dichalcogenides: Evidence for [LNiIIE2] Superselenides and Supertellurides in Solution. *Angewandte Chemie*, **2009**, 121, 4621-4624	3.6	6
22	Facile dissociation of [(LNi(II))2E2] dichalcogenides: evidence for [LNi(II)E2] superselenides and supertellurides in solution. *Angewandte Chemie - International Edition*, **2009**, 48, 4551-4	16.4	24
21	Platinum(II)-mediated dehydrosulfurization and oxidative carbon–carbon coupling in the gas-phase decomposition of thioethers. *International Journal of Mass Spectrometry*, **2009**, 283, 3-8	1.9	17
20	A redox non-innocent ligand controls the life time of a reactive quartet excited state - an MCSCF study of [Ni(H)(OH)](+). *Journal of the American Chemical Society*, **2009**, 131, 12634-42	16.4	32
19	Ligand and electronic-structure effects in metal-mediated gas-phase activation of methane: a cold approach to a hot problem. *Dalton Transactions*, **2009**, 10155-65	4.3	86
18	Gas-phase C-H and N-H bond activation by a high valent nitrido-iron dication and NH-transfer to activated olefins. *Journal of the American Chemical Society*, **2008**, 130, 4285-94	16.4	79
17	On the mechanisms of degenerate ligand exchange in [M(CH(3))](+)/CH(4) Couples (M=Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt) as explored by mass spectrometric and computational studies: oxidative addition/reductive elimination versus sigma-complex-assisted metathesis. *Chemistry - A European Journal*, **2008**, 14, 5229-36	4.8	44
16	"Roll-over" cyclometalation of 2,2'-bipyridine platinum(II) complexes in the gas phase: a combined experimental and computational study. *Chemistry - A European Journal*, **2008**, 14, 11050-60	4.8	47
15	Insertion of Molecular Oxygen in Transition-Metal Hydride Bonds, Oxygen-Bond Activation, and Unimolecular Dissociation of Metal Hydroperoxide Intermediates. Short Communication. *Helvetica Chimica Acta*, **2008**, 91, 379-386	2	21
14	Room-Temperature Alkyne–Nitrile Metathesis and Unambiguous Proof for the Existence of a High-Valent Iron-Nitrido Dication in the Gas Phase. Short Communication. *Helvetica Chimica Acta*, **2008**, 91, 1430-1434	2	29

13	Competitive Intramolecular Aryl- and Alkyl-C?H Bond Activation and Ligand Evaporation from Gaseous Bisimino Complexes [Pt(L)(CH3)((CH3)2S)]+ (L=C6H5N?C(CH3)?C(CH3)?NC6H5). *Helvetica Chimica Acta*, **2008**, 91, 1902-1915	2	14
12	Ligand Effects on the Mechanisms of Thermal Bond Activation in the Gas-Phase Reactions NiX+/CH4-Ni(CH3)+/HX (X=H, CH3, OH, F). Short Communication. *Helvetica Chimica Acta*, **2008**, 91, 2203-2210	2	31
11	Ligand and substrate effects in gas-phase reactions of NiX(+)/RH couples (X=F, Cl, Br, I; R=CH3, C2H5, nC3H7, nC4H9). *Chemistry - A European Journal*, **2007**, 13, 6810-6	4.8	32
10	Pronounced ligand effects and the role of formal oxidation states in the nickel-mediated thermal activation of methane. *Angewandte Chemie - International Edition*, **2007**, 46, 1641-4	16.4	63
9	Thermal activation of methane by group 10 metal hydrides MH+: the same and not the same. *Angewandte Chemie - International Edition*, **2007**, 46, 5614-7	16.4	55
8	Thermische Aktivierung von Methan durch kationische Nickelkomplexe: Einfluss von Liganden und formaler Oxidationsstufe. *Angewandte Chemie*, **2007**, 119, 1667-1671	3.6	25
7	Thermische Aktivierung von Methan durch kationische Metallhydride MH+ der 10. Gruppe: gleich und doch verschieden. *Angewandte Chemie*, **2007**, 119, 5711-5715	3.6	20
6	Specific Processes and Scrambling in the Dehydrogenation of Ethane and the Degenerate Hydrogen Exchange in the Gas-Phase Ion Chemistry of the Ni(C,H3,O)+/C2H6 Couple. *Helvetica Chimica Acta*, **2007**, 90, 847-853	2	16
5	CH Bond Activation ofMethane with Gaseous [(CH3)Pt(L)]+ Complexes (L = Pyridine, Bipyridine, and Phenanthroline). *Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences*, **2007**, 62, 309-313	1	32
4	Formation, Structure, and Reactivity of Gaseous Ni2O2+. *European Journal of Inorganic Chemistry*, **2005**, 2005, 2464-2469	2.3	18
3	Gas-Phase Reactions of Homo- and Heteronuclear Clusters MM?+ (M, M?=Fe, Co, Ni) with Linear Alkanenitriles. *Helvetica Chimica Acta*, **2005**, 88, 1405-1420	2	24
2	CH- and NH-activation by gaseous Rh2+ and PtRh+ cluster ions. *International Journal of Mass Spectrometry*, **2004**, 237, 19-23	1.9	46
1	Alkane Oxidation by VO2+ in the Gas Phase: A Unique Dependence of Reactivity on the Chain Length. *Organometallics*, **2003**, 22, 3933-3943	3.8	63