Gernot Frenking

List of Publications by Citations

300 papers	21,503 citations	83 h-index	135 g-index
319 ext. papers	24,104 ext. citations	9.1 avg, IF	7.44 L-index

#	Paper	IF	Citations
300	The nature of the bonding in transition-metal compounds. *Chemical Reviews*, **2000**, 100, 717-74	68.1	962
299	Investigation of Donor-Acceptor Interactions: A Charge Decomposition Analysis Using Fragment Molecular Orbitals. *The Journal of Physical Chemistry*, **1995**, 99, 9352-9362		615
298	Energy decomposition analysis. *Wiley Interdisciplinary Reviews: Computational Molecular Science*, **2012**, 2, 43-62	7.9	499
297	Synthesis and characterization of a neutral tricoordinate organoboron isoelectronic with amines. *Science*, **2011**, 333, 610-3	33.3	440
296	Comparative Theoretical Study of Lewis Acid-Base Complexes of BH3, BF3, BCl3, AlCl3, and SO2. *Journal of the American Chemical Society*, **1994**, 116, 8741-8753	16.4	410
295	Towards a rigorously defined quantum chemical analysis of the chemical bond in donor□cceptor complexes. *Coordination Chemistry Reviews*, **2003**, 238-239, 55-82	23.2	371
294	Isolation of a C5-deprotonated imidazolium, a crystalline "abnormal" N-heterocyclic carbene. *Science*, **2009**, 326, 556-9	33.3	366
293	Divalent carbon(0) chemistry, part 1: Parent compounds. *Chemistry - A European Journal*, **2008**, 14, 3260-72	4.8	331
292	Carbodiphosphoranes: the chemistry of divalent carbon(0). *Angewandte Chemie - International Edition*, **2006**, 45, 8038-42	16.4	320
291	C(NHC)2: divalent carbon(0) compounds with N-heterocyclic carbene ligands-theoretical evidence for a class of molecules with promising chemical properties. *Angewandte Chemie - International Edition*, **2007**, 46, 8695-8	16.4	319
290	N-heterocyclic carbene stabilized digermanium(0). *Angewandte Chemie - International Edition*, **2009**, 48, 9701-4	16.4	270
289	Divalent carbon(0) chemistry, part 2: Protonation and complexes with main group and transition metal Lewis acids. *Chemistry - A European Journal*, **2008**, 14, 3273-89	4.8	261
288	Orbital overlap and chemical bonding. *Chemistry - A European Journal*, **2006**, 12, 9196-216	4.8	254
287	Isolation of crystalline carbene-stabilized P(2)-radical cations and P(2)-dications. *Nature Chemistry*, **2010**, 2, 369-73	17.6	248
286	Low coordinate germanium(II) and tin(II) hydride complexes: efficient catalysts for the hydroboration of carbonyl compounds. *Journal of the American Chemical Society*, **2014**, 136, 3028-31	16.4	232
285	Energy decomposition analysis. *Wiley Interdisciplinary Reviews: Computational Molecular Science*, **2018**, 8, e1345	7.9	230
284	A stable singlet biradicaloid siladicarbene: (L:)2Si. *Angewandte Chemie - International Edition*, **2013**, 52, 2963-7	16.4	218

283	The Nature of the Transition Metal□Carbonyl Bond and the Question about the Valence Orbitals of Transition Metals. A Bond-Energy Decomposition Analysis of TM(CO)6q(TMq= Hf2-, Ta-, W, Re+, Os2+, Ir3+)□ *Journal of the American Chemical Society*, **2000**, 122, 6449-6458	16.4	218
282	Theoretical Analysis of the Bonding between CO and Positively Charged Atoms. *Journal of Physical Chemistry A*, **1997**, 101, 9551-9559	2.8	204
281	Dative bonds in main-group compounds: a case for more arrows!. *Angewandte Chemie - International Edition*, **2014**, 53, 6040-6	16.4	198
280	Synthesis of a stable adduct of dialane(4) (Al2H4) via hydrogenation of a magnesium(I) dimer. *Nature Chemistry*, **2010**, 2, 865-9	17.6	197
279	Helium chemistry: theoretical predictions and experimental challenge. *Journal of the American Chemical Society*, **1987**, 109, 5917-5934	16.4	191
278	Divalent carbon(0) compounds. *Pure and Applied Chemistry*, **2009**, 81, 597-614	2.1	183
277	Energy analysis of metal-ligand bonding in transition metal complexes with terminal group-13 diyl ligands (CO)(4)Fe-ER, Fe(EMe)(5) and Ni(EMe)(4) (E = B-Tl; R = Cp, N(SiH(3))(2), Ph, Me) reveals significant pi bonding in homoleptical molecules. *Journal of the American Chemical Society*, **2001**, 123, 1683-93	16.4	180
276	New bonding modes of carbon and heavier group 14 atoms Si-Pb. *Chemical Society Reviews*, **2014**, 43, 5106-39	58.5	179
275	Unicorns in the world of chemical bonding models. *Journal of Computational Chemistry*, **2007**, 28, 15-24	3.5	174
274	Structure and Bonding of the Transition-Metal Carbonyl Complexes M(CO)5L (M = Cr, Mo, W) and M(CO)3L (M = Ni, Pd, Pt; L = CO, SiO, CS, N2, NO+, CN-, NC-, HCCH, CCH2, CH2, CF2, H2)1. *Organometallics*, **1996**, 15, 105-117	3.8	173
273	A crystalline phosphinyl radical cation. *Journal of the American Chemical Society*, **2010**, 132, 10262-3	16.4	169
272	C(NHC)2: zweibindige Kohlenstoff(0)-Verbindungen mit N-heterocyclischen Carbenliganden □ theoretische Belege f□ eine Molek□klasse mit vielversprechenden Eigenschaften. *Angewandte Chemie*, **2007**, 119, 8850-8853	3.6	167
271	A digermyne with a Ge-Ge single bond that activates dihydrogen in the solid state. *Journal of the American Chemical Society*, **2011**, 133, 18622-5	16.4	165
270	First and second proton affinities of carbon bases. *ChemPhysChem*, **2008**, 9, 1474-81	3.2	160
269	Why do the heavy-atom analogues of acetylene E2H2 (E = Si-Pb) exhibit unusual structures?. *Journal of the American Chemical Society*, **2005**, 127, 6290-9	16.4	157
268	Conversion of a singlet silylene to a stable biradical. *Angewandte Chemie - International Edition*, **2013**, 52, 1801-5	16.4	155
267	Is this a chemical bond? A theoretical study of Ng2@C60 (Ng=He, Ne, Ar, Kr, Xe). *Chemistry - A European Journal*, **2007**, 13, 8256-70	4.8	154
266	Carbodiphosphorane: die Chemie von zweibindigem Kohlenstoff(0). *Angewandte Chemie*, **2006**, 118, 8206-8211	3.6	152

265	Stabilities and nature of the attractive interactions in HeBeO, NeBeO, and ArBeO and a comparison with analogs NGLiF, NGBN, and NGLiH (NG = He, Ar). A theoretical investigation. *Journal of the American Chemical Society*, **1988**, 110, 8007-8016	16.4	152
264	Ab initio studies of transition-metal compounds: thenature of the chemical bond to a transitionmetal. *Journal of the Chemical Society Dalton Transactions*, **1997**, 1653-1662		150
263	Nature of the Metal□igand Bond in M(CO)5PX3 Complexes (M = Cr, Mo, W; X = H, Me, F, Cl): Synthesis, Molecular Structure, and Quantum-Chemical Calculations. *Organometallics*, **2002**, 21, 2921-2930	3.8	145
262	Observation of alkaline earth complexes M(CO) (M = Ca, Sr, or Ba) that mimic transition metals. *Science*, **2018**, 361, 912-916	33.3	141
261	An N-heterocyclic carbene adduct of diatomic tin, :Sn=Sn:. *Chemical Communications*, **2012**, 48, 9855-7	5.8	140
260	The EDA Perspective of Chemical Bonding **2014**, 121-157		137
259	Nonclassical Metal Carbonyls: Appropriate Definitions with a Theoretical Justification. *Angewandte Chemie - International Edition*, **1998**, 37, 2113-2116	16.4	134
258	Energy Partitioning Analysis of the Bonding in Ethylene and Acetylene Complexes of Group 6, 8, and 11 Metals: (CO)5TM□2Hx and Cl4TM□2Hx (TM = Cr, Mo, W), (CO)4TM□2Hx (TM = Fe, Ru, Os), and TM+□2Hx (TM = Cu, Ag, Au)□§,?. *Journal of Physical Chemistry A*, **2004**, 108, 3134-3142	2.8	134
257	Understanding the nature of the bonding in transition metal complexes: from Dewar's molecular orbital model to an energy partitioning analysis of the metal□igand bond. *Journal of Organometallic Chemistry*, **2001**, 635, 9-23	2.3	134
256	Dative bonding in main group compounds. *Coordination Chemistry Reviews*, **2017**, 344, 163-204	23.2	129
255	Energy decomposition analysis of the chemical bond in main group and transition metal compounds. *Faraday Discussions*, **2003**, 124, 365-78; discussion 393-403, 453-5	3.6	129
254	Donor-acceptor bonding in novel low-coordinated compounds of boron and group-14 atoms C-Sn. *Chemical Society Reviews*, **2016**, 45, 1129-44	58.5	128
253	Nature of the Chemical Bond between a Transition Metal and a Group-13 Element: Structure and Bonding of Transition Metal Complexes with Terminal Group-13 Diyl Ligands ER (E = B to Tl; R = Cp, N(SiH3)2, Ph, Me). *Organometallics*, **2000**, 19, 571-582	3.8	127
252	Preparation, characterization, and theoretical analysis of group 14 element(I) dimers: a case study of magnesium(I) compounds as reducing agents in inorganic synthesis. *Inorganic Chemistry*, **2011**, 50, 12315-25	5.1	126
251	Divalent silicon(0) compounds. *Chemistry - A European Journal*, **2009**, 15, 3448-56	4.8	124
250	Structure and Bonding of Low-Valent (Fischer-Type) and High-Valent (Schrock-Type) Transition Metal Carbene Complexes. *Chemistry - A European Journal*, **1998**, 4, 1428-1438	4.8	124
249	The nature of the chemical bond revisited: an energy-partitioning analysis of nonpolar bonds. *Chemistry - A European Journal*, **2005**, 11, 1813-25	4.8	124
248	Divalent E(0) compounds (E = Si-Sn). *Chemistry - A European Journal*, **2009**, 15, 8593-604	4.8	123

247	Structures and stabilities of group 13 adducts [(NHC)(EX3)] and [(NHC)2(E2X(n))] (E=B to In; X=H, Cl; n=4, 2, 0; NHC=N-heterocyclic carbene) and the search for hydrogen storage systems: a theoretical study. *Chemistry - A European Journal*, **2011**, 17, 13517-25	4.8	120
246	The nature of the chemical bond revisited. An energy partitioning analysis of diatomic molecules E2 (E=N Bi, F I), CO and BF. *Theoretical Chemistry Accounts*, **2004**, 111, 381-389	1.9	120
245	Chemical Bonding and Bonding Models of Main-Group Compounds. *Chemical Reviews*, **2019**, 119, 8781-8845	60.1	119
244	Carbodicarbenes and related divalent carbon(0) compounds. *Chemistry - A European Journal*, **2010**, 16, 10160-70	4.8	118
243	Activation of H2 by a multiply bonded amido-digermyne: evidence for the formation of a hydrido-germylene. *Angewandte Chemie - International Edition*, **2013**, 52, 10199-203	16.4	116
242	Structure and Bonding of the Isoelectronic Hexacarbonyls [Hf(CO)6]2-, [Ta(CO)6]-, W(CO)6, [Re(CO)6]+, [Os(CO)6]2+, and [Ir(CO)6]3+: A Theoretical Study1. *Organometallics*, **1997**, 16, 4807-4815	3.8	116
241	Borylene complexes (BH)L2 and nitrogen cation complexes (N+)L2: isoelectronic homologues of carbones CL2. *Chemistry - A European Journal*, **2012**, 18, 5676-92	4.8	114
240	Structures, bond energies, heats of formation, and quantitative bonding analysis of main-group metallocenes [E(Cp)2] (E = Be-Ba, Zn, Si-Pb) and [E(Cp)] (E = Li-Cs, B-Tl). *Chemistry - A European Journal*, **2002**, 8, 4693-707	4.8	114
239	Chemical bonding in mononuclear transition metal complexes with Group 13 diyl ligands ER (E=B?Tl): Part X: Theoretical studies of inorganic compounds. *Coordination Chemistry Reviews*, **2000**, 197, 249-276	23.2	113
238	Ein stabiles biradikaloides Singulett-Siladicarben: (L:)2Si. *Angewandte Chemie*, **2013**, 125, 3036-3040	3.6	112
237	Synthesis and ligand properties of a persistent, all-carbon four-membered-ring allene. *Angewandte Chemie - International Edition*, **2009**, 48, 4792-5	16.4	111
236	Isolation of neutral mono- and dinuclear gold complexes of cyclic (alkyl)(amino)carbenes. *Angewandte Chemie - International Edition*, **2013**, 52, 8964-7	16.4	110
235	A crystalline singlet phosphinonitrene: a nitrogen atom-transfer agent. *Science*, **2012**, 337, 1526-8	33.3	109
234	Exocyclic delocalization at the expense of aromaticity in 3,5-bis(pi-donor) substituted pyrazolium ions and corresponding cyclic bent allenes. *Journal of the American Chemical Society*, **2009**, 131, 11875-81	16.4	108
233	Trends in Molecular Geometries and Bond Strengths of the Homoleptic d10 Metal Carbonyl Cations [M(CO)n]x+ (Mx+=Cu+, Ag+, Au+, Zn2+, Cd2+, Hg2+; n=1): A Theoretical Study. *Chemistry - A European Journal*, **1999**, 5, 2573-2583	4.8	105
232	Bis(benzene)chromium Is a Bonded Molecule and Ferrocene Is a Bonded Molecule *Organometallics*, **2003**, 22, 3304-3308	3.8	104
231	The Lewis electron-pair bonding model: modern energy decomposition analysis. *Nature Reviews Chemistry*, **2019**, 3, 48-63	34.6	104
230	Transition metal-carbon complexes. A theoretical study. *Journal of the American Chemical Society*, **2007**, 129, 7596-610	16.4	101

229	N-Heterocyclic Carbene Stabilized Digermanium(0). *Angewandte Chemie*, **2009**, 121, 9881-9884	3.6	99
228	Tolman Electronic Parameters for Divalent Carbon(0) Compounds. *Organometallics*, **2009**, 28, 3901-3905	3.8	99
227	N-Heterocyclic carbenes versus transition metals for stabilizing phosphinyl radicals. *Chemical Science*, **2011**, 2, 858	9.4	94
226	Light noble gas chemistry: structures, stabilities, and bonding of helium, neon, and argon compounds. *Journal of the American Chemical Society*, **1990**, 112, 4240-4256	16.4	92
225	Helium bonding in singly and doubly charged first-row diatomic cations HeXn+ (X = Li-Ne; n = 1,2). *The Journal of Physical Chemistry*, **1989**, 93, 3397-3410		91
224	Reaction of Carbodiphosphorane Ph3PCPPh3 with Ni(CO)4. Experimental and Theoretical Study of the Structures and Properties of (CO)3NiC(PPh3)2 and (CO)2NiC(PPh3)2. *Organometallics*, **1999**, 18, 619-626	3.8	90
223	Experimental charge density study of a silylone. *Angewandte Chemie - International Edition*, **2014**, 53, 2766-70	16.4	89
222	Structure and Bonding of Low-Valent (Fischer-Type) and High-Valent (Schrock-Type) Transition Metal Carbyne Complexes. *Chemistry - A European Journal*, **1998**, 4, 1439-1448	4.8	89
221	Electronic structure of CO--an exercise in modern chemical bonding theory. *Journal of Computational Chemistry*, **2007**, 28, 117-26	3.5	89
220	Dative Bindungen bei Hauptgruppenelementverbindungen: ein Pldoyer fmehr Pfeile. *Angewandte Chemie*, **2014**, 126, 6152-6158	3.6	87
219	Formation and characterization of the boron dicarbonyl complex [B(CO)2](-). *Angewandte Chemie - International Edition*, **2015**, 54, 11078-83	16.4	86
218	Beryllium chemistry the safe way: a theoretical evaluation of low oxidation state beryllium compounds. *Dalton Transactions*, **2013**, 42, 11375-84	4.3	85
217	Synthesis and Structure of [Ni{Ga(SiMe3)3}4] and Quantum-Chemical Verification of Strong Back-Bonding in the Model Compounds [Ni(EMe)4] (E = B, Al, Ga, In, Tl). *Organometallics*, **1999**, 18, 3778-3780	3.8	83
216	Carbodiphosphoranes and Related Ligands. *Topics in Organometallic Chemistry*, **2010**, 49-92	0.6	82
215	Energy Partitioning Analysis of the Bonding in L2TM2H2 and L2TM2H4 (TM = Ni, Pd, Pt; L2 = (PH3)2, (PMe3)2, H2PCH2PH2, H2P(CH2)2PH2) *Organometallics*, **2003**, 22, 2758-2765	3.8	82
214	The Structure of the Carbene Stabilized Si2H2 May Be Equally Well Described with Coordinate Bonds as with Classical Double Bonds. *Journal of the American Chemical Society*, **2016**, 138, 10429-32	16.4	82
213	Stabilization of heterodiatomic SiC through ligand donation: theoretical investigation of SiC(L)2 (L=NHC(Me) , CAAC(Me) , PMe3). *Angewandte Chemie - International Edition*, **2015**, 54, 12319-24	16.4	81
212	Umwandlung eines Singulett-Silylens in ein stabiles Biradikal. *Angewandte Chemie*, **2013**, 125, 1845-1850	3.6	81

211	Carbodiphosphorane C(PPh3)2 as a Single and Twofold Lewis Base with Boranes: Synthesis, Crystal Structures and Theoretical Studies on [H3B{C(PPh3)2}] and [{(□H)H4B2}{C(PPh3)2}]+. *European Journal of Inorganic Chemistry*, **2009**, 2009, 4507-4517	2.3	81
210	Theoretical Studies of Organometallic Compounds. XIV. Structure and Bonding of the Transition Metal Methyl and Phenyl Compounds MCH3 and MC6H5 (M = Cu, Ag, Au) and M(CH3)2 and M(C6H5)2 (M = Zn, Cd, Hg). *Organometallics*, **1995**, 14, 4263-4268	3.8	80
209	Theoretical Studies of Organometallic Compounds. XIX. Complexes of Transition Metals in High and Low Oxidation States with Side-On-Bonded .pi.-Ligands. *Organometallics*, **1995**, 14, 5325-5336	3.8	80
208	The facile reduction of carbon dioxide to carbon monoxide with an amido-digermyne. *Angewandte Chemie - International Edition*, **2012**, 51, 8611-4	16.4	78
207	Reductive elimination: a pathway to low-valent aluminium species. *Chemical Communications*, **2013**, 49, 2858-60	5.8	77
206	Chemistry. A boron-boron triple bond. *Science*, **2012**, 336, 1394-5	33.3	77
205	[(□5-Cp*)Al?Fe(CO)4] □Synthese, Struktur, Bindungsverh□Ltnisse. *Angewandte Chemie*, **1997**, 109, 95-97	3.6	76
204	Theoretical studies of organometallic compounds. 6. Structures and bond energies of M(CO)n+, MCN, and M(CN)2- (M = silver, gold; n = 1-3). *Organometallics*, **1993**, 12, 4613-4622	3.8	76
203	Pseudopotential Calculations of Transition Metal Compounds: Scope and Limitations. *Reviews in Computational Chemistry*, **2007**, 63-144		75
202	Coinage metals binding as main group elements: structure and bonding of the carbene complexes [TM(cAAC)2] and [TM(cAAC)2](+) (TM = Cu, Ag, Au). *Journal of the American Chemical Society*, **2014**, 136, 17123-35	16.4	73
201	Distinguishing carbones from allenes by complexation to AuCl. *Chemistry - A European Journal*, **2011**, 17, 9944-56	4.8	72
200	Nine questions on energy decomposition analysis. *Journal of Computational Chemistry*, **2019**, 40, 2248-2283	3.3	70
199	Nonclassical Metal Carbonyls. *Progress in Inorganic Chemistry*, **2007**, 1-112		70
198	No need for a re-examination of the electrostatic notation of the hydrogen bonding: a comment. *Angewandte Chemie - International Edition*, **2015**, 54, 2596-9	16.4	69
197	Donor acceptor complexes of noble gases. *Journal of the American Chemical Society*, **2009**, 131, 3942-9	16.4	66
196	(L) C P : Dicarbondiphosphide Stabilized by N-Heterocyclic Carbenes or Cyclic Diamido Carbenes. *Angewandte Chemie - International Edition*, **2017**, 56, 5744-5749	16.4	65
195	Dinitrogen as double Lewis acid: structure and bonding of triphenylphosphinazine N2(PPh3)2. *Angewandte Chemie - International Edition*, **2013**, 52, 3004-8	16.4	65
194	The Bonding Situation in Metalated Ylides. *Chemistry - A European Journal*, **2017**, 23, 4422-4434	4.8	64

193	Carbon monoxide bonding with BeO and BeCO3 : surprisingly high CO stretching frequency of OCBeCO3. *Angewandte Chemie - International Edition*, **2015**, 54, 124-8	16.4	63
192	Transition-metal complexes of tetrylones [(CO)5W-E(PPh3)2] and tetrylenes [(CO)5W-NHE] (E=C-Pb): a theoretical study. *Chemistry - A European Journal*, **2012**, 18, 12733-48	4.8	62
191	Molecular alloys, linking organometallics with intermetallic Hume-Rothery phases: the highly coordinated transition metal compounds [M(ZnR)(n)] (n >or= 8) containing organo-zinc ligands. *Journal of the American Chemical Society*, **2009**, 131, 16063-77	16.4	61
190	The boron-boron triple bond in NHC->B 000000000000000000000000000000000 000000000000000000000000000000000 000000000000000000000000000000000 000000000000000000000000000000000 000000000000000000000000000000000 000000000000000000000000000000000	9.4	60
189	One-electron-mediated rearrangements of 2,3-disiladicarbene. *Journal of the American Chemical Society*, **2014**, 136, 8919-22	16.4	60
188	Fulminato, cyanato, and isocyanato gold(I) complexes supported by N-heterocyclic carbenes and phosphines. *Inorganic Chemistry*, **2013**, 52, 729-42	5.1	60
187	Molecules with all triple bonds: OCBBCO, N2BBN2, and [OBBBBO](2-). *Journal of Physical Chemistry A*, **2009**, 113, 11693-8	2.8	60
186	The bonding of acetylene and ethylene in high-valent and low-valent transition metal compounds. *Journal of Organometallic Chemistry*, **1996**, 525, 269-278	2.3	60
185	Carbones as Ligands in Novel Main-Group Compounds E[C(NHC)] (E=Be, B , C , N , Mg, Al , Si , P): A Theoretical Study. *Chemistry - A European Journal*, **2017**, 23, 3347-3356	4.8	59
184	The nature of the chemical bond in the light of an energy decomposition analysis **2005**, 291-372		57
183	Carbodicarbenes□ivalent carbon(0) compounds exhibiting carbon□arbon donor□cceptor bonds. *Wiley Interdisciplinary Reviews: Computational Molecular Science*, **2011**, 1, 869-878	7.9	56
182	"Naked" Ga+ and In+ as pure acceptor ligands: structure and bonding of [GaPt(GaCp*)4][BArF]. *Angewandte Chemie - International Edition*, **2006**, 45, 5207-10	16.4	56
181	Octa-coordinated alkaline earth metal-dinitrogen complexes M(N) (M=Ca, Sr, Ba). *Nature Communications*, **2019**, 10, 3375	17.4	55
180	Exploiting the Twofold Donor Ability of Carbodiphosphoranes: Theoretical Studies of [(PPh) C->EH] (E =Be, B , C , N , O) and Synthesis of the Dication [(Ph P) C?CH]. *ChemPlusChem*, **2013**, 78, 1024-1032	2.8	55
179	Tris(alkyne) and Bis(alkyne) Complexes of Coinage Metals: Synthesis and Characterization of (cyclooctyne)3M+ (M = Cu, Ag) and (cyclooctyne)2Au+ and Coinage Metal (M = Cu, Ag, Au) Family Group Trends. *Organometallics*, **2013**, 32, 3135-3144	3.8	55
178	The □aromatic clusters [Zn□]+ and [Zn□u]: embryonic brass. *Angewandte Chemie - International Edition*, **2015**, 54, 4370-4	16.4	54
177	Two-coordinate group 14 element(ii) hydrides as reagents for the facile, and sometimes reversible, hydrogermylation/hydrostannylation of unactivated alkenes and alkynes. *Chemical Science*, **2015**, 6, 7249-7257	9.4	52
176	Experimental and theoretical studies of the infrared spectra and bonding properties of NgBeCO□ and a comparison with NgBeO (Ng = He, Ne, Ar, Kr, Xe). *Journal of Physical Chemistry A*, **2015**, 119, 2543-52	2.8	52

175	The [B3(NN)3](+) and [B3(CO)3](+) Complexes Featuring the Smallest Aromatic Species B3(+). *Angewandte Chemie - International Edition*, **2016**, 55, 2078-82	16.4	52
174	The Chemical Bond in C2. *Chemistry - A European Journal*, **2016**, 22, 4100-8	4.8	52
173	Dative and Electron-Sharing Bonding in C F. *Chemistry - A European Journal*, **2018**, 24, 9083-9089	4.8	50
172	Stabilization of a cobalt-cobalt bond by two cyclic alkyl amino carbenes. *Journal of the American Chemical Society*, **2014**, 136, 1770-3	16.4	50
171	Formation and Characterization of the Boron Dicarbonyl Complex [B(CO)2] *Angewandte Chemie*, **2015**, 127, 11230-11235	3.6	50
170	Alkali Metal Covalent Bonding in Nickel Carbonyl Complexes ENi(CO). *Angewandte Chemie - International Edition*, **2019**, 58, 1732-1738	16.4	49
169	NHC-Stabilised Acetylene-How Far Can the Analogy Be Pushed?. *Chemistry - A European Journal*, **2017**, 23, 2926-2934	4.8	48
168	Transition-Metal Chemistry of Alkaline-Earth Elements: The Trisbenzene Complexes M(Bz) (M=Sr, Ba). *Angewandte Chemie - International Edition*, **2019**, 58, 17365-17374	16.4	48
167	Isolierung neutraler mono- und dinuklearer Goldkomplexe von cyclischen Alkyl(amino)carbenen. *Angewandte Chemie*, **2013**, 125, 9134-9137	3.6	48
166	A Triatomic Silicon(0) Cluster Stabilized by a Cyclic Alkyl(amino) Carbene. *Angewandte Chemie - International Edition*, **2016**, 55, 3158-61	16.4	47
165	Critical comments on "One molecule, two atoms, three views, four bonds?". *Angewandte Chemie - International Edition*, **2013**, 52, 5922-5	16.4	47
164	Isolable tris(alkyne) and bis(alkyne) complexes of gold(I). *Angewandte Chemie - International Edition*, **2012**, 51, 3940-3	16.4	45
163	Unusually Short Be-Be Distances with and without a Bond in Be2 F2 and in the Molecular Discuses Be2 B8 and Be2 B7 (.). *Angewandte Chemie - International Edition*, **2016**, 55, 7841-6	16.4	45
162	Dinitrogen complexation and reduction at low-valent calcium. *Science*, **2021**, 371, 1125-1128	33.3	44
161	Reactivity of Amido-Digermynes, LGeGeL (L = Bulky Amide), toward Olefins and Related Molecules: Facile Reduction, CH Activation, and Reversible Cycloaddition of Unsaturated Substrates. *Organometallics*, **2015**, 34, 3175-3185	3.8	43
160	An Electrophilic Carbene-Anchored Silylene-Phosphinidene. *Angewandte Chemie - International Edition*, **2017**, 56, 4219-4223	16.4	42
159	Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO) and Ba(CO). *Angewandte Chemie - International Edition*, **2018**, 57, 3974-3980	16.4	42
158	Formation of a 1,4-diamino-2,3-disila-1,3-butadiene derivative. *Journal of the American Chemical Society*, **2013**, 135, 15990-3	16.4	42

157	Stabilisierung von heterodiatomarem SiC durch Donorliganden – theoretische Untersuchung von SiC(L)2 (L=NHCMe, CAACMe, PMe3). *Angewandte Chemie*, **2015**, 127, 12494-12500	3.6	42
156	Aromaticity, the Hückel 4 n+2 Rule and Magnetic Current. *ChemistrySelect*, **2017**, 2, 863-870	1.8	41
155	Cationic gold carbonyl complex on a phosphine support. *Inorganic Chemistry*, **2011**, 50, 4253-5	5.1	41
154	A Stable Neutral Radical in the Coordination Sphere of Aluminum. *Angewandte Chemie - International Edition*, **2017**, 56, 397-400	16.4	40
153	The NBO View of Chemical Bonding **2014**, 91-120		40
152	The Reaction of BeCl2 with Carbodiphosphorane C(PPh3)2; Experimental and Theoretical Studies. *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2011**, 637, 1702-1710	1.3	40
151	(L)2C2P2: Dicarbondiphosphide Stabilized by N-Heterocyclic Carbenes or Cyclic Diamido Carbenes. *Angewandte Chemie*, **2017**, 129, 5838-5843	3.6	39
150	Carbodicarbenes: Unexpected π-Accepting Ability during Reactivity with Small Molecules. *Journal of the American Chemical Society*, **2017**, 139, 12830-12836	16.4	38
149	Activation of H2 by a Multiply Bonded Amido-Digermyne: Evidence for the Formation of a Hydrido-Germylene. *Angewandte Chemie*, **2013**, 125, 10389-10393	3.6	38
148	A Stable, Crystalline Beryllium Radical Cation. *Journal of the American Chemical Society*, **2020**, 142, 4560-4564	16.4	37
147	Double dative bond between divalent carbon(0) and uranium. *Nature Communications*, **2018**, 9, 4997	17.4	37
146	Bonding Analysis of the Trimethylenemethane (TMM) Complexes [(η6-C6H6)M-TMM] (M = Fe, Ru, Os), [(η5-C5H5)M-TMM] (M = Co, Rh, Ir), and [(η4-C4H4)M-TMM] (M = Ni, Pd, Pt). *Organometallics*, **2013**, 32, 1743-1751	3.8	36
145	Distickstoff als doppelte Lewis-Säure: Struktur und Bindung von Triphenylphosphinazin N2(PPh3)2. *Angewandte Chemie*, **2013**, 125, 3078-3082	3.6	35
144	Divalent Pb(0) compounds. *Theoretical Chemistry Accounts*, **2011**, 129, 615-623	1.9	35
143	Syntheses and Crystal Structures of [Hg{C(PPh3)2}2][Hg2I6] and [Cu{C(PPh3)2}2]I and Comparative Theoretical Study of Carbene Complexes [M(NHC)2] with Carbone Complexes [M{C(PH3)2}2] (M = Cu+, Ag+, Au+, Zn2+, Cd2+, Hg2+). *Organometallics*, **2011**, 30, 3330-3339	3.8	35
142	Nichtklassische Carbonylmetallverbindungen – Definitionen mit theoretischer Rechtfertigung. *Angewandte Chemie*, **1998**, 110, 2229-2232	3.6	35
141	Reply to Rßlique: A New Concept for Bonding in Carbodiphosphoranes?. *Angewandte Chemie - International Edition*, **2007**, 46, 2986-2987	16.4	35
140	A Very Short Be-Be Distance but No Bond: Synthesis and Bonding Analysis of Ng-Be O -Ng' (Ng, Ng'=Ne, Ar, Kr, Xe). *Chemistry - A European Journal*, **2017**, 23, 2035-2039	4.8	34

139	Octacarbonyl Anion Complexes of Group Three Transition Metals [TM(CO)] (TM=Sc, Y, La) and the 18-Electron Rule. *Angewandte Chemie - International Edition*, **2018**, 57, 6236-6241	16.4	34
138	Experimentelle Elektronendichteuntersuchung eines Silylons. *Angewandte Chemie*, **2014**, 126, 2806-2811	3.6	34
137	Reaction Pathways for Addition of H2 to Amido-Ditetrylynes R2NEENR2 (E = Si, Ge, Sn). A Theoretical Study. *Organometallics*, **2013**, 32, 6666-6673	3.8	34
136	The fate of NHC-stabilized dicarbon. *Chemistry - A European Journal*, **2015**, 21, 3377-86	4.8	34
135	Persistent Borafluorene Radicals. *Angewandte Chemie - International Edition*, **2020**, 59, 3850-3854	16.4	34
134	Bonding in Binuclear Carbonyl Complexes M(CO) (M = Fe, Ru, Os). *Inorganic Chemistry*, **2018**, 57, 7780-7791	5.1	33
133	Response to Comment on "Observation of alkaline earth complexes M(CO) (M = Ca, Sr, or Ba) that mimic transition metals". *Science*, **2019**, 365,	33.3	32
132	The Lewis electron-pair bonding model: the physical background, one century later. *Nature Reviews Chemistry*, **2019**, 3, 35-47	34.6	31
131	Bonding situation in silicon complexes [(L)2(Si2)] and [(L)2(Si)] with NHC and cAAC ligands. *Journal of Organometallic Chemistry*, **2015**, 792, 139-148	2.3	30
130	Comparison of Two Phosphinidenes Binding to Silicon(IV)dichloride as well as to Silylene. *Journal of the American Chemical Society*, **2018**, 140, 9409-9412	16.4	30
129	Carbon Monoxide Bonding With BeO and BeCO3: Surprisingly High CO Stretching Frequency of OCBeCO3. *Angewandte Chemie*, **2015**, 127, 126-130	3.6	30
128	The Facile Reduction of Carbon Dioxide to Carbon Monoxide with an Amido-Digermyne. *Angewandte Chemie*, **2012**, 124, 8739-8742	3.6	30
127	Heavy Halogen Atom Effect on (13)C NMR Chemical Shifts in Monohalo Derivatives of Cyclohexane and Pyran. Experimental and Theoretical Study. *Journal of Chemical Theory and Computation*, **2009**, 5, 2222-8	6.4	30
126	Dative and electron-sharing bonding in transition metal compounds. *Journal of Computational Chemistry*, **2019**, 40, 247-264	3.5	30
125	Unusually Short BeBe Distances with and without a Bond in Be2F2 and in the Molecular Discuses Be2B8 and Be2B7. *Angewandte Chemie*, **2016**, 128, 7972-7977	3.6	29
124	Normal-to-abnormal rearrangement of an N-heterocyclic carbene with a silylene transition metal complex. *Dalton Transactions*, **2017**, 46, 7791-7799	4.3	28
123	The aromaticity of dicupra[10]annulenes. *Physical Chemistry Chemical Physics*, **2017**, 19, 9669-9675	3.6	28
122	Anion stabilised hypercloso-hexaalane AlH. *Nature Communications*, **2018**, 9, 3079	17.4	27

121	Parent Thioketene S-Oxide H CCSO: Gas-Phase Generation, Structure, and Bonding Analysis. *Chemistry - A European Journal*, **2017**, 23, 16566-16573	4.8	27
120	Cyclic trinuclear copper(I), silver(I), and gold(I) complexes: a theoretical insight. *Dalton Transactions*, **2015**, 44, 377-85	4.3	26
119	Comment on "Realization of Lewis Basic Sodium Anion in the NaBH Cluster". *Angewandte Chemie - International Edition*, **2020**, 59, 8756-8759	16.4	25
118	Turning a Transition State into a Minimum-The Nature of the Bonding in Diplumbylene Compounds RPbPbR (R=H, Ar). *Angewandte Chemie - International Edition*, **2001**, 40, 2051-2055	16.4	25
117	An Electrophilic Carbene-Anchored Silylene Phosphinidene. *Angewandte Chemie*, **2017**, 129, 4283-4287	3.6	24
116	Side-On Bonded Beryllium Dinitrogen Complexes. *Angewandte Chemie - International Edition*, **2020**, 59, 10603-10609	16.4	24
115	Molecular alloys: experimental and theoretical investigations on the substitution of zinc by cadmium and mercury in the homologous series [Mo(M'R)12] and [M(M'R)8] (M=Pd, Pt; M'=Zn, Cd, Hg). *Chemistry - A European Journal*, **2010**, 16, 13372-84	4.8	24
114	Transition-Metal Chemistry of Alkaline-Earth Elements: The Trisbenzene Complexes M(Bz)3 (M=Sr, Ba). *Angewandte Chemie*, **2019**, 131, 17526-17535	3.6	23
113	Comparative bonding analysis of N2 and P2 versus tetrahedral N4 and P4. *Theoretical Chemistry Accounts*, **2014**, 133, 1	1.9	23
112	Reaction Mechanism of the Symmetry-Forbidden [2+2] Addition of Ethylene and Acetylene to Amido-Substituted Digermynes and Distannynes Ph2N-EE-NPh2, (E = Ge, Sn): A Theoretical Study. *Chemistry - A European Journal*, **2015**, 21, 12405-13	4.8	23
111	The Valence Orbitals of the Alkaline-Earth Atoms. *Chemistry - A European Journal*, **2020**, 26, 14194-14210	4.8	23
110	Di-ortho-beryllated Carbodiphosphorane: A Compound with a Metal Carbon Double Bond to an Element of the s-Block. *Organometallics*, **2020**, 39, 3224-3231	3.8	23
109	Proton Affinities of Cationic Carbone Adducts [AC(PPh3)2](+) (A=Halogen, Hydrogen, Methyl) and Unusual Electronic Structures of the Cations and Dications [AC(H)(PPh3)2](2.). *Chemistry - A European Journal*, **2016**, 22, 8536-46	4.8	23
108	The [B3(NN)3]+ and [B3(CO)3]+ Complexes Featuring the Smallest Aromatic Species B3+. *Angewandte Chemie*, **2016**, 128, 2118-2122	3.6	23
107	Octacarbonyl Anion Complexes of the Late Lanthanides Ln(CO) (Ln=Tm, Yb, Lu) and the 32-Electron Rule. *Chemistry - A European Journal*, **2019**, 25, 3229-3234	4.8	23
106	Synthesis and Reactivity Studies of Amido-Substituted Germanium(I)/Tin(I) Dimers and Clusters. *Chemistry - A European Journal*, **2019**, 25, 2773-2785	4.8	23
105	A Triatomic Silicon(0) Cluster Stabilized by a Cyclic Alkyl(amino) Carbene. *Angewandte Chemie*, **2016** , 128, 3210-3213	3.6	22
104	Observation of Main-Group Tricarbonyls [B(CO)3] and [C(CO)3](+) Featuring a Tilted One-Electron Donor Carbonyl Ligand. *Chemistry - A European Journal*, **2016**, 22, 2376-85	4.8	22

103	Zn□□Zn interactions at nickel and palladium centers. *Chemical Science*, **2016**, 7, 6413-6421	9.4	22
102	An acyclic zincagermylene: rapid activation of dihydrogen at sub-ambient temperature. *Chemical Communications*, **2017**, 53, 12692-12695	5.8	22
101	Structure and bonding of tetrylone complexes [(CO)4W{E(PPh3)2}] (E = C□Pb). *Molecular Physics*, **2013**, 111, 2640-2646	1.7	22
100	Building a bridge between coordination compounds and clusters: bonding analysis of the icosahedral molecules [M(ER)12] (M = Cr, Mo, W; E = Zn, Cd, Hg). *Journal of Physical Chemistry A*, **2011**, 115, 12758-68	2.8	22
99	Comment on "The Quadruple Bonding in C Reproduces the Properties of the Molecule". *Chemistry - A European Journal*, **2016**, 22, 18975-18976	4.8	22
98	d-d Dative Bonding Between Iron and the Alkaline-Earth Metals Calcium, Strontium, and Barium. *Angewandte Chemie - International Edition*, **2020**, 59, 14615-14620	16.4	21
97	Electronic Structure and Bonding Situation in MO (M = Be, Mg, Ca) Rhombic Clusters. *Journal of Physical Chemistry A*, **2018**, 122, 2816-2822	2.8	21
96	Dative versus electron-sharing bonding in N-oxides and phosphane oxides REO and relative energies of the REOR isomers (E = N, P; R = H, F, Cl, Me, Ph). A theoretical study. *Physical Chemistry Chemical Physics*, **2018**, 20, 11856-11866	3.6	21
95	Reaction mechanisms of small-molecule activation by amidoditetrylynes R(2)N-EE-NR(2) (E = Si, Ge, Sn). *Inorganic Chemistry*, **2014**, 53, 6482-90	5.1	21
94	A C(sp)-H Dehydrogenation of Heteroarenes and Arenes by a Functionalized Aluminum Hydride. *Chemistry - A European Journal*, **2017**, 23, 13633-13637	4.8	21
93	Helium Accepts Back-Donation In Highly Polar Complexes: New Insights into the Weak Chemical Bond. *Journal of Physical Chemistry Letters*, **2017**, 8, 3334-3340	6.4	20
92	Alkali Metal Covalent Bonding in Nickel Carbonyl Complexes ENi(CO)3□*Angewandte Chemie*, **2019**, 131, 1746-1752	3.6	20
91	Carbodiylides C(ECp*)2 (E=B-Tl): another class of theoretically predicted divalent carbon(0) compounds. *Angewandte Chemie - International Edition*, **2010**, 49, 7106-10	16.4	20
90	The Dewar□Chatt□Duncanson model reversed □Bonding analysis of group-10 complexes [(PMe3)2M□X3] (M = Ni, Pd, Pt; E = B, Al, Ga, In, Tl; X = H, F, Cl, Br, I). *Canadian Journal of Chemistry*, **2009**, 87, 1470-1479	0.9	19
89	The Dewar-chatt-Duncanson bonding model of transition metal-olefin complexes examined by modern quantum chemical methods **2007**, 111-122		19
88	A Route to Base Coordinate Silicon Difluoride and the Silicon Trifluoride Radical. *Chemistry - A European Journal*, **2018**, 24, 1264-1268	4.8	19
87	Octacarbonyl Ion Complexes of Actinides [An(CO)] (An=Th, U) and the Role of f Orbitals in Metal-Ligand Bonding. *Chemistry - A European Journal*, **2019**, 25, 11772-11784	4.8	18
86	Organosilicon Radicals with Si-H and Si-Me Bonds from Commodity Precursors. *Journal of the American Chemical Society*, **2017**, 139, 11028-11031	16.4	18

85	Buckyball Difluoride F @C -A Single-Molecule Crystal. *Angewandte Chemie - International Edition*, **2018**, 57, 13931-13934	16.4	18
84	Ein stabiles neutrales Radikal in der Koordinationssphäre des Aluminiums. *Angewandte Chemie*, **2017**, 129, 407-411	3.6	17
83	Carbene stabilized interconnected bis-germylene and its silicon analogue with small methyl substituents. *Dalton Transactions*, **2017**, 46, 7947-7952	4.3	17
82	Chemical bonding in the hexamethylbenzene2+ dication. *Theoretical Chemistry Accounts*, **2019**, 138, 1	1.9	17
81	Carbones and Carbon Atom as Ligands in Transition Metal Complexes. *Molecules*, **2020**, 25,	4.8	17
80	New Avenues in s-Block Chemistry: Beryllium(0) Complexes. *Angewandte Chemie - International Edition*, **2016**, 55, 13380-13382	16.4	16
79	The Physical Origin of Covalent Bonding **2014**, 1-68		16
78	Bonding analysis of trimethylenemethane (TMM) complexes [(CO)3M TMM] (M = Fe, Ru, Os, Rh+). Absence of expected bond paths. *Journal of Organometallic Chemistry*, **2013**, 748, 2-7	2.3	16
77	Heterocumulene Sulfinyl Radical OCNSO. *Angewandte Chemie - International Edition*, **2017**, 56, 2140-2144	16.4	15
76	Double donation in trigonal planar iron-carbodiphosphorane complexes - a concise study on their spectroscopic and electronic properties. *Dalton Transactions*, **2020**, 49, 2537-2546	4.3	15
75	Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO)+ and Ba(CO) *Angewandte Chemie*, **2018**, 130, 4038-4044	3.6	15
74	Are they linear, bent, or cyclic? Quantum chemical investigation of the heavier group 14 and group 15 homologues of HCN and HNC. *Chemistry - an Asian Journal*, **2012**, 7, 1296-311	4.5	15
73	Chemical Bonding in Octahedral XeF6 and SF6. *Australian Journal of Chemistry*, **2004**, 57, 1191	1.2	15
72	Bonding analysis of ylidone complexes EL2 (E = C Pb) with phosphine and carbene ligands L. *Canadian Journal of Chemistry*, **2016**, 94, 1006-1014	0.9	15
71	Isolation of Transient Acyclic Germanium(I) Radicals Stabilized by Cyclic Alkyl(amino) Carbenes. *Journal of the American Chemical Society*, **2019**, 141, 1908-1912	16.4	15
70	Alkaline Earth Metals Activate N and CO in Cubic Complexes Just Like Transition Metals: A Conceptual Density Functional Theory and Energy Decomposition Analysis Study. *Chemistry - A European Journal*, **2020**, 26, 12785-12793	4.8	14
69	A C2 Fragment as Four-Electron Donor. *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2017**, 643, 1096-1099	1.3	14
68	Complexation behavior of two-coordinated carbon compounds containing fluorenyl ligands. *Dalton Transactions*, **2013**, 42, 13349-56	4.3	14

67	Carbodicarbene Bismaalkene Cations: Unravelling the Complexities of Carbene versus Carbone in Heavy Pnictogen Chemistry. *Angewandte Chemie - International Edition*, **2021**, 60, 6682-6690	16.4	14
66	Beryllium Atom Mediated Dinitrogen Activation via Coupling with Carbon Monoxide. *Angewandte Chemie - International Edition*, **2020**, 59, 18201-18207	16.4	13
65	Stabilization of Linear C by Two Donor Ligands: A Theoretical Study of L-C -L (L=PPh , NHC , cAAC)*. *Chemistry - A European Journal*, **2020**, 26, 14211-14220	4.8	13
64	Cerium-carbon dative interactions supported by carbodiphosphorane. *Dalton Transactions*, **2019**, 48, 16108-16114	4.3	13
63	Relativistic Effects on Donor-Acceptor Interactions in Coinage Metal Carbonyl Complexes [TM(CO)] (TM=Cu, Ag, Au; n=1, 2). *Chemistry - A European Journal*, **2018**, 24, 11675-11682	4.8	12
62	Bonding Situation in Dimeric Group 15 Complexes [(NHC)2(E2)] (E = NBi). *Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences*, **2014**, 69, 385-395	1.4	12
61	Heterobimetallic Complexes Featuring Fe(CO) as a Ligand on Gold. *Chemistry - A European Journal*, **2017**, 23, 17222-17226	4.8	11
60	Gilbert Lewis and the Model of Dative Bonding. *Structure and Bonding*, **2016**, 131-156	0.9	11
59	CO-Induced Dinitrogen Fixation and Cleavage Mediated by Boron. *Chemistry - A European Journal*, **2021**, 27, 2131-2137	4.8	11
58	Donor-Stabilized Antimony(I) and Bismuth(I) Ions: Heavier Valence Isoelectronic Analogues of Carbones. *Journal of the American Chemical Society*, **2021**, 143, 1301-1306	16.4	11
57	Ligand-Supported E Clusters (E=Si-Sn). *Chemistry - A European Journal*, **2017**, 23, 7463-7473	4.8	10
56	Side-On Bonded Beryllium Dinitrogen Complexes. *Angewandte Chemie*, **2020**, 132, 10690-10696	3.6	10
55	Persistent Borafluorene Radicals. *Angewandte Chemie*, **2020**, 132, 3878-3882	3.6	10
54	Vinyltrifluoroborate Complexes of Silver Supported by N-Heterocyclic Carbenes. *European Journal of Inorganic Chemistry*, **2018**, 2018, 4142-4152	2.3	10
53	Comment on Realization of Lewis Basic Sodium Anion in the NaBH3 Cluster *Angewandte Chemie* , **2020**, 132, 8836-8839	3.6	9
52	Isolable Tris(alkyne) and Bis(alkyne) Complexes of Gold(I). *Angewandte Chemie*, **2012**, 124, 4006-4009	3.6	9
51	Carbodiylide C(ECp*)2 (E=Bis Tl): eine weitere Klasse theoretisch vorhergesagter Kohlenstoff(0)-Verbindungen. *Angewandte Chemie*, **2010**, 122, 7260-7264	3.6	9
50	Dative versus electron-sharing bonding in N-imides and phosphane imides R3ENX and relative energies of the R2EN(X)R isomers (E = N, P; R = H, Cl, Me, Ph; X = H, F, Cl)** This paper is dedicated to the memory of Dieter Cremer.View all notes. *Molecular Physics*, **2019**, 117, 1306-1314	1.7	9

49	The trans Effect in Palladium Phosphine Sulfonate Complexes. *Journal of Physical Chemistry A*, **2017**, 121, 7709-7716	2.8	8
48	Filling a Gap: The Coordinatively Saturated Group 4 Carbonyl Complexes TM(CO) (TM=Zr, Hf) and Ti(CO). *Chemistry - A European Journal*, **2020**, 26, 10487-10500	4.8	8
47	Isolable cyclic radical cations of heavy main-group elements. *Chemical Communications*, **2020**, 56, 2167-2170	5.8	8
46	Bonding Analysis of the Shortest Bond between Two Atoms Heavier than Hydrogen and Helium: O. *Journal of Physical Chemistry A*, **2020**, 124, 1087-1092	2.8	8
45	Octacarbonyl Anion Complexes of Group Three Transition Metals [TM(CO)8]□(TM=Sc, Y, La) and the 18-Electron Rule. *Angewandte Chemie*, **2018**, 130, 6344-6349	3.6	8
44	Photoinduced Sulfur-Nitrogen Bond Rotation and Thermal Nitrogen Inversion in Heterocumulene OSNSO. *Journal of the American Chemical Society*, **2018**, 140, 1231-1234	16.4	8
43	Analysis of the E□ Bond in Group-13 Complexes [(PMe3)2(E2Hn)] (E = B □In, n = 4, 2, 0). *Croatica Chemica Acta*, **2014**, 87, 413-422	0.8	8
42	Group 6 Hexacarbonyls as Ligands for the Silver Cation: Syntheses, Characterization, and Analysis of the Bonding Compared with the Isoelectronic Group 5 Hexacarbonylates. *Chemistry - A European Journal*, **2020**, 26, 17203-17211	4.8	8
41	An Experimental and Theoretical Study of the Structures and Properties of [CDPMe-Ni(CO)3] and [Ni2(CO)4(μ2-CO)(μ2-CDPMe)]. *European Journal of Inorganic Chemistry*, **2019**, 2019, 4546-4554	2.3	8
40	Suppressed Phosphine Dissociation by Polarization Effects on the Donor-Acceptor Bonds in [Ni(PEt)(ECp*)] (E = Al, Ga). *Inorganic Chemistry*, **2018**, 57, 12657-12664	5.1	8
39	Synthesis and characterization of heterometallic complexes involving coinage metals and isoelectronic Fe(CO), [Mn(CO)] and [Fe(CO)CN] ligands. *Dalton Transactions*, **2020**, 49, 8566-8581	4.3	7
38	Metal-CO Bonding in Mononuclear Transition Metal Carbonyl Complexes. *Jacs Au*, **2021**, 1, 623-645		7
37	The strength of a chemical bond. *International Journal of Quantum Chemistry*,e26773	2.1	7
36	The Diels□Alder Reaction from the EDA-NOCV Perspective: A Re-Examination of the Frontier Molecular Orbital Model. *European Journal of Organic Chemistry*, **2019**, 2019, 478-485	3.2	7
35	Synthesis of cAAC stabilized biradical of "MeSi" and "MeSiCl" monoradical from MeSiCl - an important feedstock material. *Chemical Communications*, **2019**, 55, 4534-4537	5.8	6
34	Comment on "Revisiting □backbonding: the influence of d orbitals on metal-CO bonds and ligand red shifts" by D. Koch, Y. Chen, P. Golub and S. Manzhos, Phys. Chem. Chem. Phys., 2019, 21, 20814. *Physical Chemistry Chemical Physics*, **2020**, 22, 5377-5379	3.6	6
33	Neue Wege in der s-Block-Chemie □Komplexe mit Beryllium in der Oxidationsstufe Null. *Angewandte Chemie*, **2016**, 128, 13576-13578	3.6	6
32	1,5-electrocyclization versus 1,5-proton shift in imidazolium allylides and 2-phospha-allylides: a DFT investigation. *Journal of Physical Organic Chemistry*, **2011**, 24, 786-797	2.1	6

31	d Dative Bonding Between Iron and the Alkaline-Earth Metals Calcium, Strontium, and Barium. *Angewandte Chemie*, **2020**, 132, 14723-14728	3.6	6
30	Isolable dicarbon stabilized by a single phosphine ligand. *Nature Chemistry*, **2021**, 13, 89-93	17.6	6
29	Heterocumulene Sulfinyl Radical OCNSO. *Angewandte Chemie*, **2017**, 129, 2172-2176	3.6	5
28	The hypothiocyanite radical OSCN and its isomers. *Physical Chemistry Chemical Physics*, **2017**, 19, 16713-16720	3.6	5
27	Quadruple bonding of bare group-13 atoms in transition metal complexes. *Dalton Transactions*, **2020**, 49, 14815-14825	4.3	5
26	A diradical based on odd-electron bonds. *Nature Communications*, **2020**, 11, 3441	17.4	5
25	Chemical Bonding in Homoleptic Carbonyl Cations [M{Fe(CO) }] (M=Cu, Ag, Au). *Chemistry - A European Journal*, **2021**, 27, 6936-6944	4.8	5
24	Highly Coordinated Heteronuclear Calcium-Iron Carbonyl Cation Complexes [CaFe(CO)] (n=5-12) with d-d Bonding. *Angewandte Chemie - International Edition*, **2021**, 60, 13865-13870	16.4	5
23	Generation and Identification of the Linear OCBNO and OBNCO Molecules with 24 Valence Electrons. *Chemistry - A European Journal*, **2021**, 27, 412-418	4.8	5
22	Transition-Metal Chemistry of the Heavier Alkaline Earth Atoms Ca, Sr, and Ba. *Accounts of Chemical Research*, **2021**, 54, 3071-3082	24.3	5
21	Revisiting the Bonding Scenario of Two Donor Ligand Stabilized C Species. *Journal of Physical Chemistry A*, **2021**, 125, 291-301	2.8	4
20	Dicarbonyls of Carbon and Methylidyne Cations. *Journal of Physical Chemistry A*, **2017**, 121, 2903-2910	2.8	3
19	Covalent Bonding and Charge Shift Bonds: Comment on "The Carbon-Nitrogen Bonds in Ammonium Compounds Are Charge Shift Bonds". *Chemistry - A European Journal*, **2017**, 23, 18320-18324	4.8	3
18	Beryllium Atom Mediated Dinitrogen Activation via Coupling with Carbon Monoxide. *Angewandte Chemie*, **2020**, 132, 18358-18364	3.6	3
17	Bonding in M(NHBMe)2 and M[Mn(CO)5]2 complexes (M=Zn, Cd, Hg; NHBMe=(HCNMe)2B): divalent group 12 metals with zero oxidation state. *Theoretical Chemistry Accounts*, **2021**, 140, 1	1.9	3
16	Isolation of a Uranium(III)-Carbon Multiple Bond Complex. *Chemistry - A European Journal*, **2021**, 27, 10006810031	4.8	3
15	Generation and Characterization of the C O Anion with an Unexpected Unsymmetrical Structure. *Angewandte Chemie - International Edition*, **2021**, 60, 4518-4523	16.4	3
14	Comment on Topological Analysis of the Electron Density in the Carbonyl Complexes M(CO)8 (M = Ca, Sr, Ba) *Organometallics*, **2020**, 39, 2956-2958	3.8	2

13	Carbodicarbene Bismaalkene Cations: Unravelling the Complexities of Carbene versus Carbone in Heavy Pnictogen Chemistry. *Angewandte Chemie*, **2021**, 133, 6756-6764	3.6	2
12	A Critical Look at Linus Pauling's Influence on the Understanding of Chemical Bonding. *Molecules*, **2021**, 26,	4.8	2
11	The Chemical Bond an Entrance Door of Chemistry to the Neighboring Sciences and to Philosophy. *Israel Journal of Chemistry*,	3.4	2
10	Bent Phosphaallenes With "Hidden" Lone Pairs as Ligands. *Chemistry - A European Journal*, **2019**, 25, 7912-7920	4.8	1
9	Theoretical Studies of Metallabenzenes: From Bonding Situation to Reactivity **2017**, 267-304		1
8	The bonding situation in heteromultimetallic carbonyl complexes. *Dalton Transactions*, **2020**, 49, 16762-16771	4.5	1
7	Covalent Bonding Between Be and CO in BeOCO with a Surprisingly High Antisymmetric OCO Stretching Vibration. *Journal of the American Chemical Society*, **2021**, 143, 14300-14305	16.4	1
6	Buckyball Difluoride F2@C60+A Single-Molecule Crystal. *Angewandte Chemie*, **2018**, 130, 14127-14130	3.6	0
5	Innenrücktitelbild: Heterocumulene Sulfinyl Radical OCNSO (Angew. Chem. 8/2017). *Angewandte Chemie*, **2017**, 129, 2253-2253	3.6	
4	Highly Coordinated Heteronuclear Calcium–Iron Carbonyl Cation Complexes [CaFe(CO)n]+ (n=5–12) with d– Bonding. *Angewandte Chemie*, **2021**, 133, 13984-13989	3.6	
3	Structural Exploration of Phantom Oligoguanidine from Asymmetric Diamine and Guanidine Hydrochloride. *Macromolecular Chemistry and Physics*, **2016**, 217, 1834-1841	2.6	
2	Generation and Characterization of the C3O2– Anion with an Unexpected Unsymmetrical Structure. *Angewandte Chemie*, **2021**, 133, 4568-4573	3.6	
1	Berichtigung: Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO)+ and Ba(CO)– *Angewandte Chemie*, **2018**, 130, 15856-15857	3.6	