

# Mingfei Zhou

## List of Publications by Citations

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211  
papers

6,203  
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45  
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g-index

221  
ext. papers

6,930  
ext. citations

7  
avg, IF

5.93  
L-index

#	Paper	IF	Citations
211	Spectroscopic and theoretical investigations of vibrational frequencies in binary unsaturated transition-metal carbonyl cations, neutrals, and anions. <i>Chemical Reviews</i> , <b>2001</b> , 101, 1931-61	68.1	384
210	OCBBCO: a neutral molecule with some boron-boron triple bond character. <i>Journal of the American Chemical Society</i> , <b>2002</b> , 124, 12936-7	16.4	169
209	Observation of alkaline earth complexes M(CO) (M = Ca, Sr, or Ba) that mimic transition metals. <i>Science</i> , <b>2018</b> , 361, 912-916	33.3	141
208	Identification of an iridium-containing compound with a formal oxidation state of IX. <i>Nature</i> , <b>2014</b> , 514, 475-7	50.4	137
207	Probing the intermediates in the MO + CH <sub>4</sub> → M + CH <sub>3</sub> OH reactions by matrix isolation infrared spectroscopy. <i>International Reviews in Physical Chemistry</i> , <b>2008</b> , 27, 1-25	7	122
206	Reaction of Laser-Ablated Uranium Atoms with CO: Infrared Spectra of the CUO, CUO <sup>-</sup> , OUCCO, (η-C <sub>2</sub> )UO <sub>2</sub> , and U(CO) <sub>x</sub> (x = 1-3) Molecules in Solid Neon. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 9712-9721	16.4	103
205	Reactions of Laser-Ablated Ni, Pd, and Pt Atoms with Carbon Monoxide: Matrix Infrared Spectra and Density Functional Calculations on M(CO) <sub>n</sub> (n = 1-3), M(CO) <sub>n</sub> <sup>-</sup> (n = 1-3), and M(CO) <sub>n</sub> <sup>+</sup> (n = 1-3), (M = Ni, Pd, Pt). <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 3905-3914	2.8	94
204	Matrix Infrared Spectra and Density Functional Calculations of Ni(CO) <sub>x</sub> , x = 1-3. <i>Journal of the American Chemical Society</i> , <b>1998</b> , 120, 11499-11503	16.4	89
203	Formation and characterization of the boron dicarbonyl complex [B(CO) <sub>2</sub> ] <sup>-</sup> . <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 11078-83	16.4	86
202	Reactions of Laser-Ablated Niobium and Tantalum Atoms with Oxygen Molecules: Infrared Spectra of Niobium and Tantalum Oxide Molecules, Anions, and Cations. <i>Journal of Physical Chemistry A</i> , <b>1998</b> , 102, 8251-8260	2.8	84
201	Infrared photodissociation spectroscopy of mononuclear iron carbonyl anions. <i>Journal of Physical Chemistry A</i> , <b>2012</b> , 116, 2484-9	2.8	75
200	Reactions of laser-ablated iron atoms with carbon monoxide: Infrared spectra and density functional calculations of Fe <sub>x</sub> CO, Fe(CO) <sub>x</sub> , and Fe(CO) <sub>x</sub> <sup>±</sup> (x=1,2,3) in solid argon. <i>Journal of Chemical Physics</i> , <b>1998</b> , 109, 10893-10904	3.9	71
199	Infrared spectra and pseudopotential calculations for NUO <sup>+</sup> , NUO, and NThO in solid neon. <i>Journal of Chemical Physics</i> , <b>1999</b> , 111, 11044-11049	3.9	71
198	Infrared spectra of the CO <sub>2</sub> <sup>-</sup> and C <sub>2</sub> O <sub>4</sub> <sup>-</sup> anions isolated in solid argon. <i>Journal of Chemical Physics</i> , <b>1999</b> , 110, 2414-2422	3.9	70
197	Reactions of Laser-Ablated Co, Rh, and Ir with CO: Infrared Spectra and Density Functional Calculations of the Metal Carbonyl Molecules, Cations and Anions in Solid Neon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 7773-7784	2.8	70
196	Reactions of Laser-Ablated Aluminum Atoms with Nitrogen Atoms and Molecules. Infrared Spectra and Density Functional Calculations for the AlN <sub>2</sub> , Al <sub>2</sub> N, Al <sub>2</sub> N <sub>2</sub> , AlN <sub>3</sub> , and Al <sub>3</sub> N Molecules. <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 1656-1661	2.8	68
195	Infrared Spectra of BCO, B(CO) <sub>2</sub> , and OCBBCO in Solid Argon. <i>Journal of Physical Chemistry A</i> , <b>2003</b> , 107, 2458-2463	2.8	67

- 194 B4CO2: a new, observable sigma-pi diradical. *Journal of the American Chemical Society*, **2002**, 124, 14854-14864 65
- 193 Reactions of laser-ablated iron atoms and cations with carbon monoxide: Infrared spectra of FeCO<sup>+</sup>, Fe(CO)<sub>2</sub><sup>+</sup>, Fe(CO)<sub>x</sub>, and Fe(CO)<sub>x</sub><sup>+</sup> (x=1-4) in solid neon. *Journal of Chemical Physics*, **1999**, 110, 10370-10379 3.9 65
- 192 Infrared spectra and density functional calculations of Cu(CO)<sub>1-4</sub><sup>+</sup>, Cu(CO)<sub>1-4</sub>, and Cu(CO)<sub>1-4</sub><sup>-</sup> in solid neon. *Journal of Chemical Physics*, **1999**, 111, 4548-4557 3.9 65
- 191 Infrared Spectra and Density Functional Calculations for OScCO, Sc-(η-OC)O, OSc-(η-CO), and Three OScCO<sup>+</sup> Cation Isomers in Solid Argon. *Journal of the American Chemical Society*, **1998**, 120, 13230-13239 16.4 64
- 190 Carbon monoxide bonding with BeO and BeCO<sub>3</sub>: surprisingly high CO stretching frequency of OCBeco<sub>3</sub>. *Angewandte Chemie - International Edition*, **2015**, 54, 124-8 16.4 63
- 189 Reactions of Laser-Ablated Ga, In, and Tl Atoms with Nitrogen Atoms and Molecules. Infrared Spectra and Density Functional Calculations of GaN, NGaN, InN, and the M<sub>3</sub>N and MN<sub>3</sub> Molecules. *Journal of Physical Chemistry A*, **2000**, 104, 1648-1655 2.8 58
- 188 A collinear tandem time-of-flight mass spectrometer for infrared photodissociation spectroscopy of mass-selected ions. *Science China Chemistry*, **2014**, 57, 172-177 7.9 57
- 187 Infrared spectra of cis and trans-(NO)<sub>2</sub><sup>-</sup> anions in solid argon. *Journal of Chemical Physics*, **1998**, 109, 177-185 3.9 57
- 186 Infrared spectra and density functional calculations of the CrO<sub>2</sub><sup>-</sup>, MoO<sub>2</sub><sup>-</sup>, and WO<sub>2</sub><sup>-</sup> molecular anions in solid neon. *Journal of Chemical Physics*, **1999**, 111, 4230-4238 3.9 57
- 185 Formation and characterization of the iridium tetroxide molecule with iridium in the oxidation state +VIII. *Angewandte Chemie - International Edition*, **2009**, 48, 7879-83 16.4 56
- 184 Infrared Spectra of RhCO<sup>+</sup>, RhCO, and RhCO<sup>-</sup> in Solid Neon: A Scale for Charge in Supported Rh(CO) Catalyst Systems. *Journal of the American Chemical Society*, **1999**, 121, 9171-9175 16.4 56
- 183 Octa-coordinated alkaline earth metal-dinitrogen complexes M(N) (M=Ca, Sr, Ba). *Nature Communications*, **2019**, 10, 3375 17.4 55
- 182 Reactions of group V metal atoms with water molecules. Matrix isolation FTIR and quantum chemical studies. *Journal of the American Chemical Society*, **2001**, 123, 135-41 16.4 53
- 181 Infrared Spectra of OMCO (M = Cr, Ni), OMCO<sup>-</sup> (M = Cr, Ni), and MCO<sub>2</sub><sup>-</sup> (M = Co, Ni) in Solid Argon. *Journal of Physical Chemistry A*, **1999**, 103, 2013-2023 2.8 53
- 180 Experimental and theoretical studies of the infrared spectra and bonding properties of NgBeCO<sup>+</sup> and a comparison with NgBeO (Ng = He, Ne, Ar, Kr, Xe). *Journal of Physical Chemistry A*, **2015**, 119, 2543-2552 2.8 52
- 179 Noble gas-transition-metal complexes: coordination of VO<sub>2</sub> and VO<sub>4</sub> by Ar and Xe atoms in solid noble gas matrixes. *Journal of Physical Chemistry A*, **2006**, 110, 1845-9 2.8 52
- 178 The [B<sub>3</sub>(NN)<sub>3</sub>]<sup>+</sup> and [B<sub>3</sub>(CO)<sub>3</sub>]<sup>+</sup> Complexes Featuring the Smallest π-Aromatic Species B<sub>3</sub><sup>+</sup>. *Angewandte Chemie - International Edition*, **2016**, 55, 2078-82 16.4 52
- 177 Formation and Characterization of the Boron Dicarbonyl Complex [B(CO)<sub>2</sub>]<sup>+</sup>. *Angewandte Chemie*, **2015**, 127, 11230-11235 3.6 50

176	Remarkable dinitrogen activation and cleavage by the Gd dimer: from dinitrogen complexes to ring and cage nitrides. <i>Angewandte Chemie - International Edition</i> , <b>2007</b> , 46, 2911-4	16.4	50
175	Reactions of Laser-Ablated Y and La Atoms, Cations and Electrons with O <sub>2</sub> . Infrared Spectra and Density Functional Calculations of the MO, MO <sup>+</sup> , MO <sub>2</sub> , MO <sub>2</sub> <sup>+</sup> , and MO <sub>2</sub> <sup>-</sup> Species in Solid Argon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 6525-6532	2.8	50
174	Pentavalent Lanthanide Compounds: Formation and Characterization of Praseodymium(V) Oxides. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6896-900	16.4	50
173	Alkali Metal Covalent Bonding in Nickel Carbonyl Complexes ENi(CO). <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 1732-1738	16.4	49
172	Transition-Metal Chemistry of Alkaline-Earth Elements: The Trisbenzene Complexes M(Bz) (M=Sr, Ba). <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 17365-17374	16.4	48
171	Reactions of Laser-Ablated Fe, Co, and Ni with NO: Infrared Spectra and Density Functional Calculations of MNO <sup>+</sup> and M(NO) <sub>x</sub> (M = Fe, Co, x = 1, 2; M = Ni, x = 1, 2), and M(NO) <sub>x</sub> <sup>-</sup> (M = Co, Ni; x = 1, 2). <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 3915-3925	2.8	47
170	Infrared spectra of the C <sub>2</sub> O <sub>4</sub> <sup>+</sup> cation and C <sub>2</sub> O <sub>4</sub> <sup>-</sup> anion isolated in solid neon. <i>Journal of Chemical Physics</i> , <b>1999</b> , 110, 6820-6826	3.9	46
169	Infrared photodissociation spectra of mass selected homoleptic dinuclear iron carbonyl cluster anions in the gas phase. <i>Chemical Science</i> , <b>2012</b> , 3, 1698	9.4	45
168	Reactions of Th Atoms with CO: The First Thorium Carbonyl Complex and an Unprecedented Bent Triplet Insertion Product. <i>Journal of the American Chemical Society</i> , <b>1999</b> , 121, 12188-12189	16.4	45
167	Infrared Spectra and Density Functional Calculations for OMCO, OM(CO), OMCO <sup>+</sup> , and OMOC <sup>+</sup> (M = V, Ti) in Solid Argon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 2066-2075	2.8	45
166	Reactions of Laser-Ablated Cu with NO: Infrared Spectra and Density Functional Calculations of CuNO <sup>+</sup> , CuNO, Cu(NO) <sub>2</sub> , and Cu(NO) <sub>2</sub> <sup>-</sup> in Solid Neon and Argon. <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 2618-2625	2.8	44
165	Matrix-Isolation Fourier Transform Infrared and Theoretical Studies of Laser-Ablated Sc Atom Reactions with Water Molecules. <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 8882-8886	2.8	44
164	Infrared Spectra and Density Functional Calculations of Small Vanadium and Titanium Carbonyl Molecules and Anions in Solid Neon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 5259-5268	2.8	44
163	Noble gas-transition metal complexes: coordination of ScO <sup>+</sup> by multiple Ar, Kr, and Xe atoms in noble gas matrixes. <i>Journal of Physical Chemistry A</i> , <b>2005</b> , 109, 6621-3	2.8	43
162	Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO) and Ba(CO). <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 3974-3980	16.4	42
161	Bonding in homoleptic iron carbonyl cluster cations: a combined infrared photodissociation spectroscopic and theoretical study. <i>Chemical Science</i> , <b>2012</b> , 3, 3272	9.4	40
160	Coordination of ScO <sup>+</sup> and YO <sup>+</sup> by multiple Ar, Kr, and Xe atoms in noble gas matrixes: a matrix isolation infrared spectroscopic and theoretical study. <i>Journal of Physical Chemistry A</i> , <b>2005</b> , 109, 11765-70	2.8	40
159	Infrared Spectra and Density Functional Calculations of MO <sub>2</sub> , MO <sub>3</sub> , (O <sub>2</sub> )MO <sub>2</sub> , MO <sub>4</sub> , MO <sub>2</sub> <sup>-</sup> (M = Re, Ru, Os) and ReO <sub>3</sub> <sup>-</sup> , ReO <sub>4</sub> <sup>-</sup> in Solid Neon and Argon. <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 3457-3465	2.8	40

158	Infrared spectra of cyclic-O6+ and trans-O6+ in solid neon and argon. <i>Journal of Chemical Physics</i> , <b>1999</b> , 110, 9450-9456	3.9	40
157	Reactions of Laser-Ablated Niobium, Tantalum, and Rhenium Atoms with Nitrogen Atoms and Molecules. Infrared Spectra and Density Functional Calculations of the Metal Nitride and Dinitride Molecules. <i>Journal of Physical Chemistry A</i> , <b>1998</b> , 102, 9061-9071	2.8	39
156	Matrix Infrared Spectra and Density Functional Calculations of ScCO, ScCO-, and ScCO+. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 2964-2971	2.8	39
155	Reactions of Zirconium and Hafnium Atoms with CO: Infrared Spectra and Density Functional Calculations of M(CO)x, OMCCO, and M(CO)2- (M = Zr, Hf; x = 1-3). <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 1531-1539	16.4	38
154	On the Upper Limits of Oxidation States in Chemistry. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 3242-3245	16.4	37
153	Infrared spectrum of CCH+ in solid argon and neon. <i>Journal of Chemical Physics</i> , <b>1999</b> , 110, 4457-4466	3.9	37
152	Preparation and Characterization of Uranium-Iron Triple-Bonded UFe(CO) and OUFe(CO) Complexes. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 6932-6936	16.4	36
151	Matrix isolation infrared spectroscopic and theoretical study of NgMO (Ng = Ar, Kr, Xe; M = Cr, Mn, Fe, Co, Ni) complexes. <i>Journal of Physical Chemistry A</i> , <b>2006</b> , 110, 10777-82	2.8	36
150	Experimental and theoretical characterization of a triplet boron carbonyl compound: BBCO. <i>ChemPhysChem</i> , <b>2003</b> , 4, 763-6	3.2	36
149	Reactions of Mn with H2O and MnO with H2. Matrix-Isolation FTIR and Quantum Chemical Studies. <i>Journal of Physical Chemistry A</i> , <b>2001</b> , 105, 5801-5807	2.8	36
148	Activation of methane by Rh(0): Evidence for direct insertion of rhodium into the C-H bond at cryogenic temperatures. <i>Chemical Physics Letters</i> , <b>2005</b> , 412, 46-49	2.5	35
147	Infrared Spectra and Density Functional Calculations of RuCO+, OsCO+, Ru(CO)x, Os(CO)x, Ru(CO)x- and Os(CO)x- (x = 1-3) in Solid Neon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 6956-6968	2.8	35
146	A Very Short Be-Be Distance but No Bond: Synthesis and Bonding Analysis of Ng-Be O -Ng' (Ng, Ng'=Ne, Ar, Kr, Xe). <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 2035-2039	4.8	34
145	Octacarbonyl Anion Complexes of Group Three Transition Metals [TM(CO) ] (TM=Sc, Y, La) and the 18-Electron Rule. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 6236-6241	16.4	34
144	Tin-Based Composite Oxide Thin-Film Electrodes Prepared by Pulsed Laser Deposition. <i>Journal of the Electrochemical Society</i> , <b>1999</b> , 146, 3554-3559	3.9	34
143	Carbonyl bonding on oxophilic metal centers: infrared photodissociation spectroscopy of mononuclear and dinuclear titanium carbonyl cation complexes. <i>Journal of Physical Chemistry A</i> , <b>2013</b> , 117, 1514-21	2.8	33
142	Infrared spectra and structures of the OSc(N2), OScNN, and OScNN+ complexes in solid argon. <i>Journal of Physical Chemistry A</i> , <b>2005</b> , 109, 5079-84	2.8	33
141	Response to Comment on "Observation of alkaline earth complexes M(CO) (M = Ca, Sr, or Ba) that mimic transition metals". <i>Science</i> , <b>2019</b> , 365,	33.3	32

140	Matrix Infrared Spectra and Density Functional Calculations of Manganese and Rhenium Carbonyl Neutral and Anion Complexes. <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 8887-8897	2.8	32
139	An Infrared Spectroscopic and Density Functional Theoretical Investigation of the Reaction Products of Laser-Ablated Scandium and Titanium Atoms with Nitric Oxide. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 1115-1125	2.8	32
138	Carbon Monoxide Bonding With BeO and BeCO <sub>3</sub> : Surprisingly High CO Stretching Frequency of OCB <sub>e</sub> CO <sub>3</sub> . <i>Angewandte Chemie</i> , <b>2015</b> , 127, 126-130	3.6	30
137	Reactions of cerium atoms and dicerium molecules with CO: formation of cerium carbonyls and photoconversion to CO-activated insertion molecules. <i>Journal of Physical Chemistry A</i> , <b>2006</b> , 110, 10206-10218	2.8	30
136	Pentavalent lanthanide nitride-oxides: NPrO and NPrO complexes with N <sub>2</sub> Pr triple bonds. <i>Chemical Science</i> , <b>2017</b> , 8, 4035-4043	9.4	29
135	Formation and characterization of the tetranuclear scandium nitride: Sc <sub>4</sub> N <sub>4</sub> . <i>Journal of Physical Chemistry A</i> , <b>2007</b> , 111, 6204-7	2.8	29
134	Reactions of silicon atoms and small clusters with CO: experimental and theoretical characterization of Si <sub>n</sub> CO (n=1-5), Si <sub>2</sub> (CO) <sub>2</sub> , c-Si <sub>2</sub> (μ-O)(μ-CSi), and c-Si <sub>2</sub> (μ-O)(μ-CCO) in solid argon. <i>Journal of Chemical Physics</i> , <b>2004</b> , 121, 10474-82	3.9	29
133	Matrix Isolation Infrared Spectroscopic and Theoretical Studies on the Reactions of Manganese and Iron Monoxides with Methane. <i>Journal of Physical Chemistry A</i> , <b>2004</b> , 108, 11273-11278	2.8	29
132	Chromium Oxide Complexes with Dinitrogen. Formation and Characterization of the (NN) <sub>x</sub> CrO and (NN) <sub>x</sub> CrO <sub>2</sub> (x = 1,2). <i>Journal of Physical Chemistry A</i> , <b>2001</b> , 105, 6407-6413	2.8	29
131	Reactions of Laser-Ablated Chromium Atoms with Nitric Oxide: Infrared Spectra of NCrO, Cr(II-NO) <sub>x</sub> (x = 1, 2, 3, 4), and Cr(II-NO) in Solid Argon. <i>Journal of Physical Chemistry A</i> , <b>1998</b> , 102, 7452-7461	2.8	29
130	Infrared spectra of (NO) <sub>2</sub> and (NO) <sub>2</sub> <sup>+</sup> isomers trapped in solid neon. <i>Journal of Chemical Physics</i> , <b>1999</b> , 111, 6036-6041	3.9	29
129	Matrix Infrared Spectrum and Aromaticity of the Al <sub>2</sub> (CO) <sub>2</sub> Molecule. <i>Journal of Physical Chemistry A</i> , <b>2002</b> , 106, 11709-11713	2.8	28
128	Matrix infrared spectra and quantum chemical calculations of the MCO(II)(M=Si, Ge, Sn) anions. <i>Journal of Chemical Physics</i> , <b>2000</b> , 113, 8700-8705	3.9	27
127	Matrix Infrared Spectra and Density Functional Calculations of Co(CO) <sub>x</sub> <sup>-</sup> (x = 1, 2, 3, 4) Anions. <i>Journal of Physical Chemistry A</i> , <b>1998</b> , 102, 10250-10257	2.8	27
126	Quadruple bonding between iron and boron in the BFe(CO) complex. <i>Nature Communications</i> , <b>2019</b> , 10, 4713	17.4	26
125	Reactions of Laser-Ablated Chromium Atoms, Cations, and Electrons with CO in Excess Argon and Neon: Infrared Spectra and Density Functional Calculations on Neutral and Charged Unsaturated Chromium Carbonyls. <i>Journal of Physical Chemistry A</i> , <b>2003</b> , 107, 561-569	2.8	26
124	Reactions of Laser-Ablated Molybdenum and Tungsten Atoms with Nitric Oxide. Infrared Spectra of the MN, NMO, and M(II-NO) <sub>x</sub> (x = 1, 2, 3, 4) Molecules and (NO) <sub>2</sub> <sup>+</sup> and (NO) <sub>2</sub> <sup>-</sup> Ions in Solid Argon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 4167-4173	2.8	26
123	Rare-earth monocarbonyls MCO: comprehensive infrared observations and a transparent theoretical interpretation for M = Sc; Y; La-Lu. <i>Chemical Science</i> , <b>2012</b> , 3, 1548	9.4	25



122	Infrared Spectra of CNbO, CMO-, OMCCO, (C2)MO2, and M(CO)x (x = 1B) (M = Nb, Ta) in Solid Neon. <i>Journal of Physical Chemistry A</i> , <b>1999</b> , 103, 7785-7794	2.8	25
121	On the oxidation states of metal elements in MO3 - (M=V, Nb, Ta, Db, Pr, Gd, Pa) anions. <i>Science China Chemistry</i> , <b>2016</b> , 59, 442-451	7.9	25
120	Infrared photodissociation spectroscopy of mass-selected heteronuclear iron-copper carbonyl cluster anions in the gas phase. <i>Journal of Physical Chemistry A</i> , <b>2015</b> , 119, 4142-50	2.8	24
119	Side-On Bonded Beryllium Dinitrogen Complexes. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 10603-10609	16.4	24
118	Infrared photodissociation spectroscopic and theoretical study of homoleptic dinuclear chromium carbonyl cluster cations with a linear bridging carbonyl group. <i>Journal of Physical Chemistry A</i> , <b>2012</b> , 116, 12349-56	2.8	24
117	Transition-Metal Chemistry of Alkaline-Earth Elements: The Trisbenzene Complexes M(Bz)3 (M=Sr, Ba). <i>Angewandte Chemie</i> , <b>2019</b> , 131, 17526-17535	3.6	23
116	Formation and Characterization of the Iridium Tetroxide Molecule with Iridium in the Oxidation State +VIII. <i>Angewandte Chemie</i> , <b>2009</b> , 121, 8019-8023	3.6	23
115	Matrix Isolation Fourier Transform Infrared Spectroscopic and Density Functional Theoretical Studies of the Reactions of Chromium Atoms and Acetylene. <i>Journal of Physical Chemistry A</i> , <b>2003</b> , 107, 2329-2333	2.8	23
114	Formation and Characterization of the (B-H2)CrO2, (B-H2)2CrO2 and HCrO(OH) Molecules. <i>Journal of Physical Chemistry A</i> , <b>2001</b> , 105, 10747-10752	2.8	23
113	The [B3(NN)3]+ and [B3(CO)3]+ Complexes Featuring the Smallest B-Aromatic Species B3+. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 2118-2122	3.6	23
112	Octacarbonyl Anion Complexes of the Late Lanthanides Ln(CO) (Ln=Tm, Yb, Lu) and the 32-Electron Rule. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 3229-3234	4.8	23
111	Observation of Main-Group Tricarbonyls [B(CO)3 ] and [C(CO)3 ](+) Featuring a Tilted One-Electron Donor Carbonyl Ligand. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 2376-85	4.8	22
110	C-C double- and triple-bond formation from reactions of B atoms with CO: experimental and theoretical characterization of OBCCO and OBCCBO molecules in solid argon. <i>Chemistry - A European Journal</i> , <b>2004</b> , 10, 5817-22	4.8	22
109	The CO2BIO van der Waals Complex and the Covalently Bonded CO2NO- Anion: A Matrix-Isolation FTIR and Theoretical Study. <i>Journal of the American Chemical Society</i> , <b>2000</b> , 122, 4483-4488	16.4	22
108	Reactions of Iron Atoms with Nitric Oxide and Carbon Monoxide in Excess Argon: Infrared Spectra and Density Functional Calculations of Iron Carbonyl Nitrosyl Complexes. <i>Journal of Physical Chemistry A</i> , <b>2000</b> , 104, 10104-10111	2.8	22
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1	Berichtigung: Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO) <sup>+</sup> and Ba(CO) <sub>2</sub> <sup>+</sup> . <i>Angewandte Chemie</i> , <b>2018</b> , 130, 15856-15857	3.6	