

Mingfei Zhou

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/3312813/mingfei-zhou-publications-by-year.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

211
papers

6,203
citations

45
h-index

64
g-index

221
ext. papers

6,930
ext. citations

7
avg, IF

5.93
L-index

#	Paper	IF	Citations
211	Ligand-Induced Tuning of the Electronic Structure of Rhombus Tetraboron Cluster.. <i>ChemPhysChem</i> , 2022 , e202200060	3.2	0
210	Spectroscopic Identification of the Heterocumulenenic Isocyanatoborane Radical HBNCO.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 13, 2619-2624	6.4	0
209	Formation and Characterization of BeFe(CO) Anion with Beryllium-Iron Bonding. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 9334-9338	16.4	4
208	Formation and Characterization of BeFe(CO) ₄ Anion with Beryllium-Iron Bonding. <i>Angewandte Chemie</i> , 2021 , 133, 9420-9424	3.6	0
207	Metal-CO Bonding in Mononuclear Transition Metal Carbonyl Complexes. <i>Jacs Au</i> , 2021 , 1, 623-645		7
206	Highly Coordinated Heteronuclear Calcium-Iron Carbonyl Cation Complexes [CaFe(CO) _n] ⁺ (n=5-12) with d-d Bonding. <i>Angewandte Chemie</i> , 2021 , 133, 13984-13989	3.6	
205	Highly Coordinated Heteronuclear Calcium-Iron Carbonyl Cation Complexes [CaFe(CO) _n] ⁺ (n=5-12) with d-d Bonding. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 13865-13870	16.4	5
204	Infrared Spectroscopy and Bonding of the B(NN) and B(NN) Cation Complexes. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 6246-6253	2.8	0
203	CO-Induced Dinitrogen Fixation and Cleavage Mediated by Boron. <i>Chemistry - A European Journal</i> , 2021 , 27, 2131-2137	4.8	11
202	A Homoleptic Beryllium Carbonyl Complex with an End-On and Side-On Bridging Carbonyl Ligand. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 1651-1655	16.4	8
201	A Homoleptic Beryllium Carbonyl Complex with an End-On and Side-On Bridging Carbonyl Ligand. <i>Angewandte Chemie</i> , 2021 , 133, 1675-1679	3.6	4
200	Generation and Characterization of the C ₃ O ₂ Anion with an Unexpected Unsymmetrical Structure. <i>Angewandte Chemie</i> , 2021 , 133, 4568-4573	3.6	
199	Generation and Characterization of the C ₃ O Anion with an Unexpected Unsymmetrical Structure. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 4518-4523	16.4	3
198	Generation and Identification of the Linear OCBNO and OBNC O Molecules with 24 Valence Electrons. <i>Chemistry - A European Journal</i> , 2021 , 27, 412-418	4.8	5
197	Enantio-separation of pregabalin by ternary complexation using trapped ion mobility spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2021 , 35, e9052	2.2	1
196	Transition-Metal Chemistry of the Heavier Alkaline Earth Atoms Ca, Sr, and Ba. <i>Accounts of Chemical Research</i> , 2021 , 54, 3071-3082	24.3	5
195	Covalent Bonding Between Be and CO in BeOCO with a Surprisingly High Antisymmetric OCO Stretching Vibration. <i>Journal of the American Chemical Society</i> , 2021 , 143, 14300-14305	16.4	1

194	Quadruple C-H Bond Activations of Methane by Dinuclear Rhodium Carbide Cation [RhC]. <i>Jacs Au</i> , 2021 , 1, 1631-1638		0
193	Observation of Carbon-Carbon Coupling Reaction in Neutral Transition-Metal Carbonyls. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 1012-1017	6.4	1
192	Boron-Mediated Carbon-Carbon Bond Cleavage and Rearrangement of Benzene Forming the Borepinyl Radical and Borole Derivatives. <i>Journal of the American Chemical Society</i> , 2020 , 142, 10079-10086	16.4	2
191	Filling a Gap: The Coordinatively Saturated Group 4 Carbonyl Complexes TM(CO) (TM=Zr, Hf) and Ti(CO). <i>Chemistry - A European Journal</i> , 2020 , 26, 10487-10500	4.8	8
190	Side-On Bonded Beryllium Dinitrogen Complexes. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 10603-10609	16.4	24
189	Reactions of Transition-Metal Carbyne Cations with Ethylene in the Gas Phase. <i>Journal of Physical Chemistry A</i> , 2020 , 124, 2628-2633	2.8	8
188	Multiple Bonding Between Group 3 Metals and Fe(CO) ₃ . <i>Angewandte Chemie</i> , 2020 , 132, 2364-2368	3.6	0
187	Revisiting the Intriguing Electronic Features of the BeOBeC Carbyne and Some Isomers: A Quantum-Chemical Assessment. <i>Angewandte Chemie</i> , 2020 , 132, 17414-17418	3.6	
186	Beryllium Atom Mediated Dinitrogen Activation via Coupling with Carbon Monoxide. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 18201-18207	16.4	13
185	Side-On Bonded Beryllium Dinitrogen Complexes. <i>Angewandte Chemie</i> , 2020 , 132, 10690-10696	3.6	10
184	Formation and Characterization of a BeOBeC Multiple Radical Featuring a Quartet Carbyne Moiety. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 6923-6928	16.4	9
183	Formation and Characterization of a BeOBeC Multiple Radical Featuring a Quartet Carbyne Moiety. <i>Angewandte Chemie</i> , 2020 , 132, 6990-6995	3.6	9
182	Investigation of noncovalent interactions between peptides with potential intrinsic sequence patterns by mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2020 , 34, e8736	2.2	1
181	The non-covalent complexes of β -or γ -cyclodextrin with divalent metal cations determined by mass spectrometry. <i>Carbohydrate Research</i> , 2020 , 492, 107987	2.9	1
180	Multiple Bonding Between Group 3 Metals and Fe(CO). <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 2344-2348	16.4	9
179	Revisiting the Intriguing Electronic Features of the BeOBeC Carbyne and Some Isomers: A Quantum-Chemical Assessment. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 17261-17265	16.4	0
178	Beryllium Atom Mediated Dinitrogen Activation via Coupling with Carbon Monoxide. <i>Angewandte Chemie</i> , 2020 , 132, 18358-18364	3.6	3
177	Alkali Metal Covalent Bonding in Nickel Carbonyl Complexes ENi(CO) ₃ . <i>Angewandte Chemie</i> , 2019 , 131, 1746-1752	3.6	20

176	Characterisation and optimisation of ion discrimination in a mini ion funnel for a miniature mass spectrometer. <i>Analytical Methods</i> , 2019 , 11, 2551-2558	3.2	2
175	Triple bonds between iron and heavier group-14 elements in the AFe(CO) complexes (A = Ge, Sn, and Pb). <i>Chemical Communications</i> , 2019 , 55, 5685-5688	5.8	13
174	Response to Comment on "Observation of alkaline earth complexes M(CO) (M = Ca, Sr, or Ba) that mimic transition metals". <i>Science</i> , 2019 , 365,	33.3	32
173	Octa-coordinated alkaline earth metal-dinitrogen complexes M(N) (M=Ca, Sr, Ba). <i>Nature Communications</i> , 2019 , 10, 3375	17.4	55
172	Octacarbonyl Anion Complexes of Actinides [An(CO) ₈] (An=Th, U) and the Role of f Orbitals in Metal-Ligand Bonding. <i>Chemistry - A European Journal</i> , 2019 , 25, 11772-11784	4.8	18
171	Transition-Metal Chemistry of Alkaline-Earth Elements: The Trisbenzene Complexes M(Bz) (M=Sr, Ba). <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 17365-17374	16.4	48
170	Quadruple bonding between iron and boron in the BFe(CO) complex. <i>Nature Communications</i> , 2019 , 10, 4713	17.4	26
169	Transition-Metal Chemistry of Alkaline-Earth Elements: The Trisbenzene Complexes M(Bz) ₃ (M=Sr, Ba). <i>Angewandte Chemie</i> , 2019 , 131, 17526-17535	3.6	23
168	Octacarbonyl Anion Complexes of the Late Lanthanides Ln(CO) ₈ (Ln=Tm, Yb, Lu) and the 32-Electron Rule. <i>Chemistry - A European Journal</i> , 2019 , 25, 3229-3234	4.8	23
167	Alkali Metal Covalent Bonding in Nickel Carbonyl Complexes ENi(CO). <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 1732-1738	16.4	49
166	Boron Carbonyl Analogues of Hydrocarbons: An Infrared Photodissociation Spectroscopic Study of B(CO) _n (n = 4-6). <i>Journal of Physical Chemistry A</i> , 2018 , 122, 2688-2694	2.8	4
165	Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO) ₈ ⁺ and Ba(CO) ₈ ⁰ . <i>Angewandte Chemie</i> , 2018 , 130, 4038-4044	3.6	15
164	Octacarbonyl Anion Complexes of Group Three Transition Metals [TM(CO) ₈] ⁻ (TM=Sc, Y, La) and the 18-Electron Rule. <i>Angewandte Chemie</i> , 2018 , 130, 6344-6349	3.6	8
163	Octacarbonyl Anion Complexes of Group Three Transition Metals [TM(CO) ₈] ⁻ (TM=Sc, Y, La) and the 18-Electron Rule. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 6236-6241	16.4	34
162	Der Oxidationszahl-Obergrenzen in der Chemie. <i>Angewandte Chemie</i> , 2018 , 130, 3297-3300	3.6	10
161	Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO) ₈ ⁺ and Ba(CO) ₈ ⁰ . <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 3974-3980	16.4	42
160	Triple Bonds Between Iron and Heavier Group 15 Elements in AFe(CO) ₃ (A=As, Sb, Bi) Complexes. <i>Angewandte Chemie</i> , 2018 , 130, 551-555	3.6	5
159	On the Upper Limits of Oxidation States in Chemistry. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 3242-3245	16.4	37

158	Triple Bonds Between Iron and Heavier Group 15 Elements in AFe(CO) (A=As, Sb, Bi) Complexes. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 542-546	16.4	20
157	Boron carbonyl complexes analogous to hydrocarbons. <i>Dalton Transactions</i> , 2018 , 47, 17192-17197	4.3	8
156	Berichtigung: Barium as Honorary Transition Metal in Action: Experimental and Theoretical Study of Ba(CO) ⁺ and Ba(CO) ₂ ⁺ . <i>Angewandte Chemie</i> , 2018 , 130, 15856-15857	3.6	
155	Observation of alkaline earth complexes M(CO) (M = Ca, Sr, or Ba) that mimic transition metals. <i>Science</i> , 2018 , 361, 912-916	33.3	141
154	Infrared Photodissociation Spectroscopy of Heterodinuclear Iron-Zinc and Cobalt-Zinc Carbonyl Cation Complexes. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 1627-1632	2.8	9
153	Double C-H bond activation of acetylene by atomic boron in forming aromatic cyclic-HBCBH in solid neon. <i>Chemical Science</i> , 2017 , 8, 4443-4449	9.4	4
152	Preparation and Characterization of Uranium-Iron Triple-Bonded UFe(CO) and OFe(CO) Complexes. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 6932-6936	16.4	36
151	Preparation and Characterization of Uranium-Iron Triple-Bonded UFe(CO) ₃ and OFe(CO) ₃ Complexes. <i>Angewandte Chemie</i> , 2017 , 129, 7036-7040	3.6	7
150	Dicarbonyls of Carbon and Methylidyne Cations. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 2903-2910	2.8	3
149	Pentavalent lanthanide nitride-oxides: NPrO and NPrO complexes with N≡Pr triple bonds. <i>Chemical Science</i> , 2017 , 8, 4035-4043	9.4	29
148	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> , 2017 , 23, 2035-2039	4.8	34
147	Photoassisted Homocoupling of Methyl Iodide Mediated by Atomic Gold in Low-Temperature Neon Matrix. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 8408-8413	2.8	3
146	Isocyanate Formation from Reactions of Early Lanthanide Metal Atoms with NO and CO in Solid Argon. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 7861-7868	2.8	5
145	CO Oxidation by Group 3 Metal Monoxide Cations Supported on [Fe(CO) ₄] ₂ ⁺ . <i>Angewandte Chemie</i> , 2017 , 129, 14284-14289	3.6	10
144	CO Oxidation by Group 3 Metal Monoxide Cations Supported on [Fe(CO)] ⁺ . <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 14096-14101	16.4	21
143	Infrared spectroscopic and theoretical study of the HCO (n = 2-5) cations. <i>Journal of Chemical Physics</i> , 2017 , 146, 214301	3.9	4
142	Preparation and characterization of chemically bonded argon-boroxol ring cation complexes. <i>Chemical Science</i> , 2017 , 8, 6594-6600	9.4	12
141	Experimental and theoretical identification of the Fe(vii) oxidation state in FeO. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 31125-31131	3.6	11

140	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> , 2016 , 22, 2376-85	4.8	22
139	Carbon Dioxide Activation by Scandium Atoms and Scandium Monoxide Molecules: Formation and Spectroscopic Characterization of ScCO ₃ and OCScoCO ₃ in Solid Neon. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 425-32	2.8	9
138	Infrared Photodissociation Spectroscopy and Density Functional Theory Study of Carbon Suboxide Complexes [M(CO) ₄ (C ₃ O ₂)] ⁺ (M = Fe, Co, Ni). <i>Journal of Physical Chemistry A</i> , 2016 , 120, 1978-84	2.8	4
137	Pentavalent Lanthanide Compounds: Formation and Characterization of Praseodymium(V) Oxides. <i>Angewandte Chemie</i> , 2016 , 128, 7010-7014	3.6	7
136	Observation of Spontaneous C=C Bond Breaking in the Reaction between Atomic Boron and Ethylene in Solid Neon. <i>Angewandte Chemie</i> , 2016 , 128, 8511-8514	3.6	2
135	The [B ₃ (NN) ₃] ⁺ and [B ₃ (CO) ₃] ⁺ Complexes Featuring the Smallest π Aromatic Species B ₃ ⁺ . <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 2078-82	16.4	52
134	Observation of Spontaneous C=C Bond Breaking in the Reaction between Atomic Boron and Ethylene in Solid Neon. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 8371-4	16.4	4
133	Pentavalent Lanthanide Compounds: Formation and Characterization of Praseodymium(V) Oxides. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 6896-900	16.4	50
132	The [B ₃ (NN) ₃] ⁺ and [B ₃ (CO) ₃] ⁺ Complexes Featuring the Smallest π Aromatic Species B ₃ ⁺ . <i>Angewandte Chemie</i> , 2016 , 128, 2118-2122	3.6	23
131	The Oxygen-Rich Beryllium Oxides BeO ₄ and BeO ₆ . <i>Angewandte Chemie</i> , 2016 , 128, 11021-11025	3.6	5
130	On the oxidation states of metal elements in MO ₃ - (M=V, Nb, Ta, Db, Pr, Gd, Pa) anions. <i>Science China Chemistry</i> , 2016 , 59, 442-451	7.9	25
129	Reducing Space Charge Effects in a Linear Ion Trap by Rhombic Ion Excitation and Ejection. <i>Journal of the American Society for Mass Spectrometry</i> , 2016 , 27, 1256-62	3.5	13
128	Infrared Photodissociation Spectroscopic and Theoretical Study of Heteronuclear Transition Metal Carbonyl Cluster Cations in the Gas Phase. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 7287-93	2.8	13
127	The Oxygen-Rich Beryllium Oxides BeO ₄ and BeO ₆ . <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 10863-7	16.4	10
126	Infrared photodissociation spectroscopy of mass-selected silver and gold nitrosyl cation complexes. <i>Journal of Physical Chemistry A</i> , 2015 , 119, 3577-86	2.8	11
125	Infrared photodissociation spectroscopy of mass-selected heteronuclear iron-copper carbonyl cluster anions in the gas phase. <i>Journal of Physical Chemistry A</i> , 2015 , 119, 4142-50	2.8	24
124	Infrared Photodissociation Spectroscopy of the Ni(O ₂) _n ⁺ (n = 2-4) Cation Complexes. <i>Journal of Physical Chemistry A</i> , 2015 , 119, 9286-93	2.8	4
123	Experimental and theoretical studies of the infrared spectra and bonding properties of NgBeCO ⁺ and a comparison with NgBeO (Ng = He, Ne, Ar, Kr, Xe). <i>Journal of Physical Chemistry A</i> , 2015 , 119, 2543-52	2.8	52

122	Formation and Characterization of the Boron Dicarbonyl Complex [B(CO) ₂] ⁺ . <i>Angewandte Chemie</i> , 2015 , 127, 11230-11235	3.6	50
121	Carbon Monoxide Bonding With BeO and BeCO ₃ : Surprisingly High CO Stretching Frequency of OCB _e CO ₃ . <i>Angewandte Chemie</i> , 2015 , 127, 126-130	3.6	30
120	Formation and characterization of the boron dicarbonyl complex [B(CO) ₂] ⁻ . <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 11078-83	16.4	86
119	Carbon monoxide bonding with BeO and BeCO ₃ : surprisingly high CO stretching frequency of OCB _e CO ₃ . <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 124-8	16.4	63
118	Flexible bonding between copper and nitric oxide: infrared photodissociation spectroscopy of copper nitrosyl cation complexes: [Cu(NO) _n] ⁺ (n = 1-5). <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 10788-98	3.6	13
117	Identification of an iridium-containing compound with a formal oxidation state of IX. <i>Nature</i> , 2014 , 514, 475-7	50.4	137
116	Infrared spectra and structures of the neutral and charged CrCO ₂ and Cr(CO) ₂ isomers in solid neon. <i>Journal of Physical Chemistry A</i> , 2014 , 118, 6009-17	2.8	6
115	Infrared photodissociation spectroscopy of mass-selected homoleptic cobalt carbonyl cluster cations in the gas phase. <i>Journal of Physical Chemistry A</i> , 2014 , 118, 2719-27	2.8	16
114	A collinear tandem time-of-flight mass spectrometer for infrared photodissociation spectroscopy of mass-selected ions. <i>Science China Chemistry</i> , 2014 , 57, 172-177	7.9	57
113	Carbonyl bonding on oxophilic metal centers: infrared photodissociation spectroscopy of mononuclear and dinuclear titanium carbonyl cation complexes. <i>Journal of Physical Chemistry A</i> , 2013 , 117, 1514-21	2.8	33
112	Infrared photodissociation spectra of mass selected homoleptic dinuclear iron carbonyl cluster anions in the gas phase. <i>Chemical Science</i> , 2012 , 3, 1698	9.4	45
111	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> , 2012 , 116, 12349-56	2.8	24
110	Bonding in homoleptic iron carbonyl cluster cations: a combined infrared photodissociation spectroscopic and theoretical study. <i>Chemical Science</i> , 2012 , 3, 3272	9.4	40
109	Infrared photodissociation spectroscopy of mononuclear iron carbonyl anions. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 2484-9	2.8	75
108	Matrix isolation spectroscopic and theoretical study of carbon dioxide activation by titanium oxide molecules. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 3388-95	2.8	18
107	Rare-earth monocarbonyls MCO: comprehensive infrared observations and a transparent theoretical interpretation for M = Sc; Y; La-Lu. <i>Chemical Science</i> , 2012 , 3, 1548	9.4	25
106	Infrared Photodissociation Spectra of Mass-Selected Homoleptic Dinuclear Palladium Carbonyl Cluster Cations in the Gas Phase. <i>Chinese Journal of Chemistry</i> , 2012 , 30, 2131-2137	4.9	20
105	Is rhodium tetroxide in the formal oxidation state VIII stable? a quantum chemical and matrix isolation investigation of rhodium oxides. <i>Theoretical Chemistry Accounts</i> , 2011 , 129, 667-676	1.9	13

104	Titanium oxide complexes with dinitrogen. Formation and characterization of the side-on and end-on bonded titanium oxide-dinitrogen complexes in solid neon. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 6551-8	2.8	17
103	Carbon dioxide coordination and activation by niobium oxide molecules. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 14361-9	2.8	17
102	Matrix isolation spectroscopic and theoretical study of water adsorption and hydrolysis on molecular tantalum and niobium oxides. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 2238-46	2.8	15
101	Matrix isolation spectroscopic and theoretical study of dihydrogen activation by group V metal dioxide molecules. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 39-46	2.8	18
100	Formation and characterization of two interconvertible side-on and end-on bonded beryllium ozonide complexes. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 9947-53	2.8	7
99	Are matrix isolated species really isolated? Infrared spectroscopic and theoretical studies of noble gas-transition metal oxide complexes. <i>Science China Chemistry</i> , 2010 , 53, 327-336	7.9	11
98	Spontaneous dihydrogen activation by neutral TaO ₄ complex at cryogenic temperatures. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 7757-61	16.4	17
97	Formation and Characterization of the Iridium Tetroxide Molecule with Iridium in the Oxidation State +VIII. <i>Angewandte Chemie</i> , 2009 , 121, 8019-8023	3.6	23
96	Formation and characterization of the iridium tetroxide molecule with iridium in the oxidation state +VIII. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 7879-83	16.4	56
95	Reaction of chloromethyl radical with dioxygen: formation of the chloromethylperoxy radical and its photodissociation in solid argon. <i>Journal of Physical Chemistry A</i> , 2009 , 113, 2826-30	2.8	7
94	CO activation on the late lanthanide dimers: matrix infrared spectra of the Ln ₂ [$\eta^2(\mu^2\text{-C, O})$] _x (Ln = Tb, Dy, Ho, Er, Lu; x = 1, 2) molecules. <i>Journal of Physical Chemistry A</i> , 2008 , 112, 3627-30	2.8	16
93	Matrix isolation infrared spectroscopic and theoretical study of the hydrolysis of boron dioxide in solid argon. <i>Journal of Physical Chemistry A</i> , 2008 , 112, 5670-5	2.8	9
92	Probing the intermediates in the MO + CH ₄ \rightarrow M + CH ₃ OH reactions by matrix isolation infrared spectroscopy. <i>International Reviews in Physical Chemistry</i> , 2008 , 27, 1-25	7	122
91	Formation and characterization of the tetranuclear scandium nitride: Sc ₄ N ₄ . <i>Journal of Physical Chemistry A</i> , 2007 , 111, 6204-7	2.8	29
90	Remarkable dinitrogen activation and cleavage by the Gd dimer: from dinitrogen complexes to ring and cage nitrides. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 2911-4	16.4	50
89	Remarkable Dinitrogen Activation and Cleavage by the Gd Dimer: From Dinitrogen Complexes to Ring and Cage Nitrides. <i>Angewandte Chemie</i> , 2007 , 119, 2969-2972	3.6	11
88	Reactions of cerium atoms and dimeric cerium molecules with CO: formation of cerium carbonyls and photoconversion to CO-activated insertion molecules. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 10206-11	2.8	30
87	Formation and characterization of the XeOO(+) cation in solid argon. <i>Journal of the American Chemical Society</i> , 2006 , 128, 2504-5	16.4	17

86	Noble gas-transition-metal complexes: coordination of VO ₂ and VO ₄ by Ar and Xe atoms in solid noble gas matrixes. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 1845-9	2.8	52
85	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> , 2006 , 110, 10777-82	2.8	36
84	Infrared spectra and structures of the OSc(N ₂), OScNN, and OScNN ⁺ complexes in solid argon. <i>Journal of Physical Chemistry A</i> , 2005 , 109, 5079-84	2.8	33
83	Reactions of germanium atoms and small clusters with CO: experimental and theoretical characterization of Ge(n)CO (n = 1-5) and Ge ₂ (CO) ₂ in solid argon. <i>Journal of Physical Chemistry A</i> , 2005 , 109, 3325-30	2.8	18
82	Noble gas-transition metal complexes: coordination of ScO ⁺ by multiple Ar, Kr, and Xe atoms in noble gas matrixes. <i>Journal of Physical Chemistry A</i> , 2005 , 109, 6621-3	2.8	43
81	Coordination of ScO ⁺ and YO ⁺ 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> , 2005 , 109, 11765-70	2.8	40
80	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> , 2005 , 412, 46-49	2.5	35
79	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> , 2004 , 10, 5817-22	4.8	22
78	Reactions of silicon atoms and small clusters with CO: experimental and theoretical characterization of Si _n CO (n=1-5), Si ₂ (CO) ₂ , c-Si ₂ (μ-O)(μ-CSi), and c-Si ₂ (μ-O)(μ-CCO) in solid argon. <i>Journal of Chemical Physics</i> , 2004 , 121, 10474-82	3.9	29
77	Infrared Spectrum of the Formylperoxy Radical in Solid Argon. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 4228-4231	2.8	9
76	Matrix Isolation Infrared Spectroscopic and Theoretical Study of the Reactions of Beryllium Atoms with Methanol. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 3390-3395	2.8	13
75	Matrix Isolation Infrared Spectroscopic and Theoretical Studies on the Reactions of Manganese and Iron Monoxides with Methane. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 11273-11278	2.8	29
74	Infrared Spectra and Density Functional Calculations of the BCS and B(CS) ₂ Molecules in Solid Argon. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 11014-11018	2.8	5
73	Infrared Spectra of BCO, B(CO) ₂ , and OCBBCO in Solid Argon. <i>Journal of Physical Chemistry A</i> , 2003 , 107, 2458-2463	2.8	67
72	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> , 2003 , 107, 561-569	2.8	26
71	Experimental and theoretical characterization of a triplet boron carbonyl compound: BBCO. <i>ChemPhysChem</i> , 2003 , 4, 763-6	3.2	36
70	Experimental and theoretical characterization of H(2)OOO(+). <i>Journal of the American Chemical Society</i> , 2003 , 125, 11512-3	16.4	13
69	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> , 2003 , 107, 2329-2333	2.8	23

68	Reactions of B atoms and clusters with NO: experimental and theoretical characterization of novel molecules containing B, N, and O. <i>Journal of the American Chemical Society</i> , 2003 , 125, 11371-8	16.4	21
67	Experimental and theoretical characterization of a C ₂ H ₂ O ₂ ⁺ cation in solid argon. <i>Journal of Chemical Physics</i> , 2003 , 119, 2680-2684	3.9	
66	B ₄ CO ₂ : a new, observable sigma-pi diradical. <i>Journal of the American Chemical Society</i> , 2002 , 124, 14854-5	16.4	65
65	Matrix isolation FTIR spectroscopic and density functional theoretical studies of the O ₂ SiCO and O ₂ Si(CO) ₂ molecules. <i>Journal of Chemical Physics</i> , 2002 , 116, 5643-5648	3.9	3
64	Infrared Spectrum of the Hyponitrite Dianion, N ₂ O ₂ ²⁻ , Isolated and Insulated from Stabilizing Metal Cations in Solid Neon. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 92-95	2.8	7
63	Matrix Infrared Spectrum and Aromaticity of the Al ₂ (CO) ₂ Molecule. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 11709-11713	2.8	28
62	OCBBCO: a neutral molecule with some boron-boron triple bond character. <i>Journal of the American Chemical Society</i> , 2002 , 124, 12936-7	16.4	169
61	Formation and characterization of the AsCO and AsCO ⁻ molecules. A matrix isolation FTIR and theoretical study. <i>Chemical Physics Letters</i> , 2001 , 335, 334-338	2.5	20
60	Spectroscopic and theoretical investigations of vibrational frequencies in binary unsaturated transition-metal carbonyl cations, neutrals, and anions. <i>Chemical Reviews</i> , 2001 , 101, 1931-61	68.1	384
59	Reactions of Mn with H ₂ O and MnO with H ₂ . Matrix-Isolation FTIR and Quantum Chemical Studies. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 5801-5807	2.8	36
58	Chromium Oxide Complexes with Dinitrogen. Formation and Characterization of the (NN) _x CrO and (NN) _x CrO ₂ (x = 1,2). <i>Journal of Physical Chemistry A</i> , 2001 , 105, 6407-6413	2.8	29
57	Formation and Characterization of the (η-H ₂)CrO ₂ , (η-H ₂) ₂ CrO ₂ and HCrO(OH) Molecules. <i>Journal of Physical Chemistry A</i> , 2001 , 105, 10747-10752	2.8	23
56	Reactions of group V metal atoms with water molecules. Matrix isolation FTIR and quantum chemical studies. <i>Journal of the American Chemical Society</i> , 2001 , 123, 135-41	16.4	53
55	Reactions of Laser-Ablated Cu with NO: Infrared Spectra and Density Functional Calculations of CuNO ⁺ , CuNO, Cu(NO) ₂ , and Cu(NO) ₂ ⁻ in Solid Neon and Argon. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 2618-2625	2.8	44
54	Infrared spectra of the CS ₂ ⁻ , CS ₂ ⁺ , and C ₂ S ₄ ⁺ molecular ions in solid neon and argon. <i>Journal of Chemical Physics</i> , 2000 , 112, 6576-6582	3.9	19
53	Matrix infrared spectra and quantum chemical calculations of the MCO ⁻ (M=Si, Ge, Sn) anions. <i>Journal of Chemical Physics</i> , 2000 , 113, 8700-8705	3.9	27
52	Infrared spectra and theoretical studies of the C ₂ O ₃ ⁻ anion isolated in solid argon. <i>Journal of Chemical Physics</i> , 2000 , 112, 7089-7094	3.9	12
51	The AlCO ⁻ and Al(CO) ₂ ⁻ anions: Matrix isolation infrared spectra and density functional theory studies. <i>Journal of Chemical Physics</i> , 2000 , 113, 10169-10173	3.9	13

50	The CO ₂ NO van der Waals Complex and the Covalently Bonded CO ₂ NO ⁻ Anion: A Matrix-Isolation FTIR and Theoretical Study. <i>Journal of the American Chemical Society</i> , 2000 , 122, 4483-4488	16.4	22
49	Reactions of Laser-Ablated Fe, Co, and Ni with NO: Infrared Spectra and Density Functional Calculations of MNO ⁺ and M(NO) _x (M = Fe, Co, x = 1B; M = Ni, x = 1, 2), and M(NO) _x ⁻ (M = Co, Ni; x = 1, 2). <i>Journal of Physical Chemistry A</i> , 2000 , 104, 3915-3925	2.8	47
48	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> , 2000 , 104, 10104-10111	2.8	22
47	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 = 1B). <i>Journal of the American Chemical Society</i> , 2000 , 122, 1531-1539	16.4	38
46	Reactions of Laser-Ablated Ga, In, and Tl Atoms with Nitrogen Atoms and Molecules. Infrared Spectra and Density Functional Calculations of GaN, NGaN, NiN, and the M ₃ N and MN ₃ Molecules. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 1648-1655	2.8	58
45	Reactions of Laser-Ablated Aluminum Atoms with Nitrogen Atoms and Molecules. Infrared Spectra and Density Functional Calculations for the AlN ₂ , Al ₂ N, Al ₂ N ₂ , AlN ₃ , and Al ₃ N Molecules. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 1656-1661	2.8	68
44	Infrared Spectra and Density Functional Calculations of MO ₂ , MO ₃ , (O ₂)MO ₂ , MO ₄ , MO ₂ ⁻ (M = Re, Ru, Os) and ReO ₃ ⁻ , ReO ₄ ⁻ in Solid Neon and Argon. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 3457-3465	2.8	40
43	Reactions of Co, Ni, and Cu Atoms with CS ₂ : Infrared Spectra and Density-Functional Calculations of SMCS, M-(η -CS) ₂ , M-CS ₂ , and MCS ₂ ⁺ in Solid Argon. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 4394-4401	2.8	22
42	Matrix-Isolation Fourier Transform Infrared and Theoretical Studies of Laser-Ablated Sc Atom Reactions with Water Molecules. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 8882-8886	2.8	44
41	Manganese Carbonyl Nitrosyl Complexes in Solid Argon: Infrared Spectra and Density Functional Calculations. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 7964-7973	2.8	22
40	Carbon Dioxide Fixation by Copper and Silver Halide. Matrix-Isolation FTIR Spectroscopic and DFT Studies of the XMOCO (X = Cl and Br, M = Cu and Ag) Molecules. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 10159-10164	2.8	12
39	Reactions of Laser-Ablated Ni, Pd, and Pt Atoms with Carbon Monoxide: Matrix Infrared Spectra and Density Functional Calculations on M(CO) _n (n = 1A), M(CO) _n ⁻ (n = 1B), and M(CO) _n ⁺ (n = 1A), (M = Ni, Pd, Pt). <i>Journal of Physical Chemistry A</i> , 2000 , 104, 3905-3914	2.8	94
38	Matrix Infrared Spectra and Density Functional Calculations of Manganese and Rhenium Carbonyl Neutral and Anion Complexes. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 8887-8897	2.8	32
37	Matrix-Isolation FTIR Spectroscopic and DFT Studies of the XMNN (X=Cl, Br, M=Cu, Ni) Molecules. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 8627-8631	2.8	10
36	Infrared spectra of the CO ₂ ⁻ and C ₂ O ₄ ⁻ anions isolated in solid argon. <i>Journal of Chemical Physics</i> , 1999 , 110, 2414-2422	3.9	70
35	Reactions of laser-ablated iron atoms and cations with carbon monoxide: Infrared spectra of FeCO ⁺ , Fe(CO) ₂ ⁺ , Fe(CO) _x , and Fe(CO) _x ⁺ (x=1A) in solid neon. <i>Journal of Chemical Physics</i> , 1999 , 110, 10370-10379	3.9	65
34	Infrared spectra and density functional calculations of Cu(CO) _{1A} ⁺ , Cu(CO) _{1B} , and Cu(CO) _{1B} ⁻ in solid neon. <i>Journal of Chemical Physics</i> , 1999 , 111, 4548-4557	3.9	65
33	Infrared spectra of cyclic-O ₆ ⁺ and trans-O ₆ ⁺ in solid neon and argon. <i>Journal of Chemical Physics</i> , 1999 , 110, 9450-9456	3.9	40

32	Tin-Based Composite Oxide Thin-Film Electrodes Prepared by Pulsed Laser Deposition. <i>Journal of the Electrochemical Society</i> , 1999 , 146, 3554-3559	3.9	34
31	Infrared spectrum of CCH ⁺ in solid argon and neon. <i>Journal of Chemical Physics</i> , 1999 , 110, 4457-4466	3.9	37
30	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> , 1999 , 103, 7773-7784	2.8	70
29	Infrared spectra of the C ₂ O ₄ ⁺ cation and C ₂ O ₄ ⁻ anion isolated in solid neon. <i>Journal of Chemical Physics</i> , 1999 , 110, 6820-6826	3.9	46
28	Infrared spectra and density functional calculations of the CrO ₂ ⁻ MoO ₂ ⁻ and WO ₂ ⁻ molecular anions in solid neon. <i>Journal of Chemical Physics</i> , 1999 , 111, 4230-4238	3.9	57
27	Infrared spectra of (NO) ₂ ⁻ and (NO) ₂ ⁺ isomers trapped in solid neon. <i>Journal of Chemical Physics</i> , 1999 , 111, 6036-6041	3.9	29
26	Reactions of Laser-Ablated Y and La Atoms, Cations and Electrons with O ₂ . Infrared Spectra and Density Functional Calculations of the MO, MO ⁺ , MO ₂ , MO ₂ ⁺ , and MO ₂ ⁻ Species in Solid Argon. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 6525-6532	2.8	50
25	Infrared spectra and pseudopotential calculations for NUO ⁺ , NUO, and NThO in solid neon. <i>Journal of Chemical Physics</i> , 1999 , 111, 11044-11049	3.9	71
24	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> , 1999 , 121, 12188-12189	16.4	45
23	Infrared Spectra and Density Functional Calculations of RuCO ⁺ , OsCO ⁺ , Ru(CO) _x , Os(CO) _x , Ru(CO) _x ⁻ and Os(CO) _x ⁻ (x = 1-8) in Solid Neon. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 6956-6968	2.8	35
22	Infrared Spectra of CNbO, CMO ⁻ , OMCCO, (C ₂)MO ₂ , and M(CO) _x (x = 1-8) (M = Nb, Ta) in Solid Neon. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 7785-7794	2.8	25
21	Matrix Infrared Spectra and Density Functional Calculations of ScCO, ScCO ⁻ , and ScCO ⁺ . <i>Journal of Physical Chemistry A</i> , 1999 , 103, 2964-2971	2.8	39
20	Infrared Spectra of OMCO (M = Cr, Ni), OMCO ⁻ (M = Cr, Cu), and MCO ₂ ⁻ (M = Co, Cu) in Solid Argon. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 2013-2023	2.8	53
19	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> , 1999 , 103, 5259-5268	2.8	44
18	Infrared Spectra and Density Functional Calculations for OMCO, OM(CO-CO), OMCO ⁺ , and OMOC ⁺ (M = V, Ti) in Solid Argon. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 2066-2075	2.8	45
17	Reaction of Laser-Ablated Uranium Atoms with CO: Infrared Spectra of the CUO, CUO ⁻ , OUCCO, (C ₂ -C ₂)UO ₂ , and U(CO) _x (x = 1-8) Molecules in Solid Neon. <i>Journal of the American Chemical Society</i> , 1999 , 121, 9712-9721	16.4	103
16	Infrared Spectra of RhCO ⁺ , RhCO, and RhCO ⁻ in Solid Neon: A Scale for Charge in Supported Rh(CO) Catalyst Systems. <i>Journal of the American Chemical Society</i> , 1999 , 121, 9171-9175	16.4	56
15	Reactions of Laser-Ablated Molybdenum and Tungsten Atoms with Nitric Oxide. Infrared Spectra of the MN, NMO, and M(CO) _x (NO) _x (x = 1, 2, 3, 4) Molecules and (NO) ₂ ⁺ and (NO) ₂ ⁻ Ions in Solid Argon. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 4167-4173	2.8	26

14	Reactions of Laser-Ablated Vanadium Atoms with Nitric Oxide. Infrared Spectra and Density Functional Calculations on NVO, V(II)-NO, V(III)-NO ₂ , V(IV)-NO ₃ , and V(V)-NO. <i>Journal of Physical Chemistry A</i> , 1999 , 103, 478-484	2.8	21
13	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> , 1999 , 103, 1115-1125	2.8	32
12	I-V and C-V properties of TiO ₂ thin film by pulsed-laser reactive deposition. <i>Science Bulletin</i> , 1998 , 43, 1344-1349		2
11	Matrix Infrared Spectra and Density Functional Calculations of Ni(CO) _x , x= 1-4. <i>Journal of the American Chemical Society</i> , 1998 , 120, 11499-11503	16.4	89
10	Reactions of Laser-Ablated Niobium and Tantalum Atoms with NO. Infrared Spectra of the NMO, M(III-NO) _x (x= 2, 3), and (N ₂)(MO ₂) Molecules in Solid Argon. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 10025-10031	2.8	13
9	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> , 1998 , 102, 9061-9071	2.8	39
8	Matrix Infrared Spectra and Density Functional Calculations of Three Al, N, O Isomers. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 5019-5026	2.8	11
7	Matrix Infrared Spectra and Density Functional Calculations of Co(CO) _x - (x = 1, 2, 3, 4) Anions. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 10250-10257	2.8	27
6	Reactions of laser-ablated iron atoms with carbon monoxide: Infrared spectra and density functional calculations of Fe _x CO, Fe(CO) _x , and Fe(CO) _x (x=1,2,3) in solid argon. <i>Journal of Chemical Physics</i> , 1998 , 109, 10893-10904	3.9	71
5	Reactions of Manganese and Rhenium Atoms with NO. Infrared Spectra and Density Functional Calculations of π and σ Addition and Insertion Reaction Products. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 10041-10050	2.8	16
4	Reactions of Laser-Ablated Chromium Atoms with Nitric Oxide: Infrared Spectra of NCrO, Cr(II-NO) _x (x = 1, 2, 3, 4), and Cr(III)-NO in Solid Argon. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 7452-7461 ^{2,8}	2.8	29
3	Infrared Spectra and Density Functional Calculations for OScCO, Sc-(η -OC)O, OSc-(η -CO), and Three OScCO ⁺ Cation Isomers in Solid Argon. <i>Journal of the American Chemical Society</i> , 1998 , 120, 13230-13239 ^{16,4}	16.4	64
2	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> , 1998 , 102, 8251-8260	2.8	84
1	Infrared spectra of cis and trans-(NO) ₂ anions in solid argon. <i>Journal of Chemical Physics</i> , 1998 , 109, 177-185	3.9	57