

AndrÃ© Fielicke

List of Publications by Year in descending order

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122
papers

5,792
citations

61984
43
h-index

88630
70
g-index

136
all docs

136
docs citations

136
times ranked

3211
citing authors

#	ARTICLE	IF	CITATIONS
1	Structures of Neutral Au ₇ , Au ₁₉ , and Au ₂₀ Clusters in the Gas Phase. <i>Science</i> , 2008, 321, 674-676.	12.6	596
2	Gold Cluster Carbonyls: A Saturated Adsorption of CO on Gold Cluster Cations, Vibrational Spectroscopy, and Implications for Their Structures. <i>Journal of the American Chemical Society</i> , 2005, 127, 8416-8423.	13.7	172
3	Structure Determination of Isolated Metal Clusters via Far-Infrared Spectroscopy. <i>Physical Review Letters</i> , 2004, 93, 023401.	7.8	161
4	Gold Cluster Carbonyls: A Vibrational Spectroscopy of the Anions and the Effects of Cluster Size, Charge, and Coverage on the CO Stretching Frequency. <i>Journal of Physical Chemistry B</i> , 2005, 109, 23935-23940.	2.6	109
5	Size and charge effects on the binding of CO to late transition metal clusters. <i>Journal of Chemical Physics</i> , 2006, 124, 194305.	3.0	108
6	Size and Charge Effects on the Binding of CO to Small Isolated Rhodium Clusters. <i>Journal of Physical Chemistry B</i> , 2004, 108, 14591-14598.	2.6	105
7	Probing the structures of neutral boron clusters using infrared/vacuum ultraviolet two color ionization: B ₁₁ , B ₁₆ , and B ₁₇ . <i>Journal of Chemical Physics</i> , 2012, 137, 014317.	3.0	105
8	The adsorption of CO on transition metal clusters: A case study of cluster surface chemistry. <i>Surface Science</i> , 2009, 603, 1427-1433.	1.9	103
9	Activation of Molecular Oxygen by Anionic Gold Clusters. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 4444-4447.	13.8	101
10	Structure determination of neutral MgO clusters – hexagonal nanotubes and cages. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 2849.	2.8	100
11	Infrared Spectroscopy of Niobium Oxide Cluster Cations in a Molecular Beam: Identifying the Cluster Structures. <i>Journal of the American Chemical Society</i> , 2003, 125, 3659-3667.	13.7	98
12	The adsorption of CO on group 10 (Ni, Pd, Pt) transition-metal clusters. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 6144.	2.8	92
13	Structures of Silicon Cluster Cations in the Gas Phase. <i>Journal of the American Chemical Society</i> , 2009, 131, 1115-1121.	13.7	90
14	Structural Identification of Caged Vanadium Doped Silicon Clusters. <i>Physical Review Letters</i> , 2011, 107, 173401.	7.8	90
15	Structure and Fluxionality of B ₁₃ ^{+/-} Probed by Infrared Photodissociation Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 501-504.	13.8	88
16	Argon Physisorption as Structural Probe for Endohedrally Doped Silicon Clusters. <i>Physical Review Letters</i> , 2007, 99, 063401.	7.8	85
17	H ₂ Adsorption on 3d Transition Metal Clusters: A Combined Infrared Spectroscopy and Density Functional Study. <i>Journal of Physical Chemistry A</i> , 2008, 112, 1139-1149.	2.5	79
18	Far-Infrared spectroscopy of isolated transition metal clusters. <i>European Physical Journal D</i> , 2005, 34, 83-88.	1.3	74

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19	Structure determination of small vanadium clusters by density-functional theory in comparison with experimental far-infrared spectra. <i>Journal of Chemical Physics</i> , 2005, 122, 124302.	3.0	74
20	Infrared Induced Reactivity on the Surface of Isolated Size-Selected Clusters: Dissociation of N ₂ O on Rhodium Clusters. <i>Journal of the American Chemical Society</i> , 2010, 132, 1448-1449.	13.7	72
21	Vibrational spectroscopy of neutral silicon clusters via far-IR-VUV two color ionization. <i>Journal of Chemical Physics</i> , 2009, 131, 171105.	3.0	71
22	Probing the structures of gas-phase rhodium cluster cations by far-infrared spectroscopy. <i>Journal of Chemical Physics</i> , 2010, 133, 214304.	3.0	70
23	Platinum Group Metal Clusters: From Gasâ€Phase Structures and Reactivities towards Model Catalysts. <i>Chemistry - A European Journal</i> , 2014, 20, 3258-3267.	3.3	69
24	Gas-phase structures of neutral silicon clusters. <i>Journal of Chemical Physics</i> , 2012, 136, 064301.	3.0	68
25	Activated Methane on Small Cationic Platinum Clusters. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 817-819.	13.8	68
26	Charge Separation Promoted Activation of Molecular Oxygen by Neutral Gold Clusters. <i>Journal of the American Chemical Society</i> , 2013, 135, 1727-1730.	13.7	68
27	Structural Diversity and Flexibility of MgO Gasâ€Phase Clusters. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 1716-1719.	13.8	67
28	High Magnetic Moments in Manganeseâ€Doped Silicon Clusters. <i>Chemistry - A European Journal</i> , 2012, 18, 15788-15793.	3.3	66
29	Disparate Effects of Cu and V on Structures of Exohedral Transition Metal-Doped Silicon Clusters: A Combined Far-Infrared Spectroscopic and Computational Study. <i>Journal of the American Chemical Society</i> , 2010, 132, 15589-15602.	13.7	65
30	Dinitrogen Fixation and Reduction by Ta ₃ N ₃ H _{0,1} ⁺ Cluster Anions at Room Temperature: Hydrogen-Assisted Enhancement of Reactivity. <i>Journal of the American Chemical Society</i> , 2019, 141, 12592-12600.	13.7	65
31	N ₂ Activation by Neutral Ruthenium Clusters. <i>Journal of Physical Chemistry C</i> , 2013, 117, 12153-12158.	3.1	64
32	Intensity-resolved IR multiple photon ionization and fragmentation of C ₆₀ . <i>Journal of Chemical Physics</i> , 2010, 132, 074305.	3.0	63
33	The far-infrared spectra of neutral and cationic niobium clusters: Nb ₅₀ ⁺ to Nb ₉₀ ⁺ . <i>Journal of Chemical Physics</i> , 2007, 127, 234306.	3.0	61
34	Infrared multiple photon dissociation spectroscopy of transition metal oxide cluster cations. <i>European Physical Journal D</i> , 2003, 24, 69-72.	1.3	59
35	The Nature of Bonding between Argon and Mixed Goldâ€Silver Trimers. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10675-10680.	13.8	58
36	The Structures of Vanadium Oxide Clusterâ€Ethene Complexes. A Combined IR Multiple Photon Dissociation Spectroscopy and DFT Calculation Study. <i>Journal of the American Chemical Society</i> , 2003, 125, 15716-15717.	13.7	57

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37	Infrared-Induced Reactivity of N ₂ O on Small Gas-Phase Rhodium Clusters. <i>Journal of Physical Chemistry A</i> , 2011, 115, 2489-2497.	2.5	57
38	Not so loosely bound rare gas atoms: finite-temperature vibrational fingerprints of neutral gold-cluster complexes. <i>New Journal of Physics</i> , 2013, 15, 083003.	2.9	56
39	Communications: The structure of Rh ₈₊ in the gas phase. <i>Journal of Chemical Physics</i> , 2010, 132, 011101.	3.0	55
40	Nature of Ar bonding to small Con _n clusters and its effect on the structure determination by far-infrared absorption spectroscopy. <i>Journal of Chemical Physics</i> , 2009, 130, 034306.	3.0	54
41	Vibrational Spectroscopy of CO in Gas-Phase Rhodium Cluster-CO Complexes. <i>Journal of the American Chemical Society</i> , 2003, 125, 11184-11185.	13.7	53
42	Isomer selective infrared spectroscopy of neutral metal clusters. <i>Journal of Chemical Physics</i> , 2005, 122, 091105.	3.0	53
43	Tuning the Geometric Structure by Doping Silicon Clusters. <i>ChemPhysChem</i> , 2008, 9, 703-706.	2.1	51
44	Far-IR Spectra of Small Neutral Gold Clusters in the Gas Phase. <i>Zeitschrift Fur Physikalische Chemie</i> , 2014, 228, 337-350.	2.8	44
45	Hydrogen-Induced Transition from Dissociative to Molecular Chemisorption of CO on Vanadium Clusters. <i>Journal of the American Chemical Society</i> , 2007, 129, 2516-2520.	13.7	43
46	Direct observation of size dependent activation of NO on gold clusters. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 3906.	2.8	42
47	Structure Determination of Anionic Metal Clusters via Infrared Resonance Enhanced Multiple Photon Electron Detachment Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1720-1724.	4.6	42
48	IR Signature of Size-Selective CO ₂ Activation on Small Platinum Cluster Anions, Pt _n (n=4-7). <i>Angewandte Chemie - International Edition</i> , 2018, 57, 14822-14826.	13.8	42
49	The structures of neutral transition metal doped silicon clusters, Si _n X _i (n=6-9; i=1-3). <i>J. Phys. Chem. A</i> , 2007, 111, 7843-7851.	3.0	40
50	Structure Assignment, Electronic Properties, and Magnetism Quenching of Endohedrally Doped Neutral Silicon Clusters, Si _n Co (n=10-12). <i>Journal of Physical Chemistry A</i> , 2014, 118, 8198-8203.	2.5	40
51	Structural determination of niobium-doped silicon clusters by far-infrared spectroscopy and theory. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 6291-6300.	2.8	40
52	Two-to-three dimensional transition in neutral gold clusters: The crucial role of van der Waals interactions and temperature. <i>Physical Review Materials</i> , 2019, 3, .	2.4	40
53	The Effect of Charge on CO Binding in Rhodium Carbonyls: From Bridging to Terminal CO. <i>Journal of the American Chemical Society</i> , 2008, 130, 2126-2127.	13.7	39
54	Infrared Spectroscopy and Binding Geometries of Oxygen Atoms Bound to Cationic Tantalum Clusters. <i>Journal of Physical Chemistry A</i> , 2010, 114, 9755-9761.	2.5	39

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55	Effects of Coadsorbed Oxygen on the Infrared Driven Decomposition of N ₂ O on Isolated Rh ₅ ⁺ Clusters. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 3053-3057.	4.6	39
56	Fluxionality and If Aromaticity in Small Yttrium-Doped Gold Clusters. <i>ChemPhysChem</i> , 2008, 9, 2471-2474.	2.1	38
57	Chapter 8 Vibrational spectroscopy of gas-phase clusters and complexes. <i>Chemical Physics of Solid Surfaces</i> , 2007, , 327-375.	0.3	37
58	Stability and reactivity patterns of medium-sized vanadium oxide cluster cations V _x O _y ⁺ (4 ≤ x ≤ 14). <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 2621-2628.	2.8	36
59	Probing C=O bond activation on gas-phase transition metal clusters: Infrared multiple photon dissociation spectroscopy of Fe, Ru, Re, and W cluster CO complexes. <i>Journal of Chemical Physics</i> , 2009, 131, 184706.	3.0	36
60	Size-Specific, Dissociative Activation of Carbon Dioxide by Cobalt Cluster Anions. <i>Journal of Physical Chemistry C</i> , 2016, 120, 14209-14215.	3.1	36
61	Far-Infrared Spectra of Yttrium-Doped Gold Clusters Au _n -Y (n=1-9). <i>ChemPhysChem</i> , 2010, 11, 1932-1943.	2.1	35
62	Structures of Platinum Oxide Clusters in the Gas Phase. <i>Journal of Physical Chemistry A</i> , 2013, 117, 1233-1239.	2.5	35
63	Interaction of Bismuth Oxide Cluster Cations with Alkenes and Molecular Oxygen: Bi ₄ O ₆ ⁺ , a Possible Reactive Center for Alkene Oxidation. <i>Journal of Physical Chemistry A</i> , 2000, 104, 6979-6982.	2.5	34
64	Far-Infrared Spectroscopy of Small Neutral Silver Clusters. <i>Journal of Physical Chemistry A</i> , 2006, 110, 8060-8063.	2.5	34
65	Ferrimagnetic cagelike Structure determination from infrared dissociation spectroscopy. <i>Physical Review B</i> , 2010, 82, .	3.2	33
66	Superoxide Formation on Isolated Cationic Gold Clusters. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 6554-6557.	13.8	33
67	Charge-induced dipole vs. relativistically enhanced covalent interactions in Ar-tagged Au-Ag tetramers and pentamers. <i>Journal of Chemical Physics</i> , 2015, 143, 024310.	3.0	33
68	Characterization of neutral boron-silicon clusters using infrared spectroscopy: The case of Si ₆ B. <i>International Journal of Mass Spectrometry</i> , 2016, 395, 1-6.	1.5	33
69	Structural Identification of Gold-Doped Silicon Clusters via Far-Infrared Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10896-10903.	3.1	30
70	Size-Selected Clusters as Model Systems for Catalysis. <i>Topics in Catalysis</i> , 2018, 61, 1-2.	2.8	29
71	Experimental vibrational spectra of gas-phase tantalum cluster cations. <i>Journal of Chemical Physics</i> , 2007, 127, 234307.	3.0	27
72	Infrared driven CO oxidation reactions on isolated platinum cluster oxides, Pt _n Om ⁺ . <i>Faraday Discussions</i> , 2012, 157, 213.	3.2	27

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73	Effects of Charge Transfer on the Adsorption of CO on Small Molybdenum-Doped Platinum Clusters. Chemistry - A European Journal, 2017, 23, 4120-4127.	3.3	27
74	Structure Determination of Gas-Phase Niobium and Tantalum Carbide Nanocrystals via Infrared Spectroscopy. Physical Review Letters, 2002, 89, 013401.	7.8	26
75	Infrared spectroscopy of water adsorption on vanadium cluster cations (V_x+ ; $x=3\text{--}18$). Chemical Physics Letters, 2004, 392, 409-414.	2.6	26
76	Photoionization of Nb_3CO and $Nb_3(CO)_2$: Is CO Molecularly or Dissociatively Adsorbed on Niobium?. Journal of Physical Chemistry A, 2004, 108, 964-970.	2.5	26
77	Infrared Spectroscopy and Structures of Boron-Doped Silicon Clusters ($Si_{n+m}B_m$; $n = 3\text{--}8$, $m = 1\text{--}2$). Journal of Physical Chemistry C, 2017, 121, 9560-9571.	3.1	26
78	Size Dependent H_{2+} Adsorption on $Al_{n+m}Rh^{+}$ Clusters. Journal of Physical Chemistry C, 2018, 122, 18247-18255.	3.1	26
79	Unusual Bonding in Platinum Carbido Clusters. Journal of Physical Chemistry Letters, 2013, 4, 892-896.	4.6	25
80	Vibrational spectra and structures of neutral Si_6X clusters ($X = Be, B, C, N, O$). Physical Chemistry Chemical Physics, 2014, 16, 22364-22372.	2.8	24
81	Hydrogen Chemisorption on Singly Vanadium-Doped Aluminum Clusters. Chemistry - A European Journal, 2017, 23, 15638-15643.	3.3	24
82	Vibrational Spectra and Structures of Neutral Si_mC_n Clusters ($m + n = 6$): Sequential Doping of Silicon Clusters with Carbon Atoms. Journal of Physical Chemistry A, 2013, 117, 1158-1163.	2.5	23
83	The Geometric Structure of Silver-Doped Silicon Clusters. ChemPhysChem, 2014, 15, 328-336.	2.1	23
84	Altering CO binding on gold cluster cations by Pd-doping. Nanoscale, 2019, 11, 16130-16141.	5.6	23
85	Molecular adsorption of H_2 on small cationic nickel clusters. Physical Chemistry Chemical Physics, 2008, 10, 5743.	2.8	22
86	Vibrational spectra and structures of Si_nC clusters ($n = 3\text{--}8$). Physical Chemistry Chemical Physics, 2015, 17, 18961-18970.	2.8	22
87	Communication: The structures of small cationic gas-phase platinum clusters. Journal of Chemical Physics, 2012, 136, 211103.	3.0	21
88	Antimony and bismuth oxide cluster ions. Physical Chemistry Chemical Physics, 2001, 3, 3034-3041.	2.8	20
89	Small Platinum Cluster Hydrides in the Gas Phase. Journal of Physical Chemistry A, 2013, 117, 8230-8237.	2.5	20
90	Competitive Molecular and Dissociative Hydrogen Chemisorption on Size Selected Doubly Rhodium Doped Aluminum Clusters. Topics in Catalysis, 2018, 61, 62-70.	2.8	20

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91	Tertiarybutylhydrazine: a new precursor for the MOVPE of Group III-nitrides. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 59, 20-23.	3.5	19
92	Controlling the Bonding of CO on Cobalt Clusters by Coadsorption of H ₂ . Angewandte Chemie - International Edition, 2007, 46, 5317-5320.	13.8	18
93	Communication: IR spectroscopy of neutral transition metal clusters through thermionic emission. Journal of Chemical Physics, 2013, 139, 121101.	3.0	16
94	Structure investigation of Co _x O ($y = 3 \text{--} 6, y = 3 \text{--} 8$) clusters by IR vibrational spectroscopy and DFT calculations. European Physical Journal D, 2014, 68, 1.	1.3	16
95	Communication: Structure of magnetic lanthanide clusters from far-IR spectroscopy: $\{m \text{ Tb}\}_n + Tb^{n+}$ ($n = 5 \text{--} 9$). Journal of Chemical Physics, 2013, 138, 031102.	3.0	15
96	Structure Dependent Magnetic Coupling in Cobalt-Doped Silicon Clusters. Journal of Physical Chemistry C, 2016, 120, 19454-19460.	3.1	15
97	Untersuchung der Struktur und Dynamik des B ₁₃ ⁺ mithilfe der Infrarot-Photodissociationsspektroskopie. Angewandte Chemie, 2017, 129, 515-519.	2.0	15
98	Effect of radiative cooling on the size-dependent stability of small boron clusters. Physical Review A, 2018, 98, .	2.5	15
99	Incipient chemical bond formation of Xe to a cationic silicon cluster: Vibrational spectroscopy and structure of the Si ₄ Xe ⁺ complex. Chemical Physics Letters, 2013, 557, 49-52.	2.6	13
100	Vibrational spectra and structures of bare and Xe-tagged cationic Si _n O ^{m+} clusters. Journal of Chemical Physics, 2014, 141, 104313.	3.0	13
101	Far-IR Spectra and Structures of Small Cationic Ruthenium Clusters: Evidence for Cubic Motifs. Journal of Physical Chemistry C, 2015, 119, 10869-10875.	3.1	12
102	Hydrogen Adsorption and Dissociation on Al _n Rh ₂ ⁺ ($n = 1 \text{ to } 9$) Clusters: Steric and Coordination Effects. Journal of Physical Chemistry C, 2020, 124, 7624-7633.	3.1	12
103	CO adsorption on neutral iridium clusters. European Physical Journal D, 2011, 63, 231-234.	1.3	11
104	Nature of the interaction between rare gas atoms and transition metal doped silicon clusters: the role of shielding effects. Physical Chemistry Chemical Physics, 2015, 17, 17584-17591.	2.8	11
105	Free electron laser infrared action spectroscopy of nitrous oxide binding to platinum clusters, Pt _n (NO) ₂ ⁺ . Physical Chemistry Chemical Physics, 2020, 22, 18606-18613.	2.8	11
106	Infrared Study of OCS Binding and Size-Selective Reactivity with Gold Clusters, Au _n OCS ⁺ ($n = 1 \text{--} 10$). Journal of Physical Chemistry A, 2020, 124, 5389-5401.	2.5	11
107	Atomic Cluster Au_{127} Is a Strong Broadband Midinfrared Chromophore. Physical Review Letters, 2021, 127, 033002.	7.8	11
108	Gold Clusters in the Gas Phase. Structure and Bonding, 2013, , 243-278.	1.0	10

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109	Liberation of three dihydrogens from two ethene molecules as mediated by the tantalum nitride anion cluster Ta ₃ N ₂ ⁻ at room temperature. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 3136-3142.	2.8	9
110	Molybdenum doped bismuth oxide clusters and their reactivity towards ethene: comparison with pure bismuth oxide clusters. <i>Chemical Physics Letters</i> , 2002, 359, 360-366.	2.6	8
111	Bildung von Superoxiden an isolierten kationischen Goldclustern. <i>Angewandte Chemie</i> , 2014, 126, 6672-6675.	2.0	8
112	IR Signature of Size-Selective CO ₂ Activation on Small Platinum Cluster Anions, Pt _n ⁻ (<i>n</i> =4-7). <i>Angewandte Chemie</i> , 2018, 130, 15038-15042.	2.0	8
113	Hydrogen Chemisorption on Doubly Vanadium Doped Aluminum Clusters. <i>Zeitschrift Fur Physikalische Chemie</i> , 2019, 233, 799-812.	2.8	8
114	Infrared action spectroscopy of nitrous oxide on cationic gold and cobalt clusters. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 329-338.	2.8	8
115	Unexpected structures of the Au ₁₇ gold cluster: the stars are shining. <i>Chemical Communications</i> , 2022, 58, 5785-5788.	4.1	7
116	Evolution of Vibrational Spectra in the Manganese-Silicon Clusters Mn ₂ Si _n , <i>n</i> = 10, 12, and 13, and Cationic [Mn ₂ Si ₁₃] ⁺ . <i>Journal of Physical Chemistry A</i> , 2022, 126, 1617-1626.	2.5	7
117	Comment on "Electronic Structures, Vibrational and Thermochemical Properties of Neutral and Charged Niobium Clusters Nbn, n= 7-12", <i>Journal of Physical Chemistry A</i> , 2011, 115, 7869-7870.	2.5	5
118	An octacoordinated Nb atom in the NbAl ₈ H ₈ ⁺ cluster. <i>Chemical Communications</i> , 2021, 57, 9518-9521.	4.1	5
119	Argon tagging of doubly transition metal doped aluminum clusters: The importance of electronic shielding. <i>Journal of Chemical Physics</i> , 2021, 154, 054312.	3.0	1
120	Structural Identification of Doped Silicon Clusters. <i>Challenges and Advances in Computational Chemistry and Physics</i> , 2017, , 53-86.	0.6	1
121	InnenrÃ¼cktitelbild: Untersuchung der Struktur und Dynamik des B ₁₃ ⁺ mithilfe der Infrarot-Photodissociationsspektroskopie (Angew. Chem. 2/2017). <i>Angewandte Chemie</i> , 2017, 129, 671-671.	2.0	0
122	Comparison of Conventional and Nonconventional Hydrogen Bond Donors in Au ⁺ Complexes. <i>Journal of Physical Chemistry A</i> , 2022, 126, 3880-3892.	2.5	0