

Yan-Xia Zhao

List of Publications by Year in descending order

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82
papers

3,160
citations

147566

31
h-index

161609

54
g-index

84
all docs

84
docs citations

84
times ranked

1381
citing authors

#	ARTICLE	IF	CITATIONS
1	C-H Bond Activation by Oxygen-Centered Radicals over Atomic Clusters. <i>Accounts of Chemical Research</i> , 2012, 45, 382-390.	7.6	249
2	CO Oxidation Catalyzed by Single Gold Atoms Supported on Aluminum Oxide Clusters. <i>Journal of the American Chemical Society</i> , 2014, 136, 14307-14313.	6.6	202
3	Characterization and reactivity of oxygen-centred radicals over transition metal oxide clusters. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 1925.	1.3	157
4	Active sites of stoichiometric cerium oxide cations (Ce _m O _{2m+}) probed by reactions with carbon monoxide and small hydrocarbon molecules. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3984.	1.3	141
5	Thermal Reactions of (V ₂ O ₅) _n O ⁺ (n = 1-5) Cluster Anions. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14967-14976.	1.5	120
6	Transition metal oxide clusters with character of oxygen-centered radical: a DFT study. <i>Theoretical Chemistry Accounts</i> , 2010, 127, 449-465.	0.5	117
7	Thermal Methane Conversion to Formaldehyde Promoted by Single Platinum Atoms in PtAl ₂ O ₄ Cluster Anions. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 9482-9486.	7.2	115
8	Room-temperature methane activation by a bimetallic oxide cluster AlVO . <i>Chemical Physics Letters</i> , 2010, 489, 25-29.	1.2	101
9	Hydrogen-atom abstraction from methane by stoichiometric early transition metal oxide cluster cations. <i>Chemical Communications</i> , 2010, 46, 1736.	2.2	101
10	Methane Activation by Gas Phase Atomic Clusters. <i>Accounts of Chemical Research</i> , 2018, 51, 2603-2610.	7.6	94
11	Reactions of V ₄ O ₁₀ ⁺ cluster ions with simple inorganic and organic molecules. <i>International Journal of Mass Spectrometry</i> , 2013, 354-355, 105-112.	0.7	92
12	Hydrogen-Atom Abstraction from Methane by Stoichiometric Vanadium-Silicon Heteronuclear Oxide Cluster Cations. <i>Chemistry - A European Journal</i> , 2010, 16, 11463-11470.	1.7	83
13	Experimental and Theoretical Study of the Reactions between Vanadium-Silicon Heteronuclear Oxide Cluster Anions with n-Butane. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12271-12279.	1.5	83
14	Methane Activation by Yttrium-Doped Vanadium Oxide Cluster Cations: Local Charge Effects. <i>Chemistry - A European Journal</i> , 2011, 17, 11728-11733.	1.7	68
15	Density-functional global optimization of (La ₂ O ₃) _n clusters. <i>Journal of Chemical Physics</i> , 2012, 137, 214311.	1.2	62
16	C ₂ H Activation on Aluminum-Vanadium Bimetallic Oxide Cluster Anions. <i>Chemistry - A European Journal</i> , 2011, 17, 3449-3457.	1.7	54
17	Collision-Induced Dissociation and Density Functional Theory Studies of CO Adsorption over Zirconium Oxide Cluster Ions: Oxidative and Nonoxidative Adsorption. <i>Journal of Physical Chemistry A</i> , 2011, 115, 5238-5246.	1.1	51
18	Methane Activation by Tantalum Carbide Cluster Anions Ta ₂ C ₄ ⁺ . <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 605-610.	2.1	48

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19	Methane activation by gold-doped titanium oxide cluster anions with closed-shell electronic structures. <i>Chemical Science</i> , 2016, 7, 4730-4735.	3.7	47
20	Thermal Methane Conversion to Syngas Mediated by Rh ₁ -Doped Aluminum Oxide Cluster Cations RhAl ₃ O ₄ ⁺ . <i>Journal of the American Chemical Society</i> , 2016, 138, 12854-12860.	6.6	47
21	Methane Activation by Iron-Carbide Cluster Anions FeC ₆ ⁻ . <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2287-2291.	2.1	45
22	Noble-Metal-Free Single-Atom Catalysts CuAl ₄ O ₇ ⁺ for CO Oxidation by O ₂ . <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10989-10993.	7.2	43
23	Gold(III) Mediated Activation and Transformation of Methane on Au ₁ -Doped Vanadium Oxide Cluster Cations AuV ₂ O ₆ ⁺ . <i>Journal of the American Chemical Society</i> , 2016, 138, 9437-9443.	6.6	41
24	Reactions of metal cluster anions with inorganic and organic molecules in the gas phase. <i>Dalton Transactions</i> , 2016, 45, 11471-11495.	1.6	38
25	Experimental and Theoretical Study of the Reactions between Vanadium Oxide Cluster Cations and Water. <i>Journal of Physical Chemistry A</i> , 2012, 116, 2049-2054.	1.1	36
26	Characterization of Mononuclear Oxygen-Centered Radical (O [•]) in Zr ₂ O ₈ ⁺ Cluster. <i>Journal of Physical Chemistry A</i> , 2010, 114, 10024-10027.	1.1	34
27	Catalytic Co-Conversion of CH ₄ and CO ₂ Mediated by Rhodium-Titanium Oxide Anions RhTiO ₂ ⁺ . <i>Angewandte Chemie - International Edition</i> , 2021, 60, 13788-13792.	7.2	34
28	Methane Activation by Diatomic Molybdenum Carbide Cations. <i>Chemistry - A European Journal</i> , 2014, 20, 4163-4169.	1.7	33
29	Electronic structure and reactivity of a biradical cluster: Sc ₃ O ₆ ^{••} . <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 10084.	1.3	32
30	Experimental and Theoretical Study of Hydrogen Atom Abstraction from <i>n</i> -Butane by Lanthanum Oxide Cluster Anions. <i>Journal of Physical Chemistry A</i> , 2011, 115, 10245-10250.	1.1	32
31	Formation of Acetylene in the Reaction of Methane with Iron Carbide Cluster Anions FeC ₃ ^{••} under High-Temperature Conditions. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2662-2666.	7.2	32
32	Theoretical Investigation of the Selective Oxidation of Methanol to Formaldehyde on Vanadium Oxide Species Supported on Silica: Umbrella Model. <i>Journal of Physical Chemistry C</i> , 2010, 114, 3161-3169.	1.5	29
33	Structures and Reactivity of Oxygen-Rich Scandium Cluster Anions ScO ₃ ^{••5} . <i>ChemPhysChem</i> , 2012, 13, 1282-1288.	1.0	29
34	Photoassisted Selective Steam and Dry Reforming of Methane to Syngas Catalyzed by Rhodium-Vanadium Bimetallic Oxide Cluster Anions at Room Temperature. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21216-21223.	7.2	28
35	Coupling of Methane and Carbon Dioxide Mediated by Diatomic Copper Boride Cations. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 14134-14138.	7.2	27
36	Double-Oxygen-Atom Transfer in Reactions of Ce _m O _{2m} ⁺ (<i>m</i> =2-6) with C ₂ H ₂ . <i>ChemPhysChem</i> , 2011, 12, 2110-2117.	1.0	26

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37	Hydrogen Atom Abstraction from CH ₄ by Nanosized Vanadium Oxide Cluster Cations. Journal of Physical Chemistry C, 2014, 118, 24062-24071.	1.5	26
38	Does Each Atom Count in the Reactivity of Vanadia Nanoclusters?. Journal of the American Chemical Society, 2017, 139, 342-347.	6.6	25
39	A Theoretical Study on the Mechanism of C ₂ H ₄ Oxidation over a Neutral V ₃ O ₈ Cluster. ChemPhysChem, 2010, 11, 1718-1725.	1.0	24
40	Reactivity of Stoichiometric Lanthanum Oxide Cluster Cations in C-H Bond Activation. Journal of Physical Chemistry C, 2013, 117, 17548-17556.	1.5	24
41	Reactivity of Oxygen Radical Anions Bound to Scandia Nanoparticles in the Gas Phase: C-H Bond Activation. Chemistry - A European Journal, 2014, 20, 1167-1175.	1.7	22
42	Activity of Atomically Precise Titania Nanoparticles in CO Oxidation. Angewandte Chemie - International Edition, 2019, 58, 8002-8006.	7.2	22
43	High reactivity of nanosized niobium oxide cluster cations in methane activation: A comparison with vanadium oxides. Journal of Chemical Physics, 2015, 143, 124312.	1.2	21
44	Direct Conversion of Methane with Carbon Dioxide Mediated by RhVO ₃ ⁻ Cluster Anions. Angewandte Chemie - International Edition, 2019, 58, 17287-17292.	7.2	21
45	Experimental and Theoretical Study of Hydrogen Atom Abstraction from C ₂ H ₆ and C ₄ H ₁₀ by Zirconium Oxide Clusters Anions. Chinese Journal of Chemical Physics, 2010, 23, 133-137.	0.6	20
46	Selective Conversion of Methane by Rh ₁ -Doped Aluminum Oxide Cluster Anions RhAl ₂ O ₄ ⁻ : A Comparison with the Reactivity of PtAl ₂ O ₄ ⁻ . Journal of Physical Chemistry A, 2018, 122, 3950-3955.	1.1	20
47	Classification of V _x O _y Clusters by $\hat{I}^n = 2xy + yq \hat{I}^{5x}$. Chinese Journal of Chemical Physics, 2011, 24, 586-596.	0.6	19
48	Rhodium chemistry: A gas phase cluster study. Journal of Chemical Physics, 2021, 154, 180901.	1.2	18
49	Experimental and Theoretical Study of the Reactions between Vanadium Oxide Cluster Cations and Hydrogen Sulfide. Journal of Physical Chemistry C, 2012, 116, 9043-9048.	1.5	17
50	Collision-Induced Dissociation and Infrared Photodissociation Studies of Methane Adsorption on V ₅ O ₁₂ ⁺ and V ₅ O ₁₃ ⁺ Clusters. Journal of Physical Chemistry A, 2013, 117, 2961-2970.	1.1	17
51	Thermal activation of methane by vanadium boride cluster cations VB _n ⁺ ($n = 3-6$). Physical Chemistry Chemical Physics, 2018, 20, 4641-4645.	1.3	17
52	Size-Dependent Reactivity of Rhodium Cluster Anions toward Methane. Journal of Physical Chemistry C, 2019, 123, 17035-17042.	1.5	16
53	Photooxidation of Isoprene by Titanium Oxide Cluster Anions with Dimensions up to a Nanosize. Journal of the American Chemical Society, 2021, 143, 3951-3958.	6.6	15
54	Direct Conversion of Methane with Carbon Dioxide Mediated by RhVO ₃ ⁻ Cluster Anions. Angewandte Chemie, 2019, 131, 17447-17452.	1.6	14

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55	Experimental and Theoretical Study of Hydrogen Atom Abstraction from Ethylene by Stoichiometric Zirconium Oxide Clusters. Chinese Journal of Chemical Physics, 2009, 22, 635-641.	0.6	13
56	Reactions of Sc ₂ O ₄ ⁺ and La ₂ O ₄ ⁺ Clusters with CO: A comparative study. International Journal of Mass Spectrometry, 2013, 334, 1-7.	0.7	13
57	C-C Coupling of Methane Mediated by Atomic Gold Cations under Multiple-Collision Conditions. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, 36, 1904026-0.	2.2	13
58	Activation and Transformation of Ethane by Au ₂ VO ₃ ⁺ Clusters with Closed-Shell Electronic Structures. Chemistry - A European Journal, 2016, 22, 1825-1830.	1.7	12
59	Noble-Metal-Free Single-Atom Catalysts CuAl ₄ O ₇ ⁺ for CO Oxidation by O ₂ . Angewandte Chemie, 2018, 130, 11155-11159.	1.6	12
60	Methane activation by heteronuclear diatomic AuRh ⁺ and Rh ₂ ⁺ cation: comparison with homonuclear Au ₂ ⁺ and Rh ₂ ⁺ . Physical Chemistry Chemical Physics, 2020, 22, 6231-6238.	1.3	11
61	Conversion of Methane with Oxygen to Produce Hydrogen Catalyzed by Triatomic Rh ₃ ⁺ Cluster Anion. JACS Au, 2022, 2, 197-203.	3.6	11
62	Formation of Acetylene in the Reaction of Methane with Iron Carbide Cluster Anions FeC ₃ ⁺ under High-Temperature Conditions. Angewandte Chemie, 2018, 130, 2692-2696.	1.6	10
63	Coupling of Methane and Carbon Dioxide Mediated by Diatomic Copper Boride Cations. Angewandte Chemie, 2018, 130, 14330-14334.	1.6	10
64	Mechanistic Variants in Methane Activation Mediated by Gold(I) Supported on Silicon Oxide Clusters. Chemistry - A European Journal, 2018, 24, 17506-17512.	1.7	10
65	Formaldehyde Generation in Photooxidation of Isoprene on Iron Oxide Nanoclusters. Journal of Physical Chemistry C, 2019, 123, 5120-5127.	1.5	10
66	Activity of Atomically Precise Titania Nanoparticles in CO Oxidation. Angewandte Chemie, 2019, 131, 8086-8090.	1.6	8
67	Thermal Activation of Methane by Diatomic Vanadium Boride Cations. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 1014-1020.	2.2	7
68	Vacuum Ultraviolet Ionization-Induced Reaction of Neutral Au ₂ Al ₂ O ₃ Clusters with Methane. Journal of Physical Chemistry C, 2018, 122, 6159-6165.	1.5	6
69	Methane Activation by (MoO ₃) ₅ O ⁺ Cluster Anions: The Importance of Orbital Orientation. Chemistry - A European Journal, 2022, 28, .	1.7	6
70	Photo-Induced Reaction of Ethene Bound to Vanadia Nanoparticles [(V ₂ O ₅) _n OC ₂ H ₄ ⁺ (n = 2-20)] in the Gas Phase. Journal of Physical Chemistry C, 2016, 120, 17081-17086.	1.5	5
71	H ₂ Oxidation Mediated by Au ₁ -Doped Vanadium Oxide Cluster Cation AuV ₂ O ₅ ⁺ : A Comparative Study with AuCe ₂ O ₄ ⁺ . Journal of Physical Chemistry A, 2017, 121, 4069-4075.	1.1	5
72	A breakthrough in direct conversion of methane to oxygenates under mild conditions. Science China Materials, 2018, 61, 1012-1014.	3.5	5

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73	Selective Generation of Free Hydrogen Atoms in the Reaction of Methane with Diatomic Gold Boride Cations. <i>Zeitschrift Fur Physikalische Chemie</i> , 2019, 233, 785-797.	1.4	5
74	Photoassisted Selective Steam and Dry Reforming of Methane to Syngas Catalyzed by Rhodium-Vanadium Bimetallic Oxide Cluster Anions at Room Temperature. <i>Angewandte Chemie</i> , 2020, 132, 21402-21409.	1.6	5
75	Conversion of CH ₄ Catalyzed by Gas Phase Ions Containing Metals. <i>Chemistry - A European Journal</i> , 2022, 28, e202200062.	1.7	5
76	Gemeinsame katalytische Umsetzung von CH ₄ und CO ₂ durch Rhodium-Titanoxid-Anionen RhTiO ₂ ⁻ . <i>Angewandte Chemie</i> , 2021, 133, 13907-13911.	1.6	3
77	Inside Cover: Double-Oxygen-Atom Transfer in Reactions of Ce _m O _{2m+} (m=2-6) with C ₂ H ₂ (<i>ChemPhysChem</i> 11/2011). <i>ChemPhysChem</i> , 2011, 12, 2046-2046.	1.0	1
78	Fabrication and Optical Properties of Pyrene-Eu Hybrid Materials. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 819-823.	0.9	1
79	Study on the Reaction of Nanosized Yttrium Oxide Cluster Anions with <i>n</i> -Butane in the Gas Phase. <i>Acta Chimica Sinica</i> , 2021, 79, 490.	0.5	1
80	Inside Cover: Hydrogen-Atom Abstraction from Methane by Stoichiometric Vanadium-Silicon Heteronuclear Oxide Cluster Cations (<i>Chem. Eur. J.</i> 37/2010). <i>Chemistry - A European Journal</i> , 2010, 16, 11194-11194.	1.7	0
81	Innen-¼cktitelbild: Activity of Atomically Precise Titania Nanoparticles in CO Oxidation (<i>Angew. Chem.</i>) Tj ETQq1 1.0.784314 rgBT / 1.6 0	1.6	0
82	Frontispiece: Conversion of CH ₄ Catalyzed by Gas Phase Ions Containing Metals. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	0