

# Yan-Xia Zhao

## List of Publications by Year in Descending Order

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**Version:** 2024-04-23

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

81  
papers

2,664  
citations

29  
h-index

50  
g-index

84  
ext. papers

2,954  
ext. citations

6  
avg, IF

5.22  
L-index

#	Paper	IF	Citations
81	Conversion of Methane with Oxygen to Produce Hydrogen Catalyzed by Triatomic Rh Cluster Anion.. <i>Jacs Au</i> , <b>2022</b> , 2, 197-203		2
80	Conversion of CH Catalyzed by Gas Phase Ions Containing Metals.. <i>Chemistry - A European Journal</i> , <b>2022</b> , e202200062	4.8	
79	Gemeinsame katalytische Umsetzung von CH <sub>4</sub> und CO <sub>2</sub> durch Rhodium-Titanoxid-Anionen RhTiO <sub>2</sub> <sup>-</sup> <i>Angewandte Chemie</i> , <b>2021</b> , 133, 13907-13911	3.6	1
78	Rhodium chemistry: A gas phase cluster study. <i>Journal of Chemical Physics</i> , <b>2021</b> , 154, 180901	3.9	7
77	Catalytic Co-Conversion of CH and CO Mediated by Rhodium-Titanium Oxide Anions RhTiO. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 13788-13792	16.4	15
76	Study on the Reaction of Nanosized Yttrium Oxide Cluster Anions with n-Butane in the Gas Phase. <i>Acta Chimica Sinica</i> , <b>2021</b> , 79, 490	3.3	0
75	Photooxidation of Isoprene by Titanium Oxide Cluster Anions with Dimensions up to a Nanosize. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 3951-3958	16.4	2
74	Methane activation by heteronuclear diatomic AuRh cation: comparison with homonuclear Au and Rh. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 6231-6238	3.6	4
73	C-C Coupling of Methane Mediated by Atomic Gold Cations under Multiple-Collision Conditions. <i>Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica</i> , <b>2020</b> , 36, 1904026-0	3.8	12
72	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> , <b>2020</b> , 59, 21216-21223	16.4	16
71	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> , <b>2020</b> , 132, 21402-21409	3.6	4
70	Activity of Atomically Precise Titania Nanoparticles in CO Oxidation. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 8086-8090	3.6	6
69	Innenstruktur: Activity of Atomically Precise Titania Nanoparticles in CO Oxidation (Angew. Chem. 24/2019). <i>Angewandte Chemie</i> , <b>2019</b> , 131, 8327-8327	3.6	
68	Activity of Atomically Precise Titania Nanoparticles in CO Oxidation. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 8002-8006	16.4	14
67	Selective Generation of Free Hydrogen Atoms in the Reaction of Methane with Diatomic Gold Boride Cations. <i>Zeitschrift Fur Physikalische Chemie</i> , <b>2019</b> , 233, 785-797	3.1	2
66	Formaldehyde Generation in Photooxidation of Isoprene on Iron Oxide Nanoclusters. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 5120-5127	3.8	5
65	Size-Dependent Reactivity of Rhodium Cluster Anions toward Methane. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 17035-17042	3.8	11

64	Direct Conversion of Methane with Carbon Dioxide Mediated by RhVO <sub>3</sub> Cluster Anions. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 17447-17452	3.6	10
63	Direct Conversion of Methane with Carbon Dioxide Mediated by RhVO Cluster Anions. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 17287-17292	16.4	13
62	Thermal Activation of Methane by Diatomic Vanadium Boride Cations. <i>Wuli Huaxue Xuebao/Acta Physico - Chimica Sinica</i> , <b>2019</b> , 35, 1014-1020	3.8	5
61	Formation of Acetylene in the Reaction of Methane with Iron Carbide Cluster Anions FeC <sub>3</sub> Under High-Temperature Conditions. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 2692-2696	3.6	8
60	Vacuum Ultraviolet Ionization-Induced Reaction of Neutral Au <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> Clusters with Methane. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 6159-6165	3.8	6
59	Formation of Acetylene in the Reaction of Methane with Iron Carbide Cluster Anions FeC under High-Temperature Conditions. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 2662-2666	16.4	24
58	Thermal activation of methane by vanadium boride cluster cations VB (n = 3-6). <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 4641-4645	3.6	13
57	A breakthrough in direct conversion of methane to oxygenates under mild conditions. <i>Science China Materials</i> , <b>2018</b> , 61, 1012-1014	7.1	4
56	Selective Conversion of Methane by Rh-Doped Aluminum Oxide Cluster Anions RhAlO: A Comparison with the Reactivity of PtAlO. <i>Journal of Physical Chemistry A</i> , <b>2018</b> , 122, 3950-3955	2.8	12
55	Noble-Metal-Free Single-Atom Catalysts CuAl <sub>4</sub> O <sub>7</sub> For CO Oxidation by O <sub>2</sub> . <i>Angewandte Chemie</i> , <b>2018</b> , 130, 11155-11159	3.6	11
54	Coupling of Methane and Carbon Dioxide Mediated by Diatomic Copper Boride Cations. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 14330-14334	3.6	6
53	Methane Activation by Gas Phase Atomic Clusters. <i>Accounts of Chemical Research</i> , <b>2018</b> , 51, 2603-2610	24.3	70
52	Mechanistic Variants in Methane Activation Mediated by Gold(I) Supported on Silicon Oxide Clusters. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 17506-17512	4.8	6
51	Coupling of Methane and Carbon Dioxide Mediated by Diatomic Copper Boride Cations. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 14134-14138	16.4	19
50	Noble-Metal-Free Single-Atom Catalysts CuAl O for CO Oxidation by O. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 10989-10993	16.4	34
49	Methane Activation by Tantalum Carbide Cluster Anions TaC. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 605-610	6.4	33
48	H Oxidation Mediated by Au-Doped Vanadium Oxide Cluster Cation AuVO: A Comparative Study with AuCeO. <i>Journal of Physical Chemistry A</i> , <b>2017</b> , 121, 4069-4075	2.8	4
47	Does Each Atom Count in the Reactivity of Vanadia Nanoclusters?. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 342-347	16.4	18

46	Gold(III) Mediated Activation and Transformation of Methane on Au <sup>1</sup> -Doped Vanadium Oxide Cluster Cations AuV <sub>2</sub> O <sub>6</sub> ( <sup>+</sup> ). <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 9437-43	16.4	39
45	Reactions of metal cluster anions with inorganic and organic molecules in the gas phase. <i>Dalton Transactions</i> , <b>2016</b> , 45, 11471-95	4.3	33
44	Activation and Transformation of Ethane by Au <sub>2</sub> VO <sub>3</sub> ( <sup>+</sup> ) Clusters with Closed-Shell Electronic Structures. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 1825-30	4.8	9
43	Methane activation by gold-doped titanium oxide cluster anions with closed-shell electronic structures. <i>Chemical Science</i> , <b>2016</b> , 7, 4730-4735	9.4	42
42	Thermal Methane Conversion to Syngas Mediated by Rh-Doped Aluminum Oxide Cluster Cations RhAlO. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 12854-12860	16.4	37
41	Photo-Induced Reaction of Ethene Bound to Vanadia Nanoparticles [(V <sub>2</sub> O <sub>5</sub> ) <sub>n</sub> OC <sub>2</sub> H <sub>4</sub> (n = 2-20)] in the Gas Phase. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 17081-17086	3.8	5
40	Methane Activation by Iron-Carbide Cluster Anions FeC <sub>6</sub> ( <sup>-</sup> ). <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 2287-91	6.4	36
39	High reactivity of nanosized niobium oxide cluster cations in methane activation: A comparison with vanadium oxides. <i>Journal of Chemical Physics</i> , <b>2015</b> , 143, 124312	3.9	15
38	Methane activation by diatomic molybdenum carbide cations. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 4163-9	4.8	28
37	Hydrogen Atom Abstraction from CH <sub>4</sub> by Nanosized Vanadium Oxide Cluster Cations. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 24062-24071	3.8	19
36	Thermal Reactions of (V <sub>2</sub> O <sub>5</sub> ) <sub>n</sub> O (n = 1-8) Cluster Anions with Ethylene and Propylene: Oxygen Atom Transfer Versus Molecular Association. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 14967-14976	3.8	92
35	CO oxidation catalyzed by single gold atoms supported on aluminum oxide clusters. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 14307-13	16.4	174
34	Reactivity of oxygen radical anions bound to scandia nanoparticles in the gas phase: C-H bond activation. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 1167-75	4.8	18
33	Thermal Methane Conversion to Formaldehyde Promoted by Single Platinum Atoms in PtAl <sub>2</sub> O <sub>4</sub> Cluster Anions. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 9636-9640	3.6	36
32	Thermal methane conversion to formaldehyde promoted by single platinum atoms in PtAl <sub>2</sub> O <sub>4</sub> ( <sup>-</sup> ) cluster anions. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 9482-6	16.4	99
31	Reactions of Sc <sub>2</sub> O <sub>4</sub> and La <sub>2</sub> O <sub>4</sub> Clusters with CO: A comparative study. <i>International Journal of Mass Spectrometry</i> , <b>2013</b> , 334, 1-7	1.9	12
30	Reactivity of Stoichiometric Lanthanum Oxide Cluster Cations in C-H Bond Activation. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 17548-17556	3.8	19
29	Reactions of V <sub>4</sub> O <sub>10</sub> <sup>+</sup> cluster ions with simple inorganic and organic molecules. <i>International Journal of Mass Spectrometry</i> , <b>2013</b> , 354-355, 105-112	1.9	73

28	Collision-induced dissociation and infrared photodissociation studies of methane adsorption on V5O12(+) and V5O13(+) clusters. <i>Journal of Physical Chemistry A</i> , <b>2013</b> , 117, 2961-70	2.8	15
27	Fabrication and optical properties of pyrene-Eu hybrid materials. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2013</b> , 13, 819-23	1.3	1
26	C-H bond activation by oxygen-centered radicals over atomic clusters. <i>Accounts of Chemical Research</i> , <b>2012</b> , 45, 382-90	24.3	229
25	Density-functional global optimization of (La2O3) <sub>n</sub> clusters. <i>Journal of Chemical Physics</i> , <b>2012</b> , 137, 21433-4	3.4	46
24	Experimental and theoretical study of the reactions between vanadium oxide cluster cations and water. <i>Journal of Physical Chemistry A</i> , <b>2012</b> , 116, 2049-54	2.8	36
23	Experimental and Theoretical Study of the Reactions between Vanadium Oxide Cluster Cations and Hydrogen Sulfide. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 9043-9048	3.8	17
22	Structures and reactivity of oxygen-rich scandium cluster anions ScO(3-5) <sup>-</sup> . <i>ChemPhysChem</i> , <b>2012</b> , 13, 1282-8	3.2	29
21	Electronic structure and reactivity of a biradical cluster: Sc3O6 <sup>-</sup> . <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 10084-90	3.6	32
20	Experimental and theoretical study of hydrogen atom abstraction from n-butane by lanthanum oxide cluster anions. <i>Journal of Physical Chemistry A</i> , <b>2011</b> , 115, 10245-50	2.8	30
19	Double-oxygen-atom transfer in reactions of Ce(m)O(2m) <sup>(+)</sup> (m=2-6) with C2H2. <i>ChemPhysChem</i> , <b>2011</b> , 12, 2110-7	3.2	25
18	Inside Cover: Double-Oxygen-Atom Transfer in Reactions of Ce <sub>m</sub> O <sub>2m</sub> <sup>(+)</sup> (m=2-6) with C2H2 (ChemPhysChem 11/2011). <i>ChemPhysChem</i> , <b>2011</b> , 12, 2046-2046	3.2	1
17	C-H activation on aluminum-vanadium bimetallic oxide cluster anions. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 3449-57	4.8	52
16	Methane activation by yttrium-doped vanadium oxide cluster cations: local charge effects. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 11728-33	4.8	64
15	Characterization and reactivity of oxygen-centred radicals over transition metal oxide clusters. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 1925-38	3.6	149
14	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> , <b>2011</b> , 115, 5238-46	2.8	49
13	Classification of V <sub>x</sub> O <sub>y</sub> Clusters by $\lfloor 2y+qx \rfloor$ . <i>Chinese Journal of Chemical Physics</i> , <b>2011</b> , 24, 586-596	0.9	19
12	Experimental and Theoretical Study of Hydrogen Atom Abstraction from C2H6 and C4H10 by Zirconium Oxide Clusters Anions. <i>Chinese Journal of Chemical Physics</i> , <b>2010</b> , 23, 133-137	0.9	20
11	Hydrogen-atom abstraction from methane by stoichiometric early transition metal oxide cluster cations. <i>Chemical Communications</i> , <b>2010</b> , 46, 1736-8	5.8	93

10	Characterization of mononuclear oxygen-centered radical (O(-*)) in Zr(2)O(8)(-) cluster. <i>Journal of Physical Chemistry A</i> , <b>2010</b> , 114, 10024-7	2.8	32
9	Experimental and Theoretical Study of the Reactions between VanadiumSilicon Heteronuclear Oxide Cluster Anions with n-Butane. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 12271-12279	3.8	71
8	Active sites of stoichiometric cerium oxide cations (CemO2m+) probed by reactions with carbon monoxide and small hydrocarbon molecules. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 3984-97	3.6	123
7	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> , <b>2010</b> , 114, 3161-3169	3.8	26
6	Transition metal oxide clusters with character of oxygen-centered radical: a DFT study. <i>Theoretical Chemistry Accounts</i> , <b>2010</b> , 127, 449-465	1.9	113
5	Room-temperature methane activation by a bimetallic oxide cluster . <i>Chemical Physics Letters</i> , <b>2010</b> , 489, 25-29	2.5	91
4	A theoretical study on the mechanism of C(2)H(4) oxidation over a neutral V(3)O(8) cluster. <i>ChemPhysChem</i> , <b>2010</b> , 11, 1718-25	3.2	23
3	Hydrogen-atom abstraction from methane by stoichiometric vanadium-silicon heteronuclear oxide cluster cations. <i>Chemistry - A European Journal</i> , <b>2010</b> , 16, 11463-70	4.8	82
2	Inside Cover: Hydrogen-Atom Abstraction from Methane by Stoichiometric VanadiumSilicon Heteronuclear Oxide Cluster Cations (Chem. Eur. J. 37/2010). <i>Chemistry - A European Journal</i> , <b>2010</b> , 16, 11194-11194	4.8	
1	Experimental and Theoretical Study of Hydrogen Atom Abstraction from Ethylene by Stoichiometric Zirconium Oxide Clusters. <i>Chinese Journal of Chemical Physics</i> , <b>2009</b> , 22, 635-641	0.9	13