XiangLan Xu

List of Publications by Citations

66 papers	1,356 citations	24 h-index	35 g-index
74 ext. papers	1,750 ext. citations	5.5 avg, IF	4.79 L-index

#	Paper	IF	Citations
66	Constructing La2B2O7 (B = Ti, Zr, Ce) Compounds with Three Typical Crystalline Phases for the Oxidative Coupling of Methane: The Effect of Phase Structures, Superoxide Anions, and Alkalinity on the Reactivity. *ACS Catalysis*, **2019**, 9, 4030-4045	13.1	74
65	NiCo/Al2O3 Bimetallic Catalysts for CH4 Steam Reforming: Elucidating the Role of Co for Improving Coke Resistance. *ChemCatChem*, **2014**, 6, 3377-3386	5.2	61
64	Nickel-Supported on La2Sn2O7 and La2Zr2O7 Pyrochlores for Methane Steam Reforming: Insight into the Difference between Tin and Zirconium in the B Site of the Compound. *ChemCatChem*, **2014**, 6, 3366-3376	5.2	58
63	Improving water tolerance of Co3O4 by SnO2 addition for CO oxidation. *Applied Surface Science*, **2015**, 355, 1254-1260	6.7	55
62	Tin Modification on Ni/Al2O3: Designing Potent Coke-Resistant Catalysts for the Dry Reforming of Methane. *ChemCatChem*, **2014**, 6, 2095-2104	5.2	54
61	Effects of La, Ce, and Y Oxides on SnO2 Catalysts for CO and CH4 Oxidation. *ChemCatChem*, **2013**, 5, 2025-2036	5.2	54
60	Developing reactive catalysts for low temperature oxidative coupling of methane: On the factors deciding the reaction performance of Ln 2 Ce 2 O 7 with different rare earth A sites. *Applied Catalysis A: General*, **2018**, 552, 117-128	5.1	52
59	High surface area La2Sn2O7 pyrochlore as a novel, active and stable support for Pd for CO oxidation. *Catalysis Science and Technology*, **2015**, 5, 2270-2281	5.5	50
58	Methane Dry Reforming over Coke-Resistant Mesoporous Ni-Al2O3 Catalysts Prepared by Evaporation-Induced Self-Assembly Method. *ChemCatChem*, **2015**, 7, 3753-3762	5.2	48
57	Study on RuO2/SnO2: Novel and Active Catalysts for CO and CH4 Oxidation. *ChemCatChem*, **2012**, 4, 1122-1132	5.2	47
56	Ni/Ln2Zr2O7 (Ln = La, Pr, Sm and Y) catalysts for methane steam reforming: the effects of A site replacement. *Catalysis Science and Technology*, **2017**, 7, 2729-2743	5.5	46
55	SnO2 promoted by alkali metal oxides for soot combustion: The effects of surface oxygen mobility and abundance on the activity. *Applied Surface Science*, **2018**, 435, 406-414	6.7	46
54	New insights into CO2 methanation mechanisms on Ni/MgO catalysts by DFT calculations: Elucidating Ni and MgO roles and support effects. *Journal of CO2 Utilization*, **2019**, 33, 55-63	7.6	36
53	SnO2 nano-rods with superior CO oxidation performance. *Journal of Materials Chemistry A*, **2014**, 2, 5616-5619	13	33
52	Facile preparation of mesoporous CuSn solid solutions as active catalysts for CO oxidation. *RSC Advances*, **2015**, 5, 25755-25764	3.7	32
51	Optimizing the Reaction Performance of La2Ce2O7-Based Catalysts for Oxidative Coupling of Methane (OCM) at Lower Temperature by Lattice Doping with Ca Cations. *European Journal of Inorganic Chemistry*, **2019**, 2019, 183-194	2.3	32
50	Preparation and characterization of SnO2 catalysts for CO and CH4 oxidation. *Reaction Kinetics, Mechanisms and Catalysis*, **2012**, 106, 113-125	1.6	31

49	Synthesis of a Highly Active and Stable Nickel-Embedded Alumina Catalyst for Methane Dry Reforming: On the Confinement Effects of Alumina Shells for Nickel Nanoparticles. *ChemCatChem*, **2017**, 9, 3563-3571	5.2	30
48	The distributions of alkaline earth metal oxides and their promotional effects on Ni/CeO2 for CO2 methanation. *Journal of CO2 Utilization*, **2020**, 38, 113-124	7.6	30
47	Promotional effects of samarium on Co3O4 spinel for CO and CH4 oxidation. *Journal of Rare Earths*, **2014**, 32, 159-169	3.7	29
46	Elucidating the promotional effects of niobia on SnO2 for CO oxidation: developing an XRD extrapolation method to measure the lattice capacity of solid solutions. *Catalysis Science and Technology*, **2016**, 6, 5280-5291	5.5	28
45	SnO2 Based Catalysts with Low-Temperature Performance for Oxidative Coupling of Methane: Insight into the Promotional Effects of Alkali-Metal Oxides. *European Journal of Inorganic Chemistry* , **2018**, 2018, 1787-1799	2.3	26
44	Tuning SnO2 Surface Area for Catalytic Toluene Deep Oxidation: On the Inherent Factors Determining the Reactivity. *Industrial & Engineering Chemistry Research*, **2018**, 57, 14052-14063	3.9	26
43	Rutile RuO2 dispersion on rutile and anatase TiO2 supports: The effects of support crystalline phase structure on the dispersion behaviors of the supported metal oxides. *Catalysis Today*, **2020**, 339, 220-232	5.3	25
42	Thermally stable ultra-small Pd nanoparticles encapsulated by silica: elucidating the factors determining the inherent activity of noble metal catalysts. *Catalysis Science and Technology*, **2016**, 6, 5405-5414	5.5	24
41	Ni/La2O3 Catalysts for Dry Reforming of Methane: Insights into the Factors Improving the Catalytic Performance. *ChemCatChem*, **2019**, 11, 2887-2899	5.2	22
40	Sn-MFI as active, sulphur and water tolerant catalysts for selective reduction of NOx. *RSC Advances*, **2015**, 5, 42789-42797	3.7	21
39	A2B2O7 pyrochlore compounds: A category of potential materials for clean energy and environment protection catalysis. *Journal of Rare Earths*, **2020**, 38, 840-849	3.7	20
38	Insights into CO2 methanation mechanism on cubic ZrO2 supported Ni catalyst via a combination of experiments and DFT calculations. *Fuel*, **2021**, 283, 118867	7.1	20
37	The influence on the structural and redox property of CuO by using different precursors and precipitants for catalytic soot combustion. *Applied Surface Science*, **2018**, 453, 204-213	6.7	20
36	Tetragonal Rutile SnO2 Solid Solutions for NOx-SCR by NH3: Tailoring the Surface Mobile Oxygen and Acidic Sites by Lattice Doping. *Industrial & Engineering Chemistry Research*, **2018**, 57, 10315-10326	3.9	19
35	Identifying Surface Active Sites of SnO2: Roles of Surface O2−, O22− Anions and Acidic Species Played for Toluene Deep Oxidation. *Industrial & Engineering Chemistry Research*, **2019**, 58, 18569-18581	3.9	18
34	Facile Cr3+-Doping Strategy Dramatically Promoting Ru/CeO2 for Low-Temperature CO2 Methanation: Unraveling the Roles of Surface Oxygen Vacancies and Hydroxyl Groups. *ACS Catalysis*, **2021**, 11, 5762-5775	13.1	17
33	SnO 2 -based solid solutions for CH 4 deep oxidation: Quantifying the lattice capacity of SnO 2 using an X-ray diffraction extrapolation method. *Chinese Journal of Catalysis*, **2016**, 37, 1293-1302	11.3	17
32	Mesoporous Y2Sn2O7 pyrochlore with exposed (111) facets: an active and stable catalyst for CO oxidation. *RSC Advances*, **2016**, 6, 71791-71799	3.7	12

31	Investigation of lattice capacity effect on Cu2+-doped SnO2 solid solution catalysts to promote reaction performance toward NO -SCR with NH3. *Chinese Journal of Catalysis*, **2020**, 41, 877-888	11.3	12
30	Stable CuO/La2Sn2O7 catalysts for soot combustion: Study on the monolayer dispersion behavior of CuO over a La2Sn2O7 pyrochlore support. *Chinese Journal of Catalysis*, **2021**, 42, 396-408	11.3	11
29	Treating Copper(II) Oxide Nanoflowers with Hydrogen Peroxide: A Novel and Facile Strategy To Prepare High-Performance Copper(II) Oxide Nanosheets with Exposed (1 1 0) Facets. *ChemCatChem* , **2016**, 8, 3714-3719	5.2	10
28	The promotional effects of plasma treating on Ni/Y2Ti2O7 for steam reforming of methane (SRM): Elucidating the NiO-support interaction and the states of the surface oxygen anions. *International Journal of Hydrogen Energy*, **2020**, 45, 4556-4569	6.7	10
27	Modifying the Surface of Al O with Y Sn O Pyrochlore: Monolayer Dispersion Behaviour of Composite Oxides. *ChemPhysChem*, **2017**, 18, 1533-1540	3.2	8
26	O2 adsorption on MO2 (M=Ru, Ir, Sn) films supported on rutile TiO2(110) by DFT calculations: Probing the nature of metal oxide-support interaction. *Journal of Colloid and Interface Science*, **2016**, 473, 100-11	9.3	8
25	Pd Supported on SnO2-Al2O3 Composite Supports for CO Oxidation Designing Thermally Stable and Active Supports for Pd. *Zeitschrift Fur Physikalische Chemie*, **2014**, 228, 27-48	3.1	8
24	Mesoporous High-Surface-Area Copper in Mixed-Oxide Nanorods: Remarkable for Carbon Monoxide Oxidation. *ChemCatChem*, **2016**, 8, 2329-2334	5.2	8
23	Superior 3DOM Y2Zr2O7 supports for Ni to fabricate highly active and selective catalysts for CO2 methanation. *Fuel*, **2021**, 293, 120460	7.1	7
22	Tuning Ni3+ quantity of NiO via doping of cations with varied valence states: The key role of Ni3+ on the reactivity. *Applied Surface Science*, **2021**, 550, 149316	6.7	6
21	Promoting the surface active sites of defect BaSnO3 perovskite with BaBr2 for the oxidative coupling of methane. *Catalysis Today*, **2021**, 374, 29-37	5.3	6
20	CO oxidation on PdO catalysts with perfect and defective rutile-TiO2 as supports: Elucidating the role of oxygen vacancy in support by DFT calculations. *Applied Surface Science*, **2017**, 401, 49-56	6.7	5
19	The Influence of RuO2 Distribution and Dispersion on the Reactivity of RuO2SnO2 Composite Oxide Catalysts Probed by CO Oxidation. *ChemCatChem*, **2019**, 11, 2473-2483	5.2	5
18	Tailoring Active O2and O22Anions on a ZnO Surface with the Addition of Different Alkali Metals Probed by CO Oxidation. *Industrial & Engineering Chemistry Research*, **2020**, 59, 9382-9392	3.9	4
17	Band Gap as a Novel Descriptor for the Reactivity of 2D Titanium Dioxide and its Supported Pt Single Atom for Methane Activation. *Journal of Physical Chemistry Letters*, **2021**, 12, 2484-2488	6.4	4
16	The enhancement effects of BaX2 (X = F, Cl, Br) on SnO2-based catalysts for the oxidative coupling of methane (OCM). *Catalysis Today*, **2021**, 364, 35-45	5.3	4
15	A DFT study of (WO3)3 nanoclusters adsorption on defective MgO ultrathin films on Ag(001). *RSC Advances*, **2017**, 7, 54091-54099	3.7	3
14	Dissecting La2Ce2O7 catalyst to unravel the origin of the surface active sites devoting to its performance for oxidative coupling of methane (OCM). *Catalysis Today*, **2021**,	5.3	3

List of Publications

13	Band-Gap Engineering: A New Tool for Tailoring the Activity of Semiconducting Oxide Catalysts for CO Oxidation. *Journal of Physical Chemistry Letters*, **2021**, 12, 9188-9196	6.4	3
12	Study on the Structure–Reactivity Relationship of LnMn2O5 (Ln = La, Pr, Sm, Y) Mullite Catalysts for Soot Combustion. *Chemistry Africa*, **2020**, 3, 695-701	2.2	2
11	NiO supported on Y2Ti2O7 pyrochlore for CO2 reforming of CH4: insight into the monolayer dispersion threshold effect on coking resistance. *Catalysis Science and Technology*, **2020**, 10, 8396-8409	5.5	2
10	Metallic Ag Confined on SnO2 Surface for Soot Combustion: the Influence of Ag Distribution and Dispersion on the Reactivity. *ChemCatChem*, **2021**, 13, 2222-2233	5.2	2
9	Facile Hydrothermal Synthesis of Sn-Mn Mixed Oxide Nano-rods with Exposed (110) Facets and Remarkable Catalytic Performance. *ChemistrySelect*, **2017**, 2, 6364-6369	1.8	1
8	Interface-dependent activity and selectivity for CO2 hydrogenation on Ni/CeO2 and Ni/Ce0.9Sn0.1Ox. *Fuel*, **2022**, 316, 123191	7.1	1
7	A+1Nb5+O3 (A = Li, Na, K) Perovskites with Different Fine Structures for Oxidative Coupling of Methane: Tracing the Crystalline Phase Effect on the Surface Active Sites. *Journal of Physical Chemistry C*,	3.8	1
6	Influence of Cesium Loading on Oxidative Coupling of Methane (OCM) over Cs/SnO2 Catalysts. *Chemistry Africa*, **2020**, 3, 687-694	2.2	1
5	Design of strontium stannate perovskites with different fine structures for the oxidative coupling of methane (OCM): Interpreting the functions of surface oxygen anions, basic sites and the structure–reactivity relationship. *Journal of Catalysis*, **2021**,	7.3	1
4	H2 adsorption and dissociation on PdO(101) films supported on rutile TiO2 (110) facet: elucidating the support effect by DFT calculations. *Journal of Molecular Modeling*, **2016**, 22, 204	2	1
3	Unraveling the Intrinsic Reasons Promoting the Reactivity of ZnAl2O4 Spinel by Fe and Co for CO Oxidation. *Catalysis Surveys From Asia*, **2021**, 25, 180-191	2.8	1
2	Ni/LaBO3 (B = Al, Cr, Fe) Catalysts for Steam Reforming of Methane (SRM): On the Interaction Between Ni and LaBO3 Perovskites with Differed Fine Structures. *Catalysis Surveys From Asia*, **2021**, 25, 424	2.8	1
1	Unraveling the Principles of Lattice Disorder Degree of Bi2B2O7 (B = Sn, Ti, Zr) Compounds on Activating Gas Phase O2 for Soot Combustion. *ACS Catalysis*, **2021**, 11, 12112-12122	13.1	1