Rentao Mu

List of Publications by Year
in descending order

66 papers	4,239 citations	126907 33 h-index	110387 64 g-index
69 all docs	69 docs citations	69 times ranked	5293 citing authors

#	Article	IF	Citations
1	Overturning CO₂ Hydrogenation Selectivity with High Activity via Reaction-Induced Strong Metalâ€“Support Interactions. Journal of the American Chemical Society, 2022, 144, 4874-4882.	13.7	139
2	Modulating the Formation and Evolution of Surface Hydrogen Species on ZnO through Cr Addition. ACS Catalysis, 2022, 12, 6255-6264.	11.2	15
3	Dynamic transformation between bilayer islands and dinuclear clusters of Cr oxide on Au(111) through environment and interface effects. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	9
4	Low-temperature growth of ultrathin and epitaxial Mo₂C nanosheets via a vaporâ€“liquidâ€“solid process. Nanoscale, 2022, 14, 9142-9149.	5.6	2
5	Stabilizing Oxide Nanolayer via Interface Confinement and Surface Hydroxylation. Journal of Physical Chemistry Letters, 2022, 13, 6566-6570.	4.6	5
6	Propane Dehydrogenation on Single-Site [PtZn4] Intermetallic Catalysts. CheM, 2021, 7, 387-405.	11.7	116
7	Activation of CO over Ultrathin Manganese Oxide Layers Grown on Au(111). ACS Catalysis, 2021, 11, 849-857.	11.2	23
8	Design of Lewis Pairs via Interface Engineering of Oxideâ€“Metal Composite Catalyst for Water Activation. Journal of Physical Chemistry Letters, 2021, 12, 1443-1452.	4.6	18
9	On the Role of Sn Segregation of Pt-Sn Catalysts for Propane Dehydrogenation. ACS Catalysis, 2021, 11, 4401-4410.	11.2	54
10	In situ identification of the metallic state of Ag nanoclusters in oxidative dispersion. Nature Communications, 2021, 12, 1406.	12.8	42
11	Predominance of Subsurface and Bulk Oxygen Vacancies in Reduced Manganese Oxide. Journal of Physical Chemistry C, 2021, 125, 7990-7998.	3.1	6
12	Oxidative Strong Metalâ€“Support Interactions between Metals and Inert Boron Nitride. Journal of Physical Chemistry Letters, 2021, 12, 4187-4194.	4.6	35
13	Dynamic Structural Evolution of Mnâ€“Au Alloy and MnO_x Nanostructures on Au(111) under Different Atmospheres. Journal of Physical Chemistry C, 2021, 125, 15335-15342.	3.1	5
14	The role of Al doping in Pd/ZnO catalyst for CO2 hydrogenation to methanol. Applied Catalysis B: Environmental, 2020, 263, 118367.	20.2	54
15	Active sites for H2 and H2O activation over bifunctional ZnO-Pt(1â€¯1â€¯1) model catalysts. Applied Surface Science, 2020, 503, 144204.	6.1	6
16	Defect-mediated reactivity of Pt/TiO2 catalysts: the different role of titanium and oxygen vacancies. Science China Chemistry, 2020, 63, 1323-1330.	8.2	17
17	CoverageâEDependent Behaviors of Vanadium Oxides for Chemical Looping Oxidative Dehydrogenation. Angewandte Chemie, 2020, 132, 22256-22263.	2.0	9
18	CoverageâEDependent Behaviors of Vanadium Oxides for Chemical Looping Oxidative Dehydrogenation. Angewandte Chemie - International Edition, 2020, 59, 22072-22079.	13.8	57

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19	FeO₆ Octahedral Distortion Activates Lattice Oxygen in Perovskite Ferrite for Methane Partial Oxidation Coupled with CO₂ Splitting. Journal of the American Chemical Society, 2020, 142, 11540-11549.	13.7	177
20	Atmosphere-Dependent Structures of Ptâ€“Mn Bimetallic Catalysts. Journal of Physical Chemistry C, 2020, 124, 17548-17555.	3.1	2
21	Modulating electronic structure of graphene overlayers through electrochemical intercalation. Applied Surface Science, 2020, 522, 146359.	6.1	1
22	Facilitating the reduction of Vâ€“O bonds on VO_x/ZrO₂ catalysts for non-oxidative propane dehydrogenation. Chemical Science, 2020, 11, 3845-3851.	7.4	63
23	Step-confined thin film growth via near-surface atom migration. Nano Research, 2020, 13, 1552-1557.	10.4	2
24	Chemical looping partial oxidation over FeWO /SiO2 catalysts. Chinese Journal of Catalysis, 2020, 41, 1140-1151.	14.0	19
25	Sorption enhanced steam reforming of methanol for high-purity hydrogen production over Cu-MgO/Al2O3 bifunctional catalysts. Applied Catalysis B: Environmental, 2020, 276, 119052.	20.2	61
26	Modulating Lattice Oxygen in Dual-Functional Moâ€“Vâ€“O Mixed Oxides for Chemical Looping Oxidative Dehydrogenation. Journal of the American Chemical Society, 2019, 141, 18653-18657.	13.7	133
27	Active sites in CO2 hydrogenation over confined VOx-Rh catalysts. Science China Chemistry, 2019, 62, 1710-1719.	8.2	35
28	The Interplay between Structure and Product Selectivity of CO₂ Hydrogenation. Angewandte Chemie - International Edition, 2019, 58, 11242-11247.	13.8	84
29	Activation and Spillover of Hydrogen on Subâ€1â€…nm Palladium Nanoclusters Confined within Sodalite Zeolite for the Semiâ€Hydrogenation of Alkynes. Angewandte Chemie - International Edition, 2019, 58, 7668-7672.	13.8	123
30	Hydroxyl-mediated ethanol selectivity of CO₂ hydrogenation. Chemical Science, 2019, 10, 3161-3167.	7.4	138
31	Modulating the surface defects of titanium oxides and consequent reactivity of Pt catalysts. Chemical Science, 2019, 10, 10531-10536.	7.4	15
32	Coverage Effect on the Activity of the Acetylene Semihydrogenation over Pdâ€“Sn Catalysts: A Density Functional Theory Study. Journal of Physical Chemistry C, 2018, 122, 6005-6013.	3.1	26
33	Hydroxylâ€Mediated Nonâ€oxidative Propane Dehydrogenation over VO_x/Î³â€Al₂O₃ Catalysts with Improved Stability. Angewandte Chemie, 2018, 130, 6907-6911.	2.0	14
34	The Functionality of Surface Hydroxy Groups on the Selectivity and Activity of Carbon Dioxide Reduction over Cuprous Oxide in Aqueous Solutions. Angewandte Chemie - International Edition, 2018, 57, 7724-7728.	13.8	82
35	The Nature of Loading-Dependent Reaction Barriers over Mixed RuO₂/TiO₂ Catalysts. ACS Catalysis, 2018, 8, 5526-5532.	11.2	33
36	Hydroxylâ€Mediated Nonâ€oxidative Propane Dehydrogenation over VO_x/Î³â€Al₂O₃ Catalysts with Improved Stability. Angewandte Chemie - International Edition, 2018, 57, 6791-6795.	13.8	149

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37	Tuning Cu/Cu 2 O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. Angewandte Chemie, 2018, 130, 15641-15645.	2.0	32
38	Titelbild: Tuning Cu/Cu₂O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions (Angew. Chem. 47/2018). Angewandte Chemie, 2018, 130, 15507-15507.	2.0	1
39	Breaking the scaling relationship via thermally stable Pt/Cu single atom alloys for catalytic dehydrogenation. Nature Communications, 2018, 9, 4454.	12.8	451
40	Tuning Cu/Cu₂O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. Angewandte Chemie - International Edition, 2018, 57, 15415-15419.	13.8	175
41	The Functionality of Surface Hydroxy Groups on the Selectivity and Activity of Carbon Dioxide Reduction over Cuprous Oxide in Aqueous Solutions. Angewandte Chemie, 2018, 130, 7850-7854.	2.0	21
42	Hydrogen adsorption and reaction on RuO2(110). Surface Science, 2018, 677, 264-270.	1.9	9
43	Diffusion and Photon-Stimulated Desorption of CO on TiO₂(110). Journal of Physical Chemistry C, 2018, 122, 15382-15389.	3.1	14
44	Formation of Enriched Vacancies for Enhanced CO₂ Electrocatalytic Reduction over AuCu Alloys. ACS Energy Letters, 2018, 3, 2144-2149.	17.4	88
45	Subsurface catalysis-mediated selectivity of dehydrogenation reaction. Science Advances, 2018, 4, eaar5418.	10.3	89
46	Structural motifs of water on metal oxide surfaces. Chemical Society Reviews, 2017, 46, 1785-1806.	38.1	170
47	Probing equilibrium of molecular and deprotonated water on TiO ₂ (110). Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1801-1805.	7.1	90
48	Fast Prediction of CO Binding Energy via the Local Structure Effect on PtCu Alloy Surfaces. Langmuir, 2017, 33, 8700-8706.	3.5	24
49	Catalytic hydrothermal liquefaction for bio-oil production over CNTs supported metal catalysts. Chemical Engineering Science, 2017, 161, 299-307.	3.8	87
50	Adsorption and Photodesorption of CO from Charged Point Defects on TiO2(110). Journal of Physical Chemistry Letters, 2017, 8, 4565-4572.	4.6	20
51	Structure and catalytic consequence of Mgâ€modified VO_x/Al₂O₃ catalysts for propane dehydrogenation. AIChE Journal, 2017, 63, 4911-4919.	3.6	47
52	Dynamics, Stability, and Adsorption States of Water on Oxidized RuO₂(110). Journal of Physical Chemistry C, 2017, 121, 18505-18515.	3.1	11
53	Light Makes a Surface Banana-Bond Split: Photodesorption of Molecular Hydrogen from RuO2(110). Journal of the American Chemical Society, 2016, 138, 8714-8717.	13.7	9
54	Iso-oriented monolayer Î±-MoO₃(010) films epitaxially grown on SrTiO₃(001). Nanoscale, 2016, 8, 3119-3124.	5.6	26

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55	A comparative study in structure and reactivity of â€œFeO x -on-Ptâ€•and â€œNiO x -on-Ptâ€•catalysts. Science China Chemistry, 2015, 58, 162-168.	8.2	13
56	Deprotonated Water Dimers: The Building Blocks of Segmented Water Chains on Rutile RuO₂(110). Journal of Physical Chemistry C, 2015, 119, 23552-23558.	3.1	33
57	Graphene cover-promoted metal-catalyzed reactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17023-17028.	7.1	183
58	Dimerization Induced Deprotonation of Water on RuO₂(110). Journal of Physical Chemistry Letters, 2014, 5, 3445-3450.	4.6	47
59	Enhanced reactivity of graphene wrinkles and their function as nanosized gas inlets for reactions under graphene. Physical Chemistry Chemical Physics, 2013, 15, 19042.	2.8	84
60	Site-Specific Imaging of Elemental Steps in Dehydration of Diols on TiO₂(110). ACS Nano, 2013, 7, 10414-10423.	14.6	20
61	Tailoring the Growth of Graphene on Ru(0001) via Engineering of the Substrate Surface. Journal of Physical Chemistry C, 2012, 116, 2988-2993.	3.1	35
62	Visualizing Chemical Reactions Confined under Graphene. Angewandte Chemie - International Edition, 2012, 51, 4856-4859.	13.8	207
63	Pb intercalation underneath a graphene layer on Ru(0001) and its effect on graphene oxidation. Physical Chemistry Chemical Physics, 2011, 13, 16655.	2.8	70
64	Oscillation of Surface Structure and Reactivity of PtNi Bimetallic Catalysts with Redox Treatments at Variable Temperatures. Journal of Physical Chemistry C, 2011, 115, 20590-20595.	3.1	55
65	Synergetic Effect of Surface and Subsurface Ni Species at Ptâ^'Ni Bimetallic Catalysts for CO Oxidation. Journal of the American Chemical Society, 2011, 133, 1978-1986.	13.7	257
66	Reversible surface structural changes in Pt-based bimetallic nanoparticles during oxidation and reduction cycles. Applied Surface Science, 2009, 255, 7296-7301.	6.1	82