

Weixin Huang

List of Publications by Year in descending order

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43
papers

3,737
citations

201674

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254184

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Construction of Heterostructured $g\text{-C}_{3\text{N}_4}/\text{Ag}/\text{TiO}_2$ Microspheres with Enhanced Photocatalysis Performance under Visible-Light Irradiation. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 14405-14414.	8.0	595
2	Functionalized Graphene Enables Highly Efficient Solar Thermal Steam Generation. <i>ACS Nano</i> , 2017, 11, 5510-5518.	14.6	330
3	Understanding complete oxidation of methane on spinel oxides at a molecular level. <i>Nature Communications</i> , 2015, 6, 7798.	12.8	237
4	Catalysis on singly dispersed bimetallic sites. <i>Nature Communications</i> , 2015, 6, 7938.	12.8	235
5	Single rhodium atoms anchored in micropores for efficient transformation of methane under mild conditions. <i>Nature Communications</i> , 2018, 9, 1231.	12.8	213
6	Morphology-dependent surface chemistry and catalysis of CeO_2 nanocrystals. <i>Catalysis Science and Technology</i> , 2014, 4, 3772-3784.	4.1	198
7	Low-temperature Transformation of Methane to Methanol on Pd_{1O_4} Single Sites Anchored on the Internal Surface of Microporous Silicate. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13441-13445.	13.8	180
8	Evolution of Chemical Composition, Morphology, and Photovoltaic Efficiency of $\text{CH}_3\text{NH}_3\text{PbI}_3$ Perovskite under Ambient Conditions. <i>Chemistry of Materials</i> , 2016, 28, 303-311.	6.7	173
9	WGS Catalysis and In Situ Studies of CoO , $\text{PtCo}_{3\text{O}_4}$, and $\text{Pt}_{\text{m}}\text{Co}_{\text{m}}/\text{CoO}$ Nanorod Catalysts. <i>Journal of the American Chemical Society</i> , 2013, 135, 8283-8293.	13.7	161
10	Nanoscale-Phase-Separated Pd^*Rh Boxes Synthesized via Metal Migration: An Archetype for Studying Lattice Strain and Composition Effects in Electrocatalysis. <i>Journal of the American Chemical Society</i> , 2013, 135, 14691-14700.	13.7	113
11	Steam-created grain boundaries for methane C-H activation in palladium catalysts. <i>Science</i> , 2021, 373, 1518-1523.	12.6	105
12	Colloidal nanocrystals for heterogeneous catalysis. <i>Nano Today</i> , 2019, 24, 15-47.	11.9	98
13	Modular Pd/Zeolite Composites Demonstrating the Key Role of Support Hydrophobic/Hydrophilic Character in Methane Catalytic Combustion. <i>ACS Catalysis</i> , 2019, 9, 4742-4753.	11.2	97
14	Conversion of Methane to Methanol with a Bent Mono($\hat{1}/4$ -oxo)nickel Anchored on the Internal Surfaces of Micropores. <i>Langmuir</i> , 2014, 30, 8558-8569.	3.5	87
15	Influence and Removal of Capping Ligands on Catalytic Colloidal Nanoparticles. <i>Catalysis Letters</i> , 2014, 144, 1355-1369.	2.6	84
16	Restructuring Transition Metal Oxide Nanorods for 100% Selectivity in Reduction of Nitric Oxide with Carbon Monoxide. <i>Nano Letters</i> , 2013, 13, 3310-3314.	9.1	71
17	Synthesis of porous ZnO/TiO_2 thin films with superhydrophilicity and photocatalytic activity via a template-free sol-gel method. <i>Surface and Coatings Technology</i> , 2014, 258, 531-538.	4.8	67
18	Direct Observation of Reversible Transformation of $\text{CH}_3\text{NH}_3\text{PbI}_3$ and NH_4PbI_3 Induced by Polar Gaseous Molecules. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 5068-5073.	4.6	62

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19	Effect of polyethylene glycol on hydrophilic TiO ₂ films: Porosity-driven superhydrophilicity. Surface and Coatings Technology, 2010, 204, 3954-3961.	4.8	57
20	Superhydrophilicity of TiO ₂ /SiO ₂ thin films: Synergistic effect of SiO ₂ and phase-separation-induced porous structure. Surface and Coatings Technology, 2012, 213, 126-132.	4.8	55
21	Enhanced Catalytic Activity for Methane Combustion through <i>in Situ</i> Water Sorption. ACS Catalysis, 2020, 10, 8157-8167.	11.2	55
22	Heat- and Gas-Induced Transformation in CH ₃ NH ₃ Pb ₃ Perovskites and Its Effect on the Efficiency of Solar Cells. Chemistry of Materials, 2017, 29, 8478-8485.	6.7	50
23	Low-Energy Electron-Induced Transformations in Organolead Halide Perovskite. Angewandte Chemie - International Edition, 2016, 55, 10083-10087.	13.8	49
24	Tunable Syngas Formation from Electrochemical CO ₂ Reduction on Copper Nanowire Arrays. ACS Applied Energy Materials, 2020, 3, 9841-9847.	5.1	41
25	Low-Temperature Transformation of Methane to Methanol on Pd ₁ O ₄ Single Sites Anchored on the Internal Surface of Microporous Silicate. Angewandte Chemie, 2016, 128, 13639-13643.	2.0	40
26	Deconvoluting Transient Water Effects on the Activity of Pd Methane Combustion Catalysts. Industrial & Engineering Chemistry Research, 2018, 57, 10261-10268.	3.7	40
27	pH-driven phase separation: Simple routes for fabricating porous TiO ₂ film with superhydrophilic and anti-fog properties. Ceramics International, 2015, 41, 7573-7581.	4.8	31
28	Effect of Light Illumination on Mixed Halide Lead Perovskites: Reversible or Irreversible Transformation. ACS Applied Energy Materials, 2018, 1, 2859-2865.	5.1	27
29	Multimorphologies nano-ZnO preparing through a simple solvothermal method for photocatalytic application. Materials Letters, 2015, 141, 294-297.	2.6	24
30	Birnessite manganese oxide nanosheets assembled on Ni foam as high-performance pseudocapacitor electrodes: Electrochemical oxidation driven porous honeycomb architecture formation. Applied Surface Science, 2018, 458, 10-17.	6.1	23
31	Controllable transformation between 3D and 2D perovskites through cation exchange. Chemical Communications, 2018, 54, 7944-7947.	4.1	20
32	Superhydrophilic porous TiO ₂ film prepared by phase separation through two stabilizers. Applied Surface Science, 2011, 257, 4774-4780.	6.1	19
33	Electronic Properties of Free-Standing Surfactant-Capped Lead Halide Perovskite Nanocrystals Isolated in Vacuo. Journal of Physical Chemistry Letters, 2018, 9, 3604-3611.	4.6	18
34	Photoionization Mass Spectrometry for Online Detection of Reactive and Unstable Gas-Phase Intermediates in Heterogeneous Catalytic Reactions. ChemCatChem, 2020, 12, 675-688.	3.7	14
35	<i>In situ</i> identification of cation-exchange-induced reversible transformations of 3D and 2D perovskites. Chemical Communications, 2018, 54, 5879-5882.	4.1	12
36	Functionalization of graphene by atmospheric pressure plasma jet in air or H ₂ O ₂ environments. Applied Surface Science, 2016, 367, 160-166.	6.1	11

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37	Polymerization-induced phase separation in the preparation of macroporous TiO ₂ /SiO ₂ thin films. <i>Ceramics International</i> , 2014, 40, 919-927.	4.8	9
38	Low-Energy Electron-Induced Transformations in Organolead Halide Perovskite. <i>Angewandte Chemie</i> , 2016, 128, 10237-10241.	2.0	9
39	Co ³⁺ -O Bond Elongation Unlocks Co ₃ O ₄ for Methane Activation under Ambient Conditions. <i>ACS Catalysis</i> , 2022, 12, 7037-7045.	11.2	9
40	Dynamics of Copper-Containing Porous Organic Framework Catalysts Reveal Catalytic Behavior Controlled by the Polymer Structure. <i>ACS Catalysis</i> , 2020, 10, 9356-9365.	11.2	6
41	A General Approach for Monolayer Adsorption of High Weight Loadings of Uniform Nanocrystals on Oxide Supports. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 7971-7979.	13.8	6
42	Preparation and Formation Mechanism of Superhydrophilic Porous TiO ₂ Films Using Complexing Agents as Pore-Forming Materials. <i>Science of Advanced Materials</i> , 2014, 6, 9-17.	0.7	4
43	A General Approach for Monolayer Adsorption of High Weight Loadings of Uniform Nanocrystals on Oxide Supports. <i>Angewandte Chemie</i> , 2021, 133, 8050-8058.	2.0	2