

# Xiaoxing Wang

## List of Publications by Year in descending order

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54  
papers

3,421  
citations

136885

32  
h-index

175177

52  
g-index

56  
all docs

56  
docs citations

56  
times ranked

3343  
citing authors

#	ARTICLE	IF	CITATIONS
1	“Molecular Basket” Sorbents for Separation of CO <sub>2</sub> and H <sub>2</sub> S from Various Gas Streams. <i>Journal of the American Chemical Society</i> , 2009, 131, 5777-5783.	6.6	497
2	Infrared Study of CO <sub>2</sub> Sorption over “Molecular Basket” Sorbent Consisting of Polyethylenimine-Modified Mesoporous Molecular Sieve. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7260-7268.	1.5	330
3	Carbon Capture From Flue Gas and the Atmosphere: A Perspective. <i>Frontiers in Energy Research</i> , 2020, 8, .	1.2	165
4	Molecular basket sorbents polyethylenimine “SBA-15 for CO <sub>2</sub> capture from flue gas: Characterization and sorption properties. <i>Microporous and Mesoporous Materials</i> , 2013, 169, 103-111.	2.2	152
5	Development of a new clay supported polyethylenimine composite for CO <sub>2</sub> capture. <i>Applied Energy</i> , 2014, 113, 334-341.	5.1	133
6	MCM-41-supported iron phosphate catalyst for partial oxidation of methane to oxygenates with oxygen and nitrous oxide. <i>Journal of Catalysis</i> , 2003, 217, 457-467.	3.1	121
7	A solid molecular basket sorbent for CO <sub>2</sub> capture from gas streams with low CO <sub>2</sub> concentration under ambient conditions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 1485-1492.	1.3	107
8	Temperature-programmed desorption of CO <sub>2</sub> from polyethylenimine-loaded SBA-15 as molecular basket sorbents. <i>Catalysis Today</i> , 2012, 194, 44-52.	2.2	93
9	A novel approach for ultra-deep adsorptive desulfurization of diesel fuel over TiO <sub>2</sub> “CeO <sub>2</sub> /MCM-48 under ambient conditions. <i>AIChE Journal</i> , 2013, 59, 1441-1445.	1.8	88
10	Fe “Cu Bimetallic Catalysts for Selective CO <sub>2</sub> Hydrogenation to Olefin-Rich C <sub>2</sub> + Hydrocarbons. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 4535-4542.	1.8	88
11	Influence of ceria and nickel addition to alumina-supported Rh catalyst for propane steam reforming at low temperatures. <i>Applied Catalysis A: General</i> , 2009, 357, 213-222.	2.2	87
12	A nanoporous polymeric sorbent for deep removal of H <sub>2</sub> S from gas mixtures for hydrogen purification. <i>Green Chemistry</i> , 2007, 9, 695.	4.6	86
13	Mesoporous-molecular-sieve-supported Polymer Sorbents for Removing H <sub>2</sub> S from Hydrogen Gas Streams. <i>Topics in Catalysis</i> , 2008, 49, 108-117.	1.3	85
14	Origin of Pd-Cu bimetallic effect for synergetic promotion of methanol formation from CO <sub>2</sub> hydrogenation. <i>Journal of Catalysis</i> , 2019, 369, 21-32.	3.1	80
15	Sulfuric Acid Modified Bentonite as the Support of Tetraethylenepentamine for CO <sub>2</sub> Capture. <i>Energy &amp; Fuels</i> , 2013, 27, 1538-1546.	2.5	75
16	SBA-15-supported iron phosphate catalyst for partial oxidation of methane to formaldehyde. <i>Catalysis Today</i> , 2004, 93-95, 155-161.	2.2	71
17	Three-dimensional molecular basket sorbents for CO <sub>2</sub> capture: Effects of pore structure of supports and loading level of polyethylenimine. <i>Catalysis Today</i> , 2014, 233, 100-107.	2.2	65
18	Iron-catalyzed propylene epoxidation by nitrous oxide: Toward understanding the nature of active iron sites with modified Fe-MFI and Fe-MCM-41 catalysts. <i>Journal of Catalysis</i> , 2006, 239, 105-116.	3.1	62

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19	Sulfur poisoning of CeO <sub>2</sub> –Al <sub>2</sub> O <sub>3</sub> -supported mono- and bi-metallic Ni and Rh catalysts in steam reforming of liquid hydrocarbons at low and high temperatures. <i>Applied Catalysis A: General</i> , 2010, 390, 210-218.	2.2	62
20	Iron-Catalyzed Propylene Epoxidation by Nitrous Oxide: Studies on the Effects of Alkali Metal Salts. <i>Journal of Physical Chemistry B</i> , 2005, 109, 23500-23508.	1.2	59
21	Coordination structures of vanadium and iron in MCM-41 and the catalytic properties in partial oxidation of methane. <i>Microporous and Mesoporous Materials</i> , 2005, 77, 223-234.	2.2	54
22	CO <sub>2</sub> hydrogenation to methanol on Pd-Cu bimetallic catalysts: H <sub>2</sub> /CO <sub>2</sub> ratio dependence and surface species. <i>Catalysis Today</i> , 2018, 316, 62-70.	2.2	52
23	Ultra-Deep Adsorptive Desulfurization of Light-Irradiated Diesel Fuel over Supported TiO <sub>2</sub> –CeO <sub>2</sub> Adsorbents. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 15746-15755.	1.8	51
24	Iron-containing heterogeneous catalysts for partial oxidation of methane and epoxidation of propylene. <i>Catalysis Today</i> , 2006, 117, 156-162.	2.2	49
25	Spectroscopic characterization and catalytic activity of Rh supported on CeO <sub>2</sub> -modified Al <sub>2</sub> O <sub>3</sub> for low-temperature steam reforming of propane. <i>Catalysis Today</i> , 2016, 263, 22-34.	2.2	49
26	Influence of sulfur on the carbon deposition in steam reforming of liquid hydrocarbons over CeO <sub>2</sub> –Al <sub>2</sub> O <sub>3</sub> supported Ni and Rh catalysts. <i>Applied Catalysis A: General</i> , 2011, 394, 32-40.	2.2	48
27	Nanoporous molecular basket sorbent for NO <sub>2</sub> and SO <sub>2</sub> capture based on a polyethylene glycol-loaded mesoporous molecular sieve. <i>Energy and Environmental Science</i> , 2009, 2, 878.	15.6	47
28	Superior catalytic performance of phosphorus-modified molybdenum oxide clusters encapsulated inside SBA-15 in the partial oxidation of methane. <i>New Journal of Chemistry</i> , 2003, 27, 1301.	1.4	37
29	Comparative Study of Molecular Basket Sorbents Consisting of Polyallylamine and Polyethylenimine Functionalized SBA-15 for CO <sub>2</sub> Capture from Flue Gas. <i>ChemPhysChem</i> , 2017, 18, 3163-3173.	1.0	37
30	CO <sub>2</sub> capture over molecular basket sorbents: Effects of SiO <sub>2</sub> supports and PEG additive. <i>Journal of Energy Chemistry</i> , 2017, 26, 1030-1038.	7.1	35
31	Dynamic Evolution of Fe and Carbon Species over Different ZrO <sub>2</sub> Supports during CO Prereduction and Their Effects on CO <sub>2</sub> Hydrogenation to Light Olefins. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7891-7903.	3.2	35
32	Selective Removal of H <sub>2</sub> S from Biogas Using Solid Amine-Based “Molecular Basket” Sorbent. <i>Energy &amp; Fuels</i> , 2017, 31, 9517-9528.	2.5	34
33	Regulation of synergy between metal and acid sites over the Ni-SAPO-11 catalyst for n-hexane hydroisomerization. <i>Fuel</i> , 2020, 274, 117855.	3.4	33
34	Excellent Catalytic Performances of SBA-15-supported Vanadium Oxide for Partial Oxidation of Methane to Formaldehyde. <i>Chemistry Letters</i> , 2003, 32, 860-861.	0.7	32
35	Discovering Inherent Characteristics of Polyethylenimine-Functionalized Porous Materials for CO <sub>2</sub> Capture. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 36515-36524.	4.0	31
36	Al <sub>2</sub> O <sub>3</sub> and CeO <sub>2</sub> -promoted MgO sorbents for CO <sub>2</sub> capture at moderate temperatures. <i>Frontiers of Chemical Science and Engineering</i> , 2018, 12, 83-93.	2.3	30

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37	Iron-catalysed propylene epoxidation by nitrous oxide: dramatic shift of allylic oxidation to epoxidation by the modification with alkali metal salts. <i>Chemical Communications</i> , 2004, , 1396.	2.2	28
38	New molecular basket sorbents for CO <sub>2</sub> capture based on mesoporous sponge-like TUD-1. <i>Catalysis Today</i> , 2014, 238, 95-102.	2.2	28
39	Oligomerization of Biomass-Derived Light Olefins to Liquid Fuel: Effect of Alkali Treatment on the HZSM-5 Catalyst. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 12046-12055.	1.8	24
40	New Strategy To Enhance CO <sub>2</sub> Capture over a Nanoporous Polyethylenimine Sorbent. <i>Energy &amp; Fuels</i> , 2014, 28, 7742-7745.	2.5	23
41	One-step plasma-enabled catalytic carbon dioxide hydrogenation to higher hydrocarbons: significance of catalyst-bed configuration. <i>Green Chemistry</i> , 2021, 23, 1642-1647.	4.6	23
42	One-Step Low-Temperature Reduction of Sulfur Dioxide to Elemental Sulfur by Plasma-Enhanced Catalysis. <i>ACS Catalysis</i> , 2020, 10, 5272-5277.	5.5	22
43	Plasma-assisted catalytic reduction of SO <sub>2</sub> to elemental sulfur: Influence of nonthermal plasma and temperature on iron sulfide catalyst. <i>Journal of Catalysis</i> , 2020, 391, 260-272.	3.1	21
44	Unraveling the Dynamic Evolution of Pd Species on Pd-Loaded ZnO Nanorods for Different Hydrogen Sensing Behaviors. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 6370-6379.	3.2	20
45	New Approach to Enhance CO <sub>2</sub> Capture of "Molecular Basket" Sorbent by Using 3-Aminopropyltriethoxysilane to Reshape Fumed Silica Support. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 7267-7273.	1.8	15
46	Influence of Loading a Tertiary Amine on Activated Carbons and Effect of CO <sub>2</sub> on Adsorptive H <sub>2</sub> S Removal from Biogas. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9998-10008.	3.2	13
47	Plasma-enhanced catalytic reduction of SO <sub>2</sub> : Decoupling plasma-induced surface reaction from plasma-phase reaction. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119852.	10.8	12
48	Deep removal of SO <sub>2</sub> from cathode air over polyethylenimine-modified SBA-15 sorbents for fuel cells. <i>Catalysis Today</i> , 2021, 371, 240-246.	2.2	7
49	A Novel and Green Method for the Synthesis of Ionic Liquids Using the Corresponding Acidic Ionic Liquid Precursors and Dialkyl Carbonate. <i>Chemistry Letters</i> , 2010, 39, 1112-1113.	0.7	6
50	Regenerable solid molecular basket sorbents for selective SO <sub>2</sub> capture from CO <sub>2</sub> -rich gas streams. <i>Catalysis Today</i> , 2021, 371, 231-239.	2.2	6
51	CO <sub>2</sub> Hydrogenation to Olefin-Rich Hydrocarbons Over Fe-Cu Bimetallic Catalysts: An Investigation of Fe-Cu Interaction and Surface Species. <i>Frontiers in Chemical Engineering</i> , 2021, 3, .	1.3	5
52	Capture of CO <sub>2</sub> from Concentrated Sources and the Atmosphere. , 2019, , 35-72.		4
53	Hydrogen sulfide removal from biogas on ZIF-derived nitrogen-doped carbons. <i>Catalysis Today</i> , 2020, 371, 221-221.	2.2	4
54	Iron-Catalyzed Propylene Epoxidation by Nitrous Oxide: Dramatic Shift of Allylic Oxidation to Epoxidation by the Modification with Alkali Metal Salts.. <i>ChemInform</i> , 2004, 35, no.	0.1	0