

# Krishna Gunugunuri

## List of Publications by Year in descending order

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53  
papers

2,189  
citations

186265

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243625

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53  
docs citations

53  
times ranked

2780  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of Zirconia Doping on the Structure and Stability of CaO-Based Sorbents for CO <sub>2</sub> Capture during Extended Operating Cycles. Journal of Physical Chemistry C, 2011, 115, 24804-24812.	3.1	156
2	Unexpected Behavior of Copper in Modified Ferrites during High Temperature WGS Reaction—Aspects of Fe <sup>3+</sup> Fe <sup>2+</sup> Redox Chemistry from Mössbauer and XPS Studies. Journal of Physical Chemistry C, 2012, 116, 11019-11031.	3.1	131
3	Structural Characterization and Oxidehydrogenation Activity of CeO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> and V <sub>2</sub> O <sub>5</sub> /CeO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> Catalysts. Journal of Physical Chemistry C, 2007, 111, 18751-18758.	3.1	104
4	Silica supported transition metal-based bimetallic catalysts for vapour phase selective hydrogenation of furfuraldehyde. Journal of Molecular Catalysis A, 2007, 265, 276-282.	4.8	102
5	Characterization and catalytic activity of V <sub>2</sub> O <sub>5</sub> /Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> for selective oxidation of 4-methylanisole. Journal of Molecular Catalysis A, 2006, 253, 44-51.	4.8	99
6	Ceria-Modified Manganese Oxide/Titania Materials for Removal of Elemental and Oxidized Mercury from Flue Gas. Journal of Physical Chemistry C, 2011, 115, 24300-24309.	3.1	95
7	An easy-to-use heterogeneous promoted zirconia catalyst for Knoevenagel condensation in liquid phase under solvent-free conditions. Journal of Molecular Catalysis A, 2006, 258, 302-307.	4.8	88
8	Sulfur tolerant metal doped Fe/Ce catalysts for high temperature WGS reaction at low steam to CO ratios — XPS and Mössbauer spectroscopic study. Journal of Catalysis, 2011, 282, 258-269.	6.2	80
9	Modified zeolite membrane reactor for high temperature water gas shift reaction. Journal of Membrane Science, 2010, 354, 114-122.	8.2	77
10	Single Nozzle Flame-Made Highly Durable Metal Doped Ca-Based Sorbents for CO <sub>2</sub> Capture at High Temperature. Energy & Fuels, 2012, 26, 3103-3109.	5.1	72
11	High Temperature Water Gas Shift Reaction over Nanocrystalline Copper Codoped-Modified Ferrites. Journal of Physical Chemistry C, 2011, 115, 7586-7595.	3.1	70
12	Zeolite Membrane Reactor for High-Temperature Water-Gas Shift Reaction: Effects of Membrane Properties and Operating Conditions. Energy & Fuels, 2013, 27, 4471-4480.	5.1	70
13	Simultaneous Removal of Elemental Mercury and NO from Flue Gas Using CeO <sub>2</sub> Modified MnO <sub>x</sub> /TiO <sub>2</sub> Materials. Energy & Fuels, 2013, 27, 4832-4839.	5.1	68
14	Cr- and Ce-Doped Ferrite Catalysts for the High Temperature Water-Gas Shift Reaction: TPR and Mossbauer Spectroscopic Study. Journal of Physical Chemistry C, 2011, 115, 920-930.	3.1	66
15	A rapid microwave-assisted solution combustion synthesis of CuO promoted CeO <sub>2</sub> -MxOy (M=Zr, La, Pr) Tj ETQq <sub>1,1</sub> 0.7843 <sub>14</sub> rgBT <sub>01</sub>	4.3	61
16	Effect of Pressure on High-Temperature Water Gas Shift Reaction in Microporous Zeolite Membrane Reactor. Industrial & Engineering Chemistry Research, 2012, 51, 1364-1375.	3.7	60
17	A high-performance oxygen evolution catalyst in neutral-pH for sunlight-driven CO <sub>2</sub> reduction. Nature Communications, 2019, 10, 4081.	12.8	57
18	Reforming of methane with carbon dioxide over Pt/ZrO <sub>2</sub> /SiO <sub>2</sub> catalysts—Effect of zirconia to silica ratio. Applied Catalysis A: General, 2010, 389, 92-100.	4.3	54

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19	Single step synthesis of nanosized CeO <sub>2</sub> â€“MxOy mixed oxides (MxOy=SiO <sub>2</sub> , TiO <sub>2</sub> , ZrO <sub>2</sub> , and Al <sub>2</sub> O <sub>3</sub> ) by microwave induced solution combustion synthesis: characterization and CO oxidation. Journal of Materials Science, 2009, 44, 2743-2751.	3.7	45
20	Understanding the chemical state of palladium during the direct NO decomposition â€“ influence of pretreatment environment and reaction temperature. RSC Advances, 2017, 7, 19645-19655.	3.6	45
21	Influence of alumina and titania on the structure and catalytic properties of sulfated zirconia: Beckmann rearrangement. Journal of Molecular Catalysis A, 2009, 306, 62-68.	4.8	44
22	Sulfur-Tolerant Mn-Ce-Ti Sorbents for Elemental Mercury Removal from Flue Gas: Mechanistic Investigation by XPS. Journal of Physical Chemistry C, 2015, 119, 8634-8644.	3.1	42
23	Structural characterization and dehydration activity of CeO <sub>2</sub> â€“SiO <sub>2</sub> and CeO <sub>2</sub> â€“ZrO <sub>2</sub> mixed oxides prepared by a rapid microwave-assisted combustion synthesis method. Journal of Molecular Catalysis A, 2010, 319, 52-57.	4.8	41
24	Influence of the Synthesis Method on the Structure and CO <sub>2</sub> Adsorption Properties of Ca/Zr Sorbents. Energy & Fuels, 2014, 28, 3292-3299.	5.1	41
25	Evaluation of Rh/Ce x Ti 1âˆ“x O <sub>2</sub> catalysts for synthesis of oxygenates from syngas using XPS and TPR techniques. Catalysis Today, 2016, 263, 75-83.	4.4	38
26	Long-term WGS stability of Fe/Ce and Fe/Ce/Cr catalysts at high and low steam to CO ratiosâ€“XPS and MÃ¶ssbauer spectroscopic study. Applied Catalysis A: General, 2012, 415-416, 101-110.	4.3	36
27	Microwave-assisted Synthesis and Structural Characterization of Nanosized Ce <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> for CO Oxidation. Catalysis Letters, 2009, 130, 227-234.	2.6	31
28	Characterization and photocatalytic activity of TiO <sub>2</sub> â€“M x O y (M x O y =SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , and ZrO <sub>2</sub> ) mixed oxides synthesized by microwave-induced solution combustion technique. Journal of Materials Science, 2009, 44, 4874-4882.	3.7	29
29	Effect of Copper as a Dopant on the Water Gas Shift Activity of Fe/Ce and Fe/Cr Modified Ferrites. Catalysis Letters, 2011, 141, 27-32.	2.6	24
30	Synthesis of Nanosized Ceria-Zirconia Solid Solutions by a Rapid Microwave-Assisted Combustion Method. The Open Physical Chemistry Journal, 2009, 3, 24-29.	0.4	23
31	Selective tert-butylation of phenol over molybdate- and tungstate-promoted zirconia catalysts. Applied Catalysis A: General, 2007, 332, 183-191.	4.3	22
32	Influence of Foreign Metal Dopants on the Durability and Performance of Zr/Ca Sorbents during High Temperature CO <sub>2</sub> Capture. Separation Science and Technology, 2014, 49, 47-54.	2.5	22
33	CeO <sub>2</sub> â€“MxOy (M = Fe, Co, Ni, and Cu)-Based Oxides for Direct NO Decomposition. Journal of Physical Chemistry C, 2019, 123, 28695-28706.	3.1	21
34	Controlled Hydrogenation of Acetophenone Over Pt/CeO <sub>2</sub> â€“MO x (M=Si, Ti, Al, and Zr) Catalysts. Catalysis Letters, 2009, 131, 328-336.	2.6	20
35	A Rapid Microwave-Induced Solution Combustion Synthesis of Ceria-Based Mixed Oxides for Catalytic Applications. Catalysis Surveys From Asia, 2009, 13, 237-255.	2.6	20
36	Preparation, characterization and lysozyme immobilization studies on siliceous mesocellular foams: Effect of precursor chemistry on pore size, wall thickness and interpore spacing. Microporous and Mesoporous Materials, 2014, 190, 215-226.	4.4	20

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37	Monolayer Detection of Supported Fe and Co Oxides on Ceria To Establish Structure-Activity Relationships for Reduction of NO by CO. Journal of Physical Chemistry C, 2017, 121, 8435-8443.	3.1	18
38	Synthesis of monophasic Ce <sub>0.5</sub> Zr <sub>0.5</sub> O <sub>2</sub> solid solution by microwave-induced combustion method. Journal of Materials Science, 2007, 42, 3557-3563.	3.7	17
39	Effect of Cu substitution on the structure and reactivity of Cu <sub>x</sub> Co <sub>3-x</sub> O <sub>4</sub> spinel catalysts for direct NO <sub>x</sub> decomposition. Catalysis Today, 2021, 360, 204-212.	4.4	14
40	“PdO vs. PtO” The Influence of PGM Oxide Promotion of Co <sub>3</sub> O <sub>4</sub> Spinel on Direct NO Decomposition Activity. Catalysts, 2019, 9, 62.	3.5	13
41	Contrasting Effects of Potassium Addition on M <sub>3</sub> O <sub>4</sub> (M = Co, Fe, and Mn) Oxides during Direct NO Decomposition Catalysis. Catalysts, 2020, 10, 561.	3.5	13
42	Introduction About WGS Reaction. , 2015, , 1-20.		10
43	Monolayer supported CuO <sub>x</sub> /Co <sub>3</sub> O <sub>4</sub> as an active and selective low temperature NO <sub>x</sub> decomposition catalyst. Catalysis Science and Technology, 2019, 9, 1132-1140.	4.1	10
44	Mechanism and Kinetics of the WGS Reaction. , 2015, , 225-261.		5
45	Low-Temperature WGS Reaction. , 2015, , 47-100.		4
46	High-Temperature WGS Reaction. , 2015, , 21-45.		3
47	WGS Reaction over Co-Mo Sulphided Catalysts. , 2015, , 101-126.		2
48	Homogeneous WGS Reaction. , 2015, , 169-205.		2
49	Photo-Catalytic Water-Gas Shift Reaction. , 2015, , 207-223.		2
50	Impact of Interfacial Roughness on the Sorption Properties of Nanocast Polymers. Macromolecules, 2016, 49, 2663-2670.	4.8	1
51	A Facile Microwave-Assisted Solution Combustion Synthesis of Highly Stable Magnesium Oxide for Multicomponent Mannich Reaction. Current Catalysis, 2012, 1, 164-170.	0.5	1
52	Ultra High Temperature WGS Reaction. , 2015, , 127-136.		0
53	WGS Reaction in Membrane Reactors. , 2015, , 137-168.		0