

Payoli Aich

List of Publications by Year in descending order

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31
papers

2,109
citations

430874

18
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361022

35
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all docs

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docs citations

35
times ranked

3467
citing authors

#	ARTICLE	IF	CITATIONS
1	Scalable synthesis of supported catalysts using fluidized bed atomic layer deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, 042404.	2.1	3
2	Atomic Layer Deposition Overcoating Improves Catalyst Selectivity and Longevity in Propane Dehydrogenation. <i>ACS Catalysis</i> , 2020, 10, 13957-13967.	11.2	30
3	Divanadium substituted kegglin [PV2W10O40] on non-reducible supports-Al ₂ O ₃ and SiO ₂ : synthesis, characterization, and catalytic properties for oxidative dehydrogenation of propane. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2020, 131, 753-768.	1.7	3
4	Quantification of Brønsted Acid Sites in Zeolites by Water Desorption Thermogravimetry. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 1860-1866.	2.0	3
5	Catalytic Applications of Vanadium: A Mechanistic Perspective. <i>Chemical Reviews</i> , 2019, 119, 2128-2191.	47.7	323
6	Structure Sensitivity of Acrolein Hydrogenation by Platinum Nanoparticles on Ba _x Sr _{1-x} TiO ₃ Nanocuboids. <i>ChemCatChem</i> , 2018, 10, 632-641.	3.7	8
7	Atomically Precise Strategy to a PtZn Alloy Nanocluster Catalyst for the Deep Dehydrogenation of <i>n</i> -Butane to 1,3-Butadiene. <i>ACS Catalysis</i> , 2018, 8, 10058-10063.	11.2	67
8	Replication of SMSI via ALD: TiO ₂ Overcoats Increase Pt-Catalyzed Acrolein Hydrogenation Selectivity. <i>Catalysis Letters</i> , 2018, 148, 2223-2232.	2.6	17
9	Single-site zinc on silica catalysts for propylene hydrogenation and propane dehydrogenation: Synthesis and reactivity evaluation using an integrated atomic layer deposition-catalysis instrument. <i>Journal of Catalysis</i> , 2017, 345, 170-182.	6.2	76
10	Supported Aluminum Catalysts for Olefin Hydrogenation. <i>ACS Catalysis</i> , 2017, 7, 689-694.	11.2	25
11	High Thermal Stability of La ₂ O ₃ - and CeO ₂ -Stabilized Tetragonal ZrO ₂ . <i>Inorganic Chemistry</i> , 2016, 55, 2413-2420.	4.0	18
12	Catalyst synthesis and evaluation using an integrated atomic layer deposition synthesis-catalysis testing tool. <i>Review of Scientific Instruments</i> , 2015, 86, 084103.	1.3	20
13	Catalyst Design with Atomic Layer Deposition. <i>ACS Catalysis</i> , 2015, 5, 1804-1825.	11.2	608
14	Epitaxial Stabilization of Face Selective Catalysts. <i>Topics in Catalysis</i> , 2013, 56, 1829-1834.	2.8	20
15	Selective Adsorption of Manganese onto Rhodium for Optimized Mn/Rh/SiO ₂ Alcohol Synthesis Catalysts. <i>ChemCatChem</i> , 2013, 5, 3665-3672.	3.7	42
16	Stabilization of Copper Catalysts for Liquid-Phase Reactions by Atomic Layer Deposition (<i>Angew. Chem.</i> 51/2013). <i>Angewandte Chemie</i> , 2013, 125, 14068-14068.	2.0	1
17	Aqueous Phase Glycerol Reforming by PtMo Bimetallic Nano-Particle Catalyst: Product Selectivity and Structural Characterization. <i>Topics in Catalysis</i> , 2012, 55, 53-69.	2.8	62
18	Fischer-Tropsch Synthesis: Influence of Mn on the Carburization Rates and Activities of Fe-Based Catalysts by TPR-EXAFS/XANES and Catalyst Testing. <i>Journal of Physical Chemistry C</i> , 2011, 115, 4783-4792.	3.1	56

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19	Synthesis of Highly Ordered Hydrothermally Stable Mesoporous Niobia Catalysts by Atomic Layer Deposition. <i>ACS Catalysis</i> , 2011, 1, 1234-1245.	11.2	132
20	Acid-Catalyzed Furfuryl Alcohol Polymerization: Characterizations of Molecular Structure and Thermodynamic Properties. <i>ChemCatChem</i> , 2011, 3, 1451-1458.	3.7	105
21	Oxidative Hydrolysis of Cellobiose to Glucose. <i>Catalysis Letters</i> , 2011, 141, 498-506.	2.6	13
22	Oxidative Dehydrogenation Properties of Novel Nanostructured Polyoxovanadate Based Materials. <i>Catalysis Letters</i> , 2011, 141, 538-543.	2.6	12
23	Phthalocyanine- and Calixarene-Templating Effect on the Catalytic Performance of Solid Supported Vanadates. <i>Catalysis Letters</i> , 2011, 141, 1086-1096.	2.6	4
24	Low-Temperature Water-Gas Shift: Doping Ceria Improves Reducibility and Mobility of O-Bound Species and Catalyst Activity. <i>Catalysis Letters</i> , 2011, 141, 1723-1731.	2.6	15
25	Vibrational properties of levulinic acid and furan derivatives: Raman spectroscopy and theoretical calculations. <i>Journal of Raman Spectroscopy</i> , 2011, 42, 2069-2076.	2.5	71
26	Vanadium Oxide Based Nanostructured Materials for Catalytic Oxidative Dehydrogenation of Propane: Effect of Heterometallic Centers on the Catalyst Performance. <i>Catalysis Letters</i> , 2010, 135, 282-290.	2.6	8
27	Fischer-Tropsch Synthesis: An In-Situ TPR-EXAFS/XANES Investigation of the Influence of Group I Alkali Promoters on the Local Atomic and Electronic Structure of Carburized Iron/Silica Catalysts. <i>Journal of Physical Chemistry C</i> , 2010, 114, 7895-7903.	3.1	138
28	Genesis and Evolution of Surface Species during Pt Atomic Layer Deposition on Oxide Supports Characterized by in Situ XAFS Analysis and Water-Gas Shift Reaction. <i>Journal of Physical Chemistry C</i> , 2010, 114, 9758-9771.	3.1	124
29	Vanadium Oxide Based Nanostructured Materials: Novel Oxidative Dehydrogenation Catalysts. <i>Catalysis Letters</i> , 2009, 128, 256-262.	2.6	13
30	Hydrolysis of silicon-hydride bonds catalyzed by ferromagnetic cobalt nanoparticles. <i>Catalysis Letters</i> , 2007, 114, 145-150.	2.6	5
31	Catalytic deNO _x properties of novel vanadium oxide based open-framework materials. <i>Catalysis Letters</i> , 2006, 112, 1-12.	2.6	27