Payoli Aich

List of Publications by Year
in descending order

31 papers	2,109 citations	430874 18 h-index	361022 35 g-index
35 all docs	35 docs citations	35 times ranked	3467 citing authors

#	Article	IF	Citations
1	Catalyst Design with Atomic Layer Deposition. ACS Catalysis, 2015, 5, 1804-1825.	11.2	608
2	Catalytic Applications of Vanadium: A Mechanistic Perspective. Chemical Reviews, 2019, 119, 2128-2191.	47.7	323
3	Fischerâ˜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. Journal of Physical Chemistry C, 2010, 114, 7895-7903.	3.1	138
4	Synthesis of Highly Ordered Hydrothermally Stable Mesoporous Niobia Catalysts by Atomic Layer Deposition. ACS Catalysis, 2011, 1, 1234-1245.	11.2	132
5	Genesis and Evolution of Surface Species during Pt Atomic Layer Deposition on Oxide Supports Characterized by in Situ XAFS Analysis and Waterâ˜Gas Shift Reaction. Journal of Physical Chemistry C, 2010, 114, 9758-9771.	3.1	124
6	Acidâ€Catalyzed Furfuryl Alcohol Polymerization: Characterizations of Molecular Structure and Thermodynamic Properties. ChemCatChem, 2011, 3, 1451-1458.	3.7	105
7	Single-site zinc on silica catalysts for propylene hydrogenation and propane dehydrogenation: Synthesis and reactivity evaluation using an integrated atomic layer deposition-catalysis instrument. Journal of Catalysis, 2017, 345, 170-182.	6.2	76
8	Vibrational properties of levulinic acid and furan derivatives: Raman spectroscopy and theoretical calculations. Journal of Raman Spectroscopy, 2011, 42, 2069-2076.	2.5	71
9	Atomically Precise Strategy to a PtZn Alloy Nanocluster Catalyst for the Deep Dehydrogenation of n-Butane to 1,3-Butadiene. ACS Catalysis, 2018, 8, 10058-10063.	11.2	67
10	Aqueous Phase Glycerol Reforming by PtMo Bimetallic Nano-Particle Catalyst: Product Selectivity and Structural Characterization. Topics in Catalysis, 2012, 55, 53-69.	2.8	62
11	Fischerâ˜Tropsch Synthesis: Influence of Mn on the Carburization Rates and Activities of Fe-Based Catalysts by TPR-EXAFS/XANES and Catalyst Testing. Journal of Physical Chemistry C, 2011, 115, 4783-4792.	3.1	56
12	Selective Adsorption of Manganese onto Rhodium for Optimized Mn/Rh/SiO₂ Alcohol Synthesis Catalysts. ChemCatChem, 2013, 5, 3665-3672.	3.7	42
13	Atomic Layer Deposition Overcoating Improves Catalyst Selectivity and Longevity in Propane Dehydrogenation. ACS Catalysis, 2020, 10, 13957-13967.	11.2	30
14	Catalytic deNO x properties of novel vanadium oxide based open-framework materials. Catalysis Letters, 2006, 112, 1-12.	2.6	27
15	Supported Aluminum Catalysts for Olefin Hydrogenation. ACS Catalysis, 2017, 7, 689-694.	11.2	25
16	Epitaxial Stabilization of Face Selective Catalysts. Topics in Catalysis, 2013, 56, 1829-1834.	2.8	20
17	Catalyst synthesis and evaluation using an integrated atomic layer deposition synthesisâ€“catalysis testing tool. Review of Scientific Instruments, 2015, 86, 084103.	1.3	20
18	High Thermal Stability of La₂O₃- and CeO₂-Stabilized Tetragonal ZrO₂. Inorganic Chemistry, 2016, 55, 2413-2420.	4.0	18

#	Article	IF	Citations
19	Replication of SMSI via ALD: TiO2 Overcoats Increase Pt-Catalyzed Acrolein Hydrogenation Selectivity. Catalysis Letters, 2018, 148, 2223-2232.	2.6	17
20	Low-Temperature Waterâ€“Gas Shift: Doping Ceria Improves Reducibility and Mobility of O-Bound Species and Catalyst Activity. Catalysis Letters, 2011, 141, 1723-1731.	2.6	15
21	Vanadium Oxide Based Nanostructured Materials: Novel Oxidative Dehydrogenation Catalysts. Catalysis Letters, 2009, 128, 256-262.	2.6	13
22	Oxidative Hydrolysis of Cellobiose to Glucose. Catalysis Letters, 2011, 141, 498-506.	2.6	13
23	Oxidative Dehydrogenation Properties of Novel Nanostructured Polyoxovanadate Based Materials. Catalysis Letters, 2011, 141, 538-543.	2.6	12
24	Vanadium Oxide Based Nanostructured Materials for Catalytic Oxidative Dehydrogenation of Propane: Effect of Heterometallic Centers on the Catalyst Performance. Catalysis Letters, 2010, 135, 282-290.	2.6	8
25	Structure Sensitivity of Acrolein Hydrogenation by Platinum Nanoparticles on Ba x Sr 1â^' x TiO 3 Nanocuboids. ChemCatChem, 2018, 10, 632-641.	3.7	8
26	Hydrolysis of siliconâ€“hydride bonds catalyzed by ferromagnetic cobalt nanoparticles. Catalysis Letters, 2007, 114, 145-150.	2.6	5
27	Phthalocyanine- and Calixarene-Templating Effect on the Catalytic Performance of Solid Supported Vanadates. Catalysis Letters, 2011, 141, 1086-1096.	2.6	4
28	Divanadium substituted keggin [PV2W10O40] on non-reducible supports-Al2O3 and SiO2: synthesis, characterization, and catalytic properties for oxidative dehydrogenation of propane. Reaction Kinetics, Mechanisms and Catalysis, 2020, 131, 753-768.	1.7	3
29	Quantification of BrÃ¸nsted Acid Sites in Zeolites by Water Desorption Thermogravimetry. European Journal of Inorganic Chemistry, 2020, 2020, 1860-1866.	2.0	3
30	Scalable synthesis of supported catalysts using fluidized bed atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 042404.	2.1	3
31	RÃ¼cktitelbild: Stabilization of Copper Catalysts for Liquid-Phase Reactions by Atomic Layer Deposition (Angew. Chem. 51/2013). Angewandte Chemie, 2013, 125, 14068-14068.	2.0	1