Claus Hviid Christensen

List of Publications by Citations

73 papers	11,171 citations	47 h-index	73 g-index
73 ext. papers	12,047 ext. citations	8.9 avg, IF	6.11 L-index

#	Paper	IF	Citations
73	Hierarchical zeolites: enhanced utilisation of microporous crystals in catalysis by advances in materials design. *Chemical Society Reviews*, **2008**, 37, 2530-42	58.5	1413
72	Catalytic activity of Au nanoparticles. *Nano Today*, **2007**, 2, 14-18	17.9	927
71	Identification of non-precious metal alloy catalysts for selective hydrogenation of acetylene. *Science*, **2008**, 320, 1320-2	33.3	795
70	Ammonia for hydrogen storage: challenges and opportunities. *Journal of Materials Chemistry*, **2008**, 18, 2304		687
69	Templating Mesoporous Zeolites *Chemistry of Materials*, **2008**, 20, 946-960	9.6	576
68	The nature of the active site in heterogeneous metal catalysis. *Chemical Society Reviews*, **2008**, 37, 2163-79	58.5	553
67	Insights into the reactivity of supported Au nanoparticles: combining theory and experiments. *Topics in Catalysis*, **2007**, 44, 15-26	2.3	356
66	Zeolite-catalyzed biomass conversion to fuels and chemicals. *Energy and Environmental Science*, **2011**, 4, 793-804	35.4	355
65	Chemistry. Toward efficient hydrogen production at surfaces. *Science*, **2006**, 312, 1322-3	33.3	343
64	Catalysis with hierarchical zeolites. *Catalysis Today*, **2011**, 168, 3-16	5.3	301
63	Catalytic benzene alkylation over mesoporous zeolite single crystals: improving activity and selectivity with a new family of porous materials. *Journal of the American Chemical Society*, **2003**, 125, 13370-1	16.4	296
62	Toward computational screening in heterogeneous catalysis: Pareto-optimal methanation catalysts. *Journal of Catalysis*, **2006**, 239, 501-506	7.3	284
61	Towards an ammonia-mediated hydrogen economy?. *Catalysis Today*, **2006**, 111, 140-144	5.3	262
60	Assessing the acid properties of desilicated ZSM-5 by FTIR using CO and 2,4,6-trimethylpyridine (collidine) as molecular probes. *Applied Catalysis A: General*, **2009**, 356, 23-30	5.1	217
59	Universal Brønsted-Evans-Polanyi Relations for C–C, C–O, C–N, N–O, N–N, and O–O Dissociation Reactions. *Catalysis Letters*, **2011**, 141, 370-373	2.8	215
58	Zeolite H-USY for the production of lactic acid and methyl lactate from C3-sugars. *Journal of Catalysis*, **2010**, 269, 122-130	7.3	183
57	Aerobic oxidation of aqueous ethanol using heterogeneous gold catalysts: Efficient routes to acetic acid and ethyl acetate. *Journal of Catalysis*, **2007**, 251, 332-337	7.3	161

56	Metal ammine complexes for hydrogen storage. *Journal of Materials Chemistry*, **2005**, 15, 4106		148
55	Aerobic oxidation of aldehydes under ambient conditions using supported gold nanoparticle catalysts. *Green Chemistry*, **2008**, 10, 168-170	10	143
54	Indirect, reversible high-density hydrogen storage in compact metal ammine salts. *Journal of the American Chemical Society*, **2008**, 130, 8660-8	16.4	143
53	Direct aerobic oxidation of primary alcohols to methyl esters catalyzed by a heterogeneous gold catalyst. *Catalysis Letters*, **2007**, 116, 35-40	2.8	132
52	Hydrodeoxygenation of waste fat for diesel production: Study on model feed with Pt/alumina catalyst. *Fuel*, **2011**, 90, 3433-3438	7.1	126
51	Mesoporous zeolite and zeotype single crystals synthesized in fluoride media. *Microporous and Mesoporous Materials*, **2007**, 101, 214-223	5.3	121
50	Formation of imines by selective gold-catalysed aerobic oxidative coupling of alcohols and amines under ambient conditions. *Green Chemistry*, **2010**, 12, 1437	10	113
49	Mesoporous MEL Type Zeolite Single Crystal Catalysts. *Catalysis Letters*, **2004**, 96, 205-211	2.8	112
48	A molecular view of heterogeneous catalysis. *Journal of Chemical Physics*, **2008**, 128, 182503	3.9	107
47	Discovery of technical methanation catalysts based on computational screening. *Topics in Catalysis*, **2007**, 45, 9-13	2.3	103
46	Oxidations of amines with molecular oxygen using bifunctional gold Titania catalysts. *Green Chemistry*, **2008**, 10, 419	10	102
45	Crystals in crystals-nanocrystals within mesoporous zeolite single crystals. *Journal of the American Chemical Society*, **2005**, 127, 8098-102	16.4	101
44	Oxidation of glycerol and propanediols in methanol over heterogeneous gold catalysts. *Green Chemistry*, **2008**, 10, 408	10	92
43	Chemistry. Green gold catalysis. *Science*, **2010**, 327, 278-9	33.3	82
42	The Hydrocarbon Pool in Ethanol-to-Gasoline over HZSM-5 Catalysts. *Catalysis Letters*, **2009**, 127, 1-6	2.8	82
41	Aerobic Oxidation of Alcohols over Gold Catalysts: Role of Acid and Base. *Catalysis Letters*, **2008**, 126, 213-217	2.8	81
40	Versatile Route to Zeolite Single Crystals with Controlled Mesoporosity: in situ Sugar Decomposition for Templating of Hierarchical Zeolites. *Chemistry of Materials*, **2007**, 19, 2915-2917	9.6	80
39	Generation of nanopores during desorption of NH3 from Mg(NH3)6Cl2. *Journal of the American Chemical Society*, **2006**, 128, 16-7	16.4	80

38	Catalytic ammonia decomposition: miniaturized production of COx-free hydrogen for fuel cells. *Catalysis Communications*, **2005**, 6, 229-232	3.2	79
37	Mechanistic Investigation of the Gold-catalyzed Aerobic Oxidation of Alcohols. *Catalysis Letters*, **2008**, 120, 184-190	2.8	77
36	Vanadia-based SCR catalysts supported on tungstated and sulfated zirconia: Influence of doping with potassium. *Journal of Catalysis*, **2007**, 251, 459-473	7.3	76
35	A high-density ammonia storage/delivery system based on Mg(NH3)6Cl2 for SCR□DeNOx in vehicles. *Chemical Engineering Science*, **2006**, 61, 2618-2625	4.4	72
34	BEP relations for N2 dissociation over stepped transition metal and alloy surfaces. *Physical Chemistry Chemical Physics*, **2008**, 10, 5202-6	3.6	63
33	Mesoporous Carbon Prepared from Carbohydrate as Hard Template for Hierarchical Zeolites. *European Journal of Inorganic Chemistry*, **2007**, 2007, 3955-3960	2.3	63
32	Improved performance of mesoporous zeolite single crystals in catalytic cracking and isomerization of n-hexadecane. *Catalysis Communications*, **2004**, 5, 543-546	3.2	63
31	□One-Pot□Ion-Exchange and Mesopore Formation During Desilication. *European Journal of Inorganic Chemistry*, **2009**, 2009, 1194-1198	2.3	59
30	Renewable hydrogen: carbon formation on Ni and Ru catalysts during ethanol steam-reforming. *Green Chemistry*, **2007**, 9, 1016	10	56
29	Steam reforming of technical bioethanol for hydrogen production. *International Journal of Hydrogen Energy*, **2008**, 33, 4547-4554	6.7	56
28	Fe-BEA Zeolite Catalysts for NH3-SCR of NOx. *Catalysis Letters*, **2009**, 130, 1-8	2.8	49
27	Promoted Ru on high-surface area graphite for efficient miniaturized production of hydrogen from ammonia. *Catalysis Letters*, **2006**, 112, 77-81	2.8	48
26	High yield of liquid range olefins obtained by converting i-propanol over zeolite H-ZSM-5. *Journal of the American Chemical Society*, **2009**, 131, 17009-13	16.4	46
25	Aquafaba as an egg white substitute in food foams and emulsions: Protein composition and functional behavior. *Food Hydrocolloids*, **2019**, 96, 354-364	10.6	38
24	Gas-Phase Oxidation of Aqueous Ethanol by Nanoparticle Vanadia/Anatase Catalysts. *Topics in Catalysis*, **2009**, 52, 253-257	2.3	37
23	The location of gold nanoparticles on titania: A study by high resolution aberration-corrected electron microscopy and 3D electron tomography. *Catalysis Today*, **2011**, 160, 165-169	5.3	36
22	Tungstated zirconia as promising carrier for DeNOX catalysts with improved resistance towards alkali poisoning. *Applied Catalysis B: Environmental*, **2006**, 66, 161-167	21.8	35
21	Cu□SM-5, Cu□SM-11, and Cu□SM-12 catalysts for direct NO decomposition. *Catalysis Communications*, **2006**, 7, 705-708	3.2	35

20	Size-Selective Oxidation of Aldehydes with Zeolite Encapsulated Gold Nanoparticles. *Topics in Catalysis*, **2011**, 54, 1026-1033	2.3	33
19	Trends in catalytic NO decomposition over transition metal surfaces. *Topics in Catalysis*, **2007**, 45, 117-120	2.3	31
18	Microfabricated high-temperature reactor for catalytic partial oxidation of methane. *Applied Catalysis A: General*, **2005**, 284, 5-10	5.1	30
17	Effect of alloying on carbon formation during ethane dehydrogenation. *Applied Catalysis A: General*, **2009**, 358, 269-278	5.1	29
16	Synthesis and characterization of conventional and mesoporous Ga-MFI for ethane dehydrogenation. *Applied Catalysis A: General*, **2008**, 348, 257-265	5.1	26
15	Re/HZSM-5: a new catalyst for ethane aromatization with improved stability. *Catalysis Communications*, **2003**, 4, 627-630	3.2	24
14	Hierarchical ZSM-5 prepared by guanidinium base treatment: Understanding microstructural characteristics and impact on MTG and NH3-SCR catalytic reactions. *Catalysis Today*, **2011**, 168, 71-79	5.3	22
13	Direct NO decomposition over stepped transition-metal surfaces. *Pure and Applied Chemistry*, **2007**, 79, 1895-1903	2.1	19
12	Enhancing the Porosity of Mesoporous Carbon-Templated ZSM-5 by Desilication. *European Journal of Inorganic Chemistry*, **2008**, 2008, 5185-5189	2.3	17
11	Nanoporous magnesium aluminometasilicate tablets for precise, controlled, and continuous dosing of chemical reagents and catalysts: applications in parallel solution-phase synthesis. *ACS Combinatorial Science*, **2007**, 9, 301-5		15
10	Co-conversion of Ethane and Methanol into Higher Hydrocarbons over Ga/H-ZSM-5, Mo/H-ZSM-5 and Ga-Mo/H-ZSM-5. *Catalysis Letters*, **2009**, 127, 44-48	2.8	12
9	Self-assembly of C60 into highly ordered chain-like structures on HOPG observed at ambient conditions. *Surface Science*, **2007**, 601, L35-L38	1.8	11
8	Electronic-Structure-Based Design of Ordered Alloys. *MRS Bulletin*, **2006**, 31, 986-990	3.2	11
7	Dehydrogenation of Light Alkanes Over Rhenium Catalysts on Conventional and Mesoporous MFI Supports. *Catalysis Letters*, **2006**, 109, 153-156	2.8	10
6	Improved Automotive NO x Aftertreatment System: Metal Ammine Complexes as NH3 Source for SCR Using Fe-Containing Zeolite Catalysts. *Catalysis Letters*, **2009**, 128, 94-100	2.8	6
5	Impact of support and potassium-poisoning on the V2O5WO3/ZrO2 catalyst performance in ammonia oxidation. *Catalysis Communications*, **2009**, 10, 803-806	3.2	5
4	Tailoring the porosity of hierarchical zeolites by carbon-templating. *Studies in Surface Science and Catalysis*, **2008**, 174, 285-288	1.8	4
3	Turbostratic Boron Nitride Coated on High-Surface Area Metal Oxide Templates. *European Journal of Inorganic Chemistry*, **2007**, 2007, 4873-4876	2.3	3

2	PtRu Colloid Nanoparticles for CO Oxidation in Microfabricated Reactors. *Catalysis Letters*, **2006**, 109, 7-12	2.8	3
1	Catalysis for Sustainability. *Topics in Catalysis*, **2009**, 52, 205-205	2.3	