

Jeroen A Van Bokhoven

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491
papers

19,955
citations

76
h-index

118
g-index

539
ext. papers

22,836
ext. citations

7.7
avg, IF

7.38
L-index

#	Paper	IF	Citations
491	Reactivity of surface species in heterogeneous catalysts probed by in situ X-ray absorption techniques. <i>Chemical Reviews</i> , 2013 , 113, 1736-850	68.1	481
490	Selective anaerobic oxidation of methane enables direct synthesis of methanol. <i>Science</i> , 2017 , 356, 523-527	33.7	436
489	The effect of gold particle size on AuAu bond length and reactivity toward oxygen in supported catalysts. <i>Journal of Catalysis</i> , 2006 , 240, 222-234	7.3	391
488	Catalyst support effects on hydrogen spillover. <i>Nature</i> , 2017 , 541, 68-71	50.4	370
487	The Direct Catalytic Oxidation of Methane to Methanol-A Critical Assessment. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 16464-16483	16.4	334
486	Catalysis by metal-organic frameworks: fundamentals and opportunities. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 6388-96	3.6	331
485	Bis(mu-oxo)dicopper in Cu-ZSM-5 and its role in the decomposition of NO: a combined in situ XAFS, UV-vis-near-IR, and kinetic study. <i>Journal of the American Chemical Society</i> , 2003 , 125, 7629-40	16.4	292
484	Stepwise Dealumination of Zeolite β at Specific T-Sites Observed with ^{27}Al MAS and ^{27}Al MQ MAS NMR. <i>Journal of the American Chemical Society</i> , 2000 , 122, 12842-12847	16.4	265
483	Controlling the selectivity to chemicals from lignin via catalytic fast pyrolysis. <i>Applied Catalysis A: General</i> , 2012 , 423-424, 130-136	5.1	248
482	Hydrogen chemisorption on Al_2O_3 -supported gold catalysts. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 14581-7	3.4	229
481	Metal organic frameworks for photo-catalytic water splitting. <i>Energy and Environmental Science</i> , 2015 , 8, 1923-1937	35.4	228
480	Direct Conversion of Methane to Methanol under Mild Conditions over Cu-Zeolites and beyond. <i>Accounts of Chemical Research</i> , 2017 , 50, 418-425	24.3	225
479	Stability of Zeolites in Hot Liquid Water. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 19582-19595	3.8	207
478	Advanced X-ray absorption and emission spectroscopy: in situ catalytic studies. <i>Chemical Society Reviews</i> , 2010 , 39, 4754-66	58.5	193
477	Activation of oxygen on gold/alumina catalysts: in situ high-energy-resolution fluorescence and time-resolved X-ray spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 4651-4	16.4	189
476	Zeolite Beta: The Relationship between Calcination Procedure, Aluminum Configuration, and Lewis Acidity. <i>Journal of Catalysis</i> , 1998 , 180, 234-244	7.3	184
475	Catalytic activity of Brønsted acid sites in zeolites: Intrinsic activity, rate-limiting step, and influence of the local structure of the acid sites. <i>Journal of Catalysis</i> , 2006 , 244, 163-168	7.3	166

474	Catalytic conversion of methane to methanol over Cu-mordenite. <i>Chemical Communications</i> , 2012 , 48, 404-6	5.8	163
473	Changes in Structural and Electronic Properties of the Zeolite Framework Induced by Extraframework Al and La in H-USY and La(x)NaY: A ²⁹ Si and ²⁷ Al MAS NMR and ²⁷ Al MQ MAS NMR Study. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 6743-6754	3.4	158
472	Synthesis and characterization of mesoporous mordenite. <i>Journal of Catalysis</i> , 2009 , 262, 257-265	7.3	155
471	Three-coordinate aluminum in zeolites observed with in situ x-ray absorption near-edge spectroscopy at the Al K-edge: flexibility of aluminum coordinations in zeolites. <i>Journal of the American Chemical Society</i> , 2003 , 125, 7435-42	16.4	147
470	Identification of CO adsorption sites in supported Pt catalysts using high-energy-resolution fluorescence detection X-ray spectroscopy. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 16162-4	3.4	146
469	Isothermal Cyclic Conversion of Methane into Methanol over Copper-Exchanged Zeolite at Low Temperature. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 5467-71	16.4	145
468	Formation and Characterization of PdZn Alloy: A Very Selective Catalyst for Alkyne Semihydrogenation. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 8457-8465	3.8	140
467	A von Hamos x-ray spectrometer based on a segmented-type diffraction crystal for single-shot x-ray emission spectroscopy and time-resolved resonant inelastic x-ray scattering studies. <i>Review of Scientific Instruments</i> , 2012 , 83, 103105	1.7	138
466	Flexible Aluminum Coordination in AluminoSilicates. Structure of Zeolite HUSY and Amorphous SilicaAlumina. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 8854-8860	3.4	138
465	Evolution of Fe species during the synthesis of over-exchanged Fe/ZSM5 obtained by chemical vapor deposition of FeCl ₃ . <i>Journal of Catalysis</i> , 2003 , 213, 251-271	7.3	136
464	Reaction Conditions of Methane-to-Methanol Conversion Affect the Structure of Active Copper Sites. <i>ACS Catalysis</i> , 2014 , 4, 16-22	13.1	134
463	In situ XAS and XRPD parametric rietveld refinement to understand dealumination of Y zeolite catalyst. <i>Journal of the American Chemical Society</i> , 2010 , 132, 667-78	16.4	134
462	Organic Thiol Modified Pt/TiO ₂ Catalysts to Control Chemoselective Hydrogenation of Substituted Nitroarenes. <i>ACS Catalysis</i> , 2012 , 2, 2079-2081	13.1	133
461	Structure and oxidation state of gold on different supports under various CO oxidation conditions. <i>Journal of Catalysis</i> , 2006 , 240, 100-107	7.3	131
460	Rapid Structure Determination of Microcrystalline Molecular Compounds Using Electron Diffraction. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 16313-16317	16.4	131
459	Catalytically Active and Spectator Ce(3+) in Ceria-Supported Metal Catalysts. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 8728-31	16.4	130
458	Activation of oxygen by metallic gold in Au/TiO ₂ catalysts. <i>Journal of the American Chemical Society</i> , 2007 , 129, 2240-1	16.4	128
457	The thermal decomposition of Mg-Al hydrotalcites: effects of interlayer anions and characteristics of the final structure. <i>Chemistry - A European Journal</i> , 2002 , 8, 5571-9	4.8	124

456	Stable complete methane oxidation over palladium based zeolite catalysts. <i>Nature Communications</i> , 2018 , 9, 2545	17.4	123
455	Particle Size Effect of Hydride Formation and Surface Hydrogen Adsorption of Nanosized Palladium Catalysts: L3 Edge vs K Edge X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 15140-15147	3.8	123
454	Bis(Ebxo) versus mono(Ebxo)dicopper cores in a zeolite for converting methane to methanol: an in situ XAS and DFT investigation. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 7681-93	3.6	119
453	Three-site model for hydrogen adsorption on supported platinum particles: influence of support ionicity and particle size on the hydrogen coverage. <i>Journal of the American Chemical Society</i> , 2005 , 127, 1530-40	16.4	117
452	Origin of the cluster-size effect in the hydrogenation of cinnamaldehyde over supported Au catalysts. <i>Catalysis Communications</i> , 2007 , 8, 1397-1402	3.2	114
451	Hydrogen chemisorption on supported platinum, gold, and platinum-gold-alloy catalysts. <i>Physical Chemistry Chemical Physics</i> , 2007 , 9, 2894-902	3.6	113
450	Effect of framework Si/Al ratio and extra-framework aluminum on the catalytic activity of Y zeolite. <i>Applied Catalysis A: General</i> , 2007 , 333, 245-253	5.1	111
449	A stable low-temperature H ₂ -production catalyst by crowding Pt on γ -MoC. <i>Nature</i> , 2021 , 589, 396-401	50.4	109
448	Observation of a compensation relation for monomolecular alkane cracking by zeolites: the dominant role of reactant sorption. <i>Journal of Catalysis</i> , 2004 , 224, 50-59	7.3	108
447	Generation and Characterization of Well-Defined Zn ²⁺ Lewis Acid Sites in Ion Exchanged Zeolite BEA. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 4116-4126	3.4	108
446	Influence of the Generation of Mesopores on the Hydroisomerization Activity and Selectivity of n-Hexane over Pt/Mordenite. <i>Journal of Catalysis</i> , 2000 , 190, 209-214	7.3	108
445	Generating highly active partially oxidized platinum during oxidation of carbon monoxide over Pt/Al ₂ O ₃ : in situ, time-resolved, and high-energy-resolution X-ray absorption spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 9260-4	16.4	106
444	Mechanism of fast pyrolysis of lignin: studying model compounds. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 8524-31	3.4	105
443	Combined Diffusion, Adsorption, and Reaction Studies of n-Hexane Hydroisomerization over Pt/H γ Mordenite in an Oscillating Microbalance. <i>Journal of Catalysis</i> , 2001 , 204, 272-280	7.3	105
442	Atomic Description of the Interface between Silica and Alumina in Aluminosilicates through Dynamic Nuclear Polarization Surface-Enhanced NMR Spectroscopy and First-Principles Calculations. <i>Journal of the American Chemical Society</i> , 2015 , 137, 10710-9	16.4	104
441	In situ characterization of the 5d density of states of Pt nanoparticles upon adsorption of CO. <i>Journal of the American Chemical Society</i> , 2010 , 132, 2555-7	16.4	102
440	Understanding the mechanism of catalytic fast pyrolysis by unveiling reactive intermediates in heterogeneous catalysis. <i>Nature Communications</i> , 2017 , 8, 15946	17.4	99
439	Charge migration and charge transfer in molecular systems. <i>Structural Dynamics</i> , 2017 , 4, 061508	3.2	98

438	The Effect of the Active-Site Structure on the Activity of Copper Mordenite in the Aerobic and Anaerobic Conversion of Methane into Methanol. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 8906-8910	16.4	97
437	Polyhedral CeO ₂ Nanoparticles: Size-Dependent Geometrical and Electronic Structure. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 7312-7317	3.8	97
436	Active sites and mechanisms in the direct conversion of methane to methanol using Cu in zeolitic hosts: a critical examination. <i>Chemical Society Reviews</i> , 2020 , 49, 1449-1486	58.5	95
435	Dynamic Structure of a Working Methanol Steam Reforming Catalyst: In Situ Quick-EXAFS on Pd/ZnO Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 428-433	6.4	94
434	On highly active partially oxidized platinum in carbon monoxide oxidation over supported platinum catalysts. <i>Journal of Catalysis</i> , 2009 , 263, 228-238	7.3	94
433	Continuous-Flow Microwave Synthesis of Metal-Organic Frameworks: A Highly Efficient Method for Large-Scale Production. <i>Chemistry - A European Journal</i> , 2016 , 22, 3245-3249	4.8	94
432	Dealumination and realumination of microcrystalline zeolite beta: an XRD, FTIR and quantitative multinuclear (MQ) MAS NMR study. <i>Physical Chemistry Chemical Physics</i> , 2004 , 6, 447	3.6	93
431	d Electron Density and Reactivity of the d Band as a Function of Particle Size in Supported Gold Catalysts. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 9245-9249	3.8	92
430	The roles of carbide and hydride in oxide-supported palladium nanoparticles for alkyne hydrogenation. <i>Journal of Catalysis</i> , 2011 , 283, 45-54	7.3	90
429	Deactivation processes of homogeneous Pd catalysts using in situ time resolved spectroscopic techniques. <i>Chemical Communications</i> , 2003 , 128-9	5.8	90
428	Misconceptions and challenges in methane-to-methanol over transition-metal-exchanged zeolites. <i>Nature Catalysis</i> , 2019 , 2, 485-494	36.5	87
427	An Explanation for the Enhanced Activity for Light Alkane Conversion in Mildly Steam Dealuminated Mordenite: The Dominant Role of Adsorption. <i>Journal of Catalysis</i> , 2001 , 202, 129-140	7.3	87
426	Electronic and Geometric Structures of Supported Platinum, Gold, and Platinum-Gold Catalysts. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 9761-9768	3.8	86
425	Optimization of zeolite Beta by steaming and acid leaching for the acylation of anisole with octanoic acid: a structure-activity relation. <i>Journal of Catalysis</i> , 2003 , 218, 239-248	7.3	84
424	Five-element Johann-type x-ray emission spectrometer with a single-photon-counting pixel detector. <i>Review of Scientific Instruments</i> , 2011 , 82, 065107	1.7	83
423	Influence of framework silicon to aluminium ratio on aluminium coordination and distribution in zeolite Beta investigated by ²⁷ Al MAS and ²⁷ Al MQ MAS NMR. <i>Physical Chemistry Chemical Physics</i> , 2004 , 6, 3031	3.6	82
422	In situ formation of hydrides and carbides in palladium catalyst: When XANES is better than EXAFS and XRD. <i>Catalysis Today</i> , 2017 , 283, 119-126	5.3	81
421	Determination of the electronic and structural configuration of coordination compounds by synchrotron-radiation techniques. <i>Coordination Chemistry Reviews</i> , 2014 , 277-278, 130-186	23.2	81

4 ²⁰	Phenols and aromatics from fast pyrolysis of variously prepared lignins from hard- and softwoods. <i>Journal of Analytical and Applied Pyrolysis</i> , 2015 , 115, 214-223	6	79
4 ¹⁹	Evidence for a chromasiloxane ring size effect in Phillips (Cr/SiO ₂) polymerization catalysts. <i>Journal of Catalysis</i> , 2009 , 262, 44-56	7.3	79
4 ¹⁸	Synthesis of water-soluble phosphine oxides by Pd/C-catalyzed P-C coupling in water. <i>Organic Letters</i> , 2012 , 14, 2188-90	6.2	78
4 ¹⁷	Assessing the relative stability of copper oxide clusters as active sites of a CuMOR zeolite for methane to methanol conversion: size matters?. <i>Nanoscale</i> , 2017 , 9, 1144-1153	7.7	77
4 ¹⁶	Comparative Study of Diverse Copper Zeolites for the Conversion of Methane into Methanol. <i>ChemCatChem</i> , 2017 , 9, 3705-3713	5.2	76
4 ¹⁵	Where Are the Active Sites in Zeolites? Origin of Aluminum Zoning in ZSM-5. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 6640-6645	3.8	76
4 ¹⁴	Efficient microwave assisted synthesis of metal-organic framework UiO-66: optimization and scale up. <i>Dalton Transactions</i> , 2015 , 44, 14019-26	4.3	74
4 ¹³	Temperature- and Pressure-Dependent Hydrogen Concentration in Supported PdH _x Nanoparticles by Pd K-Edge X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 10416-10423	3.8	73
4 ¹²	Al K-Edge Near-Edge X-ray Absorption Fine Structure (NEXAFS) Study on the Coordination Structure of Aluminum in Minerals and Y Zeolites. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 7557-7564	3.4	71
4 ¹¹	Selective deoxygenation of lignin during catalytic fast pyrolysis. <i>Catalysis Science and Technology</i> , 2014 , 4, 766	5.5	69
4 ¹⁰	Measure of surface potential at the aqueous-oxide nanoparticle interface by XPS from a liquid microjet. <i>Nano Letters</i> , 2013 , 13, 5403-7	11.5	69
4 ⁰⁹	Catalytic Fast Pyrolysis of Lignin over High-Surface-Area Mesoporous Aluminosilicates: Effect of Porosity and Acidity. <i>ChemSusChem</i> , 2016 , 9, 1134-45	8.3	69
4 ⁰⁸	In situ infrared monitoring of the solid/liquid catalyst interface during the three-phase hydrogenation of nitrobenzene over nanosized Au on TiO ₂ . <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 12463-71	3.6	68
4 ⁰⁷	Determining the aluminium occupancy on the active T-sites in zeolites using X-ray standing waves. <i>Nature Materials</i> , 2008 , 7, 551-5	27	68
4 ⁰⁶	Towards a better understanding of Lewis acidic aluminium in zeolites. <i>Nature Materials</i> , 2020 , 19, 1047-1056	10.56	68
4 ⁰⁵	On the Mechanism Underlying the Direct Conversion of Methane to Methanol by Copper Hosted in Zeolites; Braiding Cu K-Edge XANES and Reactivity Studies. <i>Journal of the American Chemical Society</i> , 2018 , 140, 10090-10093	16.4	67
4 ⁰⁴	Facile synthesis of nano-sized hollow single crystal zeolites under mild conditions. <i>Chemical Communications</i> , 2014 , 50, 76-8	5.8	67
4 ⁰³	Determination of the electronic and geometric structure of Cu sites during methane conversion over Cu-MOR with X-ray absorption spectroscopy. <i>Microporous and Mesoporous Materials</i> , 2013 , 166, 131-136	5.3	67

402	Hierarchical SAPO-5 catalysts active in acid-catalyzed reactions. <i>Journal of Catalysis</i> , 2010 , 272, 37-43	7.3	63
401	Hydrogenation of tetralin on silica/alumina-supported Pt catalysts I. Physicochemical characterization of the catalytic materials. <i>Journal of Catalysis</i> , 2007 , 251, 485-496	7.3	63
400	Quantitative depth profiling of Ce(3+) in Pt/CeO ₂ by in situ high-energy XPS in a hydrogen atmosphere. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 5078-83	3.6	62
399	The irreversible formation of palladium carbide during hydrogenation of 1-pentyne over silica-supported palladium nanoparticles: in situ Pd K and L ₃ edge XAS. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 5761-8	3.6	62
398	Isothermal Cyclic Conversion of Methane into Methanol over Copper-Exchanged Zeolite at Low Temperature. <i>Angewandte Chemie</i> , 2016 , 128, 5557-5561	3.6	60
397	Introducing Time Resolution to Detect Ce Catalytically Active Sites at the Pt/CeO Interface through Ambient Pressure X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 102-108	6.4	59
396	Hydrogenation over gold catalysts: The interaction of gold with hydrogen 2009 , 42, 343-348		59
395	Methane to methanol over copper mordenite: yield improvement through multiple cycles and different synthesis techniques. <i>Catalysis Science and Technology</i> , 2016 , 6, 5011-5022	5.5	58
394	Multitechnique Approach to Reveal the Mechanism of Copper(II)-Catalyzed Arylation Reactions. <i>Organometallics</i> , 2010 , 29, 3085-3097	3.8	58
393	In situ X-ray absorption spectroscopy as a unique tool for obtaining information on hydrogen binding sites and electronic structure of supported Pt catalysts: towards an understanding of the compensation relation in alkane hydrogenolysis. <i>Journal of Catalysis</i> , 2003 , 216, 178-191	7.3	58
392	Core/Shell Structure of Palladium Hydride Nanoparticles Revealed by Combined X-ray Absorption Spectroscopy and X-ray Diffraction. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 18202-18213	3.8	57
391	Structure of aluminum, iron, and other heteroatoms in zeolites by X-ray absorption spectroscopy. <i>Coordination Chemistry Reviews</i> , 2014 , 277-278, 275-290	23.2	57
390	Fast and high yield post-synthetic modification of metal-organic frameworks by vapor diffusion. <i>Chemical Communications</i> , 2012 , 48, 1904-6	5.8	57
389	Structure, Activity, and Stability of Atomically Dispersed Rh in Methane Steam Reforming. <i>ACS Catalysis</i> , 2014 , 4, 1279-1286	13.1	56
388	A new endstation at the Swiss Light Source for ultraviolet photoelectron spectroscopy, X-ray photoelectron spectroscopy, and X-ray absorption spectroscopy measurements of liquid solutions. <i>Review of Scientific Instruments</i> , 2013 , 84, 073904	1.7	56
387	Analysis of in situ EXAFS data of supported metal catalysts using the third and fourth cumulant. <i>Physical Chemistry Chemical Physics</i> , 2006 , 8, 3248-58	3.6	56
386	Quantitative Analysis of Modulated Excitation X-ray Absorption Spectra: Enhanced Precision of EXAFS Fitting. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 19857-19866	3.8	55
385	Scientific opportunities for heterogeneous catalysis research at the SuperXAS and SNBL beam lines. <i>Chimia</i> , 2012 , 66, 699-705	1.3	55

384	Ambient Pressure Photoelectron Spectroscopy: Opportunities in Catalysis from Solids to Liquids and Introducing Time Resolution. <i>ChemCatChem</i> , 2018 , 10, 666-682	5.2	55
383	Assessment of the 3 D Pore Structure and Individual Components of Preshaped Catalyst Bodies by X-Ray Imaging. <i>ChemCatChem</i> , 2015 , 7, 413-416	5.2	54
382	A non-alkoxide sol-gel route to highly active and selective Cu ₂ O catalysts for glycerol conversion. <i>Journal of Materials Chemistry</i> , 2010 , 20, 755-760		54
381	Electronic structure of alumina-supported monometallic Pt and bimetallic PtSn catalysts under hydrogen and carbon monoxide environment. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 5668-77	3.6	54
380	Dynamic Structure Changes of a Heterogeneous Catalyst within a Reactor: Oscillations in CO Oxidation over a Supported Platinum Catalyst. <i>ChemCatChem</i> , 2010 , 2, 653-657	5.2	54
379	The dynamics of overlayer formation on catalyst nanoparticles and strong metal-support interaction. <i>Nature Communications</i> , 2020 , 11, 3220	17.4	53
378	A three-dimensional view of structural changes caused by deactivation of fluid catalytic cracking catalysts. <i>Nature Communications</i> , 2017 , 8, 809	17.4	52
377	Design of Stable Palladium-Based Zeolite Catalysts for Complete Methane Oxidation by Postsynthesis Zeolite Modification. <i>ACS Catalysis</i> , 2019 , 9, 2303-2312	13.1	52
376	The unique interplay between copper and zinc during catalytic carbon dioxide hydrogenation to methanol. <i>Nature Communications</i> , 2020 , 11, 2409	17.4	52
375	Photocatalyzed Hydrogen Evolution from Water by a Composite Catalyst of NH ₂ -MIL-125(Ti) and Surface Nickel(II) Species. <i>Chemistry - A European Journal</i> , 2016 , 22, 13894-13899	4.8	52
374	In situ photoelectron spectroscopy at the liquid/nanoparticle interface. <i>Surface Science</i> , 2013 , 610, 1-6	1.8	51
373	Deactivation and Regeneration of H-USY Zeolite during Lignin Catalytic Fast Pyrolysis. <i>ChemCatChem</i> , 2012 , 4, 2036-2044	5.2	51
372	Understanding the effect of Sm ₂ O ₃ and CeO ₂ promoters on the structure and activity of Rh/Al ₂ O ₃ catalysts in methane steam reforming. <i>Journal of Catalysis</i> , 2012 , 296, 86-98	7.3	51
371	Observation of a compensation relation for n-hexane adsorption in zeolites with different structures: implications for catalytic activity. <i>Journal of Catalysis</i> , 2005 , 233, 100-108	7.3	51
370	Unique structural properties of the Mg-Al hydrotalcite solid base catalyst: an in situ study using Mg and Al K-edge XAFS during calcination and rehydration. <i>Chemistry - A European Journal</i> , 2001 , 7, 1258-65	4.8	51
369	Effect of surface charge density on the affinity of oxide nanoparticles for the vapor-water interface. <i>Langmuir</i> , 2013 , 29, 5023-9	4	50
368	Formation of mesopores in zeolite beta by steaming: a secondary pore channel system in the (001) plane. <i>Microporous and Mesoporous Materials</i> , 2003 , 66, 21-26	5.3	50
367	In situ observation of radicals and molecular products during lignin pyrolysis. <i>ChemSusChem</i> , 2014 , 7, 2022-9	8.3	49

366	ClickOn MOFs: A Versatile Tool for the Multimodal Derivatization of N3-Decorated Metal Organic Frameworks. <i>Chemistry of Materials</i> , 2013 , 25, 2297-2308	9.6	49
365	Hydrothermal stability of Fe-ZSM-5 and Fe-BEA prepared by wet ion-exchange for N2O decomposition. <i>Applied Catalysis B: Environmental</i> , 2007 , 71, 16-22	21.8	49
364	Effect of temperature on aluminum coordination in zeolites H-Y and H-USY and amorphous silica-alumina: an in situ Al K edge XANES study. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 9280-3	3.4	49
363	Understanding the Influence of the Pretreatment Procedure on Platinum Particle Size and Particle-Size Distribution for SiO2 Impregnated with [Pt2+(NH3)4](NO3)2: A Combination of HRTEM, Mass Spectrometry, and Quick EXAFS. <i>Journal of Catalysis</i> , 2002 , 205, 135-146	7.3	49
362	EXAFS study of size dependence of atomic structure in palladium nanoparticles. <i>Journal of Physics and Chemistry of Solids</i> , 2014 , 75, 470-476	3.9	47
361	One-pot photo-reductive N-alkylation of aniline and nitroarene derivatives with primary alcohols over Au/TiO2. <i>Catalysis Science and Technology</i> , 2013 , 3, 94-98	5.5	47
360	Strong Brønsted Acidity in Amorphous Silica/Aluminas. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 12075-12079	3.079	47
359	Renewable CO recycling and synthetic fuel production in a marine environment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 12212-12219	11.5	46
358	Hydrogenation of Nitrobenzene Over Au/MeOx Catalysts: A Matter of the Support. <i>ChemCatChem</i> , 2012 , 4, 59-63	5.2	46
357	High-resolution and large-area nanoparticle arrays using EUV interference lithography. <i>Nanoscale</i> , 2015 , 7, 7386-93	7.7	45
356	Palladium Carbide and Hydride Formation in the Bulk and at the Surface of Palladium Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 12029-12037	3.8	45
355	Structure of ethene adsorption sites on supported metal catalysts from in situ XANES Analysis. <i>Journal of the American Chemical Society</i> , 2007 , 129, 8094-102	16.4	45
354	Nature of γ -SiOCrO2Cl and $(\gamma$ -SiO)2CrO2 Sites Prepared by Grafting CrO2Cl2 onto Silica. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 6439-6449	3.8	44
353	Monomeric Copper(II) Sites Supported on Alumina Selectively Convert Methane to Methanol. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9841-9845	16.4	43
352	Methane-to-Methanol via Chemical Looping: Economic Potential and Guidance for Future Research. <i>Industrial & Engineering Chemistry Research</i> , 2019 ,	3.9	43
351	Die direkte katalytische Oxidation von Methan zu Methanol –eine kritische Beurteilung. <i>Angewandte Chemie</i> , 2017 , 129, 16684-16704	3.6	43
350	High energy resolution off-resonant spectroscopy at sub-second time resolution: (Pt(acac)2) decomposition. <i>Chemical Communications</i> , 2012 , 48, 10898-900	5.8	43
349	Activation of Oxygen on Gold/Alumina Catalysts: In Situ High-Energy-Resolution Fluorescence and Time-Resolved X-ray Spectroscopy. <i>Angewandte Chemie</i> , 2006 , 118, 4767-4770	3.6	43

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