

Jan Dierk Grunwaldt

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396
papers

16,305
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70
h-index

108
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424
ext. papers

18,436
ext. citations

6.7
avg, IF

6.84
L-index

#	Paper	IF	Citations
396	A review of catalytic upgrading of bio-oil to engine fuels. <i>Applied Catalysis A: General</i> , 2011 , 407, 1-19	5.1	1228
395	In Situ Investigations of Structural Changes in Cu/ZnO Catalysts. <i>Journal of Catalysis</i> , 2000 , 194, 452-460	7.3	457
394	Preparation of Supported Gold Catalysts for Low-Temperature CO Oxidation via Size-Controlled Gold Colloids. <i>Journal of Catalysis</i> , 1999 , 181, 223-232	7.3	363
393	Screening of Catalysts for Hydrodeoxygenation of Phenol as a Model Compound for Bio-oil. <i>ACS Catalysis</i> , 2013 , 3, 1774-1785	13.1	294
392	Comparative Study of Au/TiO ₂ and Au/ZrO ₂ Catalysts for Low-Temperature CO Oxidation. <i>Journal of Catalysis</i> , 1999 , 186, 458-469	7.3	269
391	Gold/Titania Interfaces and Their Role in Carbon Monoxide Oxidation. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 1002-1012	3.4	229
390	The adhesion and shape of nanosized Au particles in a Au/TiO ₂ catalyst. <i>Journal of Catalysis</i> , 2004 , 225, 86-94	7.3	208
389	Future Challenges in Heterogeneous Catalysis: Understanding Catalysts under Dynamic Reaction Conditions. <i>ChemCatChem</i> , 2017 , 9, 17-29	5.2	194
388	X-ray absorption spectroscopy under reaction conditions: suitability of different reaction cells for combined catalyst characterization and time-resolved studies. <i>Physical Chemistry Chemical Physics</i> , 2004 , 6, 3037	3.6	194
387	CO hydrogenation to methanol on Cu ₂ Ni catalysts: Theory and experiment. <i>Journal of Catalysis</i> , 2012 , 293, 51-60	7.3	163
386	Substrate size-selective catalysis with zeolite-encapsulated gold nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 3504-7	16.4	146
385	Hard and soft X-ray microscopy and tomography in catalysis: bridging the different time and length scales. <i>Chemical Society Reviews</i> , 2010 , 39, 4741-53	58.5	138
384	Combining XRD and EXAFS with on-Line Catalytic Studies for in situ Characterization of Catalysts. <i>Topics in Catalysis</i> , 2002 , 18, 37-43	2.3	137
383	Sensing low concentrations of CO using flame-spray-made Pt/SnO ₂ nanoparticles. <i>Journal of Nanoparticle Research</i> , 2006 , 8, 783-796	2.3	135
382	Tuning the Structure of Platinum Particles on Ceria In Situ for Enhancing the Catalytic Performance of Exhaust Gas Catalysts. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 13078-13082	16.4	132
381	2D-mapping of the catalyst structure inside a catalytic microreactor at work: partial oxidation of methane over Rh/Al ₂ O ₃ . <i>Journal of Physical Chemistry B</i> , 2006 , 110, 8674-80	3.4	127
380	Internal steam reforming in solid oxide fuel cells: Status and opportunities of kinetic studies and their impact on modelling. <i>Journal of Power Sources</i> , 2011 , 196, 25-38	8.9	124

379	Supercritical Fluids in Catalysis: Opportunities of In Situ Spectroscopic Studies and Monitoring Phase Behavior. <i>Catalysis Reviews - Science and Engineering</i> , 2003 , 45, 1-96	12.6	123
378	Imaging Catalysts at Work: A Hierarchical Approach from the Macro- to the Meso- and Nano-scale. <i>ChemCatChem</i> , 2013 , 5, 62-80	5.2	122
377	Transportation fuels from biomass fast pyrolysis, catalytic hydrodeoxygenation, and catalytic fast hydrolysis. <i>Progress in Energy and Combustion Science</i> , 2018 , 68, 268-309	33.6	122
376	Methanation of CO ₂ : Structural response of a Ni-based catalyst under fluctuating reaction conditions unraveled by operando spectroscopy. <i>Journal of Catalysis</i> , 2015 , 327, 48-53	7.3	117
375	Flexibility and sorption selectivity in rigid metal-organic frameworks: the impact of ether-functionalised linkers. <i>Chemistry - A European Journal</i> , 2010 , 16, 14296-306	4.8	113
374	Structure-activity relationships of Pt/Al ₂ O ₃ catalysts for CO and NO oxidation at diesel exhaust conditions. <i>Applied Catalysis B: Environmental</i> , 2012 , 126, 315-325	21.8	110
373	Mn(III)(salen)-catalyzed synthesis of cyclic organic carbonates from propylene and styrene oxide in Supercritical CO ₂ . <i>Journal of Molecular Catalysis A</i> , 2008 , 279, 94-103		110
372	Facile synthesis of surface N-doped Bi ₂ O ₂ CO ₃ : Origin of visible light photocatalytic activity and in situ DRIFTS studies. <i>Journal of Hazardous Materials</i> , 2016 , 307, 163-72	12.8	109
371	Intermetallic GaPd ₂ Nanoparticles on SiO ₂ for Low-Pressure CO ₂ Hydrogenation to Methanol: Catalytic Performance and In Situ Characterization. <i>ACS Catalysis</i> , 2015 , 5, 5827-5836	13.1	108
370	Confined-space alloying of nanoparticles for the synthesis of efficient PtNi fuel-cell catalysts. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 14250-4	16.4	108
369	Selective liquid-phase oxidation of alcohols catalyzed by a silver-based catalyst promoted by the presence of ceria. <i>Journal of Catalysis</i> , 2009 , 266, 320-330	7.3	108
368	Oxidic or metallic palladium: which is the active phase in pd-catalyzed aerobic alcohol oxidation?. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 25586-9	3.4	107
367	Quasi-homogeneous methanol synthesis over highly active copper nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 7978-81	16.4	107
366	One-Step Synthesis of Submicrometer Fibers of MoO ₃ . <i>Chemistry of Materials</i> , 2004 , 16, 1126-1134	9.6	105
365	Gold-Catalyzed Aerobic Oxidation of Benzyl Alcohol: Effect of Gold Particle Size on Activity and Selectivity in Different Solvents. <i>Catalysis Letters</i> , 2008 , 125, 169-176	2.8	103
364	Sunlight induced photo-thermal synergistic catalytic CO ₂ conversion via localized surface plasmon resonance of MoO ₃ . <i>Journal of Materials Chemistry A</i> , 2019 , 7, 2821-2830	13	100
363	Flame-made Alumina Supported PdPt Nanoparticles: Structural Properties and Catalytic Behavior in Methane Combustion. <i>Catalysis Letters</i> , 2005 , 104, 9-16	2.8	100
362	Tuning the Pt/CeO ₂ Interface by in Situ Variation of the Pt Particle Size. <i>ACS Catalysis</i> , 2018 , 8, 4800-4811	13.1	99

361	Selective catalytic reduction of NO over Fe-ZSM-5: mechanistic insights by operando HERFD-XANES and valence-to-core X-ray emission spectroscopy. <i>Journal of the American Chemical Society</i> , 2014 , 136, 13006-15	16.4	99
360	Aerobic epoxidation of olefins catalyzed by the cobalt-based metal-organic framework STA-12(Co). <i>Chemistry - A European Journal</i> , 2012 , 18, 887-98	4.8	99
359	Operando X-ray absorption spectroscopy studies on Pd-SnO ₂ based sensors. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 8620-5	3.6	99
358	Studying the solvothermal formation of MoO ₃ fibers by complementary in situ EXAFS/EDXRD techniques. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 5643-7	16.4	99
357	Insight into the structure of supported palladium catalysts during the total oxidation of methane. <i>Chemical Communications</i> , 2007 , 4635-7	5.8	98
356	In situ attenuated total reflection infrared spectroscopy of imidazolium-based room-temperature ionic liquids under "supercritical" CO ₂ . <i>Journal of Physical Chemistry B</i> , 2009 , 113, 114-22	3.4	97
355	Catalytic hydrodeoxygenation of guaiacol over platinum supported on metal oxides and zeolites. <i>Applied Catalysis A: General</i> , 2015 , 490, 181-192	5.1	95
354	An Au clusters related spill-over sensitization mechanism in SnO ₂ -based gas sensors identified by operando HERFD-XAS, work function changes, DC resistance and catalytic conversion studies. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 13249-54	3.6	93
353	The role of monomeric iron during the selective catalytic reduction of NO _x by NH ₃ over Fe-BEA zeolite catalysts. <i>Applied Catalysis B: Environmental</i> , 2009 , 93, 166-176	21.8	93
352	On the mechanism of the SCR reaction on Fe/HBEA zeolite. <i>Applied Catalysis B: Environmental</i> , 2009 , 93, 185-193	21.8	92
351	Structural snapshots of the SCR reaction mechanism on Cu-SSZ-13. <i>Chemical Communications</i> , 2015 , 51, 9227-30	5.8	91
350	Promoted Ru/hydroxyapatite: designed structure for the fast and highly selective oxidation of alcohols with oxygen. <i>Journal of Catalysis</i> , 2005 , 230, 406-419	7.3	90
349	Potential of an Alumina-Supported Ni ₃ Fe Catalyst in the Methanation of CO ₂ : Impact of Alloy Formation on Activity and Stability. <i>ACS Catalysis</i> , 2017 , 7, 6802-6814	13.1	89
348	Identification of the active species generated from supported Pd catalysts in Heck reactions: an in situ quick scanning EXAFS investigation. <i>Journal of the American Chemical Society</i> , 2011 , 133, 3921-30	16.4	88
347	Influence on nickel particle size on the hydrodeoxygenation of phenol over Ni/SiO ₂ . <i>Catalysis Today</i> , 2016 , 259, 277-284	5.3	87
346	The structure and behavior of platinum in SnO ₂ -based sensors under working conditions. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 2841-4	16.4	87
345	In situ spectroscopic investigation of heterogeneous catalysts and reaction media at high pressure. <i>Physical Chemistry Chemical Physics</i> , 2005 , 7, 3526-39	3.6	86
344	Tracking the formation, fate and consequence for catalytic activity of Pt single sites on CeO ₂ . <i>Nature Catalysis</i> , 2020 , 3, 824-833	36.5	84

343	Decreased CO production in methanol steam reforming over Cu/ZrO ₂ catalysts prepared by the microemulsion technique. <i>Applied Catalysis A: General</i> , 2006 , 302, 215-223	5.1	83
342	Intermetallic compounds of Ni and Ga as catalysts for the synthesis of methanol. <i>Journal of Catalysis</i> , 2014 , 320, 77-88	7.3	81
341	Influence of gas composition on activity and durability of bimetallic Pd-Pt/Al ₂ O ₃ catalysts for total oxidation of methane. <i>Catalysis Today</i> , 2015 , 258, 470-480	5.3	78
340	Activity and stability of Mo ₂ C/ZrO ₂ as catalyst for hydrodeoxygenation of mixtures of phenol and 1-octanol. <i>Journal of Catalysis</i> , 2015 , 328, 208-215	7.3	78
339	Mapping the chemical states of an element inside a sample using tomographic x-ray absorption spectroscopy. <i>Applied Physics Letters</i> , 2003 , 82, 3360-3362	3.4	78
338	Interplay between size and crystal structure of molybdenum dioxide nanoparticles--synthesis, growth mechanism, and electrochemical performance. <i>Small</i> , 2011 , 7, 377-87	11	77
337	Supported gold catalysts for CO oxidation: Effect of calcination on structure, adsorption and catalytic behaviour. <i>Physical Chemistry Chemical Physics</i> , 2001 , 3, 3846-3855	3.6	77
336	Combined liquid-phase ATR-IR and XAS study of the Bi-promotion in the aerobic oxidation of benzyl alcohol over Pd/Al ₂ O ₃ . <i>Journal of Catalysis</i> , 2007 , 252, 77-87	7.3	76
335	The State of Cu Promoter Atoms in High-Temperature Shift Catalysts: An In Situ Fluorescence XAFS Study. <i>Journal of Catalysis</i> , 2001 , 198, 56-65	7.3	74
334	Operando spatially and time-resolved X-ray absorption spectroscopy and infrared thermography during oscillatory CO oxidation. <i>Journal of Catalysis</i> , 2015 , 328, 216-224	7.3	73
333	Interplay of Pt and Crystal Facets of TiO ₂ : CO Oxidation Activity and Operando XAS/DRIFTS Studies. <i>ACS Catalysis</i> , 2016 , 6, 7799-7809	13.1	72
332	Synthesis of Valerolactone by hydrogenation of levulinic acid over supported nickel catalysts. <i>Applied Catalysis A: General</i> , 2015 , 502, 18-26	5.1	72
331	In Situ EXAFS Study of Rh/Al ₂ O ₃ Catalysts for Catalytic Partial Oxidation of Methane. <i>Journal of Catalysis</i> , 2001 , 200, 321-329	7.3	72
330	Abgasnachbehandlung in mobilen Systemen: Stand der Technik, Herausforderungen und Perspektiven. <i>Chemie-Ingenieur-Technik</i> , 2013 , 85, 595-617	0.8	71
329	Catalysts at work: From integral to spatially resolved X-ray absorption spectroscopy. <i>Catalysis Today</i> , 2009 , 145, 267-278	5.3	71
328	In situ EXAFS study on the oxidation state of Pd/Al ₂ O ₃ and BiBd/Al ₂ O ₃ during the liquid-phase oxidation of 1-phenylethanol. <i>Journal of Catalysis</i> , 2004 , 222, 268-280	7.3	71
327	Formation and stability of barium aluminate and cerate in NO _x storage-reduction catalysts. <i>Applied Catalysis B: Environmental</i> , 2006 , 63, 232-242	21.8	70
326	A review of catalyst performance and novel reaction engineering concepts in direct synthesis of hydrogen peroxide. <i>Catalysis Today</i> , 2015 , 248, 149-159	5.3	69

325	Operando Spatially- and Time-Resolved XAS Study on Zeolite Catalysts for Selective Catalytic Reduction of NO _x by NH ₃ . <i>Journal of Physical Chemistry C</i> , 2014 , 118, 10204-10212	3.8	68
324	Next-Generation Catalysis for Renewables: Combining Enzymatic with Inorganic Heterogeneous Catalysis for Bulk Chemical Production. <i>ChemCatChem</i> , 2010 , 2, 249-258	5.2	67
323	CAT-ACT-A new highly versatile x-ray spectroscopy beamline for catalysis and radionuclide science at the KIT synchrotron light facility ANKA. <i>Review of Scientific Instruments</i> , 2017 , 88, 113113	1.7	66
322	Flame-Made Pt/Ceria/Zirconia for Low-Temperature Oxygen Exchange. <i>Chemistry of Materials</i> , 2005 , 17, 3352-3358	9.6	66
321	One step flame-made fluorinated Pt/TiO ₂ photocatalysts for hydrogen production. <i>Applied Catalysis B: Environmental</i> , 2014 , 160-161, 144-151	21.8	65
320	Heterogeneous Catalytic Hydrogenation in Supercritical Fluids: Potential and Limitations. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 4561-4585	3.9	65
319	Benzyl alcohol oxidation in supercritical carbon dioxide: spectroscopic insight into phase behaviour and reaction mechanism. <i>Physical Chemistry Chemical Physics</i> , 2005 , 7, 278-85	3.6	65
318	Surface reaction kinetics of methane oxidation over PdO. <i>Journal of Catalysis</i> , 2019 , 370, 152-175	7.3	65
317	Flame-synthesized LaCoO ₃ -supported Pd: 1. Structure, thermal stability and reducibility. <i>Journal of Catalysis</i> , 2007 , 252, 127-136	7.3	63
316	Platinum loaded tin dioxide: a model system for unravelling the interplay between heterogeneous catalysis and gas sensing. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 2034-2046	13	63
315	Hydrothermal Formation of W/Mo-Oxides: A Multidisciplinary Study of Growth and Shape. <i>Chemistry of Materials</i> , 2008 , 20, 3022-3033	9.6	62
314	Distinct spatial changes of the catalyst structure inside a fixed-bed microreactor during the partial oxidation of methane over Rh/Al ₂ O ₃ . <i>Catalysis Today</i> , 2007 , 126, 54-63	5.3	62
313	A simple discrimination of the promoter effect in alcohol oxidation and dehydrogenation over platinum and palladium. <i>Journal of Catalysis</i> , 2004 , 225, 138-146	7.3	61
312	Combination of flame synthesis and high-throughput experimentation: The preparation of alumina-supported noble metal particles and their application in the partial oxidation of methane. <i>Applied Catalysis A: General</i> , 2007 , 316, 226-239	5.1	60
311	Behavior of homogeneous and immobilized zinc-based catalysts in cycloaddition of CO ₂ to propylene oxide. <i>Journal of Catalysis</i> , 2005 , 234, 256-267	7.3	60
310	Electron microscopy and EXAFS studies on oxide-supported gold/silver nanoparticles prepared by flame spray pyrolysis. <i>Applied Surface Science</i> , 2006 , 252, 7862-7873	6.7	59
309	Stability and resistance of nickel catalysts for hydrodeoxygenation: carbon deposition and effects of sulfur, potassium, and chlorine in the feed. <i>Catalysis Science and Technology</i> , 2014 , 4, 3672-3686	5.5	57
308	Supercritical carbon dioxide: an inert solvent for catalytic hydrogenation?. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 16794-800	3.4	57

307	High-throughput screening under demanding conditions: Cu/ZnO catalysts in high pressure methanol synthesis as an example. <i>Journal of Catalysis</i> , 2003 , 216, 110-119	7.3	57
306	Visualizing a Catalyst at Work during the Ignition of the Catalytic Partial Oxidation of Methane. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 3037-3040	3.8	55
305	Substrate Size-Selective Catalysis with Zeolite-Encapsulated Gold Nanoparticles. <i>Angewandte Chemie</i> , 2010 , 122, 3582-3585	3.6	55
304	Palladium Supported on an Acidic Resin: A Unique Bifunctional Catalyst for the Continuous Catalytic Hydrogenation of Organic Compounds in Supercritical Carbon Dioxide. <i>Advanced Synthesis and Catalysis</i> , 2008 , 350, 691-705	5.6	55
303	High pressure view-cell for simultaneous in situ infrared spectroscopy and phase behavior monitoring of multiphase chemical reactions. <i>Review of Scientific Instruments</i> , 2003 , 74, 4121-4128	1.7	55
302	The dynamic nature of Cu sites in Cu-SSZ-13 and the origin of the seagull NOx conversion profile during NH3-SCR. <i>Reaction Chemistry and Engineering</i> , 2019 , 4, 1000-1018	4.9	54
301	Gold-Loaded Tin Dioxide Gas Sensing Materials: Mechanistic Insights and the Role of Gold Dispersion. <i>ACS Sensors</i> , 2016 , 1, 1322-1329	9.2	54
300	High pressure in situ x-ray absorption spectroscopy cell for studying simultaneously the liquid phase and the solid/liquid interface. <i>Review of Scientific Instruments</i> , 2005 , 76, 054104	1.7	52
299	Revealing the Structure and Mechanism of Palladium during Direct Synthesis of Hydrogen Peroxide in Continuous Flow Using Operando Spectroscopy. <i>ACS Catalysis</i> , 2018 , 8, 2546-2557	13.1	51
298	Morphological and Kinetic Studies on Hexagonal Tungstates. <i>Chemistry of Materials</i> , 2007 , 19, 185-197	9.6	51
297	Continuous catalytic oxidation of solid alcohols in supercritical CO2: A parametric and spectroscopic study of the transformation of cinnamyl alcohol over Pd/Al2O3. <i>Journal of Catalysis</i> , 2006 , 240, 126-136	7.3	51
296	Selective oxidation of benzyl alcohol to benzaldehyde in Supercritical Carbon dioxide. <i>Catalysis Today</i> , 2004 , 91-92, 1-5	5.3	51
295	Supported gold- and silver-based catalysts for the selective aerobic oxidation of 5-(hydroxymethyl)furfural to 2,5-furandicarboxylic acid and 5-hydroxymethyl-2-furancarboxylic acid. <i>Green Chemistry</i> , 2018 , 20, 3530-3541	10	51
294	Sulfur poisoning and regeneration of bimetallic Pd-Pt methane oxidation catalysts. <i>Applied Catalysis B: Environmental</i> , 2017 , 218, 833-843	21.8	49
293	Photothermal Catalysis over Nonplasmonic Pt/TiO2 Studied by Operando HERFD-XANES, Resonant XES, and DRIFTS. <i>ACS Catalysis</i> , 2018 , 8, 11398-11406	13.1	49
292	Flame-synthesized LaCoO3-supported Pd: 2. Catalytic behavior in the reduction of NO by H2 under lean conditions. <i>Journal of Catalysis</i> , 2007 , 252, 137-147	7.3	48
291	In situ extended X-ray absorption fine structure study during selective alcohol oxidation over Pd/Al2O3 in supercritical carbon dioxide. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 9916-22	3.4	48
290	Origin of the Normal and Inverse Hysteresis Behavior during CO Oxidation over Pt/Al2O3. <i>ACS Catalysis</i> , 2017 , 7, 343-355	13.1	47

289	Gold supported on CuMgAl and CuTe mixed oxides: An in situ XANES study on the state of Au during aerobic alcohol oxidation. <i>Journal of Catalysis</i> , 2007 , 250, 313-323	7.3	47
288	In situ EXAFS study of Pd/Al ₂ O ₃ during aerobic oxidation of cinnamyl alcohol in an organic solvent. <i>Journal of Catalysis</i> , 2003 , 213, 291-295	7.3	47
287	In Situ Observation of CuNi Alloy Nanoparticle Formation by X-Ray Diffraction, X-Ray Absorption Spectroscopy, and Transmission Electron Microscopy: Influence of Cu/Ni Ratio. <i>ChemCatChem</i> , 2014 , 6, 301-310	5.2	45
286	Recent Advances in Selective Propylene Oxidation over Bismuth Molybdate Based Catalysts: Synthetic, Spectroscopic, and Theoretical Approaches. <i>ACS Catalysis</i> , 2017 , 7, 5628-5642	13.1	44
285	Role of Bi promotion and solvent in platinum-catalyzed alcohol oxidation probed by in situ X-ray absorption and ATR-IR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 5307-16	3.6	44
284	Gold-catalyzed aerobic oxidation of dibenzylamine: Homogeneous or heterogeneous catalysis?. <i>Journal of Molecular Catalysis A</i> , 2009 , 300, 111-115		44
283	Structural changes of noble metal catalysts during ignition and extinction of the partial oxidation of methane studied by advanced QEXAFS techniques. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 8779-89	3.6	44
282	Deactivation of Ni-MoS ₂ by bio-oil impurities during hydrodeoxygenation of phenol and octanol. <i>Applied Catalysis A: General</i> , 2016 , 523, 159-170	5.1	43
281	Oscillatory CO Oxidation Over Pt/Al ₂ O ₃ Catalysts Studied by In situ XAS and DRIFTS. <i>Topics in Catalysis</i> , 2013 , 56, 333-338	2.3	42
280	The nature of the active site in the Fe-ZSM-5/N ₂ O system studied by (resonant) inelastic X-ray scattering. <i>Catalysis Today</i> , 2007 , 126, 127-134	5.3	42
279	Near-critical CO ₂ in mesoporous silica studied by in situ FTIR spectroscopy. <i>Langmuir</i> , 2004 , 20, 2890-9	4	42
278	Probing Active Sites During Palladium-Catalyzed Alcohol Oxidation in Supercritical Carbon Dioxide. <i>Catalysis Letters</i> , 2003 , 90, 221-229	2.8	42
277	Solventless synthesis of propylene carbonate catalysed by chromium salen complexes: Bridging homogeneous and heterogeneous catalysis. <i>Journal of Molecular Catalysis A</i> , 2005 , 242, 32-39		42
276	Mild hydrotreatment of the light fraction of fast-pyrolysis oil produced from straw over nickel-based catalysts. <i>Biomass and Bioenergy</i> , 2015 , 83, 525-538	5.3	41
275	Selective oxidation of alcohols with oxygen on RuO ₂ -hydroxyapatite: A mechanistic study. <i>Journal of Molecular Catalysis A</i> , 2005 , 242, 224-232		41
274	Microfluidically synthesized Au, Pd and AuPd nanoparticles supported on SnO ₂ for gas sensing applications. <i>Sensors and Actuators B: Chemical</i> , 2019 , 292, 48-56	8.5	40
273	Simple preparation routes towards novel Zn-based catalysts for the solventless synthesis of propylene carbonate using dense carbon dioxide. <i>Journal of Molecular Catalysis A</i> , 2006 , 258, 165-171		40
272	Operando Raman spectroscopy on CO ₂ methanation over alumina-supported Ni, Ni ₃ Fe and NiRh _{0.1} catalysts: Role of carbon formation as possible deactivation pathway. <i>Applied Catalysis A: General</i> , 2018 , 556, 160-171	5.1	39

271	Oscillatory Behavior during the Catalytic Partial Oxidation of Methane: Following Dynamic Structural Changes of Palladium Using the QEXAFS Technique. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 599-609	3.8	39
270	Exploiting Synergies in Catalysis and Gas Sensing using Noble Metal-Loaded Oxide Composites. <i>ChemCatChem</i> , 2018 , 10, 864-880	5.2	39
269	Solvent-modified supercritical CO ₂ : A beneficial medium for heterogeneously catalyzed oxidation reactions. <i>Applied Catalysis A: General</i> , 2006 , 298, 50-56	5.1	38
268	Stabilizing Cu ⁺ in Cu/SiO ₂ Catalysts with a Shattuckite-Like Structure Boosts CO ₂ Hydrogenation into Methanol. <i>ACS Catalysis</i> , 2020 , 10, 14694-14706	13.1	38
267	Oscillatory behaviour of catalytic properties, structure and temperature during the catalytic partial oxidation of methane on Pd/Al ₂ O ₃ . <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 2288-91	3.6	37
266	Flame spray synthesis of CoMo/Al ₂ O ₃ hydrotreating catalysts. <i>Applied Catalysis A: General</i> , 2011 , 397, 201-208	5.1	37
265	A versatile in situ spectroscopic cell for fluorescence/transmission EXAFS and X-ray diffraction of heterogeneous catalysts in gas and liquid phase. <i>Journal of Synchrotron Radiation</i> , 2007 , 14, 345-54	2.4	37
264	Fe and Mn-Based Catalysts Supported on γ-Al ₂ O ₃ for CO Oxidation under O ₂ -Rich Conditions. <i>ChemCatChem</i> , 2014 , 6, 1763-1773	5.2	36
263	Supported molybdenum carbide for higher alcohol synthesis from syngas. <i>Catalysis Today</i> , 2013 , 215, 162-168	5.3	36
262	Filtration of nanoparticles: Evolution of cake structure and pressure-drop. <i>Journal of Aerosol Science</i> , 2009 , 40, 965-981	4.3	36
261	Comparative study of structural properties and NO _x storage-reduction behavior of Pt/Ba/CeO ₂ and Pt/Ba/Al ₂ O ₃ . <i>Applied Catalysis B: Environmental</i> , 2008 , 78, 288-300	21.8	36
260	Structure and chemistry of surface-doped Pt:SnO ₂ gas sensing materials. <i>RSC Advances</i> , 2016 , 6, 28149-28155	37.15	35
259	Selective oxidation of propylene to acrolein by hydrothermally synthesized bismuth molybdates. <i>Applied Catalysis A: General</i> , 2014 , 482, 145-156	5.1	35
258	The Effect of Prereduction on the Performance of Pd/Al ₂ O ₃ and Pd/CeO ₂ Catalysts during Methane Oxidation. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 12561-12570	3.9	34
257	Surface Oxidation of Supported Ni Particles and Its Impact on the Catalytic Performance during Dynamically Operated Methanation of CO ₂ . <i>Catalysts</i> , 2017 , 7, 279	4	34
256	In situ XAS study of the Mn(III)(salen)Br catalyzed synthesis of cyclic organic carbonates from epoxides and CO ₂ . <i>Journal of Molecular Catalysis A</i> , 2009 , 297, 63-72		33
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254	Quasi-Homogeneous Methanol Synthesis Over Highly Active Copper Nanoparticles. <i>Angewandte Chemie</i> , 2005 , 117, 8192-8195	3.6	33

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