

# Martin Muhler

## List of Publications by Citations

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556  
papers

25,878  
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77  
h-index

136  
g-index

592  
ext. papers

28,574  
ext. citations

6.2  
avg, IF

7.08  
L-index

#	Paper	IF	Citations
556	CO Oxidation over Supported Gold Catalysts: Inert and Active Support Materials and Their Role for the Oxygen Supply during Reaction. <i>Journal of Catalysis</i> , <b>2001</b> , 197, 113-122	7.3	982
555	Co@Co <sub>3</sub> O <sub>4</sub> Encapsulated in Carbon Nanotube-Grafted Nitrogen-Doped Carbon Polyhedra as an Advanced Bifunctional Oxygen Electrode. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 4087-91	16.4	869
554	Thermal Stability and Reducibility of Oxygen-Containing Functional Groups on Multiwalled Carbon Nanotube Surfaces: A Quantitative High-Resolution XPS and TPD/TPR Study. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 16869-16878	3.8	683
553	Metal@MOF: loading of highly porous coordination polymers host lattices by metal organic chemical vapor deposition. <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 6237-41	16.4	598
552	Amorphous Cobalt Boride (Co <sub>2</sub> B) as a Highly Efficient Nonprecious Catalyst for Electrochemical Water Splitting: Oxygen and Hydrogen Evolution. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502313	21.8	539
551	On the Role of Metals in Nitrogen-Doped Carbon Electrocatalysts for Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 10102-20	16.4	514
550	Electrocatalytic Activity and Stability of Nitrogen-Containing Carbon Nanotubes in the Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 14302-14310	3.8	497
549	Mn(x)O(y)/NC and Co(x)O(y)/NC nanoparticles embedded in a nitrogen-doped carbon matrix for high-performance bifunctional oxygen electrodes. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 8508-12	16.4	432
548	The nature of the iron oxide-based catalyst for dehydrogenation of ethylbenzene to styrene 2. Surface chemistry of the active phase. <i>Journal of Catalysis</i> , <b>1992</b> , 138, 413-444	7.3	336
547	Nitrogen-doped carbon nanotubes as a cathode catalyst for the oxygen reduction reaction in alkaline medium. <i>Electrochemistry Communications</i> , <b>2010</b> , 12, 338-341	5.1	279
546	Photocatalytic activity of bulk TiO <sub>2</sub> anatase and rutile single crystals using infrared absorption spectroscopy. <i>Physical Review Letters</i> , <b>2011</b> , 106, 138302	7.4	277
545	The formation of nitrogen-containing functional groups on carbon nanotube surfaces: a quantitative XPS and TPD study. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 4351-9	3.6	275
544	The identification of hydroxyl groups on ZnO nanoparticles by infrared spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2008</b> , 10, 7092-7	3.6	272
543	Spinel Mn-Co oxide in N-doped carbon nanotubes as a bifunctional electrocatalyst synthesized by oxidative cutting. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 7551-4	16.4	247
542	Ultrathin High Surface Area Nickel Boride (Ni <sub>3</sub> B) Nanosheets as Highly Efficient Electrocatalyst for Oxygen Evolution. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700381	21.8	245
541	Catalysis of Carbon Dioxide Photoreduction on Nanosheets: Fundamentals and Challenges. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 7610-7627	16.4	242
540	Loading of MOF-5 with Cu and ZnO Nanoparticles by Gas-Phase Infiltration with Organometallic Precursors: Properties of Cu/[email protected] as Catalyst for Methanol Synthesis. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 4576-4587	9.6	240

539	PtRu nanoparticles supported on nitrogen-doped multiwalled carbon nanotubes as catalyst for methanol electrooxidation. <i>Electrochimica Acta</i> , <b>2009</b> , 54, 4208-4215	6.7	230
538	Interaction of oxygen with silver at high temperature and atmospheric pressure: A spectroscopic and structural analysis of a strongly bound surface species. <i>Physical Review B</i> , <b>1996</b> , 54, 2249-2262	3.3	217
537	The Ammonia-Synthesis Catalyst of the Next Generation: Barium-Promoted Oxide-Supported Ruthenium. <i>Angewandte Chemie - International Edition</i> , <b>2001</b> , 40, 1061-1063	16.4	211
536	On the role of oxygen defects in the catalytic performance of zinc oxide. <i>Angewandte Chemie - International Edition</i> , <b>2006</b> , 45, 2965-9	16.4	204
535	Multifunctional, defect-engineered metal-organic frameworks with ruthenium centers: sorption and catalytic properties. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 7058-62	16.4	203
534	Implication of the microstructure of binary Cu/ZnO catalysts for their catalytic activity in methanol synthesis. <i>Catalysis Letters</i> , <b>2001</b> , 71, 37-44	2.8	199
533	Ruthenium catalysts for ammonia synthesis at high pressures: Preparation, characterization, and power-law kinetics. <i>Applied Catalysis A: General</i> , <b>1997</b> , 151, 443-460	5.1	198
532	Structural complexity in metal-organic frameworks: simultaneous modification of open metal sites and hierarchical porosity by systematic doping with defective linkers. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 9627-36	16.4	195
531	Catalytic CO oxidation over ruthenium Bridging the pressure gap. <i>Progress in Surface Science</i> , <b>2003</b> , 72, 3-17	6.6	188
530	Active sites on oxide surfaces: ZnO-catalyzed synthesis of methanol from CO and H <sub>2</sub> . <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 2790-2794	16.4	171
529	Metallic NiPS <sub>3</sub> @NiOOH Core-Shell Heterostructures as Highly Efficient and Stable Electrocatalyst for the Oxygen Evolution Reaction. <i>ACS Catalysis</i> , <b>2017</b> , 7, 229-237	13.1	168
528	Surface characterization of oxygen-functionalized multi-walled carbon nanotubes by high-resolution X-ray photoelectron spectroscopy and temperature-programmed desorption. <i>Applied Surface Science</i> , <b>2007</b> , 254, 247-250	6.7	162
527	Electrocatalytic Oxidation of 5-(Hydroxymethyl)furfural Using High-Surface-Area Nickel Boride. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 11460-11464	16.4	146
526	On the nature of the active state of silver during catalytic oxidation of methanol. <i>Catalysis Letters</i> , <b>1993</b> , 22, 215-225	2.8	141
525	Structural Characterization and Catalytic Activity of Nanosized CexM1-xO <sub>2</sub> (M = Zr and Hf) Mixed Oxides. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 11729-11737	3.8	137
524	Deactivation of Supported Copper Catalysts for Methanol Synthesis. <i>Catalysis Letters</i> , <b>2003</b> , 86, 77-80	2.8	137
523	A highly efficient gas-phase route for the oxygen functionalization of carbon nanotubes based on nitric acid vapor. <i>Carbon</i> , <b>2009</b> , 47, 919-922	10.4	135
522	Chemical activity of thin oxide layers: strong interactions with the support yield a new thin-film phase of ZnO. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 11925-9	16.4	133

521	The nature of the iron oxide-based catalyst for dehydrogenation of ethylbenzene to styrene I. Solid-state chemistry and bulk characterization. <i>Journal of Catalysis</i> , <b>1990</b> , 126, 339-360	7.3	123
520	Trace metal residues promote the activity of supposedly metal-free nitrogen-modified carbon catalysts for the oxygen reduction reaction. <i>Electrochemistry Communications</i> , <b>2013</b> , 34, 113-116	5.1	120
519	On the role of monomeric vanadyl species in toluene adsorption and oxidation on V2O5/TiO2 catalysts: a Raman and in situ DRIFTS study. <i>Journal of Molecular Catalysis A</i> , <b>2000</b> , 162, 401-411		118
518	The surface chemistry of ZnO nanoparticles applied as heterogeneous catalysts in methanol synthesis. <i>Surface Science</i> , <b>2009</b> , 603, 1776-1783	1.8	117
517	The influence of strongly reducing conditions on strong metal-support interactions in Cu/ZnO catalysts used for methanol synthesis. <i>Physical Chemistry Chemical Physics</i> , <b>2006</b> , 8, 1525-38	3.6	117
516	The Kinetics of Ammonia Synthesis over Ru-Based Catalysts. <i>Journal of Catalysis</i> , <b>1997</b> , 165, 33-44	7.3	116
515	Oxidation Reactions over RuO2: A Comparative Study of the Reactivity of the (110) Single Crystal and Polycrystalline Surfaces. <i>Journal of Catalysis</i> , <b>2001</b> , 202, 296-307	7.3	115
514	Hafnium Doped Ceria Nanocomposite Oxide as a Novel Redox Additive for Three-Way Catalysts. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 1878-1881	3.8	114
513	Pentlandite rocks as sustainable and stable efficient electrocatalysts for hydrogen generation. <i>Nature Communications</i> , <b>2016</b> , 7, 12269	17.4	111
512	Adsorptive removal of methylene blue from colored effluents on fuller's earth. <i>Journal of Colloid and Interface Science</i> , <b>2003</b> , 261, 32-9	9.3	111
511	Metal-free catalysts for oxygen reduction in alkaline electrolytes: Influence of the presence of Co, Fe, Mn and Ni inclusions. <i>Electrochimica Acta</i> , <b>2014</b> , 128, 271-278	6.7	110
510	Nitrogen- and Oxygen-Functionalized Multiwalled Carbon Nanotubes Used as Support in Iron-Catalyzed, High-Temperature Fischer-Tropsch Synthesis. <i>ChemCatChem</i> , <b>2012</b> , 4, 350-355	5.2	110
509	Experimental and Theoretical Understanding of Nitrogen-Doping-Induced Strong Metal-Support Interactions in Pd/TiO2 Catalysts for Nitrobenzene Hydrogenation. <i>ACS Catalysis</i> , <b>2017</b> , 7, 1197-1206	13.1	107
508	Iron metal-organic frameworks MIL-88B and NH2-MIL-88B for the loading and delivery of the gas transmitter carbon monoxide. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 6785-90	4.8	106
507	Counting of oxygen defects versus metal surface sites in methanol synthesis catalysts by different probe molecules. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 7043-7	16.4	102
506	New Synthetic Routes to More Active Cu/ZnO Catalysts Used for Methanol Synthesis. <i>Catalysis Letters</i> , <b>2004</b> , 92, 49-52	2.8	102
505	Metall@MOF: Beladung hoch poröser Koordinationspolymergitter durch Metallorganische Chemische Dampfabsecheidung. <i>Angewandte Chemie</i> , <b>2005</b> , 117, 6394-6397	3.6	101
504	Effect of reduction temperature on the preparation and characterization of Pt-Ru nanoparticles on multiwalled carbon nanotubes. <i>Langmuir</i> , <b>2009</b> , 25, 3853-60	4	100

503	Temperature-programmed reduction and oxidation experiments with V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> catalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2001</b> , 3, 4633-4638	3.6	98
502	Metal-free and electrocatalytically active nitrogen-doped carbon nanotubes synthesized by coating with polyaniline. <i>Nanoscale</i> , <b>2010</b> , 2, 981-7	7.7	97
501	Spectroscopic evidence for the partial dissociation of H <sub>2</sub> O on ZnO(1010). <i>Physical Chemistry Chemical Physics</i> , <b>2006</b> , 8, 1521-4	3.6	97
500	Methanol synthesis over ZnO: A structure-sensitive reaction?. <i>Physical Chemistry Chemical Physics</i> , <b>2003</b> , 5, 4736-4742	3.6	93
499	Synergistic Effect of Cobalt and Iron in Layered Double Hydroxide Catalysts for the Oxygen Evolution Reaction. <i>ChemSusChem</i> , <b>2017</b> , 10, 156-165	8.3	91
498	Mesoporous nitrogen-rich carbon materials as catalysts for the oxygen reduction reaction in alkaline solution. <i>ChemSusChem</i> , <b>2012</b> , 5, 637-41	8.3	90
497	Influence of the Fe:Ni Ratio and Reaction Temperature on the Efficiency of (Fe <sub>x</sub> Ni <sub>1-x</sub> ) <sub>9</sub> S <sub>8</sub> Electrocatalysts Applied in the Hydrogen Evolution Reaction. <i>ACS Catalysis</i> , <b>2018</b> , 8, 987-996	13.1	90
496	On the Nature of the Active State of Supported Ruthenium Catalysts Used for the Oxidation of Carbon Monoxide: Steady-State and Transient Kinetics Combined with in Situ Infrared Spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 14634-14642	3.4	89
495	High-Temperature Stable Ni Nanoparticles for the Dry Reforming of Methane. <i>ACS Catalysis</i> , <b>2016</b> , 6, 7238-7248	13.1	89
494	Au/ZnO as catalyst for methanol synthesis: The role of oxygen vacancies. <i>Applied Catalysis A: General</i> , <b>2009</b> , 359, 121-128	5.1	88
493	Understanding the structural deactivation of ruthenium catalysts on an atomic scale under both oxidizing and reducing conditions. <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 917-20	16.4	88
492	The Interaction of Silver with Oxygen. <i>Zeitschrift Fur Physikalische Chemie</i> , <b>1991</b> , 174, 11-52	3.1	88
491	Heck reactions catalyzed by oxide-supported palladium: Structure-Activity relationships. <i>Topics in Catalysis</i> , <b>2000</b> , 13, 319-326	2.3	87
490	On the role of adsorbed atomic oxygen and CO <sub>2</sub> in copper based methanol synthesis catalysts. <i>Catalysis Letters</i> , <b>1994</b> , 25, 1-10	2.8	87
489	CO <sub>2</sub> activation by ZnO through the formation of an unusual tridentate surface carbonate. <i>Angewandte Chemie - International Edition</i> , <b>2007</b> , 46, 5624-7	16.4	85
488	Highly active metal-free nitrogen-containing carbon catalysts for oxygen reduction synthesized by thermal treatment of polypyridine-carbon black mixtures. <i>Electrochemistry Communications</i> , <b>2011</b> , 13, 593-596	5.1	84
487	Understanding the complexity of a catalyst synthesis: Co-precipitation of mixed Cu,Zn,Al hydroxycarbonate precursors for Cu/ZnO/Al <sub>2</sub> O <sub>3</sub> catalysts investigated by titration experiments. <i>Applied Catalysis A: General</i> , <b>2011</b> , 392, 93-102	5.1	82
486	The Kinetics of Ammonia Synthesis over Ruthenium-Based Catalysts: The Role of Barium and Cesium. <i>Journal of Catalysis</i> , <b>2002</b> , 205, 205-212	7.3	82

485	The microkinetics of ammonia synthesis catalyzed by cesium-promoted supported ruthenium. <i>Chemical Engineering Science</i> , <b>1996</b> , 51, 1683-1690	4.4	81
484	Hollow Zn/Co Zeolitic Imidazolate Framework (ZIF) and Yolk-Shell Metal@Zn/Co ZIF Nanostructures. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 3304-3311	4.8	81
483	Perspective of Surfactant-Free Colloidal Nanoparticles in Heterogeneous Catalysis. <i>ChemCatChem</i> , <b>2019</b> , 11, 4489-4518	5.2	80
482	Bifunktionale Sauerstoffelektroden durch Einbettung von Co@Co <sub>3</sub> O <sub>4</sub> -Nanopartikeln in CNT-gekoppelte Stickstoff-dotierte Kohlenstoffpolyeder. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 4155-4160	3.6	80
481	Chemisorption of N <sub>2</sub> O and H <sub>2</sub> for the Surface Determination of Copper Catalysts. <i>Chemical Engineering and Technology</i> , <b>2000</b> , 23, 956-959	2	79
480	On the nature and accessibility of the Brønsted-base sites in activated hydrotalcite catalysts. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 9211-8	3.4	78
479	The effect of sodium on the structure-activity relationships of cobalt-modified Cu/ZnO/Al <sub>2</sub> O <sub>3</sub> catalysts applied in the hydrogenation of carbon monoxide to higher alcohols. <i>Journal of Catalysis</i> , <b>2016</b> , 335, 175-186	7.3	77
478	Stable Performance of Ni Catalysts in the Dry Reforming of Methane at High Temperatures for the Efficient Conversion of CO <sub>2</sub> into Syngas. <i>ChemCatChem</i> , <b>2014</b> , 6, 100-104	5.2	76
477	Pulsed electrodeposition of Pt nanoclusters on carbon nanotubes modified carbon materials using diffusion restricting viscous electrolytes. <i>Electrochemistry Communications</i> , <b>2007</b> , 9, 1348-1354	5.1	76
476	MoS <sub>2</sub> @reduced graphene oxide nanocomposite heterostructures as efficient and stable electrocatalysts for the hydrogen evolution reaction. <i>Nano Energy</i> , <b>2016</b> , 29, 46-53	17.1	76
475	Chemical Vapor Deposition and Synthesis on Carbon Nanofibers: Sintering of Ferrocene-Derived Supported Iron Nanoparticles and the Catalytic Growth of Secondary Carbon Nanofibers. <i>Chemistry of Materials</i> , <b>2005</b> , 17, 5737-5742	9.6	73
474	Continuous coprecipitation of catalysts in a micromixer: nanostructured Cu/ZnO composite for the synthesis of methanol. <i>Angewandte Chemie - International Edition</i> , <b>2003</b> , 42, 3815-7	16.4	73
473	Surface-enhanced Raman scattering from surface and subsurface oxygen species at microscopically well-defined Ag surfaces. <i>Physical Review Letters</i> , <b>1994</b> , 72, 1561-1564	7.4	72
472	Activation of Carbon Dioxide on ZnO Nanoparticles Studied by Vibrational Spectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 908-914	3.8	71
471	On the relation between catalytic performance and microstructure of polycrystalline silver in the partial oxidation of methanol. <i>Catalysis Letters</i> , <b>1995</b> , 33, 305-319	2.8	71
470	The structural and electronic promoting effect of nitrogen-doped carbon nanotubes on supported Pd nanoparticles for selective olefin hydrogenation. <i>Catalysis Science and Technology</i> , <b>2013</b> , 3, 1964	5.5	70
469	Temperature-programmed desorption of H <sub>2</sub> as a tool to determine metal surface areas of Cu catalysts. <i>Catalysis Letters</i> , <b>1992</b> , 14, 241-249	2.8	70
468	Über die Rolle von Metallen in Elektrokatalysatoren auf Basis von stickstoffdotiertem Kohlenstoff für die Sauerstoffreduktion. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 10240-10259	3.6	69

467	Highly concentrated aqueous dispersions of graphene exfoliated by sodium taurodeoxycholate: dispersion behavior and potential application as a catalyst support for the oxygen-reduction reaction. <i>Chemistry - A European Journal</i> , <b>2012</b> , 18, 6972-8	4.8	69
466	The effect of water on the formation of strongly bound oxygen on silver surfaces. <i>Catalysis Letters</i> , <b>1995</b> , 32, 171-183	2.8	69
465	Effect of nitrogen doping on the reducibility, activity and selectivity of carbon nanotube-supported iron catalysts applied in CO <sub>2</sub> hydrogenation. <i>Applied Catalysis A: General</i> , <b>2014</b> , 482, 163-170	5.1	67
464	Influence of Alumina, Silica, and Titania Supports on the Structure and CO Oxidation Activity of CexZr1-xO2 Nanocomposite Oxides. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 10478-10483	3.8	67
463	Structural Characterization and Catalytic Activity of Nanosized Ceria/Terbium Solid Solutions. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 16393-16399	3.8	66
462	The influence of ZnO on the differential heat of adsorption of CO on Cu catalysts: a microcalorimetric study. <i>Journal of Catalysis</i> , <b>2003</b> , 220, 249-253	7.3	66
461	A new dual-purpose ultrahigh vacuum infrared spectroscopy apparatus optimized for grazing-incidence reflection as well as for transmission geometries. <i>Review of Scientific Instruments</i> , <b>2009</b> , 80, 113108	1.7	65
460	MOFs for Electrocatalysis: From Serendipity to Design Strategies. <i>Small Methods</i> , <b>2019</b> , 3, 1800415	12.8	65
459	Eine Stickstoff-dotierte Kohlenstoffmatrix mit eingeschlossenen MnxOy/NC- und CoxOy/NC-Nanopartikeln für leistungsffähige bifunktionale Sauerstoffelektroden. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 8648-8652	3.6	64
458	High-yield exfoliation of graphite in acrylate polymers: A stable few-layer graphene nanofluid with enhanced thermal conductivity. <i>Carbon</i> , <b>2013</b> , 64, 288-294	10.4	63
457	N-doped carbon synthesized from N-containing polymers as metal-free catalysts for the oxygen reduction under alkaline conditions. <i>Electrochimica Acta</i> , <b>2013</b> , 98, 139-145	6.7	63
456	Spinel-Structured ZnCr2O4 with Excess Zn Is the Active ZnO/Cr2O3 Catalyst for High-Temperature Methanol Synthesis. <i>ACS Catalysis</i> , <b>2017</b> , 7, 7610-7622	13.1	61
455	The role of carbonaceous deposits in the activity and stability of Ni-based catalysts applied in the dry reforming of methane. <i>Catalysis Science and Technology</i> , <b>2014</b> , 4, 3317-3328	5.5	61
454	The surface science approach for understanding reactions on oxide powders: the importance of IR spectroscopy. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 4731-4	16.4	60
453	Knowledge-based development of a nitrate-free synthesis route for Cu/ZnO methanol synthesis catalysts via formate precursors. <i>Chemical Communications</i> , <b>2011</b> , 47, 1701-3	5.8	60
452	The temperature-programmed desorption of hydrogen from copper surfaces. <i>Catalysis Letters</i> , <b>1999</b> , 59, 137-141	2.8	60
451	Effects of oxy-fuel conditions on the products of pyrolysis in a drop tube reactor. <i>Fuel Processing Technology</i> , <b>2016</b> , 150, 41-49	7.2	59
450	Copper nanoparticles stabilized on nitrogen-doped carbon nanotubes as efficient and recyclable catalysts for alkyne/aldehyde/cyclic amine A3-type coupling reactions. <i>Applied Catalysis A: General</i> , <b>2012</b> , 431-432, 88-94	5.1	59

449	Molecular understanding of reactivity and selectivity for methanol oxidation at the Au/TiO <sub>2</sub> interface. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 5780-4	16.4	59
448	Activated carbon supported molybdenum carbides as cheap and highly efficient catalyst in the selective hydrogenation of naphthalene to tetralin. <i>Green Chemistry</i> , <b>2012</b> , 14, 1272	10	58
447	Kinetics and particle size effects in ethene hydrogenation over supported palladium catalysts at atmospheric pressure. <i>Journal of Catalysis</i> , <b>2009</b> , 268, 150-155	7.3	58
446	High-throughput screening under demanding conditions: Cu/ZnO catalysts in high pressure methanol synthesis as an example. <i>Journal of Catalysis</i> , <b>2003</b> , 216, 110-119	7.3	57
445	Investigations of Zeolites by Photoelectron and Ion Scattering Spectroscopy. 2. A New Interpretation of XPS Binding Energy Shifts in Zeolites. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 10920-10929	7.3	57
444	MOF-Templated Assembly Approach for Fe C Nanoparticles Encapsulated in Bamboo-Like N-Doped CNTs: Highly Efficient Oxygen Reduction under Acidic and Basic Conditions. <i>Chemistry - A European Journal</i> , <b>2017</b> , 23, 12125-12130	4.8	56
443	Oxygen Evolution Electrocatalysis of a Single MOF-Derived Composite Nanoparticle on the Tip of a Nanoelectrode. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 8927-8931	16.4	56
442	Sulfur adsorbed on Pt catalyst: its chemical state and effect on catalytic properties as studied by electron spectroscopy and n-hexane test reactions. <i>Applied Catalysis A: General</i> , <b>1997</b> , 149, 113-132	5.1	56
441	The two-step chemical vapor deposition of Pd(allyl)Cp as an atom-efficient route to synthesize highly dispersed palladium nanoparticles on carbon nanofibers. <i>Chemical Communications</i> , <b>2005</b> , 282-4	5.8	56
440	Ruthenium Metal-Organic Frameworks with Different Defect Types: Influence on Porosity, Sorption, and Catalytic Properties. <i>Chemistry - A European Journal</i> , <b>2016</b> , 22, 14297-307	4.8	55
439	Spinel-Type Cobalt/Manganese-Based Mixed Oxide as Sacrificial Catalyst for the High-Yield Production of Homogeneous Carbon Nanotubes. <i>ChemCatChem</i> , <b>2010</b> , 2, 1559-1561	5.2	55
438	Direct monitoring of photo-induced reactions on well-defined metal oxide surfaces using vibrational spectroscopy. <i>Chemical Physics Letters</i> , <b>2008</b> , 460, 10-12	2.5	55
437	Effect of Potassium on the Kinetics of Ammonia Synthesis and Decomposition over Fused Iron Catalyst at Atmospheric Pressure. <i>Journal of Catalysis</i> , <b>1997</b> , 169, 407-414	7.3	54
436	Cobalt boride modified with N-doped carbon nanotubes as a high-performance bifunctional oxygen electrocatalyst. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 21122-21129	13	53
435	The structure of zinc and copper oxide species hosted in porous siliceous matrices. <i>Physical Chemistry Chemical Physics</i> , <b>2003</b> , 5, 4325-4334	3.6	53
434	Perovskite-based bifunctional electrocatalysts for oxygen evolution and oxygen reduction in alkaline electrolytes. <i>Electrochimica Acta</i> , <b>2016</b> , 208, 25-32	6.7	53
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