

Javier Prez-Ramrez

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543
papers

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h-index

166
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632
ext. papers

40,347
ext. citations

10.5
avg, IF

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L-index

#	Paper	IF	Citations
543	Pore size determination in modified micro- and mesoporous materials. Pitfalls and limitations in gas adsorption data analysis. <i>Microporous and Mesoporous Materials</i> , 2003 , 60, 1-17	5.3	1523
542	Hierarchical zeolites: enhanced utilisation of microporous crystals in catalysis by advances in materials design. <i>Chemical Society Reviews</i> , 2008 , 37, 2530-42	58.5	1413
541	Status and perspectives of CO ₂ conversion into fuels and chemicals by catalytic, photocatalytic and electrocatalytic processes. <i>Energy and Environmental Science</i> , 2013 , 6, 3112	35.4	1184
540	A stable single-site palladium catalyst for hydrogenations. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 11265-9	16.4	586
539	Direct demonstration of enhanced diffusion in mesoporous ZSM-5 zeolite obtained via controlled desilication. <i>Journal of the American Chemical Society</i> , 2007 , 129, 355-60	16.4	532
538	Design of hierarchical zeolite catalysts by desilication. <i>Catalysis Science and Technology</i> , 2011 , 1, 879	5.5	493
537	Indium Oxide as a Superior Catalyst for Methanol Synthesis by CO ₂ Hydrogenation. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 6261-5	16.4	486
536	Desilication: on the controlled generation of mesoporosity in MFI zeolites. <i>Journal of Materials Chemistry</i> , 2006 , 16, 2121-2131		472
535	Formation and control of N ₂ O in nitric acid production. <i>Applied Catalysis B: Environmental</i> , 2003 , 44, 117-158	4.5	424
534	Mechanism of hierarchical porosity development in MFI zeolites by desilication: the role of aluminium as a pore-directing agent. <i>Chemistry - A European Journal</i> , 2005 , 11, 4983-94	4.8	415
533	Creation of hollow zeolite architectures by controlled desilication of Al-zoned ZSM-5 crystals. <i>Journal of the American Chemical Society</i> , 2005 , 127, 10792-3	16.4	414
532	Optimal Aluminum-Assisted Mesoporosity Development in MFI Zeolites by Desilication. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 13062-13065	3.4	411
531	Zeolite Catalysts with Tunable Hierarchy Factor by Pore-Growth Moderators. <i>Advanced Functional Materials</i> , 2009 , 19, 3972-3979	15.6	374
530	Status and prospects in higher alcohols synthesis from syngas. <i>Chemical Society Reviews</i> , 2017 , 46, 1358-1426	38.5	359
529	Tailored crystalline microporous materials by post-synthesis modification. <i>Chemical Society Reviews</i> , 2013 , 42, 263-90	58.5	337
528	A heterogeneous single-atom palladium catalyst surpassing homogeneous systems for Suzuki coupling. <i>Nature Nanotechnology</i> , 2018 , 13, 702-707	28.7	316
527	On the introduction of intracrystalline mesoporosity in zeolites upon desilication in alkaline medium. <i>Microporous and Mesoporous Materials</i> , 2004 , 69, 29-34	5.3	290

526	Mesoporosity development in ZSM-5 zeolite upon optimized desilication conditions in alkaline medium. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2004 , 241, 53-58	5.1	249
525	Hierarchical Y and USY Zeolites Designed by Post-Synthetic Strategies. <i>Advanced Functional Materials</i> , 2012 , 22, 916-928	15.6	239
524	Quantification of enhanced acid site accessibility in hierarchical zeolites □The accessibility index. <i>Journal of Catalysis</i> , 2009 , 264, 11-14	7.3	239
523	Single-Atom Catalysts across the Periodic Table. <i>Chemical Reviews</i> , 2020 , 120, 11703-11809	68.1	237
522	Mesoporous ZSM-5 zeolite catalysts prepared by desilication with organic hydroxides and comparison with NaOH leaching. <i>Applied Catalysis A: General</i> , 2009 , 364, 191-198	5.1	234
521	Towards sustainable fuels and chemicals through the electrochemical reduction of CO ₂ : lessons from water electrolysis. <i>Green Chemistry</i> , 2015 , 17, 5114-5130	10	233
520	Mesopore quality determines the lifetime of hierarchically structured zeolite catalysts. <i>Nature Communications</i> , 2014 , 5,	17.4	221
519	Evolution of isomorphously substituted iron zeolites during activation: comparison of Fe-beta and Fe-ZSM-5. <i>Journal of Catalysis</i> , 2005 , 232, 318-334	7.3	220
518	Desilication mechanism revisited: highly mesoporous all-silica zeolites enabled through pore-directing agents. <i>Chemistry - A European Journal</i> , 2011 , 17, 1137-47	4.8	213
517	Hierarchical ZSM-5 zeolites in shape-selective xylene isomerization: role of mesoporosity and acid site speciation. <i>Chemistry - A European Journal</i> , 2010 , 16, 6224-33	4.8	212
516	Synthesis, characterisation, and catalytic evaluation of hierarchical faujasite zeolites: milestones, challenges, and future directions. <i>Chemical Society Reviews</i> , 2016 , 45, 3331-52	58.5	208
515	Mesoporous beta zeolite obtained by desilication. <i>Microporous and Mesoporous Materials</i> , 2008 , 114, 93-102	5.3	206
514	Advances in the Design of Nanostructured Catalysts for Selective Hydrogenation. <i>ChemCatChem</i> , 2016 , 8, 21-33	5.2	204
513	Core-shell structured catalysts for thermocatalytic, photocatalytic, and electrocatalytic conversion of CO. <i>Chemical Society Reviews</i> , 2020 , 49, 2937-3004	58.5	201
512	Visualization of hierarchically structured zeolite bodies from macro to nano length scales. <i>Nature Chemistry</i> , 2012 , 4, 825-31	17.6	200
511	Alkaline-mediated mesoporous mordenite zeolites for acid-catalyzed conversions?. <i>Journal of Catalysis</i> , 2007 , 251, 21-27	7.3	192
510	Reduction of N ₂ O with CO over FeMFI zeolites: influence of the preparation method on the iron species and catalytic behavior. <i>Journal of Catalysis</i> , 2004 , 223, 13-27	7.3	191
509	Decoupling mesoporosity formation and acidity modification in ZSM-5 zeolites by sequential desilicationdealumination. <i>Microporous and Mesoporous Materials</i> , 2005 , 87, 153-161	5.3	190

508	Full Compositional Flexibility in the Preparation of Mesoporous MFI Zeolites by Desilication. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 14193-14203	3.8	189
507	Aldol condensations over reconstructed Mg-Al hydrotalcites: structure-activity relationships related to the rehydration method. <i>Chemistry - A European Journal</i> , 2005 , 11, 728-39	4.8	185
506	In situ investigation of the thermal decomposition of CoAl hydrotalcite in different atmospheres. <i>Journal of Materials Chemistry</i> , 2001 , 11, 821-830		181
505	Tailored Mesoporosity Development in Zeolite Crystals by Partial Detemplation and Desilication. <i>Advanced Functional Materials</i> , 2009 , 19, 164-172	15.6	179
504	The Multifaceted Reactivity of Single-Atom Heterogeneous Catalysts. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 15316-15329	16.4	179
503	Electrocatalytic Reduction of Nitrogen: From Haber-Bosch to Ammonia Artificial Leaf. <i>Chem</i> , 2019 , 5, 263-283	16.2	177
502	Halogen-Mediated Conversion of Hydrocarbons to Commodities. <i>Chemical Reviews</i> , 2017 , 117, 4182-4247	18.1	176
501	Key role of chemistry versus bias in electrocatalytic oxygen evolution. <i>Nature</i> , 2020 , 587, 408-413	50.4	176
500	Ceria in hydrogenation catalysis: high selectivity in the conversion of alkynes to olefins. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 8620-3	16.4	175
499	Stabilization of Single Metal Atoms on Graphitic Carbon Nitride. <i>Advanced Functional Materials</i> , 2017 , 27, 1605785	15.6	172
498	From powder to technical body: the undervalued science of catalyst scale up. <i>Chemical Society Reviews</i> , 2013 , 42, 6094-112	58.5	170
497	Structural analysis of hierarchically organized zeolites. <i>Nature Communications</i> , 2015 , 6, 8633	17.4	168
496	Scalable room-temperature conversion of copper(II) hydroxide into HKUST-1 (Cu ₃ (btc) ₂). <i>Advanced Materials</i> , 2013 , 25, 1052-7	24	167
495	Critical appraisal of mesopore characterization by adsorption analysis. <i>Applied Catalysis A: General</i> , 2004 , 268, 121-125	5.1	167
494	Performance, structure, and mechanism of CeO ₂ in HCl oxidation to Cl ₂ . <i>Journal of Catalysis</i> , 2012 , 286, 287-297	7.3	165
493	Merging Single-Atom-Dispersed Silver and Carbon Nitride to a Joint Electronic System via Copolymerization with Silver Tricyanomethanide. <i>ACS Nano</i> , 2016 , 10, 3166-75	16.7	163
492	Interplay between carbon monoxide, hydrides, and carbides in selective alkyne hydrogenation on palladium. <i>Journal of Catalysis</i> , 2010 , 273, 92-102	7.3	162
491	Opposite face sensitivity of CeO ₂ /In hydrogenation and oxidation catalysis. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 12069-72	16.4	161

490	The six-flow reactor technology A review on fast catalyst screening and kinetic studies. <i>Catalysis Today</i> , 2000 , 60, 93-109	5.3	159
489	Preparation, Characterization, and Performance of FeZSM-5 for the Selective Oxidation of Benzene to Phenol with N ₂ O. <i>Journal of Catalysis</i> , 2000 , 195, 287-297	7.3	158
488	Atomic-scale engineering of indium oxide promotion by palladium for methanol production via CO hydrogenation. <i>Nature Communications</i> , 2019 , 10, 3377	17.4	157
487	Desilication of ferrierite zeolite for porosity generation and improved effectiveness in polyethylene pyrolysis. <i>Journal of Catalysis</i> , 2009 , 265, 170-180	7.3	156
486	Mechanism of HCl oxidation (Deacon process) over RuO ₂ . <i>Journal of Catalysis</i> , 2008 , 255, 29-39	7.3	152
485	Origin of the superior hydrogenation selectivity of gold nanoparticles in alkyne + alkene mixtures: Triple- versus double-bond activation. <i>Journal of Catalysis</i> , 2007 , 247, 383-386	7.3	152
484	Physicochemical Characterization of Isomorphously Substituted FeZSM-5 during Activation. <i>Journal of Catalysis</i> , 2002 , 207, 113-126	7.3	148
483	Sustainable chlorine recycling via catalysed HCl oxidation: from fundamentals to implementation. <i>Energy and Environmental Science</i> , 2011 , 4, 4786	35.4	147
482	Biobased Chemicals from Conception toward Industrial Reality: Lessons Learned and To Be Learned. <i>ACS Catalysis</i> , 2012 , 2, 1487-1499	13.1	146
481	Alkaline Posttreatment of MFI Zeolites. From Accelerated Screening to Scale-up. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 4193-4201	3.9	146
480	Structure-performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. <i>Nature Chemistry</i> , 2018 , 10, 804-812	17.6	145
479	Steam-activated FeMFI zeolites. Evolution of iron species and activity in direct N ₂ O decomposition. <i>Journal of Catalysis</i> , 2003 , 214, 33-45	7.3	140
478	Design of Lewis-acid centres in zeolitic matrices for the conversion of renewables. <i>Chemical Society Reviews</i> , 2015 , 44, 7025-43	58.5	138
477	Mechanism and microkinetics of methanol synthesis via CO ₂ hydrogenation on indium oxide. <i>Journal of Catalysis</i> , 2018 , 361, 313-321	7.3	132
476	Sulfur-Modified Copper Catalysts for the Electrochemical Reduction of Carbon Dioxide to Formate. <i>ACS Catalysis</i> , 2018 , 8, 837-844	13.1	132
475	Mesopore Formation in USY and Beta Zeolites by Base Leaching: Selection Criteria and Optimization of Pore-Directing Agents. <i>Crystal Growth and Design</i> , 2012 , 12, 3123-3132	3.5	128
474	Partial hydrogenation of propyne over copper-based catalysts and comparison with nickel-based analogues. <i>Journal of Catalysis</i> , 2010 , 269, 80-92	7.3	128
473	In situ Fourier transform infrared and laser Raman spectroscopic study of the thermal decomposition of CoAl and NiAl hydrotalcites. <i>Vibrational Spectroscopy</i> , 2001 , 27, 75-88	2.1	128

472	Strategies to break linear scaling relationships. <i>Nature Catalysis</i> , 2019 , 2, 971-976	36.5	127
471	Building Blocks for High Performance in Electrocatalytic CO Reduction: Materials, Optimization Strategies, and Device Engineering. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 3933-3944	6.4	122
470	Mesoporous ZSM-22 zeolite obtained by desilication: peculiarities associated with crystal morphology and aluminium distribution. <i>CrystEngComm</i> , 2011 , 13, 3408	3.3	121
469	NO-Assisted N ₂ O Decomposition over Fe-Based Catalysts: Effects of Gas-Phase Composition and Catalyst Constitution. <i>Journal of Catalysis</i> , 2002 , 208, 211-223	7.3	121
468	From the Lindlar catalyst to supported ligand-modified palladium nanoparticles: selectivity patterns and accessibility constraints in the continuous-flow three-phase hydrogenation of acetylenic compounds. <i>Chemistry - A European Journal</i> , 2014 , 20, 5926-37	4.8	120
467	Effects of Binders on the Performance of Shaped Hierarchical MFI Zeolites in Methanol-to-Hydrocarbons. <i>ACS Catalysis</i> , 2014 , 4, 2409-2417	13.1	118
466	Cooperative effects in ternary Cu-Ni-Fe catalysts lead to enhanced alkene selectivity in alkyne hydrogenation. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4321-7	16.4	116
465	Transforming Energy with Single-Atom Catalysts. <i>Joule</i> , 2019 , 3, 2897-2929	27.8	115
464	New and revisited insights into the promotion of methanol synthesis catalysts by CO ₂ . <i>Catalysis Science and Technology</i> , 2013 , 3, 3343	5.5	114
463	A density functional theory study of the RhyticLindlar hydrogenation catalyst. <i>Theoretical Chemistry Accounts</i> , 2011 , 128, 663-673	1.9	114
462	Enhanced Reduction of CO ₂ to CO over Cu ^I Electrocatalysts: Catalyst Evolution Is the Key. <i>ACS Catalysis</i> , 2016 , 6, 6265-6274	13.1	114
461	Selective homogeneous and heterogeneous gold catalysis with alkynes and alkenes: similar behavior, different origin. <i>ChemPhysChem</i> , 2008 , 9, 1624-9	3.2	111
460	Selective ensembles in supported palladium sulfide nanoparticles for alkyne semi-hydrogenation. <i>Nature Communications</i> , 2018 , 9, 2634	17.4	110
459	Molecular understanding of alkyne hydrogenation for the design of selective catalysts. <i>Dalton Transactions</i> , 2010 , 39, 8412-9	4.3	110
458	Visualizing the crystal structure and locating the catalytic activity of micro- and mesoporous ZSM-5 zeolite crystals by using in situ optical and fluorescence microscopy. <i>Chemistry - A European Journal</i> , 2008 , 14, 1718-25	4.8	110
457	Environmental and economic assessment of lactic acid production from glycerol using cascade bio- and chemocatalysis. <i>Energy and Environmental Science</i> , 2015 , 8, 558-567	35.4	109
456	Plant-to-planet analysis of CO ₂ -based methanol processes. <i>Energy and Environmental Science</i> , 2019 , 12, 3425-3436	35.4	107
455	Environmental and economical perspectives of a glycerol biorefinery. <i>Energy and Environmental Science</i> , 2018 , 11, 1012-1029	35.4	106

454	An integrated approach to Deacon chemistry on RuO ₂ -based catalysts. <i>Journal of Catalysis</i> , 2012 , 285, 273-284	7.3	104
453	Superior performance of ex-framework FeZSM-5 in direct N ₂ O decomposition in tail-gases from nitric acid plants. <i>Chemical Communications</i> , 2001 , 693-694	5.8	102
452	Hierarchical FAU- and LTA-Type Zeolites by Post-Synthetic Design: A New Generation of Highly Efficient Base Catalysts. <i>Advanced Functional Materials</i> , 2013 , 23, 1923-1934	15.6	101
451	Memory effect of activated Mg-Al hydrotalcite: in situ XRD studies during decomposition and gas-phase reconstruction. <i>Chemistry - A European Journal</i> , 2007 , 13, 870-8	4.8	101
450	Evolution, achievements, and perspectives of the TAP technique. <i>Catalysis Today</i> , 2007 , 121, 160-169	5.3	100
449	Active site structure sensitivity in N ₂ O conversion over FeMFI zeolites. <i>Journal of Catalysis</i> , 2003 , 218, 234-238	7.3	99
448	Ammonia Dehydrogenation over Platinum-Group Metal Surfaces. Structure, Stability, and Reactivity of Adsorbed NH _x Species. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 860-868	3.8	98
447	DFT characterization of adsorbed NH(x) species on Pt(100) and Pt(111) surfaces. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 18061-9	3.4	97
446	Volcano Trend in Electrocatalytic CO ₂ Reduction Activity over Atomically Dispersed Metal Sites on Nitrogen-Doped Carbon. <i>ACS Catalysis</i> , 2019 , 9, 10426-10439	13.1	96
445	Solid-State Chemistry of Cuprous Delafossites: Synthesis and Stability Aspects. <i>Chemistry of Materials</i> , 2013 , 25, 4423-4435	9.6	96
444	Palladium Nanoparticles Supported on Magnetic Carbon-Coated Cobalt Nanobeads: Highly Active and Recyclable Catalysts for Alkene Hydrogenation. <i>Advanced Functional Materials</i> , 2014 , 24, 2020-2027	15.6	95
443	Hydroisomerization of emerging renewable hydrocarbons using hierarchical Pt/H-ZSM-22 catalyst. <i>ChemSusChem</i> , 2013 , 6, 421-5	8.3	94
442	Highly selective Lewis acid sites in desilicated MFI zeolites for dihydroxyacetone isomerization to lactic acid. <i>ChemSusChem</i> , 2013 , 6, 831-9	8.3	94
441	Molecular-Level Understanding of CeO ₂ as a Catalyst for Partial Alkyne Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 5352-5360	3.8	92
440	Superior Mass Transfer Properties of Technical Zeolite Bodies with Hierarchical Porosity. <i>Advanced Functional Materials</i> , 2014 , 24, 209-219	15.6	91
439	Role of Zirconia in Indium Oxide-Catalyzed CO ₂ Hydrogenation to Methanol. <i>ACS Catalysis</i> , 2020 , 10, 1133-1145	13.1	88
438	Active iron sites associated with the reaction mechanism of N ₂ O conversions over steam-activated FeMFI zeolites. <i>Journal of Catalysis</i> , 2004 , 227, 512-522	7.3	87
437	Influence of crystal size and probe molecule on diffusion in hierarchical ZSM-5 zeolites prepared by desilication. <i>Microporous and Mesoporous Materials</i> , 2012 , 148, 115-121	5.3	86

436	Porosity-Acidity Interplay in Hierarchical ZSM-5 Zeolites for Pyrolysis Oil Valorization to Aromatics. <i>ChemSusChem</i> , 2015 , 8, 3283-93	8.3	86
435	Hierarchical Sn-MFI zeolites prepared by facile top-down methods for sugar isomerisation. <i>Catalysis Science and Technology</i> , 2014 , 4, 2302	5.5	86
434	Pt(100)-Catalyzed Ammonia Oxidation Studied by DFT: Mechanism and Microkinetics. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 13554-13562	3.8	86
433	Prospects of N ₂ O emission regulations in the European fertilizer industry. <i>Applied Catalysis B: Environmental</i> , 2007 , 70, 31-35	21.8	84
432	Reactivity descriptors for ceria in catalysis. <i>Applied Catalysis B: Environmental</i> , 2016 , 197, 299-312	21.8	83
431	Ex-framework FeZSM-5 for control of N ₂ O in tail-gases. <i>Catalysis Today</i> , 2002 , 76, 55-74	5.3	83
430	Single-atom heterogeneous catalysts based on distinct carbon nitride scaffolds. <i>National Science Review</i> , 2018 , 5, 642-652	10.8	82
429	Interdependence between porosity, acidity, and catalytic performance in hierarchical ZSM-5 zeolites prepared by post-synthetic modification. <i>Journal of Catalysis</i> , 2013 , 308, 398-407	7.3	82
428	The role of Brønsted acidity in the SCR of NO over Fe-MFI catalysts. <i>Microporous and Mesoporous Materials</i> , 2008 , 111, 124-133	5.3	82
427	Highly active SO ₂ -resistant ex-framework FeMFI catalysts for direct N ₂ O decomposition. <i>Applied Catalysis B: Environmental</i> , 2002 , 35, 227-234	21.8	81
426	Study of alkaline-doping agents on the performance of reconstructed MgAl hydrotalcites in aldol condensations. <i>Applied Catalysis A: General</i> , 2005 , 281, 191-198	5.1	81
425	Surface and Pore Structure Assessment of Hierarchical MFI Zeolites by Advanced Water and Argon Sorption Studies. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 18816-18823	3.8	80
424	Modeling the high-temperature catalytic partial oxidation of methane over platinum gauze: Detailed gas-phase and surface chemistries coupled with 3D flow field simulations. <i>Applied Catalysis A: General</i> , 2006 , 303, 166-176	5.1	80
423	Transient mechanistic study of the gas-phase HCl oxidation to Cl ₂ on bulk and supported RuO ₂ catalysts. <i>Journal of Catalysis</i> , 2010 , 276, 141-151	7.3	79
422	Expanding the Horizons of Hierarchical Zeolites: Beyond Laboratory Curiosity towards Industrial Realization. <i>ChemCatChem</i> , 2011 , 3, 1731-1734	5.2	78
421	Metal-Organic Frameworks/Wood Composites: Green Synthesis of Hierarchical Metal-Organic Framework/Wood Functional Composites with Superior Mechanical Properties (Adv. Sci. 7/2020). <i>Advanced Science</i> , 2020 , 7, 2070040	13.6	78
420	Silver Nanoparticles for Olefin Production: New Insights into the Mechanistic Description of Propyne Hydrogenation. <i>ChemCatChem</i> , 2013 , 5, 3750-3759	5.2	77
419	Structural promotion and stabilizing effect of Mg in the catalytic decomposition of nitrous oxide over calcined hydrotalcite-like compounds. <i>Applied Catalysis B: Environmental</i> , 1999 , 23, 59-72	21.8	77

4 ¹⁸	Impact of pore connectivity on the design of long-lived zeolite catalysts. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 1591-4	16.4	76
4 ¹⁷	Biomass valorisation over metal-based solid catalysts from nanoparticles to single atoms. <i>Chemical Society Reviews</i> , 2020 , 49, 3764-3782	58.5	76
4 ¹⁶	Nanoplatelet-based reconstructed hydrotalcites: towards more efficient solid base catalysts in aldol condensations. <i>Chemical Communications</i> , 2005 , 1453-5	5.8	76
4 ¹⁵	Structure and Reactivity of Supported Hybrid Platinum Nanoparticles for the Flow Hydrogenation of Functionalized Nitroaromatics. <i>ACS Catalysis</i> , 2015 , 5, 3767-3778	13.1	74
4 ¹⁴	Mesoporous zeolites as enzyme carriers: Synthesis, characterization, and application in biocatalysis. <i>Catalysis Today</i> , 2011 , 168, 28-37	5.3	74
4 ¹³	Activated takovite catalysts for partial hydrogenation of ethyne, propyne, and propadiene. <i>Journal of Catalysis</i> , 2008 , 259, 85-95	7.3	74
4 ¹²	Descriptors for High-Performance Nitrogen-Doped Carbon Catalysts in Acetylene Hydrochlorination. <i>ACS Catalysis</i> , 2018 , 8, 1114-1121	13.1	74
4 ¹¹	Prospectives for bio-oil upgrading via esterification over zeolite catalysts. <i>Catalysis Today</i> , 2014 , 235, 176-183	5.3	73
4 ¹⁰	In situ surface coverage analysis of RuO ₂ -catalysed HCl oxidation reveals the entropic origin of compensation in heterogeneous catalysis. <i>Nature Chemistry</i> , 2012 , 4, 739-45	17.6	73
4 ⁰⁹	Properties and Functions of Hierarchical Ferrierite Zeolites Obtained by Sequential Post-Synthesis Treatments. <i>Chemistry of Materials</i> , 2010 , 22, 4679-4689	9.6	73
4 ⁰⁸	NO Adsorption on Ex-Framework [Fe,X]MFI Catalysts: Novel IR Bands and Evaluation of Assignments. <i>Catalysis Letters</i> , 2002 , 80, 129-138	2.8	73
4 ⁰⁷	Design of Local Atomic Environments in Single-Atom Electrocatalysts for Renewable Energy Conversions. <i>Advanced Materials</i> , 2021 , 33, e2003075	24	73
4 ⁰⁶	Deactivation mechanisms of tin-zeolites in biomass conversions. <i>Green Chemistry</i> , 2016 , 18, 1249-1260	10	72
4 ⁰⁵	Nanostructuring unlocks high performance of platinum single-atom catalysts for stable vinyl chloride production. <i>Nature Catalysis</i> , 2020 , 3, 376-385	36.5	71
4 ⁰⁴	Hierarchical Silicoaluminophosphates by Postsynthetic Modification: Influence of Topology, Composition, and Silicon Distribution. <i>Chemistry of Materials</i> , 2014 , 26, 4552-4562	9.6	71
4 ⁰³	Mesoporous ZSM-5 zeolites prepared by a two-step route comprising sodium aluminate and acid treatments. <i>Microporous and Mesoporous Materials</i> , 2010 , 128, 91-100	5.3	71
4 ⁰²	Evidence of the vital role of the pore network on various catalytic conversions of N ₂ O over Fe-silicalite and Fe-SBA-15 with the same iron constitution. <i>Applied Catalysis B: Environmental</i> , 2006 , 62, 244-254	21.8	71
4 ⁰¹	Catalyst design for natural-gas upgrading through oxybromination chemistry. <i>Nature Chemistry</i> , 2016 , 8, 803-9	17.6	70

- 400 Towards a sustainable manufacture of hierarchical zeolites. *ChemSusChem*, **2014**, 7, 753-64 8.3 69
- 399 Shaped RuO₂/SnO₂/Al₂O₃ Catalyst for Large-Scale Stable Cl₂ Production by HCl Oxidation. *ChemCatChem*, **2011**, 3, 657-660 5.2 69
- 398 Ein stabiler Single-site-Palladiumkatalysator für Hydrierungen. *Angewandte Chemie*, **2015**, 127, 11417-11422 9.2 67
- 397 Single atom catalysis: a decade of stunning progress and the promise for a bright future. *Nature Communications*, **2020**, 11, 4302 17.4 67
- 396 Design of Single Gold Atoms on Nitrogen-Doped Carbon for Molecular Recognition in Alkyne Semi-Hydrogenation. *Angewandte Chemie - International Edition*, **2019**, 58, 504-509 16.4 67
- 395 Ammonia Dissociation on Pt{100}, Pt{111}, and Pt{211}: A Comparative Density Functional Theory Study. *Journal of Physical Chemistry C*, **2007**, 111, 17551-17557 3.8 66
- 394 Zinc-Rich Copper Catalysts Promoted by Gold for Methanol Synthesis. *ACS Catalysis*, **2015**, 5, 5607-5616 13.1 65
- 393 Hydroisomerization and hydrocracking of linear and multibranched long model alkanes on hierarchical Pt/ZSM-22 zeolite. *Catalysis Today*, **2013**, 218-219, 135-142 5.3 65
- 392 Atom-by-Atom Resolution of Structure-Function Relations over Low-Nuclearity Metal Catalysts. *Angewandte Chemie - International Edition*, **2019**, 58, 8724-8729 16.4 64
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