

# Silvia Bordiga

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/8316345/silvia-bordiga-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

484  
papers

42,279  
citations

108  
h-index

190  
g-index

513  
ext. papers

46,156  
ext. citations

7  
avg, IF

7.17  
L-index

#	Paper	IF	Citations
484	A new zirconium inorganic building brick forming metal organic frameworks with exceptional stability. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 13850-1	16.4	4225
483	Conversion of methanol to hydrocarbons: how zeolite cavity and pore size controls product selectivity. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 5810-31	16.4	1217
482	Disclosing the Complex Structure of UiO-66 Metal Organic Framework: A Synergic Combination of Experiment and Theory. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 1700-1718	9.6	1079
481	Cooperative insertion of CO <sub>2</sub> in diamine-appended metal-organic frameworks. <i>Nature</i> , <b>2015</b> , 519, 303-8	50.4	807
480	Conversion of methanol to hydrocarbons over zeolite H-ZSM-5: On the origin of the olefinic species. <i>Journal of Catalysis</i> , <b>2007</b> , 249, 195-207	7.3	767
479	Defect Engineering: Tuning the Porosity and Composition of the Metal Organic Framework UiO-66 via Modulated Synthesis. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 3749-3761	9.6	596
478	Local Structure of Framework Cu(II) in HKUST-1 Metallorganic Framework: Spectroscopic Characterization upon Activation and Interaction with Adsorbates. <i>Chemistry of Materials</i> , <b>2006</b> , 18, 1337-1346	9.6	555
477	The inconsistency in adsorption properties and powder XRD data of MOF-5 is rationalized by framework interpenetration and the presence of organic and inorganic species in the nanocavities. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 3612-20	16.4	503
476	Structure and Reactivity of Framework and Extraframework Iron in Fe-Silicalite as Investigated by Spectroscopic and Physicochemical Methods. <i>Journal of Catalysis</i> , <b>1996</b> , 158, 486-501	7.3	503
475	High-capacity hydrogen and nitric oxide adsorption and storage in a metal-organic framework. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 1203-9	16.4	482
474	Reactivity of surface species in heterogeneous catalysts probed by in situ X-ray absorption techniques. <i>Chemical Reviews</i> , <b>2013</b> , 113, 1736-850	68.1	481
473	Tuned to Perfection: Ironing Out the Defects in Metal Organic Framework UiO-66. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 4068-4071	9.6	472
472	Selective binding of O <sub>2</sub> over N <sub>2</sub> in a redox-active metal-organic framework with open iron(II) coordination sites. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 14814-22	16.4	404
471	Electronic and vibrational properties of a MOF-5 metal-organic framework: ZnO quantum dot behaviour. <i>Chemical Communications</i> , <b>2004</b> , 2300-1	5.8	381
470	Role of exposed metal sites in hydrogen storage in MOFs. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 8386-96	16.4	361
469	The structure of active centers and the ethylene polymerization mechanism on the Cr/SiO <sub>2</sub> catalyst: a frontier for the characterization methods. <i>Chemical Reviews</i> , <b>2005</b> , 105, 115-84	68.1	359
468	Probing the surfaces of heterogeneous catalysts by in situ IR spectroscopy. <i>Chemical Society Reviews</i> , <b>2010</b> , 39, 4951-5001	58.5	354

467	H2 storage in isostructural UiO-67 and UiO-66 MOFs. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 1614-1626	326	339
466	XAFS Study of Ti-Silicalite: Structure of Framework Ti(IV) in the Presence and Absence of Reactive Molecules (H2O, NH3) and Comparison with Ultraviolet-Visible and IR Results. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 4125-4132		336
465	Oxidation of ethane to ethanol by N2O in a metal-organic framework with coordinatively unsaturated iron(II) sites. <i>Nature Chemistry</i> , <b>2014</b> , 6, 590-5	17.6	332
464	Adsorption properties and structure of CO2 adsorbed on open coordination sites of metal-organic framework Ni2(dhtp) from gas adsorption, IR spectroscopy and X-ray diffraction. <i>Chemical Communications</i> , <b>2008</b> , 5125-7	5.8	331
463	Adsorption properties of HKUST-1 toward hydrogen and other small molecules monitored by IR. <i>Physical Chemistry Chemical Physics</i> , <b>2007</b> , 9, 2676-85	3.6	321
462	A Consistent Reaction Scheme for the Selective Catalytic Reduction of Nitrogen Oxides with Ammonia. <i>ACS Catalysis</i> , <b>2015</b> , 5, 2832-2845	13.1	319
461	Vibrational structure of titanium silicate catalysts. A spectroscopic and theoretical study. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 11409-19	16.4	318
460	XAFS, IR, and UV-Vis Study of the Cu Environment in CuI-ZSM-5. <i>Journal of Physical Chemistry B</i> , <b>1997</b> , 101, 344-360	3.4	303
459	DRS UV-Vis and EPR spectroscopy of hydroperoxo and superoxo complexes in titanium silicalite. <i>Catalysis Letters</i> , <b>1992</b> , 16, 109-115	2.8	295
458	Solid-state interactions, adsorption sites and functionality of Cu-ZnO/ZrO2 catalysts in the CO2 hydrogenation to CH3OH. <i>Applied Catalysis A: General</i> , <b>2008</b> , 350, 16-23	5.1	288
457	Low-temperature Fourier-transform infrared investigation of the interaction of CO with nanosized ZSM5 and silicalite. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1992</b> , 88, 2959-2969		271
456	Silicalite characterization. 2. IR spectroscopy of the interaction of carbon monoxide with internal and external hydroxyl groups. <i>The Journal of Physical Chemistry</i> , <b>1992</b> , 96, 4991-4997		268
455	Computational and Experimental Studies on the Adsorption of CO, N2, and CO2 on Mg-MOF-74. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 11185-11191	3.8	267
454	Highly-selective and reversible O2 binding in Cr3(1,3,5-benzenetricarboxylate)2. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 7856-7	16.4	266
453	Revisiting the nature of Cu sites in the activated Cu-SSZ-13 catalyst for SCR reaction. <i>Chemical Science</i> , <b>2015</b> , 6, 548-563	9.4	265
452	Cu(I)-ZSM-5 zeolites prepared by reaction of H-ZSM-5 with gaseous CuCl: Spectroscopic characterization and reactivity towards carbon monoxide and nitric oxide. <i>Applied Catalysis B: Environmental</i> , <b>1994</b> , 3, 151-172	21.8	257
451	Characterization of Cu-exchanged SSZ-13: a comparative FTIR, UV-Vis, and EPR study with Cu-ZSM-5 and Cu-β with similar Si/Al and Cu/Al ratios. <i>Dalton Transactions</i> , <b>2013</b> , 42, 12741-61	4.3	247
450	Probing zeolites by vibrational spectroscopies. <i>Chemical Society Reviews</i> , <b>2015</b> , 44, 7262-341	58.5	241

449	Fourier-transform infrared and Raman spectra of pure and Al-, B-, Ti- and Fe-substituted silicalites: stretching-mode region. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1993</b> , 89, 4123		238
448	XRD, XAS, and IR Characterization of Copper-Exchanged Y Zeolite. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 8641-8651	3.4	223
447	Detailed Structure Analysis of Atomic Positions and Defects in Zirconium Metal-Organic Frameworks. <i>Crystal Growth and Design</i> , <b>2014</b> , 14, 5370-5372	3.5	219
446	Oxidation States of Copper Ions in ZSM-5 Zeolites. A Multitechnique Investigation. <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 4064-4073	3.4	218
445	Assessing the acid properties of desilicated ZSM-5 by FTIR using CO and 2,4,6-trimethylpyridine (collidine) as molecular probes. <i>Applied Catalysis A: General</i> , <b>2009</b> , 356, 23-30	5.1	217
444	Structure-deactivation relationship for ZSM-5 catalysts governed by framework defects. <i>Journal of Catalysis</i> , <b>2011</b> , 280, 196-205	7.3	212
443	Interaction of H <sub>2</sub> O, CH <sub>3</sub> OH, (CH <sub>3</sub> ) <sub>2</sub> O, CH <sub>3</sub> CN, and Pyridine with the Superacid Perfluorosulfonic Membrane Nafion: An IR and Raman Study. <i>The Journal of Physical Chemistry</i> , <b>1995</b> , 99, 11937-11951		210
442	Interaction of NH <sub>3</sub> with Cu-SSZ-13 Catalyst: A Complementary FTIR, XANES, and XES Study. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 1552-9	6.4	209
441	Vibrational Spectroscopy of NH <sub>4</sub> <sup>+</sup> Ions in Zeolitic Materials: An IR Study. <i>Journal of Physical Chemistry B</i> , <b>1997</b> , 101, 10128-10135	3.4	209
440	Methane to Methanol: Structure-Activity Relationships for Cu-CHA. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 14961-14975	16.4	202
439	Photoactive TiO <sub>2</sub> films on cellulose fibres: synthesis and characterization. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2007</b> , 189, 286-294	4.7	199
438	The Cu-CHA deNO <sub>x</sub> Catalyst in Action: Temperature-Dependent NH <sub>3</sub> -Assisted Selective Catalytic Reduction Monitored by Operando XAS and XES. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 12025-8	16.4	197
437	Carbon monoxide MgO from dispersed solids to single crystals: a review and new advances. <i>Progress in Surface Science</i> , <b>2004</b> , 76, 71-146	6.6	193
436	Interaction of Pyridine with Acidic (H-ZSM5, H-H-MORD Zeolites) and Superacidic (H-Nafion Membrane) Systems: An IR Investigation. <i>Langmuir</i> , <b>1996</b> , 12, 930-940	4	193
435	Liquid hydrogen in protonic chabazite. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 6361-6	16.4	189
434	Acidic Properties of H <sup>+</sup> Zeolite As Probed by Bases with Proton Affinity in the 118-204 kcal mol <sup>-1</sup> Range: A FTIR Investigation. <i>Journal of Physical Chemistry B</i> , <b>1997</b> , 101, 4740-4751	3.4	187
433	The Effect of Acid Strength on the Conversion of Methanol to Olefins Over Acidic Microporous Catalysts with the CHA Topology. <i>Topics in Catalysis</i> , <b>2009</b> , 52, 218-228	2.3	182
432	Ti-Peroxo Species in the TS-1/H <sub>2</sub> O <sub>2</sub> /H <sub>2</sub> O System. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 3573-3583	3.4	180

431	Reactivity of Ti(IV) species hosted in TS-1 towards H <sub>2</sub> O <sub>2</sub> -H <sub>2</sub> O solutions investigated by ab initio cluster and periodic approaches combined with experimental XANES and EXAFS data: a review and new highlights. <i>Physical Chemistry Chemical Physics</i> , <b>2007</b> , 9, 4854-78	3.6	176
430	Local Structure of CPO-27-Ni Metallorganic Framework upon Dehydration and Coordination of NO. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 4957-4968	9.6	174
429	Monolithic cells for solar fuels. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 7963-81	58.5	165
428	Structural determination of a highly stable metal-organic framework with possible application to interim radioactive waste scavenging: HF-UiO-66. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	165
427	Structural characterization of Ti centres in Ti-silicalite and reaction mechanisms in cyclohexanone ammoximation. <i>Catalysis Today</i> , <b>1996</b> , 32, 97-106	5.3	165
426	Ti location in the MFI framework of Ti-Silicalite-1: a neutron powder diffraction study. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 2204-12	16.4	163
425	Evidence of the Presence of Two Different Framework Ti(IV) Species in TiSilicalite-1 in Vacuo Conditions: an EXAFS and a Photoluminescence Study. <i>Journal of Physical Chemistry B</i> , <b>1998</b> , 102, 6382-6390	3.4	162
424	Well defined CuI(NO), CuI(NO) <sub>2</sub> and CuII(NO) <sub>x</sub> (x = O and/or NO) complexes in CuI-ZSMS prepared by interaction of H-ZSM5 with gaseous CuCl. <i>Catalysis Letters</i> , <b>1992</b> , 13, 39-44	2.8	162
423	Structural Transformations and adsorption of fuel-related gases of a structurally responsive nickel phosphonate metal-organic framework, Ni-STA-12. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 15967-81	16.4	161
422	Reversible CO binding enables tunable CO/H <sub>2</sub> and CO/N <sub>2</sub> separations in metal-organic frameworks with exposed divalent metal cations. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 10752-61	16.4	160
421	On the Structure of the Active Site of Ti-Silicalite in Reactions with Hydrogen Peroxide: A Vibrational and Computational Study. <i>Journal of Catalysis</i> , <b>1998</b> , 179, 64-71	7.3	158
420	Spectroscopic evidence for a persistent benzenium cation in zeolite H-beta. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 15863-8	16.4	155
419	Hydrogen storage properties and neutron scattering studies of Mg <sub>2</sub> (dobdc)--a metal-organic framework with open Mg <sub>2+</sub> adsorption sites. <i>Chemical Communications</i> , <b>2011</b> , 47, 1157-9	5.8	153
418	Determination of the oxidation and coordination state of copper on different Cu-based catalysts by XANES spectroscopy in situ or in operando conditions. <i>Physical Chemistry Chemical Physics</i> , <b>2003</b> , 5, 4502-4509	3.6	152
417	Interaction of Hydrogen with MOF-5. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 18237-42	3.4	150
416	Umwandlung von Methanol in Kohlenwasserstoffe: Wie Zeolith-Hohlräume und Porengröße die Produktselektivität bestimmen. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 5910-5933	3.6	148
415	Catalyst deactivation by coke formation in microporous and desilicated zeolite H-ZSM-5 during the conversion of methanol to hydrocarbons. <i>Journal of Catalysis</i> , <b>2013</b> , 307, 62-73	7.3	146
414	A spin transition mechanism for cooperative adsorption in metal-organic frameworks. <i>Nature</i> , <b>2017</b> , 550, 96-100	50.4	142

413	Enhancement of the ETS-10 titanosilicate activity in the shape-selective photocatalytic degradation of large aromatic molecules by controlled defect production. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 2264-71	16.4	141
412	Maya blue: a computational and spectroscopic study. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 19360-83	3.4	140
411	Evolution of Extraframework Iron Species in Fe Silicalite. <i>Journal of Catalysis</i> , <b>2002</b> , 208, 64-82	7.3	140
410	The structure of the peroxy species in the TS-1 catalyst as investigated by resonant Raman spectroscopy. <i>Angewandte Chemie - International Edition</i> , <b>2002</b> , 41, 4734-7	16.4	139
409	Cu-CHA - a model system for applied selective redox catalysis. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 8097-8133	8.33	138
408	Fourier-Transform Infrared Study of CO Adsorbed at 77 K on H-Mordenite and Alkali-Metal-Exchanged Mordenites. <i>Langmuir</i> , <b>1995</b> , 11, 527-533	4	138
407	Silicalite characterization. 1. Structure, adsorptive capacity, and IR spectroscopy of the framework and hydroxyl modes. <i>The Journal of Physical Chemistry</i> , <b>1992</b> , 96, 4985-4990		137
406	Thermal Reduction of Cu <sup>2+</sup> -Mordenite and Re-oxidation upon Interaction with H <sub>2</sub> O, O <sub>2</sub> , and NO. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 7036-7044	3.4	135
405	Hydroxyls nests in defective silicalites and strained structures derived upon dehydroxylation: vibrational properties and theoretical modelling. <i>Topics in Catalysis</i> , <b>2001</b> , 15, 43-52	2.3	134
404	Framework and Extraframework Ti in Titanium-Silicalite: Investigation by Means of Physical Methods. <i>Studies in Surface Science and Catalysis</i> , <b>1991</b> , 69, 251-258	1.8	134
403	Cotton textile fibres coated by Au/TiO <sub>2</sub> films: Synthesis, characterization and self cleaning properties. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2008</b> , 199, 64-72	4.7	133
402	FTIR Investigation of the Formation of Neutral and Ionic Hydrogen-Bonded Complexes by Interaction of H-ZSM-5 and H-Mordenite with CH <sub>3</sub> CN and H <sub>2</sub> O: Comparison with the H-NAFION Superacidic System. <i>The Journal of Physical Chemistry</i> , <b>1996</b> , 100, 16584-16599		132
401	Composition-driven Cu-speciation and reducibility in Cu-CHA zeolite catalysts: a multivariate XAS/FTIR approach to complexity. <i>Chemical Science</i> , <b>2017</b> , 8, 6836-6851	9.4	129
400	Conversion of methanol over 10-ring zeolites with differing volumes at channel intersections: comparison of TNU-9, IM-5, ZSM-11 and ZSM-5. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 2539-49	3.6	129
399	Impact of metal and anion substitutions on the hydrogen storage properties of M-BTT metal-organic frameworks. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 1083-91	16.4	128
398	Low-Temperature Fourier Transform Infrared Study of the Interaction of CO with Cations in Alkali-Metal Exchanged ZSM-5 Zeolites. <i>The Journal of Physical Chemistry</i> , <b>1994</b> , 98, 9577-9582		128
397	Adsorption and reactivity of nitrogen oxides (NO <sub>2</sub> , NO, N <sub>2</sub> O) on Fe-zeolites. <i>Journal of Catalysis</i> , <b>2009</b> , 264, 104-116	7.3	127
396	Effect of aluminium distribution in the framework of ZSM-5 on hydrocarbon transformation. Cracking of 1-butene. <i>Journal of Catalysis</i> , <b>2008</b> , 254, 180-189	7.3	127



395	Cubic octanuclear Ni(II) clusters in highly porous polypyrazolyl-based materials. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 7902-4	16.4	126
394	IR study of ethene and propene oligomerization on H-ZSM-5: hydrogen-bonded precursor formation, initiation and propagation mechanisms and structure of the entrapped oligomers. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1994</b> , 90, 2827		126
393	Effect of Benzoic Acid as a Modulator in the Structure of UiO-66: An Experimental and Computational Study. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 9312-9324	3.8	125
392	Surface acidity and basicity: General concepts. <i>Catalysis Today</i> , <b>1998</b> , 41, 169-177	5.3	125
391	Functionalizing the Defects: Postsynthetic Ligand Exchange in the Metal Organic Framework UiO-66. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 7190-7193	9.6	125
390	Coke location in microporous and hierarchical ZSM-5 and the impact on the MTH reaction. <i>Journal of Catalysis</i> , <b>2013</b> , 307, 238-245	7.3	124
389	Low temperature CO adsorption on Na-ZSM-5 zeolites: An FTIR investigation. <i>Journal of Catalysis</i> , <b>1992</b> , 137, 179-185	7.3	124
388	The Nuclearity of the Active Site for Methane to Methanol Conversion in Cu-Mordenite: A Quantitative Assessment. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 15270-15278	16.4	123
387	Assessing the acidity of high silica chabazite H-SSZ-13 by FTIR using CO as molecular probe: Comparison with H-SAPO-34. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 2779-84	3.4	122
386	Probing the acid sites in confined spaces of microporous materials by vibrational spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2005</b> , 7, 1627-42	3.6	121
385	Conversion of Methanol to Hydrocarbons: Spectroscopic Characterization of Carbonaceous Species Formed over H-ZSM-5. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 9710-9716	3.8	115
384	CO Adsorption on CPO-27-Ni Coordination Polymer: Spectroscopic Features and Interaction Energy. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 3292-3299	3.8	114
383	The architecture of catalytically active centers in titanosilicate (TS-1) and related selective-oxidation catalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2000</b> , 2, 4812-4817	3.6	114
382	Functionalization of UiO-66 Metal Organic Framework and Highly Cross-Linked Polystyrene with Cr(CO) <sub>3</sub> : In Situ Formation, Stability, and Photoreactivity. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 4602-4611	9.6	113
381	X-ray absorption spectroscopies: useful tools to understand metallorganic frameworks structure and reactivity. <i>Chemical Society Reviews</i> , <b>2010</b> , 39, 4885-927	58.5	112
380	The chemistry of the oxychlorination catalyst: an in situ, time-resolved XANES study. <i>Angewandte Chemie - International Edition</i> , <b>2002</b> , 41, 2341-4	16.4	112
379	Effect of framework Si/Al ratio and extra-framework aluminum on the catalytic activity of Y zeolite. <i>Applied Catalysis A: General</i> , <b>2007</b> , 333, 245-253	5.1	111
378	In Situ Infrared Spectroscopic and Gravimetric Characterisation of the Solvent Removal and Dehydroxylation of the Metal Organic Frameworks UiO-66 and UiO-67. <i>Topics in Catalysis</i> , <b>2013</b> , 56, 770-782	2.3	110

377	Synthesis and characterization of amine-functionalized mixed-ligand metal-organic frameworks of UiO-66 topology. <i>Inorganic Chemistry</i> , <b>2014</b> , 53, 9509-15	5.1	108
376	Cation Location in Dehydrated NaBbZ Zeolite: An XRD and IR Study. <i>Journal of Physical Chemistry B</i> , <b>1997</b> , 101, 10653-10660	3.4	107
375	IR studies of CO and NO adsorbed on well characterized oxide single microcrystals. <i>Catalysis Today</i> , <b>1996</b> , 27, 403-435	5.3	106
374	Comparative IR-spectroscopic study of low-temperature H <sub>2</sub> and CO adsorption on Na zeolites. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1994</b> , 90, 3367-3372		105
373	The vibrational spectroscopy of H <sub>2</sub> , N <sub>2</sub> , CO and NO adsorbed on the titanosilicate molecular sieve ETS-10. <i>Physical Chemistry Chemical Physics</i> , <b>1999</b> , 1, 1649-1657	3.6	103
372	Structural Characterization of Ti-Silicalite-1: A Synchrotron Radiation X-Ray Powder Diffraction Study. <i>Journal of Catalysis</i> , <b>1999</b> , 183, 222-231	7.3	103
371	Characterisation of defective silicalites. <i>Dalton Transactions RSC</i> , <b>2000</b> , 3921-3929		102
370	N <sub>2</sub> Adsorption at 77 K on H-Mordenite and Alkali-Metal-Exchanged Mordenites: An IR Study. <i>The Journal of Physical Chemistry</i> , <b>1995</b> , 99, 11167-11177		101
369	Interaction of CD <sub>3</sub> CN and Pyridine with the Ti(IV) Centers of TS-1 Catalysts: a Spectroscopic and Computational Study. <i>Langmuir</i> , <b>2003</b> , 19, 2155-2161	4	99
368	Cr-MIL-101 encapsulated Keggin phosphotungstic acid as active nanomaterial for catalysing the alcoholysis of styrene oxide. <i>Green Chemistry</i> , <b>2014</b> , 16, 1351-1357	10	98
367	Effect of Interaction with H <sub>2</sub> O and NH <sub>3</sub> on the Vibrational, Electronic, and Energetic Peculiarities of Ti(IV) Centers TS-1 Catalysts: A Spectroscopic and Computational Study. <i>Journal of Physical Chemistry B</i> , <b>2002</b> , 106, 9892-9905	3.4	96
366	Probing Reactive Platinum Sites in UiO-67 Zirconium MetalOrganic Frameworks. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 1042-1056	9.6	95
365	How defects and crystal morphology control the effects of desilication. <i>Catalysis Today</i> , <b>2011</b> , 168, 38-47	5.3	94
364	Quantum-size effects in the titanosilicate molecular sieve. <i>Applied Physics Letters</i> , <b>1997</b> , 71, 2319-2321	3.4	93
363	FTIR study of the interaction of CO with pure and silica-supported copper(I) oxide. <i>Surface Science</i> , <b>1998</b> , 411, 272-285	1.8	93
362	(I(2))(n) encapsulation inside TiO(2): a way to tune photoactivity in the visible region. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 2822-8	16.4	93
361	Hydrogen storage in Chabazite zeolite frameworks. <i>Physical Chemistry Chemical Physics</i> , <b>2005</b> , 7, 3197-2036	9.3	93
360	A thermally stable Pt/Y-based metal-organic framework: Exploring the accessibility of the metal centers with spectroscopic methods using H <sub>2</sub> O, CH <sub>3</sub> OH, and CH <sub>3</sub> CN as probes. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 21509-20	3.4	93



359	In situ, Cr K-edge XAS study on the Phillips catalyst: activation and ethylene polymerization. <i>Journal of Catalysis</i> , <b>2005</b> , 230, 98-108	7.3	93
358	IR spectroscopy of neutral and ionic hydrogen-bonded complexes formed upon interaction of CH <sub>3</sub> OH, C <sub>2</sub> H <sub>5</sub> OH, (CH <sub>3</sub> ) <sub>2</sub> O, (C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> O and C <sub>4</sub> H <sub>8</sub> O with H-Y, H-ZSM-5 and H-mordenite: comparison with analogous adducts formed on the H-Nafion superacidic membrane. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1996</b> , 92, 4863-4875		93
357	Lateral interactions in CO adlayers on prismatic ZnO faces: a FTIR and HRTEM study. <i>Surface Science</i> , <b>1992</b> , 276, 281-298	1.8	93
356	Mono-, Di-, and Tricarbonylic Species in Copper(I)-Exchanged Zeolite ZSM-5: Comparison with Homogeneous Copper(I) Carbonylic Structures. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 3833-3844	3.4	92
355	FTIR adsorption studies of H <sub>2</sub> O and CH <sub>3</sub> OH in the isostructural H-SSZ-13 and H-SAPO-34: formation of H-bonded adducts and protonated clusters. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 7724-32	3.4	91
354	An in situ temperature dependent IR, EPR and high resolution XANES study on the NO/Cu+ZSM-5 interaction. <i>Chemical Physics Letters</i> , <b>2002</b> , 363, 389-396	2.5	91
353	Resonance Raman effects in TS-1: the structure of Ti(IV) species and reactivity towards H <sub>2</sub> O, NH <sub>3</sub> and H <sub>2</sub> O <sub>2</sub> : an in situ study. <i>Physical Chemistry Chemical Physics</i> , <b>2003</b> , 5, 4390	3.6	90
352	XAFS study of Ti-silicalite: structure of framework Ti(IV) in presence and in absence of reactive molecules (H <sub>2</sub> O, NH <sub>3</sub> ). <i>Catalysis Letters</i> , <b>1994</b> , 26, 195-208	2.8	88
351	Alumina-Supported Copper Chloride. <i>Journal of Catalysis</i> , <b>2000</b> , 189, 91-104	7.3	87
350	Stretching frequencies of cation-CO adducts in alkali-metal exchanged zeolites: An elementary electrostatic approach. <i>Journal of Chemical Physics</i> , <b>1995</b> , 103, 3158-3165	3.9	87
349	Structure of Homoleptic CuI(CO) <sub>3</sub> Cations in CuI-Exchanged ZSM-5 Zeolite: An X-ray Absorption Study. <i>Angewandte Chemie - International Edition</i> , <b>2000</b> , 39, 2138-2141	16.4	86
348	X-ray photoelectron spectroscopy and x-ray absorption near edge structure study of copper sites hosted at the internal surface of ZSM-5 zeolite: A comparison with quantitative and energetic data on the CO and NH <sub>3</sub> adsorption. <i>Journal of Chemical Physics</i> , <b>2000</b> , 113, 9248-9261	3.9	86
347	Heterogeneous Nonclassical Carbonyls Stabilized in Cu(I) and Ag(I) ZSM-5 Zeolites: Thermodynamic and Spectroscopic Features. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 9970-9983	3.4	84
346	XANES, EXAFS and FTIR characterization of copper-exchanged mordenite. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1998</b> , 94, 1519-1525		82
345	Selective catalysis and nanoscience: an inseparable pair. <i>Chemistry - A European Journal</i> , <b>2007</b> , 13, 2440-608	6.0	80
344	Response of CPO-27-Ni towards CO, N <sub>2</sub> and C <sub>2</sub> H <sub>4</sub> . <i>Physical Chemistry Chemical Physics</i> , <b>2009</b> , 11, 9811-23.6	2.6	79
343	High Zn/Al ratios enhance dehydrogenation vs hydrogen transfer reactions of Zn-ZSM-5 catalytic systems in methanol conversion to aromatics. <i>Journal of Catalysis</i> , <b>2018</b> , 362, 146-163	7.3	78
342	Submicrometer-Sized ZIF-71 Filled Organophilic Membranes for Improved Bioethanol Recovery: Mechanistic Insights by Monte Carlo Simulation and FTIR Spectroscopy. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 516-525	15.6	78

- 341 Vibrational spectroscopy of H<sub>2</sub>, N<sub>2</sub>, CO and NO adsorbed on H, Li, Na, K-exchanged ferrierite. *Microporous and Mesoporous Materials*, **2000**, 34, 67-80 5.3 78
- 340 Propene oligomerization on H-mordenite: Hydrogen-bonding interaction, chain initiation, propagation and hydrogen transfer studied by temperature-programmed FTIR and UV/Vis spectroscopies. *Journal of the Chemical Society, Faraday Transactions*, **1997**, 93, 1243-1249 77
- 339 Formation of Cu<sup>II</sup> adducts at 298 and 77 K in CuI-ZSM-5: an FTIR investigation. *Journal of the Chemical Society, Faraday Transactions*, **1995**, 91, 3285-3290 77
- 338 In situ FTIR spectroscopy of key intermediates in the first stages of ethylene polymerization on the Cr/SiO<sub>2</sub> Phillips catalyst: Solving the puzzle of the initiation mechanism?. *Journal of Catalysis*, **2006**, 240, 172-181 7.3 76
- 337 Characterization of a New Porous Pt-Containing Metal-Organic Framework Containing Potentially Catalytically Active Sites: Local Electronic Structure at the Metal Centers. *Chemistry of Materials*, **2007**, 19, 211-220 9.6 76
- 336 Interaction of N<sub>2</sub>, CO and NO with Cu-exchanged ETS-10: a compared FTIR study with other Cu-zeolites and with dispersed Cu<sub>2</sub>O. *Catalysis Today*, **2001**, 70, 91-105 5.3 76
- 335 CuI-Y and CuII-Y zeolites: a XANES, EXAFS and visible-NIR study. *Chemical Physics Letters*, **1997**, 269, 500-508 75
- 334 Tailoring the Selectivity of Ti-Based Photocatalysts (TiO<sub>2</sub> and Microporous ETS-10 and ETS-4) by Playing with Surface Morphology and Electronic Structure. *Chemistry of Materials*, **2006**, 18, 3412-3424 9.6 74
- 333 Alumina-Supported Copper Chloride. *Journal of Catalysis*, **2001**, 202, 279-295 7.3 73
- 332 Particles Morphology and Surface Properties As Investigated by HRTEM, FTIR, and Periodic DFT Calculations: From Pyrogenic TiO<sub>2</sub> (P25) to Nanoanatase. *Journal of Physical Chemistry C*, **2012**, 116, 17008-17018 7.8 73
- 331 Model oxide supported MoS<sub>2</sub> HDS catalysts: structure and surface properties. *Catalysis Science and Technology*, **2011**, 1, 123 5.5 72
- 330 Mechanisms of methanol adsorption on silicalite and silica: IR spectra and ab-initio calculations. *The Journal of Physical Chemistry*, **1993**, 97, 11979-11986 72
- 329 Hydrogenation of CO to Methanol by Pt Nanoparticles Encapsulated in UiO-67: Deciphering the Role of the Metal-Organic Framework. *Journal of the American Chemical Society*, **2020**, 142, 999-1009 16.4 72
- 328 Fundamental Aspects of H<sub>2</sub>S Adsorption on CPO-27-Ni. *Journal of Physical Chemistry C*, **2013**, 117, 15615-15622 7.1
- 327 Structure of the surface sites of γ-Al<sub>2</sub>O<sub>3</sub> as determined by high-resolution transmission electron microscopy, computer modelling and infrared spectroscopy of adsorbed CO. *Journal of the Chemical Society, Faraday Transactions*, **1993**, 89, 3483-3489 70
- 326 Hierarchical Zeolitic Imidazolate Framework-8 Catalyst for Monoglyceride Synthesis. *ChemCatChem*, **2013**, 5, 3562-3566 5.2 69
- 325 CO Adsorption on Anatase Nanocrystals: A Combined Experimental and Periodic DFT Study. *Journal of Physical Chemistry C*, **2011**, 115, 7694-7700 3.8 69
- 324 Heterogeneity of Framework Ti(IV) in Tiβ-silicalite as Revealed by the Adsorption of NH<sub>3</sub>. Combined Calorimetric and Spectroscopic Study. *Langmuir*, **1999**, 15, 5753-5764 4 69

323	H <sub>2</sub> S interaction with HKUST-1 and ZIF-8 MOFs: A multitechnique study. <i>Microporous and Mesoporous Materials</i> , <b>2015</b> , 207, 90-94	5.3	68
322	Acetylene, methylacetylene and ethylacetylene polymerization on H-ZSM5: a spectroscopic study. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1993</b> , 89, 1843-1855		68
321	Reactivity of Ti(IV) sites in Ti-zeolites: An embedded cluster approach. <i>Journal of Chemical Physics</i> , <b>2002</b> , 117, 226-237	3.9	67
320	Structure-reactivation relationships in zeolites during the methanol-to-hydrocarbons reaction: Complementary assessments of the coke content. <i>Journal of Catalysis</i> , <b>2017</b> , 351, 33-48	7.3	65
319	Gradual release of strongly bound nitric oxide from Fe(NO)(Hobdc). <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 3466-9	16.4	65
318	Structure-activity relationships of simple molecules adsorbed on CPO-27-Ni metal-organic framework: In situ experiments vs. theory. <i>Catalysis Today</i> , <b>2012</b> , 182, 67-79	5.3	65
317	Selective Oxidation of Ammonia to Hydroxylamine with Hydrogen Peroxide on Titanium Based Catalysts. <i>Studies in Surface Science and Catalysis</i> , <b>1994</b> , 82, 541-550	1.8	65
316	Surface characterization of monoclinic ZrO <sub>2</sub> . <i>Applied Surface Science</i> , <b>1997</b> , 115, 53-65	6.7	63
315	Synthesis of ZnO-carbon composites and imprinted carbon by the pyrolysis of ZnCl <sub>2</sub> -catalyzed furfuryl alcohol polymers. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2008</b> , 196, 143-153	4.7	63
314	The role of Al in the structure and reactivity of iron centers in Fe-ZSM-5-based catalysts: a statistically based infrared study. <i>Journal of Catalysis</i> , <b>2003</b> , 215, 264-270	7.3	63
313	CO adsorption at 77 K on CoO/MgO and NiO/MgO solid solutions: a Fourier-transform infrared study. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1992</b> , 88, 291		63
312	Highly effective ammonia removal in a series of Brønsted acidic porous polymers: investigation of chemical and structural variations. <i>Chemical Science</i> , <b>2017</b> , 8, 4399-4409	9.4	62
311	Surface Investigation and Morphological Analysis of Structurally Disordered MgCl <sub>2</sub> and MgCl <sub>2</sub> /TiCl <sub>4</sub> Ziegler-Natta Catalysts. <i>ACS Catalysis</i> , <b>2016</b> , 6, 5786-5796	13.1	62
310	Influence of additives in defining the active phase of the ethylene oxychlorination catalyst. <i>Physical Chemistry Chemical Physics</i> , <b>2010</b> , 12, 5605-18	3.6	62
309	Investigation of Acid Centers in MIL-53(Al, Ga) for Brønsted-Type Catalysis: In Situ FTIR and Ab Initio Molecular Modeling. <i>ChemCatChem</i> , <b>2010</b> , 2, 1235-1238	5.2	62
308	H <sub>2</sub> O Interaction with Solid H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> : An IR Study. <i>Langmuir</i> , <b>2000</b> , 16, 8139-8144	4	62
307	Activity and deactivation of Fe-MFI catalysts for benzene hydroxylation to phenol by N <sub>2</sub> O. <i>Journal of Catalysis</i> , <b>2003</b> , 214, 169-178	7.3	61
306	Surface structures of oxides and halides and their relationships to catalytic properties. <i>Advances in Catalysis</i> , <b>2001</b> , 265-397	2.4	61

305	New Strategies in the Raman Study of the Cr/SiO <sub>2</sub> Phillips Catalyst: Observation of Molecular Adducts on Cr(II) Sites. <i>Chemistry of Materials</i> , <b>2005</b> , 17, 2019-2027	9.6	59
304	Stoichiometric and sodium-doped titanium silicate molecular sieve containing atomically defined TiO <sub>4</sub> chains: Quantum ab initio calculations, spectroscopic properties, and reactivity. <i>Journal of Chemical Physics</i> , <b>2000</b> , 112, 3859-3867	3.9	59
303	Cyclodextrin nanospheres as effective gas carriers. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , <b>2011</b> , 71, 189-194		58
302	Formation of Nonplanar Cu <sub>2</sub> (CO) <sub>3</sub> Tricarbonyls on Cu <sub>2</sub> ZSM-5: An FTIR Study at 80 K. <i>Journal of Catalysis</i> , <b>1998</b> , 173, 540-542	7.3	57
301	Infrared study of carbon monoxide adsorption at 77 K on faujasites and ZSM-5 zeolites. <i>Vibrational Spectroscopy</i> , <b>1993</b> , 5, 69-74	2.1	57
300	Carbon dioxide adsorption in amine-functionalized mixed-ligand metal-organic frameworks of UiO-66 topology. <i>ChemSusChem</i> , <b>2014</b> , 7, 3382-8	8.3	56
299	Tailoring metal-organic frameworks for CO <sub>2</sub> capture: the amino effect. <i>ChemSusChem</i> , <b>2011</b> , 4, 1281-90	8.3	56
298	Direct evidence of adsorption induced Cr(II) mobility on the SiO <sub>2</sub> surface upon complexation by CO. <i>Chemical Communications</i> , <b>2010</b> , 46, 976-8	5.8	56
297	Host/Guest Interactions in a Sepiolite-Based Maya Blue Pigment: A Spectroscopic Study. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 16764-16776	3.8	56
296	Alumina-Supported Copper Chloride. <i>Journal of Catalysis</i> , <b>2002</b> , 205, 375-381	7.3	56
295	Calorimetric and IR spectroscopic study of the interaction of NH <sub>3</sub> with variously prepared defective silicalites. <i>Applied Surface Science</i> , <b>2002</b> , 196, 56-70	6.7	55
294	Alumina-Supported Copper Chloride. <i>Journal of Catalysis</i> , <b>2000</b> , 189, 105-116	7.3	55
293	Infrared studies of the interaction of carbon monoxide and dinitrogen with ferrisilicate MFI-type zeolites. <i>Catalysis Letters</i> , <b>1996</b> , 42, 25-33	2.8	55
292	1D-2D-3D Transformation Synthesis of Hierarchical Metal-Organic Framework Adsorbent for Multicomponent Alkane Separation. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 819-828	16.4	54
291	Quantification of copper phases, their reducibility and dispersion in doped-CuCl <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts for ethylene oxychlorination. <i>Dalton Transactions</i> , <b>2010</b> , 39, 8437-49	4.3	54
290	A calorimetric, IR, XANES and EXAFS study of the adsorption of NH <sub>3</sub> on Ti-silicalite as a function of the sample pre-treatment. <i>Microporous and Mesoporous Materials</i> , <b>1999</b> , 30, 67-76	5.3	53
289	CO <sub>2</sub> Hydrogenation over Pt-Containing UiO-67 Zr-MOFs: The Base Case. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2017</b> , 56, 13206-13218	3.9	52
288	Cu <sup>+</sup> (H <sub>2</sub> ) and Na <sup>+</sup> (H <sub>2</sub> ) adducts in exchanged ZSM-5 zeolites. <i>Chemical Communications</i> , <b>2004</b> , 2768-9	5.8	52

287	The role of chlorine and additives on the density and strength of Lewis and Brønsted acidic sites of $\gamma$ -Al <sub>2</sub> O <sub>3</sub> support used in oxychlorination catalysis: A FTIR study. <i>Journal of Catalysis</i> , <b>2011</b> , 284, 236-246	7.3	51
286	Structure and Reactivity of Oxygen-Bridged Diamino Dicopper(II) Complexes in Cu-Ion-Exchanged Chabazite Catalyst for NH <sub>3</sub> -Mediated Selective Catalytic Reduction. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 15884-15896	16.4	51
285	Hydrogen adsorption and spill-over effects on H <sub>2</sub> and Pd-containing Y zeolites: An experimental and theoretical investigation. <i>Applied Catalysis A: General</i> , <b>2006</b> , 307, 3-12	5.1	50
284	Click-based porous cationic polymers for enhanced carbon dioxide capture. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 372-383	13	49
283	Equilibria between peroxy and hydroperoxy species in the titanosilicates: an in situ high-resolution XANES investigation. <i>ChemPhysChem</i> , <b>2004</b> , 5, 1799-804	3.2	49
282	Structural Determination of Copper Species on the Alumina-Supported Copper Chloride Catalyst: A Detailed EXAFS Study. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 5022-5030	3.4	49
281	Effect of Ti Speciation on Catalytic Performance of TS-1 in the Hydrogen Peroxide to Propylene Oxide Reaction. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 9021-9034	3.8	48
280	Methane conversion to light olefins: How does the methyl halide route differ from the methanol to olefins (MTO) route?. <i>Catalysis Today</i> , <b>2011</b> , 171, 211-220	5.3	48
279	1-Butene Oligomerization in Brønsted Acidic Zeolites: Mechanistic Insights from Low-Temperature in Situ FTIR Spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 7862-7870	3.4	48
278	FTIR and UV-Vis characterization of Fe-Silicalite. <i>Journal of Molecular Catalysis A</i> , <b>2000</b> , 158, 107-114		48
277	Preference towards five-coordination in Ti silicalite-1 upon molecular adsorption. <i>ChemPhysChem</i> , <b>2013</b> , 14, 79-83	3.2	47
276	Rutile Surface Properties Beyond the Single Crystal Approach: New Insights from the Experimental Investigation of Different Polycrystalline Samples and Periodic DFT Calculations. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 11186-11196	3.8	47
275	Persistent methylbenzenium ions in protonated zeolites: the required proton affinity of the guest hydrocarbon. <i>ChemPhysChem</i> , <b>2005</b> , 6, 232-5	3.2	47
274	Ammoximation of Cyclohexanone on Titanium Silicalite: Investigation of the Reaction Mechanism. <i>Studies in Surface Science and Catalysis</i> , <b>1993</b> , 75, 719-729	1.8	47
273	CO Capture in Dry and Wet Conditions in UTSA-16 Metal-Organic Framework. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 455-463	9.5	46
272	Description of a flexible cell for in situ X-ray and far-IR characterization of the surface of powdered materials. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2003</b> , 200, 196-201	1.2	46
271	Tuning the structure, distribution and reactivity of polymerization centres of Cr(II)/SiO <sub>2</sub> Phillips catalyst by controlled annealing. <i>Journal of Catalysis</i> , <b>2005</b> , 236, 233-244	7.3	46
270	Design of high surface area poly(ionic liquid)s to convert carbon dioxide into ethylene carbonate. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 8508-8518	13	45



269	Synthesis and crystal chemistry of the STA-12 family of metal N,N'-piperazinebis(methylenephosphonate)s and applications of STA-12(Ni) in the separation of gases. <i>Microporous and Mesoporous Materials</i> , <b>2012</b> , 157, 3-17	5.3	45
268	Co-ordination and oxidation changes undergone by iron species in Fe-silicalite upon template removal, activation and interaction with N <sub>2</sub> O: an in situ X-ray absorption study. <i>Microchemical Journal</i> , <b>2002</b> , 71, 101-116	4.8	45
267	Methylation of phenol over high-silica beta zeolite: Effect of zeolite acidity and crystal size on catalyst behaviour. <i>Journal of Catalysis</i> , <b>2007</b> , 245, 285-300	7.3	44
266	Exact Stoichiometry of Ce Zr Cornerstones in Mixed-Metal UiO-66 Metal-Organic Frameworks Revealed by Extended X-ray Absorption Fine Structure Spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 17379-17383	16.4	44
265	FTIR investigation of the H <sub>2</sub> , N <sub>2</sub> , and C <sub>2</sub> H <sub>4</sub> molecular complexes formed on the Cr(II) sites in the Phillips catalyst: a preliminary step in the understanding of a complex system. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 15024-31	3.4	43
264	Well defined carbonyl complexes in Ag <sup>+</sup> - and Cu <sup>+</sup> -exchanged ZSM-5 zeolite: a comparison with homogeneous counterparts. <i>Journal of Molecular Catalysis A</i> , <b>1999</b> , 146, 97-106		43
263	IR Spectra of CO Adsorbed at Low Temperature (77 K) On Titaniumsilicalite, H-ZSM5 and Silicalite. <i>Studies in Surface Science and Catalysis</i> , <b>1991</b> , 671-680	1.8	43
262	Exploring structure and reactivity of Cu sites in functionalized UiO-67 MOFs. <i>Catalysis Today</i> , <b>2017</b> , 283, 89-103	5.3	42
261	Probing the surface of nanosheet H-ZSM-5 with FTIR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 13363-70	3.6	42
260	Modulator Effect in UiO-66-NDC (1,4-Naphthalenedicarboxylic Acid) Synthesis and Comparison with UiO-67-NDC Isorecticular Metal-Organic Frameworks. <i>Crystal Growth and Design</i> , <b>2017</b> , 17, 5422-5431	3.5	42
259	A surface study of monoclinic zirconia (m-ZrO <sub>2</sub> ). <i>Surface Science</i> , <b>1997</b> , 377-379, 50-55	1.8	42
258	On the first stages of the ethylene polymerization on Cr <sup>2+</sup> /SiO <sub>2</sub> Phillips catalyst: time and temperature resolved IR studies. <i>Journal of Molecular Catalysis A</i> , <b>2003</b> , 204-205, 527-534		42
257	Effect of NH <sub>3</sub> Adsorption on the Structural and Vibrational Properties of TS-1. <i>Journal of Physical Chemistry B</i> , <b>2002</b> , 106, 7524-7526	3.4	42
256	Solvent-Driven Gate Opening in MOF-76-Ce: Effect on CO <sub>2</sub> Adsorption. <i>ChemSusChem</i> , <b>2016</b> , 9, 713-9	8.3	42
255	Synthesis of Monoglycerides by Esterification of Oleic Acid with Glycerol in Heterogeneous Catalytic Process Using Tin-Organic Framework Catalyst. <i>Catalysis Letters</i> , <b>2013</b> , 143, 356-363	2.8	41
254	Spectroscopic investigation of heterogeneous Ziegler-Natta catalysts: Ti and Mg chloride tetrahydrofurates, their interaction compound, and the role of the activator. <i>Chemistry - A European Journal</i> , <b>2011</b> , 17, 8648-56	4.8	41
253	New insights into UTSA-16. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 220-7	3.6	40
252	From Isolated Ag <sup>+</sup> Ions to Aggregated Ag <sup>0</sup> Nanoclusters in Silver-Exchanged Engelhard Titanosilicate (ETS-10) Molecular Sieve: Reversible Behavior. <i>Chemistry of Materials</i> , <b>2009</b> , 21, 1343-1353	9.6	40



251	Vibrational and thermodynamic properties of Ar, N <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> and CO adsorbed and condensed into (H,Na)-Y zeolite cages as studied by variable temperature IR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2006</b> , 8, 1186-96	3.6	40
250	New precursor for the post-synthesis preparation of Fe-ZSM-5 zeolites with low iron content. <i>Catalysis Letters</i> , <b>2005</b> , 103, 33-41	2.8	40
249	Dimethyl carbonate in the supercages of NaY zeolite: the role of local fields in promoting methylation and carboxymethylation activity. <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 4774-76.4	16.4	39
248	Cr(II) and Cr(III) ions grafted at internal nests of a pentasilic zeolite (silicalite): characterization and formation of polycarbonylic, polynitrosylic, and mixed species by interaction with CO and NO. <i>Journal of Molecular Catalysis</i> , <b>1992</b> , 74, 175-184		39
247	Nitrate/nitrite equilibrium in the reaction of NO with a Cu-CHA catalyst for NH <sub>3</sub> -SCR. <i>Catalysis Science and Technology</i> , <b>2016</b> , 6, 8314-8324	5.5	39
246	Subnanometric Pd Particles Stabilized Inside Highly Cross-Linked Polymeric Supports. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 2297-2308	9.6	38
245	Infrared Spectroscopy of Transient Surface Species. <i>Advances in Catalysis</i> , <b>2007</b> , 51, 1-74	2.4	38
244	Operando study of palladium nanoparticles inside UiO-67 MOF for catalytic hydrogenation of hydrocarbons. <i>Faraday Discussions</i> , <b>2018</b> , 208, 287-306	3.6	37
243	Ligands Make the Difference! Molecular Insights into Cr/SiO Phillips Catalyst during Ethylene Polymerization. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 17064-17073	16.4	37
242	Reversibility of structural collapse in zeolite Y: Alkane cracking and characterization. <i>Journal of Catalysis</i> , <b>2006</b> , 241, 66-73	7.3	37
241	In Situ Characterization of Catalysts Active in Partial Oxidations: TS-1 and Fe-MFI Case Studies. <i>Topics in Catalysis</i> , <b>2002</b> , 21, 67-78	2.3	37
240	Characterization of isolated Ag cations in homoionic Ag-Y zeolites: A combined anomalous XRPD and EXAFS study. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2003</b> , 200, 155-159	1.2	37
239	Ti-chabazite as a model system of Ti(IV) in Ti-zeolites: A periodic approach. <i>Journal of Chemical Physics</i> , <b>2003</b> , 118, 10183-10194	3.9	37
238	Structural and optical investigation of InAs <sub>x</sub> P <sub>1-x</sub> /InP strained superlattices. <i>Journal of Applied Physics</i> , <b>1998</b> , 83, 1058-1077	2.5	37
237	Spectroscopic characterization and photo/thermal resistance of a hybrid palygorskite/methyl red Mayan pigment. <i>Microporous and Mesoporous Materials</i> , <b>2012</b> , 155, 167-176	5.3	36
236	Tailoring the activity of Ti-based photocatalysts by playing with surface morphology and silver doping. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2008</b> , 196, 165-173	4.7	36
235	Vibrational properties of Cr(II) centers on reduced Phillips catalysts highlighted by resonant Raman spectroscopy. <i>ChemPhysChem</i> , <b>2006</b> , 7, 342-4	3.2	36
234	Spectroscopic study in the UV-Vis, near and mid IR of cationic species formed by interaction of thiophene, dithiophene and terthiophene with the zeolite H-Y. <i>Physical Chemistry Chemical Physics</i> , <b>1999</b> , 1, 561-569	3.6	36

233	Operando Raman spectroscopy applying novel fluidized bed micro-reactor technology. <i>Catalysis Today</i> , <b>2013</b> , 205, 128-133	5.3	35
232	Dehydrogenation reactions of 2NaBH <sub>4</sub> + MgH <sub>2</sub> system. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 7891-7896	6.7	35
231	Effect of Boron Substitution in Chabazite Framework: IR Studies on the Acidity Properties and Reactivity Towards Methanol. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 2992-2999	3.8	35
230	Atom pair potential for molecular dynamics simulations of structural and dynamical properties of aluminosilicates: test on silicalite and anhydrous Na-A and Ca-A zeolites and comparison with experimental data. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1995</b> , 91, 525		35
229	Acetylene adsorption on CPO-27-M metal-organic frameworks (M=Fe, Co and Ni). <i>ChemPhysChem</i> , <b>2012</b> , 13, 445-8	3.2	34
228	M/TiO <sub>2</sub> /SiO <sub>2</sub> (M=Fe, Mn, and V) catalysts in photo-decomposition of sulfur mustard. <i>Applied Catalysis B: Environmental</i> , <b>2009</b> , 91, 546-553	21.8	34
227	Orthorhombic and monoclinic silicalites: structure, morphology, vibrational properties and crystal defects.. <i>Studies in Surface Science and Catalysis</i> , <b>1994</b> , 84, 559-566	1.8	34
226	Dynamic Cu <sup>I</sup> /Cu <sup>I</sup> speciation in Cu-CHA catalysts by in situ Diffuse Reflectance UV-Vis-NIR spectroscopy. <i>Applied Catalysis A: General</i> , <b>2019</b> , 578, 1-9	5.1	33
225	Defect Sites in H <sub>2</sub> -Reduced TiO <sub>2</sub> Convert Ethylene to High Density Polyethylene without Activator. <i>ACS Catalysis</i> , <b>2014</b> , 4, 986-989	13.1	33
224	Synthesis of Titanium Chabazite: A New Shape Selective Oxidation Catalyst with Small Pore Openings and Application in the Production of Methyl Formate from Methanol. <i>ChemCatChem</i> , <b>2011</b> , 3, 1869-1871	5.2	33
223	New frontier in transmission IR spectroscopy of molecules adsorbed on high surface area solids: Experiments below liquid nitrogen temperature. <i>Catalysis Today</i> , <b>2006</b> , 113, 65-80	5.3	33
222	Coordination and oxidation changes undergone by iron species in Fe-MCM-22 upon template removal, activation and redox treatments: an in situ IR, EXAFS and XANES study. <i>Journal of Catalysis</i> , <b>2005</b> , 229, 45-54	7.3	33
221	Identifying Cu-oxo species in Cu-zeolites by XAS: A theoretical survey by DFT-assisted XANES simulation and EXAFS wavelet transform. <i>Catalysis Today</i> , <b>2020</b> , 345, 125-135	5.3	33
220	MoS <sub>2</sub> supported on P25 titania: A model system for the activation of a HDS catalyst. <i>Journal of Catalysis</i> , <b>2015</b> , 328, 225-235	7.3	32
219	Synthesis, characterization and CO <sub>2</sub> uptake of a chiral Co(II) metal-organic framework containing a thiazolidine-based spacer. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 10335		32
218	EXAFS studies on MFI-type gallosilicate molecular sieves. <i>Catalysis Letters</i> , <b>1999</b> , 63, 213-216	2.8	32
217	Extended x-ray absorption fine structure investigation on buried InAsP/InP interfaces. <i>Applied Physics Letters</i> , <b>1994</b> , 64, 1430-1432	3.4	32
216	Investigating the Low Temperature Formation of Cu <sup>+</sup> -(N,O) Species on Cu-CHA Zeolites for the Selective Catalytic Reduction of NO. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 12044-12053	4.8	31

215	Functionalization of zeolitic cavities: grafting NH <sub>2</sub> groups in framework T sites of B-SSZ-13--a way to obtain basic solids catalysts?. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 12131-40	16.4	31
214	A Multitechnique Approach to Spin-Flips for Cp <sub>2</sub> Cr(II) Chemistry in Confined State. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 4451-4458	3.8	30
213	Cation-Carbon stretching vibration of adducts formed upon CO adsorption on alkaline zeolites. <i>Physical Chemistry Chemical Physics</i> , <b>1999</b> , 1, 4139-4140	3.6	30
212	Unit cell thick nanosheets of zeolite H-ZSM-5: Structure and activity. <i>Topics in Catalysis</i> , <b>2013</b> , 56, 558-566	6.3	29
211	Silica-supported Ti chloride tetrahydrofuranates, precursors of Ziegler-Natta catalysts. <i>Dalton Transactions</i> , <b>2013</b> , 42, 12706-13	4.3	29
210	Zeolite Surface Methoxy Groups as Key Intermediates in the Stepwise Conversion of Methane to Methanol. <i>ChemCatChem</i> , <b>2019</b> , 11, 5022-5026	5.2	28
209	H <sub>2</sub> interaction with divalent cations in isostructural MOFs: a key study for variable temperature infrared spectroscopy. <i>Dalton Transactions</i> , <b>2013</b> , 42, 12586-95	4.3	28
208	Structure and Enhanced Reactivity of Chromocene Carbonyl Confined inside Cavities of NaY Zeolite. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 7305-7315	3.8	28
207	Heterocycles oligomerization in acidic zeolites: a UV-visible and IR study. <i>Topics in Catalysis</i> , <b>1999</b> , 8, 279-292	2.92	28
206	Interaction of CO with Cr <sub>2</sub> O <sub>3</sub> surface: a FTIR and HRTEM study. <i>Chemical Physics</i> , <b>1993</b> , 177, 547-560	2.3	28
205	Tuning Pt and Cu sites population inside functionalized UiO-67 MOF by controlling activation conditions. <i>Faraday Discussions</i> , <b>2017</b> , 201, 265-286	3.6	27
204	Conductive ZSM-5-Based Adsorbent for CO <sub>2</sub> Capture: Active Phase vs Monolith. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2017</b> , 56, 8485-8498	3.9	27
203	Catalyst characterization: characterization techniques. <i>Catalysis Today</i> , <b>1997</b> , 34, 307-327	5.3	27
202	Catalytic activity of Fe ions in iron-based crystalline and amorphous systems: role of dispersion, coordinative unsaturation and Al content. <i>Journal of Catalysis</i> , <b>2005</b> , 229, 127-135	7.3	27
201	Band resolution techniques and Fourier transform infrared spectra of adsorbed species. <i>Vibrational Spectroscopy</i> , <b>1993</b> , 4, 273-284	2.1	27
200	Selective Phenylacetylene Hydrogenation on a Polymer-Supported Palladium Catalyst Monitored by FTIR Spectroscopy. <i>ChemCatChem</i> , <b>2011</b> , 3, 222-226	5.2	26
199	Single Site Catalyst for Partial Oxidation Reaction: TS-1 Case Study	37-68	26
198	Spectroscopic Studies (UV-vis and FTIR) of CO and Ethene Molecular Complexes and of Ethene Oligomerization on $\alpha$ -Cr <sub>2</sub> O <sub>3</sub> Surfaces. <i>Langmuir</i> , <b>1994</b> , 10, 3094-3104	4	26

197	Interaction of chromocene with the silica surface, and structure of the active species for ethene polymerization. <i>Faraday Discussions of the Chemical Society</i> , <b>1989</b> , 87, 149		26
196	Spectroscopic and Structural Characterization of Thermal Decomposition of $\text{Mg}(\text{BH}_4)_2$ : Dynamic Vacuum versus $\text{H}_2$ Atmosphere. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 25340-25351	3.8	25
195	Ethylene polymerization on a $\text{SiH}_4$ -modified Phillips catalyst: detection of in situ produced $\alpha$ -olefins by operando FT-IR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 2239-45	3.6	25
194	Stability and reactivity of grafted $\text{Cr}(\text{CO})_3$ species on MOF linkers: a computational study. <i>Inorganic Chemistry</i> , <b>2009</b> , 48, 5439-48	5.1	25
193	Activation and In Situ Ethylene Polymerization on Silica-Supported Ziegler-Natta Catalysts. <i>ACS Catalysis</i> , <b>2015</b> , 5, 5586-5595	13.1	24
192	Stability vs. reactivity: understanding the adsorption properties of $\text{Ni}_3(\text{BTP})_2$ by experimental and computational methods. <i>Dalton Transactions</i> , <b>2013</b> , 42, 6450-8	4.3	24
191	Spectroscopic and adsorptive studies of a thermally robust pyrazolato-based PCP. <i>Dalton Transactions</i> , <b>2012</b> , 41, 4012-9	4.3	24
190	IR spectroscopy of adsorbed NO as a useful tool for the characterisation of low concentrated Fe-silicalite catalysts. <i>Journal of Molecular Catalysis A</i> , <b>2002</b> , 182-183, 359-366		24
189	Surface properties of $\text{Cu}_2\text{O}/\text{MCM-41}$ mesoporous systems. <i>Studies in Surface Science and Catalysis</i> , <b>1998</b> , 343-350	1.8	24
188	Nitrosylic complexes in $\text{Ag}(\text{I})/\text{ZSM-5}$ : a comparison with $\text{Cu}(\text{I})/\text{ZSM-5}$ . <i>Microporous and Mesoporous Materials</i> , <b>1999</b> , 30, 129-135	5.3	24
187	XAS and XES Techniques Shed Light on the Dark Side of Ziegler-Natta Catalysts: Active-Site Generation. <i>ChemCatChem</i> , <b>2015</b> , 7, 1432-1437	5.2	23
186	EXAFS wavelet transform analysis of Cu-MOR zeolites for the direct methane to methanol conversion. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 18950-18963	3.6	23
185	Anchoring Fe ions to amorphous and crystalline oxides: a means to tune the degree of Fe coordination. <i>ChemPhysChem</i> , <b>2003</b> , 4, 1073-8	3.2	23
184	Calorimetric and spectroscopic study of the coordinative unsaturation of copper(I) and silver(I) cations in ZSM-5 zeolite: Room temperature adsorption of $\text{NH}_3$ . <i>Thermochimica Acta</i> , <b>2001</b> , 379, 131-145	2.9	23
183	Evidence of Mixed-Ligand Complexes in $\text{Cu}(\text{II})/\text{CHA}$ by Reaction of Cu Nitrates with $\text{NO}/\text{NH}_3$ at Low Temperature. <i>ChemCatChem</i> , <b>2019</b> , 11, 3828-3838	5.2	22
182	Role of internal coke for deactivation of ZSM-5 catalysts after low temperature removal of coke with $\text{NO}_2$ . <i>Catalysis Science and Technology</i> , <b>2012</b> , 2, 1196	5.5	22
181	Reactivity of Cr Species Grafted on $\text{SiO}_2/\text{Si}(100)$ Surface: A Reflection Extended X-ray Absorption Fine Structure Study down to the Submonolayer Regime. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 16437-16444	3.8	22
180	The Structure of the Peroxo Species in the TS-1 Catalyst as Investigated by Resonant Raman Spectroscopy. <i>Angewandte Chemie</i> , <b>2002</b> , 114, 4928-4931	3.6	22

179	The Role of Isolated Sites in Heterogeneous Catalysis: Characterization and Modeling. <i>International Journal of Molecular Sciences</i> , <b>2001</b> , 2, 167-182	6.3	22
178	Modelling of $\text{Cr}_2\text{O}_3$ and ZnO crystal morphology and its relation to the vibrational spectra of adsorbed CO. <i>Faraday Discussions</i> , <b>1996</b> , 105, 119-138	3.6	22
177	MINUIT subroutine for spectra deconvolution. <i>Computer Physics Communications</i> , <b>1993</b> , 74, 119-141	4.2	22
176	In Situ Resonant UV-Raman Spectroscopy of Polycyclic Aromatic Hydrocarbons. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 11694-11698	3.8	21
175	Spectroscopic Study on the Surface Properties and Catalytic Performances of Palladium Nanoparticles in Poly(ionic liquid)s. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 1683-1692	3.8	21
174	Theoretical and experimental study on $\text{Mg}(\text{BH}_4)_2/\text{Zn}(\text{BH}_4)_2$ mixed borohydrides. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 580, S282-S286	5.7	21
173	Healing of defects in ETS-10 by selective UV irradiation: a Raman study. <i>Chemical Communications</i> , <b>2003</b> , 1514-1515	5.8	21
172	Alkyne polymerization on the titanosilicate molecular sieve ETS-10. <i>Physical Chemistry Chemical Physics</i> , <b>2001</b> , 3, 1228-1231	3.6	21
171	The $\text{CuCl}_2/\text{Al}_2\text{O}_3$ Catalyst Investigated in Interaction with Reagents. <i>International Journal of Molecular Sciences</i> , <b>2001</b> , 2, 230-245	6.3	21
170	XANES study of Ti and Fe substituted silicalites in presence and in absence of $\text{NH}_3$ and comparison with UV-vis, IR and Raman spectra. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1995</b> , 97, 23-27	1.2	21
169	Electronic and Geometrical Structure of $\text{Zn}^{2+}$ Ions Stabilized in the Porous Structure of Zn-Loaded Zeolite H-ZSM-5: A Multifrequency CW and Pulse EPR Study. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 14238-14245	3.8	20
168	Conversion of methanol to hydrocarbons over zeolite ZSM-23 (MTT): exceptional effects of particle size on catalyst lifetime. <i>Chemical Communications</i> , <b>2017</b> , 53, 6816-6819	5.8	20
167	Fast carbon dioxide recycling by reaction with $\text{Mg}(\text{BH}_4)_2$ . <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 22482-6	3.6	20
166	Increasing the stability of $\text{Mg}_2(\text{dobpdc})$ metal-organic framework in air through solvent removal. <i>Materials Chemistry Frontiers</i> , <b>2017</b> , 1, 444-448	7.8	20
165	Behavior of extraframework Fe sites in MFI and MCM-22 zeolites upon interaction with $\text{N}_2\text{O}$ and NO. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 22377-85	3.4	20
164	UV reflectance and FTIR spectroscopic studies of CO adsorption and reaction on lanthanum oxide. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1996</b> , 92, 4675		20
163	Host-guest interactions in zeolite cavities. <i>Studies in Surface Science and Catalysis</i> , <b>1995</b> , 97, 213-222	1.8	20
162	A multi-technique approach to disclose the reaction mechanism of dimethyl carbonate synthesis over amino-modified SBA-15 catalysts. <i>Applied Catalysis B: Environmental</i> , <b>2017</b> , 211, 323-336	21.8	19

161	Ti-STT: a new zeotype shape selective oxidation catalyst. <i>Chemical Communications</i> , <b>2011</b> , 47, 11867-9	5.8	19
160	Modeling CO and N <sub>2</sub> adsorption at Cr surface species of Phillips catalyst by hybrid density functionals: effect of Hartree-Fock exchange percentage. <i>Journal of Physical Chemistry A</i> , <b>2009</b> , 113, 14261-9	2.8	19
159	In situ Raman study to monitor bioactive glasses reactivity. <i>Journal of Raman Spectroscopy</i> , <b>2008</b> , 39, 260-264	2.3	19
158	Revisiting the Cr <sub>2</sub> O <sub>3</sub> /CO interaction: an FTIR and HRTEM study. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1993</b> , 64-65, 307-313	1.7	19
157	The impact of reaction conditions and material composition on the stepwise methane to methanol conversion over Cu-MOR: An operando XAS study. <i>Catalysis Today</i> , <b>2019</b> , 336, 99-108	5.3	19
156	The Influence of Alcohols in Driving the Morphology of Magnesium Chloride Nanocrystals. <i>ChemCatChem</i> , <b>2017</b> , 9, 1782-1787	5.2	18
155	Nanoporous gold obtained from a metallic glass precursor used as substrate for surface-enhanced Raman scattering. <i>Philosophical Magazine Letters</i> , <b>2015</b> , 95, 474-482	1	18
154	CO <sub>2</sub> Adsorption Sites in UTSA-16: Multitechnique Approach. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 12068-12074	3.8	18
153	Pre-reduction of the Phillips CrVI/SiO <sub>2</sub> catalyst by cyclohexene: A model for the induction period of ethylene polymerization. <i>Journal of Catalysis</i> , <b>2016</b> , 337, 45-51	7.3	18
152	CHAPTER 4: Characterization of MOFs. 1. Combined Vibrational and Electronic Spectroscopies. <i>RSC Catalysis Series</i> , 76-142	0.3	18
151	Photo-degradation of yperite over V, Fe and Mn-doped titania-silica photocatalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2008</b> , 10, 6562-70	3.6	18
150	Structure and redox activity of copper sites isolated in a nanoporous P4VP polymeric matrix. <i>Angewandte Chemie - International Edition</i> , <b>2008</b> , 47, 9269-73	16.4	18
149	The Chemistry of the Oxychlorination Catalyst: an In Situ, Time-Resolved XANES Study. <i>Angewandte Chemie</i> , <b>2002</b> , 114, 2447-2450	3.6	18
148	Temperature resolved FTIR spectroscopy of Cr <sup>2+</sup> /SiO <sub>2</sub> catalysts: acetylene and methylacetylene oligomerisation. <i>Physical Chemistry Chemical Physics</i> , <b>2003</b> , 5, 4414-4417	3.6	18
147	Vibrational spectroscopy of carbon monoxide and dinitrogen adsorbed on magnesium-exchanged ETS-10 molecular sieve. <i>Catalysis Letters</i> , <b>2000</b> , 66, 231-235	2.8	18
146	Polycarbonylic and polynitrosylic species in CuI-exchanged ZSM-5, mordenite and Y zeolites: comparison with homogeneous complexes. <i>Studies in Surface Science and Catalysis</i> , <b>2000</b> , 2915-2920	1.8	18
145	Location and activity of VO <sub>x</sub> species on TiO <sub>2</sub> particles for NH <sub>3</sub> -SCR catalysis. <i>Applied Catalysis B: Environmental</i> , <b>2020</b> , 278, 119337	21.8	18
144	Incorporation of Ni into HZSM-5 zeolites: Effects of zeolite morphology and incorporation procedure. <i>Microporous and Mesoporous Materials</i> , <b>2016</b> , 229, 76-82	5.3	18



143	Functional Dyes in Polymeric 3D Printing: Applications and Perspectives <b>2021</b> , 3, 1-17		18
142	CO adsorption on different organo-modified SBA-15 silicas: a multidisciplinary study on the effects of basic surface groups. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 14114-14128	3.6	17
141	Functionalized nanoporous gold as a new biosensor platform for ultra-low quantitative detection of human serum albumin. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 288, 460-468	8.5	17
140	Synthesis and Characterization of High-Surface-Area Silica/Titania Monoliths. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 10064-10072	3.8	17
139	The effect of hydrosilanes on the active sites of the Phillips catalyst: the secret for in situ olefin generation. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 17277-82	4.8	17
138	FTIR study of CO adsorbed at low temperature on zeolite L. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1997</b> , 93, 189-191		17
137	Rehydration mechanisms in zeolites: reversibility of T <sub>1</sub> breaking and of tetrahedral cation migration in brewsterite. <i>Microporous and Mesoporous Materials</i> , <b>2001</b> , 42, 277-287	5.3	17
136	Interaction between probe molecules and zeolites.. <i>Physical Chemistry Chemical Physics</i> , <b>2002</b> , 4, 2424-2433	5.3	17
135	Active sites speciation of supported CoMoS phase probed by NO molecule: A combined IR and DFT study. <i>Journal of Catalysis</i> , <b>2018</b> , 361, 62-72	7.3	16
134	Controlling the Synthesis of Metal-Organic Framework UiO-67 by Tuning Its Kinetic Driving Force. <i>Crystal Growth and Design</i> , <b>2019</b> , 19, 4246-4251	3.5	16
133	Hydrogen storage of Mg <sub>2</sub> N mixed metal borohydrides. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 615, S702-S705	5.7	16
132	Effect of surface hydroxylation on the catalytic activity of a Cr(II)/SiO <sub>2</sub> model system of Phillips catalyst. <i>Journal of Catalysis</i> , <b>2015</b> , 324, 79-87	7.3	16
131	AM-6: a microporous one-dimensional ferromagnet. <i>Dalton Transactions</i> , <b>2009</b> , 8025-32	4.3	16
130	Chromocene in porous polystyrene: an example of organometallic chemistry in confined spaces. <i>Physical Chemistry Chemical Physics</i> , <b>2009</b> , 11, 2218-27	3.6	16
129	Characterization and Modeling of Reversible CO <sub>2</sub> Capture from Wet Streams by a MgO/Zeolite Y Nanocomposite. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 17214-17224	3.8	15
128	Revisiting the identity of EMgCl <sub>2</sub> : Part II. Morphology and exposed surfaces studied by vibrational spectroscopies and DFT calculation. <i>Journal of Catalysis</i> , <b>2020</b> , 387, 1-11	7.3	15
127	Computational Assessment of Relative Sites Stabilities and Site-Specific Adsorptive Properties of Titanium Silicalite-1. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 1612-1621	3.8	15
126	Unraveling the CO <sub>2</sub> reaction mechanism in bio-based amino-acid ionic liquids by operando ATR-IR spectroscopy. <i>Catalysis Today</i> , <b>2019</b> , 336, 148-160	5.3	15

125	Temperature-programmed reduction with NO as a characterization of active Cu in Cu-CHA catalysts for NH <sub>3</sub> -SCR. <i>Catalysis Science and Technology</i> , <b>2019</b> , 9, 2608-2619	5-5	14
124	Methanol Conversion to Hydrocarbons (MTH) Over H-ITQ-13 (ITH) Zeolite. <i>Topics in Catalysis</i> , <b>2014</b> , 57, 143-158	2-3	14
123	HCl and HCl <sup>-</sup> Base Adducts in Silicalite Channels as Models of Acid-Base Interactions in Zeolites: An IR and Theoretical Study. <i>Journal of Physical Chemistry B</i> , <b>1998</b> , 102, 10753-10764	3-4	14
122	Local structural investigation of buried InAs <sub>x</sub> P <sub>1-x</sub> /InP interfaces. <i>Journal of Applied Physics</i> , <b>1994</b> , 76, 4581-4586	2-5	14
121	UiO-66 type MOFs with mixed-linkers - 1,4-Benzenedicarboxylate and 1,4-naphthalenedicarboxylate: Effect of the modulator and post-synthetic exchange. <i>Microporous and Mesoporous Materials</i> , <b>2020</b> , 305, 110324	5-3	14
120	Evolution of Pt and Pd species in functionalized UiO-67 metal-organic frameworks. <i>Catalysis Today</i> , <b>2019</b> , 336, 33-39	5-3	13
119	Capsules and Cavitands: Synthetic Catalysts of Nanometric Dimension <b>2011</b> , 105-168		13
118	Au Nanoparticles as SERS Probes of the Silica Surface Layer Structure in the Absence and Presence of Adsorbates. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 4932-4936	3-8	13
117	Interaction of Cr(CO) <sub>6</sub> with Na <sub>2</sub> Zr <sub>2</sub> Y zeolite: Effect of co-adsorbed ammonia. <i>Journal of Catalysis</i> , <b>1990</b> , 125, 568-570	7-3	13
116	Understanding and Optimizing the Performance of Cu-FER for The Direct CH <sub>4</sub> to CH <sub>3</sub> OH Conversion. <i>ChemCatChem</i> , <b>2019</b> , 11, 621-627	5-2	13
115	Finding the active species: The conversion of methanol to aromatics over Zn-ZSM-5/alumina shaped catalysts. <i>Journal of Catalysis</i> , <b>2021</b> , 394, 416-428	7-3	13
114	Functionalization of CPO-27-Ni through metal hexacarbonyls: The role of open Ni <sup>2+</sup> sites. <i>Microporous and Mesoporous Materials</i> , <b>2012</b> , 157, 56-61	5-3	12
113	Cr-doped porous silica glass as a model material to describe Phillips catalyst properties. <i>Journal of Catalysis</i> , <b>2013</b> , 308, 319-327	7-3	12
112	An alternative pathway for the synthesis of isocyanato- and urea-functionalised metal-organic frameworks. <i>Dalton Transactions</i> , <b>2013</b> , 42, 8249-58	4-3	12
111	Soft synthesis of isocyanate-functionalised metal-organic frameworks. <i>Dalton Transactions</i> , <b>2012</b> , 41, 14236-8	4-3	12
110	EXAFS Study of Ti, Fe and Ga Substituted Silicalites. <i>Japanese Journal of Applied Physics</i> , <b>1999</b> , 38, 55	1-4	12
109	Topology-dependent hydrocarbon transformations in the methanol-to-hydrocarbons reaction studied by operando UV-Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 26580-26590	3-6	12
108	A temporal analysis of products (TAP) study of C <sub>2</sub> -C <sub>4</sub> alkene reactions with a well-defined pool of methylating species on ZSM-22 zeolite. <i>Journal of Catalysis</i> , <b>2020</b> , 385, 300-312	7-3	11

107	A Systematic Study of Isomorphically Substituted H-MAlPO-5 Materials for the Methanol-to-Hydrocarbons Reaction. <i>ChemPhysChem</i> , <b>2018</b> , 19, 484-495	3.2	11
106	A Novel Raman Setup Based on Magnetic-Driven Rotation of Sample. <i>Topics in Catalysis</i> , <b>2018</b> , 61, 1491-1498	1.9	11
105	When Does Catalysis with Transition Metal Complexes Turn into Catalysis by Nanoparticles? <b>2011</b> , 73-103		11
104	Repulsive and attractive interactions between Brønsted sites and hydrocarbon species with partial carbocationic character in restricted spaces: comparison of IR results and abinitio calculations. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1997</b> , 93, 3893-3898		11
103	Acidity properties of CHA-zeolites (SAPO-34 and SSZ-13): an FTIR spectroscopic study. <i>Studies in Surface Science and Catalysis</i> , <b>2005</b> , 471-479	1.8	11
102	Effect of Ti insertion in the silicalite framework on the vibrational modes of the structure: an ab initio, and vibrational study. <i>Studies in Surface Science and Catalysis</i> , <b>2001</b> , 140, 195-208	1.8	11
101	(CD3CN)2H+ adducts in anhydrous H3PW12O40: a FTIR study. <i>Physical Chemistry Chemical Physics</i> , <b>2001</b> , 3, 1345-1347	3.6	11
100	Active sites in Cu-SSZ-13 deNOx catalyst under reaction conditions: a XAS/XES perspective. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 712, 012041	0.3	11
99	Nature and Topology of Metal-Oxygen Binding Sites in Zeolite Materials: O High-Resolution EPR Spectroscopy of Metal-Loaded ZSM-5. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 12398-12403	16.4	10
98	Zeolite morphology and catalyst performance: conversion of methanol to hydrocarbons over offretite. <i>Catalysis Science and Technology</i> , <b>2017</b> , 7, 5435-5447	5.5	10
97	IR spectroscopy of CH3CN/Cl adducts in silicalite channels A model system for the study of acid-base reactions in zeolites. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1998</b> , 94, 309-314		10
96	Polyethylene Microtubes from Silica Fiber-based Polyethylene Composites Synthesized by an In Situ Catalytic Method. <i>Advanced Materials</i> , <b>2006</b> , 18, 3111-3114	24	10
95	Ionic clusters in zeolites formed by interaction with sodium solutions in liquid ammonia. <i>Catalysis Letters</i> , <b>1991</b> , 8, 375-378	2.8	10
94	Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Small-Pore Zeolites. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 10016-10022	16.4	10
93	On the conversion of CO2 to value added products over composite PdZn and H-ZSM-5 catalysts: excess Zn over Pd, a compromise or a penalty?. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 4373-4385	5.5	9
92	Comparing the Nature of Active Sites in Cu-loaded SAPO-34 and SSZ-13 for the Direct Conversion of Methane to Methanol. <i>Catalysts</i> , <b>2020</b> , 10, 191	4	9
91	UV-Raman Fingerprint of Brønsted Sites in MFI Zeolites: A Useful Marker in Dealumination Detection. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 18088-18092	3.8	9
90	Adsorption Properties of Ce5(BDC)7.5(DMF)4 MOF. <i>Inorganics</i> , <b>2020</b> , 8, 9	2.9	9

89	A spectroscopic and computational study of a tough MOF with a fragile linker: Ce-UiO-66-ADC. <i>Dalton Transactions</i> , <b>2020</b> , 49, 12-16	4.3	9
88	Toward the Understanding of the Comonomer Effect on CrII/SiO2 Phillips Catalyst. <i>ACS Catalysis</i> , <b>2016</b> , 6, 2918-2922	13.1	9
87	Operando UV-Raman study of the methanol to olefins reaction over SAPO-34: Spatiotemporal evolution monitored by different reactor approaches. <i>Catalysis Today</i> , <b>2019</b> , 336, 203-209	5.3	9
86	Co-catalyst free ethene dimerization over Zr-based metal-organic framework (UiO-67) functionalized with Ni and bipyridine. <i>Catalysis Today</i> , <b>2021</b> , 369, 193-202	5.3	9
85	CHAPTER 5: Characterization of MOFs. 2. Long and Local Range Order Structural Determination of MOFs by Combining EXAFS and Diffraction Techniques. <i>RSC Catalysis Series</i> , 143-208	0.3	8
84	Molecular doping and gas sensing in Si nanowires: From charge injection to reduced dielectric mismatch. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 204302	2.5	8
83	The Structure and Reactivity of Single and Multiple Sites on Heterogeneous and Homogeneous Catalysts: Analogies, Differences, and Challenges for Characterization Methods <b>2011</b> , 1-27		8
82	Vibrational and optical spectroscopic studies on copper-exchanged ferrierite. <i>Studies in Surface Science and Catalysis</i> , <b>2002</b> , 142, 199-206	1.8	8
81	Zeolite characterization with spectroscopic methods. <i>Studies in Surface Science and Catalysis</i> , <b>2002</b> , 3-14	1.8	8
80	Structure of Homoleptic CuI(CO) <sub>3</sub> Cations in CuI-Exchanged ZSM-5 Zeolite: An X-ray Absorption Study. <i>Angewandte Chemie</i> , <b>2000</b> , 112, 2222-2225	3.6	8
79	Visible-Light-Driven Photocatalytic Coupling of Benzylamine over Titanium-Based MIL-125-NH <sub>2</sub> Metal-Organic Framework: A Mechanistic Study. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 23707-23715	3.8	8
78	CO <sub>2</sub> hydrogenation to methanol and hydrocarbons over bifunctional Zn-doped ZrO <sub>2</sub> /zeolite catalysts. <i>Catalysis Science and Technology</i> , <b>2021</b> , 11, 1249-1268	5.5	8
77	Bimetallic hexanuclear clusters in Ce/Zr-UiO-66 MOFs: in situ FTIR spectroscopy and modelling insights. <i>Dalton Transactions</i> , <b>2020</b> , 49, 5794-5797	4.3	7
76	Role of Phosphate Species and Speciation Kinetics in Detergency Solutions. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 4173-4180	3.9	7
75	Assessing the surface sites of the large pore 3-dimensional microporous material H-ITQ-7 using FT-IR spectroscopy and molecular probes. <i>Microporous and Mesoporous Materials</i> , <b>2011</b> , 141, 146-156	5.3	7
74	Bond lengths at buried InAsP/InP interfaces in InP/InGaAs multi quantum wells. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>1995</b> , 97, 387-391	1.2	7
73	FTIR study of the interaction of Re <sub>2</sub> (CO) <sub>10</sub> with Na-Y zeolite. <i>Journal of Molecular Catalysis</i> , <b>1991</b> , 70, 43-52		7
72	The role of dispersive forces determining the energetics of adsorption in Ti zeolites. <i>Journal of Computational Chemistry</i> , <b>2016</b> , 37, 2659-2666	3.5	7

71	Titanium Defective Sites in TS-1: Structural Insights by Combining Spectroscopy and Simulation. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 18145-18150	16.4	6
70	On the structure of superbasic (MgO) sites solvated in a faujasite zeolite. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 18503-18514	3.6	6
69	In Situ Investigation of the Deactivation Mechanism in Ni-ZSM5 During Ethylene Oligomerization. <i>Topics in Catalysis</i> , <b>2017</b> , 60, 1664-1672	2.3	6
68	Direct Evidence of Highly Dispersed Iron in Feβilicalite: A Raman Spectroscopic Study. <i>ChemCatChem</i> , <b>2011</b> , 3, 139-142	5.2	6
67	Auger electron spectroscopy study of cleaved and sputter-etched In <sub>0.53</sub> Ga <sub>0.47</sub> As surfaces. <i>Thin Solid Films</i> , <b>1991</b> , 197, 179-186	2.2	6
66	A XAFS study of the local environment and reactivity of Pt- sites in functionalized UiO-67 MOFs. <i>Journal of Physics: Conference Series</i> , <b>2016</b> , 712, 012125	0.3	6
65	The Effect of Al-Alkyls on the Phillips Catalyst for Ethylene Polymerization: The Case of Diethylaluminum Ethoxide (DEALE). <i>Topics in Catalysis</i> , <b>2018</b> , 61, 1465-1473	2.3	6
64	Cu-Exchanged Ferrierite Zeolite for the Direct CH <sub>4</sub> to CH <sub>3</sub> OH Conversion: Insights on Cu Speciation from X-Ray Absorption Spectroscopy. <i>Topics in Catalysis</i> , <b>2019</b> , 62, 712-723	2.3	5
63	Combined study of structural properties on metal-organic frameworks with same topology but different linkers or metal. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 430, 012134	0.3	5
62	Crystal Engineering of Metal-Organic Frameworks for Heterogeneous Catalysis <b>2011</b> , 271-298		5
61	Structure and Redox Activity of Copper Sites Isolated in a Nanoporous P4VP Polymeric Matrix. <i>Angewandte Chemie</i> , <b>2008</b> , 120, 9409-9413	3.6	5
60	The IR spectroscopy of methane and hydrogen adsorbed on Echromia. <i>Catalysis Letters</i> , <b>2000</b> , 68, 185-190.8		5
59	Interaction of CO and NH <sub>3</sub> with noble metal cations dispersed in ZSM-5 zeolites. Spectroscopic and microcalorimetric investigation. <i>Studies in Surface Science and Catalysis</i> , <b>2000</b> , 130, 3261-3266	1.8	5
58	Evidence of very strong [2(NO)] overtones when adsorbing NO in CuI,II-exchanged Y zeolites. <i>Physical Chemistry Chemical Physics</i> , <b>1999</b> , 1, 2033-2035	3.6	5
57	Reply to Comments on N <sub>2</sub> Adsorption at 77 K on H-Mordenite and Alkali-Metal-Exchanged Mordenites: An IR Study <i>The Journal of Physical Chemistry</i> , <b>1996</b> , 100, 18883-18883		5
56	Interaction of metallocenes with oxidic surfaces. <i>Materials Chemistry and Physics</i> , <b>1991</b> , 29, 261-269	4.4	5
55	Metal-Organic Frameworks in Italy: From synthesis and advanced characterization to theoretical modeling and applications. <i>Coordination Chemistry Reviews</i> , <b>2021</b> , 437, 213861	23.2	5
54	Multifunctional Catalyst Combination for the Direct Conversion of CO to Propane. <i>Jacs Au</i> , <b>2021</b> , 1, 1719-1732		5

53	Characterization of Metal Centers in Zeolites for Partial Oxidation Reactions. <i>Structure and Bonding</i> , <b>2018</b> , 91-154	0.9	4
52	Probing Structure and Reactivity of Metal Centers in Metal-Organic Frameworks by XAS Techniques <b>2017</b> , 397-430		4
51	Supported Nanoparticles and Selective Catalysis: A Surface Science Approach <b>2011</b> , 29-71		4
50	Catalyst characterization: applications. <i>Catalysis Today</i> , <b>1997</b> , 34, 329-352	5.3	4
49	Interaction of CO <sub>2</sub> , H <sub>2</sub> O, CH <sub>3</sub> OH, (CH <sub>3</sub> ) <sub>2</sub> O, CH <sub>3</sub> N, H <sub>2</sub> S, (CH <sub>3</sub> ) <sub>2</sub> CO, NH <sub>3</sub> and Py with Bronsted acid sites of H-ZSM-5: Comparison of the IR manifestation. <i>Studies in Surface Science and Catalysis</i> , <b>1995</b> , 104-105	1.8	4
48	IR and Raman Spectroscopies Probing MOFs Structure, Defectivity, and Reactivity <b>2016</b> , 657-690		4
47	Synthesis of ZSM-23 (MTT) zeolites with different crystal morphology and intergrowths: effects on the catalytic performance in the conversion of methanol to hydrocarbons. <i>Catalysis Science and Technology</i> , <b>2019</b> , 9, 6782-6792	5.5	4
46	Cu- and Fe-speciation in a composite zeolite catalyst for selective catalytic reduction of NO <sub>x</sub> : insights from operando XAS. <i>Catalysis Science and Technology</i> , <b>2021</b> , 11, 846-860	5.5	4
45	Nature and Topology of Metal-Oxygen Binding Sites in Zeolite Materials: 17O High-Resolution EPR Spectroscopy of Metal-Loaded ZSM-5. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 12528-12533	3.6	3
44	Structural incorporation of carbon and nitrogen into B-SSZ-13: a spectroscopic and computational studies. <i>Studies in Surface Science and Catalysis</i> , <b>2007</b> , 170, 585-593	1.8	3
43	A combined anomalous XRPD, EXAFS, IR, UV-Vis and photoluminescence study on isolated and clustered silver species in Y zeolite. <i>Studies in Surface Science and Catalysis</i> , <b>2002</b> , 142, 1963-1970	1.8	3
42	XRPD Study on Cation Location in Na-Rb-Y Zeolite at the ESRF under Carefully Controlled Atmospheres: Vacuum, H <sub>2</sub> O, NH <sub>3</sub> . <i>Materials Science Forum</i> , <b>1998</b> , 278-281, 797-802	0.4	3
41	On the formation of cyclopentadienyl anions at the surface of mgo by interaction with cyclopentadiene and their reaction with H <sub>2</sub> to give surface hydrides. <i>Journal of Molecular Catalysis</i> , <b>1989</b> , 49, 187-194		3
40	Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Small-Pore Zeolites. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 10104-10110	3.6	3
39	Influence of Cu-speciation in mordenite on direct methane to methanol conversion: Multi-Technique characterization and comparison with NH <sub>3</sub> selective catalytic reduction of NO <sub>x</sub> . <i>Catalysis Today</i> , <b>2021</b> , 369, 105-111	5.3	3
38	Investigating the role of Cu-oxo species in Cu-nitrate formation over Cu-CHA catalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 18322-18337	3.6	3
37	In situ X-ray absorption study of Cu species in Cu-CHA catalysts for NH <sub>3</sub> -SCR during temperature-programmed reduction in NO/NH <sub>3</sub> . <i>Research on Chemical Intermediates</i> , <b>2021</b> , 47, 357-375	2.8	3
36	Spectroscopic Methods in Catalysis and Their Application in Well-Defined Nanocatalysts. <i>Studies in Surface Science and Catalysis</i> , <b>2017</b> , 221-284	1.8	2



35	Formation and reactivity of CrIIICarbonyls hosted in polar and non polar supports. <i>Journal of Physics: Conference Series</i> , <b>2009</b> , 190, 012140	0.3	2
34	Effect of Ag and Au doping on the photocatalytic activity of TiO <sub>2</sub> supported on textile fibres. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1077, 72001		2
33	The role of surfaces in hydrogen storage. <i>Studies in Surface Science and Catalysis</i> , <b>2005</b> , 155, 481-492	1.8	2
32	24-P-15-Acetylene and alkene oligomerization on ETS-10 having induced Brønsted acidity. <i>Studies in Surface Science and Catalysis</i> , <b>2001</b> , 274	1.8	2
31	Reply to Comment on "Symmetry and Cluster Size Effects in XANES Spectra". <i>The Journal of Physical Chemistry</i> , <b>1995</b> , 99, 16500-16500		2
30	MAPO-18 Catalysts for the Methanol to Olefins Process: Influence of Catalyst Acidity in a High-Pressure Syngas (CO and H <sub>2</sub> ) Environment.. <i>ACS Catalysis</i> , <b>2022</b> , 12, 1520-1531	13.1	2
29	Efficient and reversible CO <sub>2</sub> capture in bio-based ionic liquids solutions. <i>Journal of CO<sub>2</sub> Utilization</i> , <b>2021</b> , 55, 101815	7.6	2
28	Reactivity of Hydrosilanes with the CrII/SiO <sub>2</sub> Phillips Catalyst: Observation of Intermediates and Properties of the Modified CrII Sites. <i>Topics in Catalysis</i> , <b>2016</b> , 59, 1732-1739	2.3	2
27	Copper Pairing in the Mordenite Framework as a Function of the Cu /Cu Speciation. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 25891-25896	16.4	2
26	Fossil Fuels: The Effect of Zeolite Catalyst Particle Morphology on Catalyst Performance in the Conversion of Methanol to Hydrocarbons <b>2017</b> , 1-40		1
25	The Importance of Interactions at the Molecular Level: A Spectroscopic Study of a New Composite Sorber Material. <i>Applied Spectroscopy</i> , <b>2017</b> , 71, 2278-2285	3.1	1
24	Porous Materials: Submicrometer-Sized ZIF-71 Filled Organophilic Membranes for Improved Bioethanol Recovery: Mechanistic Insights by Monte Carlo Simulation and FTIR Spectroscopy (Adv. Funct. Mater. 4/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 498-498	15.6	1
23	Chiral Catalysts <b>2011</b> , 193-235		1
22	Evolution of Fe <sup>3+</sup> from Framework to Extra-Framework Species in Fe-Silicate as a Function of the Template Burning Temperature. <i>European Physical Journal Special Topics</i> , <b>1997</b> , 7, C2-907-C2-908		1
21	In situ Characterization of Catalysts Active in Partial Oxidations: TS-1 and Fe-MFI Case Studies.. <i>ChemInform</i> , <b>2003</b> , 34, no		1
20	Shape selective conversion of 1,2,4-trimethylbenzene over different zeolite frameworks. <i>Studies in Surface Science and Catalysis</i> , <b>2004</b> , 154, 2281-2288	1.8	1
19	Hydrogen Storage in Chabazite Zeolite Frameworks.. <i>ChemInform</i> , <b>2005</b> , 36, no		1
18	Interaction of chromocene with MgO and reactivity of the adsorbed species towards CO: An IR study. <i>Spectrochimica Acta Part A: Molecular Spectroscopy</i> , <b>1993</b> , 49, 1235-1245		1

17	Insights on a Hierarchical MFI Zeolite: A Combined Spectroscopic and Catalytic Approach for Exploring the Multilevel Porous System Down to the Active Sites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 49114-49127	9.5	1
16	Supported PdZn nanoparticles for selective CO <sub>2</sub> conversion, through the grafting of a heterobimetallic complex on CeZrOx. <i>Applied Catalysis A: General</i> , <b>2022</b> , 635, 118568	5.1	1
15	Thermochromic photoluminescent 3D printed polymeric devices based on copper-iodide clusters. <i>Additive Manufacturing</i> , <b>2022</b> , 49, 102504	6.1	0
14	Characterization of the NiSO <sub>4</sub> site on a NiSO <sub>4</sub> -ReO <sub>x</sub> /Al <sub>2</sub> O <sub>3</sub> catalyst for tandem conversion of ethylene to propylene. <i>Applied Catalysis A: General</i> , <b>2022</b> , 637, 118598	5.1	0
13	SO Poisoning of Cu-CHA deNO Catalyst: The Most Vulnerable Cu Species Identified by X-ray Absorption Spectroscopy.. <i>Jacs Au</i> , <b>2022</b> , 2, 787-792		0
12	Metal-organic Framework Sponges <b>2019</b> , 59-121		
11	Titanium Defective Sites in TS-1: Structural Insights by Combining Spectroscopy and Simulation. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 18302-18307	3.6	
10	Rücktitelbild: Nature and Topology of Metal-Oxygen Binding Sites in Zeolite Materials: 17O High-Resolution EPR Spectroscopy of Metal-Loaded ZSM-5 (Angew. Chem. 36/2019). <i>Angewandte Chemie</i> , <b>2019</b> , 131, 12848-12848	3.6	
9	Inside Cover: Acetylene Adsorption on CPO-27-M Metal-Organic Frameworks (M=Fe, Co and Ni) (ChemPhysChem 2/2012). <i>ChemPhysChem</i> , <b>2012</b> , 13, 366-366	3.2	
8	Photocatalysts: Nanostructured Photocatalytic Materials for Solar Energy Conversion <b>2011</b> , 169-191		
7	Mechanism of Stereospecific Propene Polymerization Promoted by Metallocene and Nonmetallocene Catalysts <b>2011</b> , 299-322		
6	Infrared Spectroscopic Investigation of the Acidity and Availability of the Surface Hydroxyls of Three-Dimensional 12-Ring Zeotype H-ITQ-7. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 12090-12094	3.8	
5	Selective Catalysts for Petrochemical Industry <b>2011</b> , 237-269		
4	Model Systems 771-908		
3	XAFS, IR, Raman and UV-Vis Characterization of Framework Ti(IV) Species in Ti-Silicalites. <i>European Physical Journal Special Topics</i> , <b>1997</b> , 7, C2-851-C2-853		
2	Microcrystalline Oxides: Bridging the Gap Between Single Crystals and Dispersed Oxides <b>2008</b> , 1352		
1	Titelbild: Experimental and Theoretical Evidence for the Promotional Effect of Acid Sites on the Diffusion of Alkenes through Small-Pore Zeolites (Angew. Chem. 18/2021). <i>Angewandte Chemie</i> , <b>2021</b> , 133, 9813-9813	3.6	