Jean-Pierre Gilson

List of Publications by Year
in descending order

103 papers	7,310 citations	50170 46 h-index	54797 84 g-index
103 all docs	103 docs citations	103 times ranked	5615 citing authors

#	Article	IF	Citations
1	Chromic acid dealumination of zeolites. Microporous and Mesoporous Materials, 2022, 329, 111513.	2.2	8
2	The challenge of silanol species characterization in zeolites. Inorganic Chemistry Frontiers, 2022, 9, 1125-1133.	3.0	29
3	Unraveling the Effect of Silanol Defects on the Insertion of Single-Site Mo in the MFI Zeolite Framework. Inorganic Chemistry, 2022, 61, 1418-1425.	1.9	14
4	Dissolution Behavior and Varied Mesoporosity of Zeolites by NH₄F Etching. Chemistry - A European Journal, 2022, 28, e202104339.	1.7	9
5	Engineering RHO Nanozeolite: Controlling the Particle Morphology, Al and Cation Content, Stability, and Flexibility. ACS Applied Energy Materials, 2022, 5, 6032-6042.	2.5	11
6	Access to sodalite cages in ion-exchanged nanosized FAU zeolites probed by hyperpolarized 129Xe NMR and DFT calculations. Microporous and Mesoporous Materials, 2022, 338, 111965.	2.2	5
7	Comparative Study of Zeolite L Etching with Ammonium Fluoride and Ammonium Bifluoride Solutions. Advanced Materials Interfaces, 2021, 8, 2000348.	1.9	9
8	Transformation of Discrete Amorphous Aluminosilicate Nanoparticles into Nanosized Zeolites. Advanced Materials Interfaces, 2021, 8, 2000634.	1.9	6
9	Room-Temperature Synthesis of BPH Zeolite Nanosheets Free of Organic Template with Enhanced Stability for Gas Separations. ACS Applied Nano Materials, 2021, 4, 24-28.	2.4	9
10	Silanol defect engineering and healing in zeolites: opportunities to fine-tune their properties and performances. Chemical Society Reviews, 2021, 50, 11156-11179.	18.7	100
11	Crystallization pathway from a highly viscous colloidal suspension to ultra-small FAU zeolite nanocrystals. Journal of Materials Chemistry A, 2021, 9, 17492-17501.	5.2	15
12	Preparation of hierarchical SSZ-13 by NH4F etching. Microporous and Mesoporous Materials, 2021, 314, 110863.	2.2	10
13	Understanding the Fundamentals of Microporosity Upgrading in Zeolites: Increasing Diffusion and Catalytic Performances. Advanced Science, 2021, 8, e2100001.	5.6	23
14	Atomic-Insight into Zeolite Catalyst Formingâ€”an Advanced NMR Study. Journal of Physical Chemistry C, 2021, 125, 20028-20034.	1.5	4
15	Unlocking the potential of hidden sites in FAUJASITE: new insights in a proton transfer mechanism. Angewandte Chemie - International Edition, 2021, 60, 26702-26709.	7.2	17
16	Organic template-free synthesis of an open framework silicoaluminophosphate (SAPO) with high thermal stability and high ionic conductivity. Inorganic Chemistry Frontiers, 2020, 7, 542-553.	3.0	9
17	Breaking the Si/Al Limit of Nanosized Î² Zeolites: Promoting Catalytic Production of Lactide. Chemistry of Materials, 2020, 32, 751-758.	3.2	35
18	Emphasis on the Properties of Metalâ€Containing Zeolites Operating Outside the Comfort Zone of Current Heterogeneous Catalytic Reactions. Angewandte Chemie - International Edition, 2020, 59, 19414-19432.	7.2	21

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19	Novel Strategy for the Synthesis of Ultraâ€Stable Singleâ€Site Moâ€ZSMâ€5 Zeolite Nanocrystals. Angewandte Chemie - International Edition, 2020, 59, 19553-19560.	7.2	61
20	Novel Strategy for the Synthesis of Ultraâ€Stable Singleâ€Site Moâ€ZSMâ€5 Zeolite Nanocrystals. Angewandte Chemie, 2020, 132, 19721-19728.	1.6	10
21	Emphasis on the Properties of Metalâ€Containing Zeolites Operating Outside the Comfort Zone of Current Heterogeneous Catalytic Reactions. Angewandte Chemie, 2020, 132, 19582-19600.	1.6	13
22	Probing the BrÃ¸nsted Acidity of the External Surface of Faujasiteâ€Type Zeolites. ChemPhysChem, 2020, 21, 1873-1881.	1.0	30
23	Flexible Template-Free RHO Nanosized Zeolite for Selective CO₂ Adsorption. Chemistry of Materials, 2020, 32, 5985-5993.	3.2	31
24	Zeolites in a good shape: Catalyst forming by extrusion modifies their performances. Microporous and Mesoporous Materials, 2020, 299, 110114.	2.2	44
25	Increasing the catalytic performance of erionite by hierarchization. Microporous and Mesoporous Materials, 2020, 299, 110088.	2.2	7
26	Defect-engineered zeolite porosity and accessibility. Journal of Materials Chemistry A, 2020, 8, 3621-3631.	5.2	52
27	Synthesis of Embryonic Zeolites with Controlled Physicochemical Properties. Chemistry of Materials, 2020, 32, 2123-2132.	3.2	20
28	Preparation of Single-Crystal â€œHouse-of-Cardsâ€•like ZSM-5 and Their Performance in Ethanol-to-Hydrocarbon Conversion. Chemistry of Materials, 2019, 31, 4639-4648.	3.2	45
29	Direct Evidence for Single Molybdenum Atoms Incorporated in the Framework of MFI Zeolite Nanocrystals. Journal of the American Chemical Society, 2019, 141, 8689-8693.	6.6	57
30	Catalytic activation of all-silica COK-14 zeolite through alumination and particle size reduction using wet ball milling. Catalysis Today, 2019, 334, 3-12.	2.2	8
31	Supported Embryonic Zeolites and their Use to Process Bulky Molecules. ACS Catalysis, 2018, 8, 8199-8212.	5.5	37
32	One-pot synthesis of silanol-free nanosized MFIÂzeolite. Nature Materials, 2017, 16, 1010-1015.	13.3	135
33	Opening the Cages of Faujasite-Type Zeolite. Journal of the American Chemical Society, 2017, 139, 17273-17276.	6.6	125
34	Hydroisomerization and hydrocracking activity enhancement of a hierarchical ZSM-5 zeolite catalyst via atomic layer deposition of aluminium. Catalysis Science and Technology, 2016, 6, 6177-6186.	2.1	15
35	The Mosaic Structure of Zeolite Crystals. Angewandte Chemie - International Edition, 2016, 55, 15049-15052.	7.2	88
36	The Mosaic Structure of Zeolite Crystals. Angewandte Chemie, 2016, 128, 15273-15276.	1.6	30

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37	The preparation of hierarchical SAPO-34 crystals via post-synthesis fluoride etching. Chemical Communications, 2016, 52, 3512-3515.	2.2	80
38	Embryonic ZSM-5 zeolites: zeolitic materials with superior catalytic activity in 1,3,5-triisopropylbenzene dealkylation. New Journal of Chemistry, 2016, 40, 4307-4313.	1.4	24
39	On the remarkable resistance to coke formation of nanometer-sized and hierarchical MFI zeolites during ethanol to hydrocarbons transformation. Journal of Catalysis, 2015, 328, 165-172.	3.1	76
40	Template-free nanosized faujasite-type zeolites. Nature Materials, 2015, 14, 447-451.	13.3	360
41	Mesoporous zeolites by fluoride etching. Current Opinion in Chemical Engineering, 2015, 8, 1-6.	3.8	69
42	A novel method of monitoring the sulfidation of hydrotreating catalysts: the conversion of carbonyl sulfide. Catalysis Science and Technology, 2015, 5, 835-842.	2.1	7
43	In situ and post-synthesis control of physicochemical properties of FER-type crystals. Microporous and Mesoporous Materials, 2014, 200, 334-342.	2.2	49
44	Comparative Study of Nanoâ€ZSMâ€5 Catalysts Synthesized in OH^{â^'} and F^{â^'} Media. Advanced Functional Materials, 2014, 24, 257-264.	7.8	98
45	Photochemical Preparation of Silver Nanoparticles Supported on Zeolite Crystals. Langmuir, 2014, 30, 6250-6256.	1.6	78
46	Mitigating coking during methylcyclohexane transformation on HZSM-5 zeolites with additional porosity. Journal of Catalysis, 2014, 320, 118-126.	3.1	39
47	Catalytic activation of OKO zeolite with intersecting pores of 10- and 12-membered rings using atomic layer deposition of aluminium. Chemical Communications, 2014, 50, 4610-4612.	2.2	24
48	Silver confined within zeolite EMT nanoparticles: preparation and antibacterial properties. Nanoscale, 2014, 6, 10859-10864.	2.8	49
49	Advances in nanosized zeolites. Nanoscale, 2013, 5, 6693.	2.8	337
50	Hydroisomerization and hydrocracking of linear and multibranched long model alkanes on hierarchical Pt/ZSM-22 zeolite. Catalysis Today, 2013, 218-219, 135-142.	2.2	81
51	Bio-oil hydrodeoxygenation: Adsorption of phenolic compounds on sulfided (Co)Mo catalysts. Journal of Catalysis, 2013, 297, 176-186.	3.1	107
52	Hydroisomerization of Emerging Renewable Hydrocarbons using Hierarchical Pt/Hâ€ZSMâ€22 Catalyst. ChemSusChem, 2013, 6, 421-425.	3.6	111
53	Ring opening of decalin and methylcyclohexane over bifunctional Ir/WO3/Al2O3 catalysts. Journal of Catalysis, 2013, 299, 30-43.	3.1	24
54	Chemical Equilibrium Controlled Etching of MFI-Type Zeolite and Its Influence on Zeolite Structure, Acidity, and Catalytic Activity. Chemistry of Materials, 2013, 25, 2759-2766.	3.2	149

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55	Hydrodeoxygenation of Phenolic Compounds by Sulfided (Co)Mo/Al₂O₃Catalysts, a Combined Experimental and Theoretical Study. Oil and Gas Science and Technology, 2013, 68, 829-840.	1.4	37
56	From Gas to Liquid Phase Sulfidation: An IR Spectroscopy Study. Catalysis Letters, 2012, 142, 736-743.	1.4	5
57	Ring opening of decalin and methylcyclohexane over alumina-based monofunctional WO3/Al2O3 and Ir/Al2O3 catalysts. Journal of Catalysis, 2012, 286, 62-77.	3.1	48
58	Influence of crystal size and probe molecule on diffusion in hierarchical ZSM-5 zeolites prepared by desilication. Microporous and Mesoporous Materials, 2012, 148, 115-121.	2.2	95
59	Towards more efficient monodimensional zeolite catalysts: n-alkane hydro-isomerisation on hierarchical ZSM-22. Catalysis Science and Technology, 2011, 1, 1331.	2.1	72
60	Mesoporous ZSM-22 zeolite obtained by desilication: peculiarities associated with crystal morphology and aluminium distribution. CrystEngComm, 2011, 13, 3408.	1.3	140
61	Synthesis and catalytic properties of hierarchical micro/mesoporous materials based on FER zeolite. Microporous and Mesoporous Materials, 2011, 146, 201-207.	2.2	63
62	Effect of water on the stability of Mo and CoMo hydrodeoxygenation catalysts: A combined experimental and DFT study. Journal of Catalysis, 2011, 282, 155-164.	3.1	153
63	IR study of the interaction of phenol with oxides and sulfided CoMo catalysts for bio-fuel hydrodeoxygenation. Catalysis Today, 2011, 172, 132-135.	2.2	61
64	Design of hierarchically structured catalysts by mordenites recrystallization: Application in naphthalene alkylation. Catalysis Today, 2011, 168, 133-139.	2.2	40
65	Hierarchical ZSMâ€5 Zeolites in Shapeâ€Selective Xylene Isomerization: Role of Mesoporosity and Acid Site Speciation. Chemistry - A European Journal, 2010, 16, 6224-6233.	1.7	239
66	Influence of W loading on the environment of Si in WO3/ZrO2â€“SiO2 catalysts. Applied Catalysis A: General, 2010, 374, 137-141.	2.2	8
67	Study of Ir/WO3/Al2O3 ring opening catalysts. Applied Catalysis A: General, 2010, 388, 37-44.	2.2	19
68	Bio-oils Hydrodeoxygenation: Adsorption of Phenolic Molecules on Oxidic Catalyst Supports. Journal of Physical Chemistry C, 2010, 114, 15661-15670.	1.5	196
69	Quantification of enhanced acid site accessibility in hierarchical zeolites â€“ The accessibility index. Journal of Catalysis, 2009, 264, 11-14.	3.1	279
70	Impact of Zeolites on the Petroleum and Petrochemical Industry. Topics in Catalysis, 2009, 52, 1131-1161.	1.3	820
71	New insights on zeolite chemistry by advanced IR and NMR characterization tools. Journal of Molecular Catalysis A, 2009, 305, 54-59.	4.8	10
72	Quantification of Water and Silanol Species on Various Silicas by Coupling IR Spectroscopy and in-Situ Thermogravimetry. Langmuir, 2009, 25, 5825-5834.	1.6	196

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73	Study of Ir/WO3/ZrO2â€“SiO2 ring-opening catalysts: Part II. Reaction network, kinetic studies and structureâ€“activity correlation. Journal of Catalysis, 2008, 254, 49-63.	3.1	39
74	FCC gasoline sulfur reduction additives: Mechanism and active sites. Journal of Catalysis, 2007, 249, 79-92.	3.1	41
75	The use of the consecutive adsorption of pyridine bases and carbon monoxide in the IR spectroscopic study of the accessibility of acid sites in microporous/mesoporous materials. Kinetics and Catalysis, 2006, 47, 40-48.	0.3	68
76	Platinum tungstated zirconia isomerization catalystsPart I. Characterization of acid and metal properties. Journal of Catalysis, 2005, 231, 453-467.	3.1	43
77	Platinum-tungstated zirconia isomerization catalystsPart II. Effect of platinum and tungsten loading on the mechanism of isomerization of n-hexane: a kinetic study. Journal of Catalysis, 2005, 231, 468-479.	3.1	43
78	Pt/Al2O3-Cl catalysts derived from ethylaluminumdichloride. Applied Catalysis A: General, 2004, 269, 203-214.	2.2	19
79	In situ thermogravimetry in an infrared spectrometer: an answer to quantitative spectroscopy of adsorbed species on heterogeneous catalysts. Microporous and Mesoporous Materials, 2004, 67, 107-112.	2.2	65
80	Propane carbonylation on sulfated zirconia catalyst as studied by 13C MAS NMR and FTIR spectroscopy. Journal of Catalysis, 2004, 223, 290-295.	3.1	28
81	Accessibility of the acid sites in dealuminated small-port mordenites studied by FTIR of co-adsorbed alkylpyridines and CO. Microporous and Mesoporous Materials, 2004, 71, 157-166.	2.2	125
82	Cumene transformations over mordenite catalysts: a 13C MAS NMR study. Microporous and Mesoporous Materials, 2003, 57, 297-308.	2.2	23
83	Surface and Subsurface Platinum in Sulfated Zirconia Catalysts: Relation with Toluene Hydrogenation and n-Hexane Isomerization. Journal of Catalysis, 2002, 212, 173-181.	3.1	21
84	Hydrogenation of Toluene over Supported Pt and Pd Catalysts: Influence of Structural Factors on the Sulfur Tolerance. Journal of Catalysis, 2002, 212, 63-75.	3.1	39
85	Zeolites for Cleaner Technologies. Catalytic Science Series, 2002, , .	0.6	95
86	2D-COS IR study of coking in xylene isomerisation on H-MFI zeolite. Catalysis Today, 2001, 70, 227-241.	2.2	97
87	Isomerization of n-Hexane over Sulfated Zirconia: Influence of Hydrogen and Platinum. Journal of Catalysis, 2001, 198, 328-337.	3.1	55
88	2D correlation IR spectroscopy of xylene isomerisation on H-MFI zeolite. Chemical Communications, 2000, , 1003-1004.	2.2	23
89	Modeling of structure and vibrational spectra of AlPO4-5 and its silica analog SSZ-24. Zeolites, 1992, 12, 826-836.	0.9	30
90	Penta-co-ordinated aluminium in zeolites and aluminosilicates. Journal of the Chemical Society Chemical Communications, 1987, , 91.	2.0	179

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91	Solid-state oxygen-17 nuclear magnetic resonance spectroscopic studies of zeolites and related systems. 1. Journal of the American Chemical Society, 1986, 108, 7231-7235.	6.6	81
92	High resolution 27Al NMR of amorphous silica-aluminas. Applied Catalysis, 1985, 15, 327-331.	1.1	17
93	On the external and intracrystalline surface catalytic activity of pentasil zeolites. Journal of Catalysis, 1984, 88, 538-541.	3.1	71
94	27Al-n.m.r. characterization of natural and synthetic zeolites. Zeolites, 1984, 4, 133-139.	0.9	44
95	Prompt nuclear and atomic reactions for elemental analysis of zeolites I. A discussion of the experimental methods. Zeolites, 1983, 3, 37-42.	0.9	39
96	In situ characterization of carbonaceous residues from zeolite-catalysed reactions using high resolution solid state 13C-n.m.r. spectroscopy. Zeolites, 1982, 2, 42-46.	0.9	107
97	Evidence for secondary building unit effects on the solid state 29Si n.m.r. resonance of silicon in zeolitic structures. Journal of the Chemical Society Chemical Communications, 1981, , 1129.	2.0	16
98	Adsorption and conversion of ethylene on H-ZSM-5 zeolite studied by 13C NMR spectroscopy. Journal of Molecular Catalysis, 1981, 10, 331-340.	1.2	53
99	Concerning the aluminum distribution gradient in ZSM-5 zeolites. Journal of Catalysis, 1981, 71, 447-448.	3.1	82
100	A 13C-N.M.R. investigation of the conversion of methanol on H-ZSM-5 in the presence of carbon monoxide. Journal of Molecular Catalysis, 1979, 5, 393-397.	1.2	30
101	Infrared, microcalorimetric, and electron spin resonance investigations of the acidic properties of the H-ZSM-5 zeolite. Journal of Catalysis, 1979, 59, 248-262.	3.1	297
102	Redox behaviour of transition metal ions in zeolites. Part 7.â€"Characterization of a nickel metal phase in zeolite NaY. Journal of the Chemical Society Faraday Transactions I, 1979, 75, 1196.	1.0	51
103	Unlocking the potential of hidden sites in FAUJASITE: new insights in a proton transfer mechanism. Angewandte Chemie, 0, , .	1.6	4