

# <sup>31</sup>P NMR Chemical Shifts of Phosphorus P Acidity Scales for Solid and Liquid Catalysts

Chemical Reviews

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Citation Report

#	ARTICLE	IF	CITATIONS
2	Perillyl alcohol preparation from $\beta$ -pinene oxide using Fe-modified zeolite beta. <i>Research on Chemical Intermediates</i> , 2018, 44, 3971-3984.	1.3	18
3	Distinguishing Active Site Identity in Sn-Beta Zeolites Using $^{31}\text{P}$ MAS NMR of Adsorbed Trimethylphosphine Oxide. <i>ACS Catalysis</i> , 2018, 8, 3076-3086.	5.5	51
4	Recent progress in investigations of surface structure and properties of solid oxide materials with nuclear magnetic resonance spectroscopy. <i>Chinese Chemical Letters</i> , 2018, 29, 747-751.	4.8	18
5	Reaction mechanism investigation of furfural conversion to 2-methylfuran on Cu(111) surface. <i>Chemical Physics Letters</i> , 2018, 703, 1-7.	1.2	10
6	Mapping Al Distributions in SSZ-13 Zeolites from $^{23}\text{Na}$ Solid-State NMR Spectroscopy and DFT Calculations. <i>Journal of Physical Chemistry C</i> , 2018, 122, 9973-9979.	1.5	21
7	Differentiating surface titanium chemical states of anatase $\text{TiO}_2$ functionalized with various groups. <i>Chemical Science</i> , 2018, 9, 2493-2500.	3.7	31
8	Unveiling chain-chain interactions in $\text{CO}_2$ -based crystalline stereocomplexed polycarbonates by solid-state NMR spectroscopy and DFT calculations. <i>Journal of Energy Chemistry</i> , 2018, 27, 361-366.	7.1	2
9	A solvent-free, one-step synthesis of sulfonic acid group-functionalized mesoporous organosilica with ultra-high acid concentrations and excellent catalytic activities. <i>Green Chemistry</i> , 2018, 20, 1020-1030.	4.6	38
10	Fabrication and Evaluation of Multi-Walled Carbon Nanotubes Supported Novel Catalyst for Select Conversion of Cellulose to 5-Hydroxymethylfurfural. <i>Energy Technology</i> , 2018, 6, 1633-1641.	1.8	10
11	Efficient Hydrolysis of Cyclohexyl Acetate to Cyclohexanol Catalyzed by Dual- $\text{SO}_3\text{H}$ -Functionalized Heteropolyacid-Based Solid Acids. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 5207-5214.	1.8	23
12	Supramolecular Organization in Confined Nanospaces. <i>ChemPhysChem</i> , 2018, 19, 1249-1297.	1.0	60
13	Simultaneous Characterization of Solid Acidity and Basicity of Metal Oxide Catalysts via the Solid-State NMR Technique. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24094-24102.	1.5	20
14	Scalable Preparation of Micro-Meso-Macroporous Polymeric Solid Acids Spheres From Controllable Sulfonation of Commercial XAD-4 Resin. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 14080-14087.	1.8	7
15	Lewis Acidity and Basicity of Mixed Chlorometallate Ionic Liquids: Investigations from Surface Analysis and Fukui Function. <i>Molecules</i> , 2018, 23, 2516.	1.7	9
16	Influence of Al Coordinates on Hierarchical Structure and T Atoms Redistribution during Base Leaching of ZSM-5. <i>Industrial &amp; Engineering Chemistry Research</i> , 0, , .	1.8	4
17	Validation of pH Standards and Estimation of the Activity Coefficients of Hydrogen and Chloride Ions in an Ionic Liquid, Ethylammonium Nitrate. <i>Journal of Physical Chemistry B</i> , 2018, 122, 10593-10599.	1.2	2
18	Solid-State $^{31}\text{P}$ Nuclear Magnetic Resonance Study of Interlayer Hydroxide Surfaces of Kaolinite Probed with an Interlayer Triethylphosphine Oxide Monolayer. <i>Langmuir</i> , 2018, 34, 12694-12701.	1.6	26
19	Insight into the deactivation mode of methanol-to-olefins conversion over SAPO-34: Coke, diffusion, and acidic site accessibility. <i>Journal of Catalysis</i> , 2018, 367, 306-314.	3.1	67

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20	Excellent Performances of Dealuminated $\beta$ Zeolites from Organotemplate-Free Synthesis in Conversion of Biomass-derived 2,5-Dimethylfuran to Renewable <i>p</i> -Xylene. <i>ChemSusChem</i> , 2018, 11, 3803-3811.	3.6	43
21	Origin and Structural Characteristics of Tri-coordinated Extra-framework Aluminum Species in Dealuminated Zeolites. <i>Journal of the American Chemical Society</i> , 2018, 140, 10764-10774.	6.6	113
22	Combined solid-state NMR, FT-IR and computational studies on layered and porous materials. <i>Chemical Society Reviews</i> , 2018, 47, 5684-5739.	18.7	123
23	A green and efficient hydration of alkynes catalyzed by hierarchically porous poly(ionic liquid)s solid strong acids. <i>Applied Catalysis A: General</i> , 2018, 564, 56-63.	2.2	31
24	Facet effect on CO <sub>2</sub> adsorption, dissociation and hydrogenation over Fe catalysts: Insight from DFT. <i>Journal of CO<sub>2</sub> Utilization</i> , 2018, 26, 160-170.	3.3	35
25	Reaction Route and Mechanism of the Direct N-Alkylation of Sulfonamides on Acidic Mesoporous Zeolite $\beta$ -Catalyst. <i>ACS Catalysis</i> , 2018, 8, 9043-9055.	5.5	25
26	A Heterogeneous Metal-Free Catalyst for Hydrogenation: Lewis Acid-Base Pairs Integrated into a Carbon Lattice. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13800-13804.	7.2	64
27	A Heterogeneous Metal-Free Catalyst for Hydrogenation: Lewis Acid-Base Pairs Integrated into a Carbon Lattice. <i>Angewandte Chemie</i> , 2018, 130, 13996-14000.	1.6	6
28	Acidity and alkylation activity of 12-tungstophosphoric acid supported on ionic liquid-functionalized SBA-15. <i>Catalysis Today</i> , 2019, 327, 10-18.	2.2	19
29	Efficient hydrolysis of hemicellulose to furfural by novel superacid SO <sub>4</sub> H-functionalized ionic liquids. <i>Green Energy and Environment</i> , 2019, 4, 49-55.	4.7	80
30	A perspective on catalysis in solid acids. <i>Journal of Catalysis</i> , 2019, 375, 524-530.	3.1	28
31	Confinement of Brønsted acidic ionic liquids into covalent organic frameworks as a catalyst for dehydrative formation of isosorbide from sorbitol. <i>Green Chemistry</i> , 2019, 21, 4792-4799.	4.6	36
32	Solid-state NMR studies of the acidity of functionalized metal-organic framework UiO-66 materials. <i>Magnetic Resonance in Chemistry</i> , 2020, 58, 1091-1098.	1.1	7
33	Conformational Mobility and Proton Transfer in Hydrogen-Bonded Dimers and Trimers of Phosphinic and Phosphoric Acids. <i>Journal of Physical Chemistry A</i> , 2019, 123, 6761-6771.	1.1	13
34	Synergistic interaction of anions and cations in preparation of VPO catalysts promoted by polyoxometalate-ionic liquids. <i>Applied Catalysis A: General</i> , 2019, 582, 117106.	2.2	21
35	Design of Lewis Acid Centers in Bundlelike Boron Nitride for Boosting Adsorptive Desulfurization Performance. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 13303-13312.	1.8	47
36	Solvent-Free Production of Isosorbide from Sorbitol Catalyzed by a Polymeric Solid Acid. <i>ChemSusChem</i> , 2019, 12, 4986-4995.	3.6	18
37	Origin of weak Lewis acids on silanol nests in dealuminated zeolite Beta. <i>Journal of Catalysis</i> , 2019, 380, 204-214.	3.1	53

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38	Chiral Discrimination by a Binuclear Pd Complex Sensor Using $^{31}\text{P}\{^1\text{H}\}$ NMR. <i>Analytical Chemistry</i> , 2019, 91, 14591-14596.	3.2	7
39	Insight into Three-coordinate Aluminum Species on Ethanol-Olefin Conversion over ZSM-5 Zeolites. <i>Angewandte Chemie</i> , 2019, 131, 18229-18236.	1.6	7
40	Insight into Three-coordinate Aluminum Species on Ethanol-Olefin Conversion over ZSM-5 Zeolites. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 18061-18068.	7.2	51
41	Hydrogen peroxide adducts of triarylphosphine oxides. <i>Dalton Transactions</i> , 2019, 48, 14312-14325.	1.6	27
42	The acidic nature of $\mu_3$ -NMR-invisible tri-coordinated framework aluminum species in zeolites. <i>Chemical Science</i> , 2019, 10, 10159-10169.	3.7	78
43	Production of 5-Hydroxymethylfurfural from Glucose in Water by Using Transition Metal-Oxide Nanosheet Aggregates. <i>Catalysts</i> , 2019, 9, 818.	1.6	13
44	Structures and Dynamics of Secondary and Tertiary Alkylphosphine Oxides Adsorbed on Silica. <i>Chemistry - an Asian Journal</i> , 2019, 14, 2704-2711.	1.7	22
45	Developing two-dimensional solid superacids with enhanced mass transport, extremely high acid strength and superior catalytic performance. <i>Chemical Science</i> , 2019, 10, 5875-5883.	3.7	37
46	Direct Evidence for Single Molybdenum Atoms Incorporated in the Framework of MFI Zeolite Nanocrystals. <i>Journal of the American Chemical Society</i> , 2019, 141, 8689-8693.	6.6	57
47	Isobutane alkylation with 2-butene in novel ionic liquid/solid acid catalysts. <i>Fuel</i> , 2019, 252, 316-324.	3.4	22
48	The cooperative effect of Lewis and Brønsted acid sites on Sn-MCM-41 catalysts for the conversion of 1,3-dihydroxyacetone to ethyl lactate. <i>Green Chemistry</i> , 2019, 21, 3383-3393.	4.6	26
49	Self-solidification ionic liquids as heterogeneous catalysts for biodiesel production. <i>Green Chemistry</i> , 2019, 21, 3182-3189.	4.6	35
50	Dehydration of 1,5-Pentanediol over $\text{ZrO}_2/\text{ZnO}$ Mixed Oxides. <i>ChemistrySelect</i> , 2019, 4, 3123-3130.	0.7	6
51	H/D reactivity and acidity of Brønsted acid sites of MWW zeolites: Comparison with MFI zeolite. <i>Applied Catalysis A: General</i> , 2019, 575, 180-186.	2.2	10
52	Niobium pentoxide nanomaterials with distorted structures as efficient acid catalysts. <i>Communications Chemistry</i> , 2019, 2, .	2.0	59
53	Acid properties of organosiliceous hybrid materials based on pendant (fluoro)aryl-sulfonic groups through a spectroscopic study with probe molecules. <i>Catalysis Science and Technology</i> , 2019, 9, 6308-6317.	2.1	1
54	Selective synthesis and stabilization of peroxides via phosphine oxides. <i>New Journal of Chemistry</i> , 2019, 43, 17174-17181.	1.4	16
55	Rational Design of Metal Oxide Solid Acids for Sugar Conversion. <i>Catalysts</i> , 2019, 9, 907.	1.6	12

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56	$^1\text{H}$ and $^{31}\text{P}$ HETCOR NMR elucidates the nature of acid sites in zeolite HZSM-5 probed with trimethylphosphine oxide. <i>Chemical Communications</i> , 2019, 55, 12635-12638.	2.2	23
57	Roles of 8-ring and 12-ring channels in mordenite for carbonylation reaction: From the perspective of molecular adsorption and diffusion. <i>Journal of Catalysis</i> , 2019, 369, 335-344.	3.1	54
58	Sulfonic acid functionalized hydrophobic mesoporous biochar: Design, preparation and acid-catalytic properties. <i>Fuel</i> , 2019, 240, 270-277.	3.4	51
59	Selective catalytic synthesis of glycerol monolaurate over silica gel-based sulfonic acid functionalized ionic liquid catalysts. <i>Chemical Engineering Journal</i> , 2019, 359, 733-745.	6.6	25
60	Generation of Phosphonium Sites on Sulfated Zirconium Oxide: Relationship to Brønsted Acid Strength of Surface $\text{OH}$ Sites. <i>Journal of the American Chemical Society</i> , 2019, 141, 1484-1488.	6.6	25
61	Acidic ionic liquid-functionalized mesoporous melamine-formaldehyde polymer as heterogeneous catalyst for biodiesel production. <i>Fuel</i> , 2019, 239, 886-895.	3.4	68
62	Coating mesoporous ZSM-5 by thin microporous Silicalite-1 shell: Formation of core/shell structure, improved hydrothermal stability and outstanding catalytic performance. <i>Catalysis Today</i> , 2020, 339, 312-320.	2.2	21
63	NMR Spectroscopic Characterization of Flame-Made Amorphous Silica-Alumina for Cyclohexanol and Glyceraldehyde Conversion. <i>ChemCatChem</i> , 2020, 12, 287-293.	1.8	7
64	Recent advances in computational $^{31}\text{P}$ NMR: Part 1. Chemical shifts. <i>Magnetic Resonance in Chemistry</i> , 2020, 58, 478-499.	1.1	28
65	$\text{Al}(\text{OR})_3$ ( $\text{R} = \text{C}(\text{CF}_3)_3$ ) activated silica: a well-defined weakly coordinating surface anion. <i>Chemical Science</i> , 2020, 11, 1510-1517.	3.7	23
66	Hydrophobic zeolite modification for in situ peroxide formation in methane oxidation to methanol. <i>Science</i> , 2020, 367, 193-197.	6.0	470
67	Unravelling the true active site for $\text{CeO}_2$ -catalyzed dephosphorylation. <i>Applied Catalysis B: Environmental</i> , 2020, 264, 118508.	10.8	31
68	Sulphated alumina tungstic acid (SATA): a highly efficient and novel heterogeneous mesostructured catalyst for the synthesis of pyrazole carbonitrile derivatives and evaluation of green metrics. <i>RSC Advances</i> , 2020, 10, 818-827.	1.7	11
69	Developing Brønsted-Lewis acids bifunctionalized ionic liquids based heteropolyacid hybrid as high-efficient solid acids in esterification and biomass conversion. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 92, 200-209.	2.9	18
70	Unraveling the Reaction Mechanism and Active Sites of Metal-Organic Frameworks for Glucose Transformations in Water: Experimental and Theoretical Studies. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 16143-16155.	3.2	19
71	Reusable and efficient heterogeneous catalysts for biodiesel production from free fatty acids and oils: Self-solidifying hybrid ionic liquids. <i>Energy</i> , 2020, 211, 118631.	4.5	22
72	Analysis and control of acid sites in zeolites. <i>Applied Catalysis A: General</i> , 2020, 606, 117795.	2.2	81
73	Solid-state $^{31}\text{P}$ NMR mapping of active centers and relevant spatial correlations in solid acid catalysts. <i>Nature Protocols</i> , 2020, 15, 3527-3555.	5.5	54

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74	Study of interactions between Brønsted acids and triethylphosphine oxide in solution by <sup>31</sup> P NMR: evidence for 2%:1 species. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24351-24358.	1.3	13
75	<sup>1</sup> H-NMR-based metabolomics for cancer targeting and metabolic engineering – A review. <i>Process Biochemistry</i> , 2020, 99, 112-122.	1.8	27
76	Transformations of Biomass, Its Derivatives, and Downstream Chemicals over Ceria Catalysts. <i>ACS Catalysis</i> , 2020, 10, 8788-8814.	5.5	75
77	Novel Strategy for the Synthesis of Ultra-Stable Single-Site Mo-ZSM-5 Zeolite Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19553-19560.	7.2	61
78	Evolution of a Metal-Organic Framework into a Brønsted Acid Catalyst for Glycerol Dehydration to Acrolein. <i>ChemSusChem</i> , 2020, 13, 5073-5079.	3.6	31
79	Novel Strategy for the Synthesis of Ultra-Stable Single-Site Mo-ZSM-5 Zeolite Nanocrystals. <i>Angewandte Chemie</i> , 2020, 132, 19721-19728.	1.6	10
80	Solvent-Activated Hafnium-Containing Zeolites Enable Selective and Continuous Glucose-Fructose Isomerisation. <i>Angewandte Chemie</i> , 2020, 132, 20192-20198.	1.6	6
81	Solvent-Activated Hafnium-Containing Zeolites Enable Selective and Continuous Glucose-Fructose Isomerisation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20017-20023.	7.2	31
82	Spectroscopic Signature of Lewis Acidic Framework and Extraframework Sn Sites in Beta Zeolites. <i>ACS Catalysis</i> , 2020, 10, 14135-14146.	5.5	67
83	Insight into the effects of acid characteristics on the catalytic performance of Sn-MFI zeolites in the transformation of dihydroxyacetone to methyl lactate. <i>Journal of Catalysis</i> , 2020, 391, 386-396.	3.1	17
84	Water-Induced Structural Dynamic Process in Molecular Sieves under Mild Hydrothermal Conditions: Ship-in-a-Bottle Strategy for Acidity Identification and Catalyst Modification. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20672-20681.	7.2	26
85	Water-Induced Structural Dynamic Process in Molecular Sieves under Mild Hydrothermal Conditions: Ship-in-a-Bottle Strategy for Acidity Identification and Catalyst Modification. <i>Angewandte Chemie</i> , 2020, 132, 20853-20862.	1.6	5
86	Impact of acid site speciation and spatial gradients on zeolite catalysis. <i>Journal of Catalysis</i> , 2020, 391, 56-68.	3.1	66
87	Di(hydroperoxy)cycloalkane Adducts of Triarylphosphine Oxides: A Comprehensive Study Including Solid-State Structures and Association in Solution. <i>Inorganic Chemistry</i> , 2020, 59, 13719-13732.	1.9	10
88	Nontraditional Catalyst Supports in Surface Organometallic Chemistry. <i>ACS Catalysis</i> , 2020, 10, 11822-11840.	5.5	94
89	Accelerating Biodiesel Catalytic Production by Confined Activation of Methanol over High-Concentration Ionic Liquid-Grafted UiO-66 Solid Superacids. <i>ACS Catalysis</i> , 2020, 10, 11848-11856.	5.5	32
90	Selective active site placement in Lewis acid zeolites and implications for catalysis of oxygenated compounds. <i>Chemical Science</i> , 2020, 11, 10225-10235.	3.7	23
91	Hot Electrons, Hot Holes, or Both? Tandem Synthesis of Imines Driven by the Plasmonic Excitation in Au/CeO <sub>2</sub> Nanorods. <i>Nanomaterials</i> , 2020, 10, 1530.	1.9	6

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92	Enhancing hydrothermal stability of framework Al in ZSM-5: From the view on the transformation between P and Al species by solid-state NMR spectroscopy. Chinese Journal of Chemical Engineering, 2020, 28, 3052-3060.	1.7	7
93	Acidity characterization of solid acid catalysts by solid-state $^{31}\text{P}$ NMR of adsorbed phosphorus-containing probe molecules: An update. Annual Reports on NMR Spectroscopy, 2020, , 65-149.	0.7	2
94	Recent Advances in Solid-State Nuclear Magnetic Resonance Techniques for Materials Research. Annual Review of Materials Research, 2020, 50, 493-520.	4.3	18
95	A study on the acidity of sulfated $\text{Cu}_2\text{O}$ layers grown by surface reconstruction of $\text{Cu}_2\text{O}$ with specific exposed facets. Catalysis Science and Technology, 2020, 10, 3985-3993.	2.1	7
96	Chemical state tuning of surface Ce species on pristine $\text{CeO}_2$ with 2400% boosting in peroxidase-like activity for glucose detection. Chemical Communications, 2020, 56, 7897-7900.	2.2	15
97	Probing the Brønsted Acidity of the External Surface of Faujasite-Type Zeolites. ChemPhysChem, 2020, 21, 1873-1881.	1.0	30
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99	Differentiating Surface Ce Species among $\text{CeO}_2$ Facets by Solid-State NMR for Catalytic Correlation. ACS Catalysis, 2020, 10, 4003-4011.	5.5	59
100	Active Site Formation in $\text{WO}_x$ Supported on Spherical Silica Catalysts for Lewis Acid Transformation to Brønsted Acid Activity. Journal of Physical Chemistry C, 2020, 124, 15935-15943.	1.5	10
101	Pd/Lewis Acid Synergy in Macroporous $\text{Pd@Na-ZSM-5}$ for Enhancing Selective Conversion of Biomass. ChemCatChem, 2020, 12, 5364-5368.	1.8	9
102	Adsorption and isomerization of amino acids within zeolites: Impacts of acidity, amine functionalization, pore topology and sidechains. Molecular Catalysis, 2020, 493, 111088.	1.0	1
103	Disentangling different modes of mobility for triphenylphosphine oxide adsorbed on alumina. Journal of Chemical Physics, 2020, 152, 054718.	1.2	15
104	From One to Two: Acidic Proton Spatial Networks in Porous Zeolite Materials. Chemistry of Materials, 2020, 32, 1332-1342.	3.2	35
105	Local Acid Strength of Solutions and Its Quantitative Evaluation Using Excess Infrared Nitrile Probes. Journal of Physical Chemistry Letters, 2020, 11, 1007-1012.	2.1	18
106	Design of nitrogen-doped graphitized 2D hierarchical porous carbons as efficient solid base catalysts for transesterification to biodiesel. Green Chemistry, 2020, 22, 903-912.	4.6	26
107	C-C Bond Formation in Syngas Conversion over Zinc Sites Grafted on ZSM-5 Zeolite. Angewandte Chemie - International Edition, 2020, 59, 6529-6534.	7.2	34
108	Fabrication of a solid superacid with temperature-regulated silica-isolated biochar nanosheets. Chinese Journal of Catalysis, 2020, 41, 698-709.	6.9	4
109	Catalytic transformation of cellulose into short rod-like cellulose nanofibers and platform chemicals over lignin-based solid acid. Applied Catalysis B: Environmental, 2020, 268, 118732.	10.8	36

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110	CâˆC Bond Formation in Syngas Conversion over Zinc Sites Grafted on ZSMâ€5 Zeolite. <i>Angewandte Chemie</i> , 2020, 132, 6591-6596.	1.6	5
111	Complementary interpretation of $\langle i \rangle E \langle /i \rangle \langle sub \rangle T \langle /sub \rangle$ (30) polarity parameters of ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 9954-9966.	1.3	21
112	Modulation of Selfâ€Separating Molecular Catalysts for Highly Efficient Biomass Transformations. <i>Chemistry - A European Journal</i> , 2020, 26, 11900-11908.	1.7	9
113	Functionalized Biochar with Superacidity and Hydrophobicity as a Highly Efficient Catalyst in the Synthesis of Renewable High-Density Fuels. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7785-7794.	3.2	24
114	Honeycomb-structured solid acid catalysts fabricated via the swelling-induced self-assembly of acidic poly(ionic liquid)s for highly efficient hydrolysis reactions. <i>Chinese Journal of Catalysis</i> , 2021, 42, 297-309.	6.9	25
115	Seleniumâ€NMR Spectroscopy in Organic Synthesis: From Structural Characterization Toward New Investigations. <i>Asian Journal of Organic Chemistry</i> , 2021, 10, 91-128.	1.3	16
116	Thermal desorption of trimethylphosphine (TMP) on the HY zeolite followed by FT-IR and $^{31}\text{P}$ MAS NMR. <i>Journal of Solid State Chemistry</i> , 2021, 294, 121862.	1.4	7
117	Precisely regulating the BrÃnsted acidity and catalytic reactivity of novel allylic Câ€H acidic catalysts. <i>Fuel</i> , 2021, 289, 119845.	3.4	1
118	The alumination mechanism of porous silica materials and properties of derived ion exchangers and acid catalysts. <i>Materials Chemistry Frontiers</i> , 2021, 5, 4254-4271.	3.2	13
119	Surface matrix curing of inorganic $\text{CsPbI}_3$ perovskite quantum dots for solar cells with efficiency over 16%. <i>Energy and Environmental Science</i> , 2021, 14, 4599-4609.	15.6	96
120	One-pot fructose conversion into 5-ethoxymethylfurfural using a sulfonated hydrophobic mesoporous organic polymer as a highly active and stable heterogeneous catalyst. <i>Catalysis Science and Technology</i> , 2021, 11, 5816-5826.	2.1	7
121	Effect of Copper State in Cu/H-ZSM-5 on Methane Activation by BrÃnsted Acid Sites, Studied by $^1\text{H}$ MAS NMR In Situ Monitoring the H/D Hydrogen Exchange of the Alkane with BrÃnsted Acid Sites. <i>Journal of Physical Chemistry C</i> , 2021, 125, 2182-2193.	1.5	16
122	$\text{NO}_x$ reduction consequences of lanthanide-substituted vanadates functionalized with S or P poisons under oxidative environments. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8350-8371.	5.2	19
123	Surface Structures and Their Reactions in Transition Metal Oxides. <i>New Developments in NMR</i> , 2021, , 460-482.	0.1	0
124	Surface acidity of tin dioxide nanomaterials revealed with $^{31}\text{P}$ solid-state NMR spectroscopy and DFT calculations. <i>RSC Advances</i> , 2021, 11, 25004-25009.	1.7	3
125	Fully recyclable BrÃnsted acid catalyst systems. <i>Green Chemistry</i> , 2021, 23, 1266-1273.	4.6	13
127	Surface Coordination Chemistry of Nanomaterials and Catalysis. , 2021, , 204-227.		1
128	MWW and MFI Frameworks as Model Layered Zeolites: Structures, Transformations, Properties, and Activity. <i>ACS Catalysis</i> , 2021, 11, 2366-2396.	5.5	63



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130	Effect of coking and propylene adsorption on enhanced stability for Co <sup>2+</sup> -catalyzed propane dehydrogenation. <i>Journal of Catalysis</i> , 2021, 395, 105-116.	3.1	34
131	Acidity and Local Confinement Effect in Mordenite Probed by Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2413-2422.	2.1	17
132	A theoretical study on the feed ratio of dimethyl ether carbonylation on H-MOR zeolites. <i>Molecular Physics</i> , 2021, 119, e1896044.	0.8	3
133	Confinement-Driven "Flexible" Acidity Properties of Porous Zeolite Catalysts with Varied Probe-Assisted Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11580-11590.	1.5	8
134	One-step fabrication of polymeric self-solidifying ionic liquids as the efficient catalysts for biodiesel production. <i>Journal of Cleaner Production</i> , 2021, 292, 125967.	4.6	17
135	Effect of Adsorbed Water Molecules on the Surface Acidity of Niobium and Tantalum Oxides Studied by MAS NMR. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9330-9341.	1.5	5
136	Surface Fingerprinting of Faceted Metal Oxides and Porous Zeolite Catalysts by Probe-Assisted Solid-State NMR Approaches. <i>Accounts of Chemical Research</i> , 2021, 54, 2421-2433.	7.6	21
137	Influence of Trimethylphosphine Oxide Loading on the Measurement of Zeolite Acidity by Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 9497-9506.	1.5	15
138	Synergy of Extraframework Al <sup>3+</sup> Cations and Brønsted Acid Sites on Hierarchical ZSM-5 Zeolites for Butanol-to-Olefin Conversion. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11665-11676.	1.5	12
139	Qualitative and Quantitative Analysis of Acid Properties for Solid Acids by Solid-State Nuclear Magnetic Resonance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10179-10197.	1.5	21
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