

# Alexander G Stepanov

## List of Publications by Year in descending order

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185  
papers

5,804  
citations

71061

41  
h-index

110317

64  
g-index

190  
all docs

190  
docs citations

190  
times ranked

4597  
citing authors

#	ARTICLE	IF	CITATIONS
1	Defibrillation of soft porous metal-organic frameworks with electric fields. <i>Science</i> , 2017, 358, 347-351.	6.0	352
2	Hybrid Polyoxotungstate/MIL-101 Materials: Synthesis, Characterization, and Catalysis of H <sub>2</sub> O <sub>2</sub> -Based Alkene Epoxidation. <i>Inorganic Chemistry</i> , 2010, 49, 2920-2930.	1.9	228
3	Oxidation of methane to methanol on the surface of FeZSM-5 zeolite. <i>Journal of Catalysis</i> , 2013, 300, 47-54.	3.1	160
4	Different Efficiency of Zn <sup>2+</sup> and ZnO Species for Methane Activation on Zn-Modified Zeolite. <i>ACS Catalysis</i> , 2017, 7, 1818-1830.	5.5	151
5	Understanding Methane Aromatization on a Zn-Modified High-Silica Zeolite. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 4559-4562.	7.2	143
6	Dynamics of Benzene Rings in MIL-53(Cr) and MIL-47(V) Frameworks Studied by <sup>2</sup> H-NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4791-4794.	7.2	127
7	Strong acidity of silanol groups of zeolite beta: Evidence from the studies by IR spectroscopy of adsorbed CO and 1H MAS NMR. <i>Microporous and Mesoporous Materials</i> , 2010, 131, 210-216.	2.2	111
8	Porous Metal-Organic Polyhedral Frameworks with Optimal Molecular Dynamics and Pore Geometry for Methane Storage. <i>Journal of the American Chemical Society</i> , 2017, 139, 13349-13360.	6.6	99
9	Probing the Dynamics of the Porous Zr Terephthalate UiO-66 Framework Using <sup>2</sup> H NMR and Neutron Scattering. <i>Journal of Physical Chemistry C</i> , 2012, 116, 12131-12136.	1.5	97
10	Mobility of the 2-Methylimidazolate Linkers in ZIF-8 Probed by <sup>2</sup> H NMR: Saloon Doors for the Guests. <i>Journal of Physical Chemistry C</i> , 2015, 119, 27512-27520.	1.5	97
11	Methane aromatization on Zn-modified zeolite in the presence of a co-reactant higher alkane: How does it occur?. <i>Catalysis Today</i> , 2009, 144, 265-272.	2.2	87
12	<sup>13</sup> C CP/MAS and <sup>2</sup> H NMR study of tert-butyl alcohol dehydration on H-ZSM-5 zeolite. Evidence for the formation of tert-butyl cation and tert-butyl silyl ether intermediates. <i>Catalysis Letters</i> , 1992, 13, 407-422.	1.4	78
13	Tailoring porosity and rotational dynamics in a series of octacarboxylate metal-organic frameworks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 3056-3061.	3.3	73
14	The $\alpha$ -Alkyl- and $\alpha$ -Carbenium-Pathways of Methane Activation on Ga-Modified Zeolite BEA: <sup>13</sup> C Solid-State NMR and GC-MS Study of Methane Aromatization in the Presence of Higher Alkane. <i>Journal of Physical Chemistry C</i> , 2010, 114, 21555-21561.	1.5	72
15	Methane Activation and Transformation on Ag/H-ZSM-5 Zeolite Studied with Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2013, 117, 7690-7702.	1.5	72
16	The Nature, Structure, and Composition of Adsorbed Hydrocarbon Products of Ambient Temperature Oligomerization of Ethylene on Acidic Zeolite H-ZSM-5. <i>Journal of Catalysis</i> , 1998, 178, 466-477.	3.1	71
17	Significant Influence of Zn on Activation of the C-H Bonds of Small Alkanes by Brønsted Acid Sites of Zeolite. <i>ChemPhysChem</i> , 2008, 9, 2559-2563.	1.0	70
18	NMR Observation of the Koch Reaction in Zeolite H-ZSM-5 under Mild Conditions. <i>Journal of the American Chemical Society</i> , 1995, 117, 3615-3616.	6.6	69

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19	Direct Measurement of Zeolite Brønsted Acidity by FTIR Spectroscopy: Solid-State <sup>1</sup> H MAS NMR Approach for Reliable Determination of the Integrated Molar Absorption Coefficients. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25386-25395.	1.5	69
20	Methane Activation on Zn <sup>2+</sup> -Exchanged ZSM-5 Zeolites. The Effect of Molecular Oxygen Addition. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24910-24918.	1.5	67
21	Zn-promoted hydrogen exchange for methane and ethane on Zn/H-BEA zeolite: In situ <sup>1</sup> H MAS NMR kinetic study. <i>Journal of Catalysis</i> , 2008, 253, 11-21.	3.1	65
22	Superprotonic Conductivity in Metal-Organic Framework via Solvent-Free Coordinative Urea Insertion. <i>Journal of the American Chemical Society</i> , 2020, 142, 6861-6865.	6.6	65
23	Propane Aromatization on Zn-Modified Zeolite BEA Studied by Solid-State NMR in Situ. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12681-12688.	1.5	64
24	Post-synthetic modulation of the charge distribution in a metal-organic framework for optimal binding of carbon dioxide and sulfur dioxide. <i>Chemical Science</i> , 2019, 10, 1472-1482.	3.7	62
25	Formation of Carboxylic Acids from Alcohols and Olefins in Zeolite H-ZSM-5 under Mild Conditions via Trapping of Alkyl Carbenium Ions with Carbon Monoxide: An In Situ <sup>13</sup> C Solid State NMR Study. <i>Journal of Catalysis</i> , 1996, 164, 411-421.	3.1	59
26	Enhancement of Proton Conductivity in Nonporous Metal-Organic Frameworks: The Role of Framework Proton Density and Humidity. <i>Chemistry of Materials</i> , 2018, 30, 7593-7602.	3.2	55
27	Interaction of Olefins with Carbon Monoxide on Zeolite H-ZSM-5. NMR Observation of the Friedel-Crafts Acylation of Alkenes at Ambient Temperature. <i>Journal of the American Chemical Society</i> , 1996, 118, 10890-10891.	6.6	54
28	In situ monitoring of n-butene conversion on H-ferrierite by <sup>1</sup> H, <sup>2</sup> H, and <sup>13</sup> C MAS NMR: kinetics of a double-bond-shift reaction, hydrogen exchange, and the <sup>13</sup> C-label scrambling. <i>Journal of Catalysis</i> , 2005, 229, 243-251.	3.1	54
29	In Situ <sup>1</sup> H and <sup>13</sup> C MAS NMR Kinetic Study of the Mechanism of H/D Exchange for Propane on Zeolite H-ZSM-5. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19748-19757.	1.2	50
30	Structural Dynamics in a "Breathing" Metal-Organic Framework Studied by Electron Paramagnetic Resonance of Nitroxide Spin Probes. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 20-24.	2.1	48
31	Carbenium ion properties of octene-1 adsorbed on zeolite H-ZSM-5. <i>Catalysis Letters</i> , 1994, 24, 271-284.	1.4	47
32	Formation of Carboxylic Acids from Small Alkanes in Zeolite H-ZSM-5. <i>Chemistry - A European Journal</i> , 2000, 6, 2368-2376.	1.7	47
33	n-Butene Conversion on H-Ferrierite Studied by <sup>13</sup> C MAS NMR. <i>Journal of Catalysis</i> , 2002, 211, 165-172.	3.1	47
34	Spectral modification of femtosecond laser pulses in the process of highly efficient generation of terahertz radiation via optical rectification. <i>JETP Letters</i> , 2007, 85, 227-230.	0.4	47
35	Methane Activation on In-Modified ZSM-5: The State of Indium in the Zeolite and Pathways of Methane Transformation to Surface Species. <i>Journal of Physical Chemistry C</i> , 2014, 118, 8034-8043.	1.5	47
36	In situ high temperature MAS NMR study of the mechanisms of catalysis. Ethane aromatization on Zn-modified zeolite BEA. <i>Solid State Nuclear Magnetic Resonance</i> , 2009, 35, 113-119.	1.5	46

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37	Title is missing!. Catalysis Letters, 1998, 54, 1-4.	1.4	45
38	In Situ <sup>13</sup> C Solid-State NMR and Ex Situ GC-MS Analysis of the Products of <i>tert</i> -Butyl Alcohol Dehydration on H-ZSM-5 Zeolite Catalyst. Chemistry - A European Journal, 1996, 2, 157-167.	1.7	44
39	In situ H and C MAS NMR study of the mechanism of H/D exchange for deuterated propane adsorbed on H-ZSM-5. Journal of Catalysis, 2005, 235, 221-228.	3.1	44
40	Diffusion of Xylene Isomers in the MIL-47(V) MOF Material: A Synergic Combination of Computational and Experimental Tools. Journal of Physical Chemistry C, 2013, 117, 6293-6302.	1.5	44
41	<sup>13</sup> C solid state NMR evidence for the existence of isobutyl carbenium ion in the reaction of isobutyl alcohol dehydration in H-ZSM-5 zeolite. Catalysis Letters, 1993, 19, 153-158.	1.4	43
42	Guest Controlled Rotational Dynamics of Terephthalate Phenylenes in Metal-Organic Framework MIL-53(Al): Effect of Different Xylene Loadings. Journal of Physical Chemistry C, 2014, 118, 15978-15984.	1.5	42
43	Hydrogen Bonding Between Ions of Like Charge in Ionic Liquids Characterized by NMR Deuteron Quadrupole Coupling Constants—Comparison with Salt Bridges and Molecular Systems. Angewandte Chemie - International Edition, 2019, 58, 17863-17871.	7.2	41
44	<sup>13</sup> C CP/MAS NMR study of isobutyl alcohol dehydration on H-ZSM-5 zeolite. Evidence for the formation of stable isobutyl silyl ether intermediate. Catalysis Letters, 1992, 13, 395-405.	1.4	40
45	Experimental and Simulation Evidence of a Corkscrew Motion for Benzene in the Metal-Organic Framework MIL-47. Journal of Physical Chemistry C, 2012, 116, 15093-15098.	1.5	40
46	Rotational and Translational Motion of Benzene in ZIF-8 Studied by <sup>2</sup> H NMR: Estimation of Microscopic Self-Diffusivity and Its Comparison with Macroscopic Measurements. Journal of Physical Chemistry C, 2014, 118, 12873-12879.	1.5	39
47	Selective Gas Uptake and Rotational Dynamics in a (3,24)-Connected Metal-Organic Framework Material. Journal of the American Chemical Society, 2021, 143, 3348-3358.	6.6	39
48	Diffusion of Benzene in the Breathing Metal-Organic Framework MIL-53(Cr): A Joint Experimental-Computational Investigation. Journal of Physical Chemistry C, 2015, 119, 8217-8225.	1.5	38
49	Nature of the Surface Intermediates Formed from Methane on Cu-ZSM-5 Zeolite: A Combined Solid-State Nuclear Magnetic Resonance and Density Functional Theory Study. Journal of Physical Chemistry C, 2020, 124, 6242-6252.	1.5	38
50	Metal-Cation-Independent Dynamics of Phenylene Ring in Microporous MOFs: A <sup>2</sup> H Solid-State NMR Study. Journal of Physical Chemistry C, 2015, 119, 28038-28045.	1.5	36
51	Regioselective H/D exchange of propane on Zn/H-MFI zeolite. Catalysis Letters, 2007, 114, 85-90.	1.4	35
52	Reactivity of Methoxy Species toward CO on Keggin <sup>12</sup> -H <sub>3</sub> PW <sub>12</sub> O <sub>40</sub> : A Study with Solid State NMR. Journal of Physical Chemistry C, 2009, 113, 19639-19644.	1.5	35
53	Uncovering the Rotation and Translational Mobility of Benzene Confined in UiO-66 (Zr) Metal-Organic Framework by the <sup>2</sup> H NMR-QENS Experimental Toolbox. Journal of Physical Chemistry C, 2017, 121, 2844-2857.	1.5	35
54	Characterization of Doubly Ionic Hydrogen Bonds in Protic Ionic Liquids by NMR Deuteron Quadrupole Coupling Constants: Differences to H-bonds in Amides, Peptides, and Proteins. Angewandte Chemie - International Edition, 2017, 56, 14310-14314.	7.2	35

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55	METAL-ORGANIC FRAMEWORKS IN RUSSIA: FROM THE SYNTHESIS AND STRUCTURE TO FUNCTIONAL PROPERTIES AND MATERIALS. <i>Journal of Structural Chemistry</i> , 2022, 63, 671-843.	0.3	35
56	Mechanism Studies of the Conversion of $^{13}\text{C}$ -Labeled n-Butane on Zeolite H-ZSM-5 by Using $^{13}\text{C}$ Magic Angle Spinning NMR Spectroscopy and GC-MS Analysis. <i>Chemistry - A European Journal</i> , 2006, 12, 457-465.	1.7	34
57	Hydrogen H/D Exchange and Activation of $\text{C}_{1-n}\text{C}_4$ Alkanes on Ga-Modified Zeolite BEA Studied with $^1\text{H}$ Magic Angle Spinning Nuclear Magnetic Resonance in Situ. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13877-13886.	1.5	34
58	Carbonylation of dimethyl ether on solid Rh-promoted Cs-salt of Keggin 12-H <sub>3</sub> PW12O <sub>40</sub> : A solid-state NMR study of the reaction mechanism. <i>Journal of Catalysis</i> , 2011, 277, 72-79.	3.1	33
59	Molecular Dynamics of n-Octane Inside Zeolite ZSM-5 As Studied by Deuterium Solid-State NMR and Quasi-Elastic Neutron Scattering. <i>Journal of Physical Chemistry B</i> , 1998, 102, 10860-10870.	1.2	32
60	n-Butane conversion on sulfated zirconia: the mechanism of isomerization and $^{13}\text{C}$ -label scrambling as studied by in situ $^{13}\text{C}$ MAS NMR and ex situ GC-MS. <i>Journal of Catalysis</i> , 2003, 220, 233-239.	3.1	31
61	Comparison of the dynamics of MIL-53(Cr) and MIL-47(V) frameworks using neutron scattering and DFT methods. <i>European Physical Journal: Special Topics</i> , 2010, 189, 263-271.	1.2	31
62	Interaction of Acetonitrile with Olefins and Alcohols in Zeolite H-ZSM-5: In situ Solid-State NMR Characterization of the Reaction Products. <i>Chemistry - A European Journal</i> , 1997, 3, 47-56.	1.7	30
63	Synthesis of aluminum oxides from the products of the rapid thermal decomposition of hydrargillite in a centrifugal flash reactor: II. Physicochemical properties of the products obtained by the centrifugal thermal activation of hydrargillite. <i>Kinetics and Catalysis</i> , 2007, 48, 153-161.	0.3	30
64	Solid-State NMR Characterization of the Structure of Intermediates Formed from Olefins on Metal Oxides ( $\text{Al}_2\text{O}_3$ and $\text{Ga}_2\text{O}_3$ ). <i>Journal of Physical Chemistry C</i> , 2012, 116, 21430-21438.	1.5	30
65	Diffusion of $\text{CH}_4$ in ZIF-8 Studied by Quasi-Elastic Neutron Scattering. <i>Journal of Physical Chemistry C</i> , 2015, 119, 16115-16120.	1.5	30
66	Kinetics of H/D Exchange for n-Butane on Zeolite H-ZSM-5 Studied with $^1\text{H}$ MAS NMR In Situ. <i>Journal of Physical Chemistry C</i> , 2008, 112, 11869-11874.	1.5	29
67	Propane Transformation on Zn-Modified Zeolite. Effect of the Nature of Zn Species on Alkane Aromatization and Hydrogenolysis. <i>Journal of Physical Chemistry C</i> , 2019, 123, 30473-30485.	1.5	29
68	Which Species, $\text{Zn}^{2+}$ Cations or ZnO Clusters, Are More Efficient for Olefin Aromatization? $^{13}\text{C}$ Solid-State NMR Investigation of n-But-1-ene Transformation on Zn-Modified Zeolite. <i>ACS Catalysis</i> , 2020, 10, 14224-14233.	5.5	29
69	Propane carbonylation on sulfated zirconia catalyst as studied by $^{13}\text{C}$ MAS NMR and FTIR spectroscopy. <i>Journal of Catalysis</i> , 2004, 223, 290-295.	3.1	28
70	Methane Carbonylation with CO on Sulfated Zirconia: Evidence from Solid-State NMR for the Selective Formation of Acetic Acid. <i>Journal of Physical Chemistry C</i> , 2007, 111, 10624-10629.	1.5	28
71	Competitive pathways of methane activation on $\text{Zn}^{2+}$ -modified ZSM-5 zeolite: H/D hydrogen exchange with Brønsted acid sites versus dissociative adsorption to form Zn-methyl species. <i>Catalysis Science and Technology</i> , 2016, 6, 6381-6388.	2.1	28
72	In situ NMR identification of the intermediates and the reaction products in alcohols and hydrocarbons conversion on zeolites. <i>Catalysis Today</i> , 1995, 24, 341-348.	2.2	27

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73	n-Pentane Conversion on Sulfated Zirconia in the Absence and Presence of Carbon Monoxide. <i>Journal of Catalysis</i> , 2001, 203, 273-280.	3.1	27
74	Ultraslow Dynamics of a Framework Linker in MIL-53 (Al) as a Sensor for Different Isomers of Xylene. <i>Journal of Physical Chemistry C</i> , 2016, 120, 21704-21709.	1.5	27
75	Dynamics of Isobutane inside Zeolite ZSM-5. A Study with Deuterium Solid-State NMR. <i>Journal of Physical Chemistry B</i> , 2002, 106, 10114-10120.	1.2	25
76	Parahydrogen-Induced Polarization Detected with Continuous Flow Magic Angle Spinning NMR. <i>Journal of Physical Chemistry C</i> , 2013, 117, 2888-2892.	1.5	25
77	Characterization and Dynamics of the Different Protonic Species in Hydrated 12-Tungstophosphoric Acid Studied by $^2\text{H}$ NMR. <i>Journal of Physical Chemistry C</i> , 2014, 118, 30023-30033.	1.5	25
78	Methane Activation on In-Modified ZSM-5 Zeolite. H/D Hydrogen Exchange of the Alkane with Brønsted Acid Sites. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14427-14432.	1.5	25
79	Methane Activation on H-ZSM-5 Zeolite with Low Copper Loading. The Nature of Active Sites and Intermediates Identified with the Combination of Spectroscopic Methods. <i>Inorganic Chemistry</i> , 2020, 59, 2037-2050.	1.9	25
80	Metal-alkyl species are formed on interaction of small alkanes with gallium oxide: Evidence from solid-state NMR. <i>Chemical Physics Letters</i> , 2010, 496, 148-151.	1.2	24
81	Mobility and Reactivity of 4-Substituted TEMPO Derivatives in Metal-Organic Framework MIL-53(Al). <i>Journal of Physical Chemistry C</i> , 2016, 120, 10698-10704.	1.5	23
82	Alkane/alkene mixture diffusion in silicalite-1 studied by MAS PFG NMR. <i>Microporous and Mesoporous Materials</i> , 2018, 257, 128-134.	2.2	23
83	Propylene Transformation on Zn-Modified Zeolite: Is There Any Difference in the Effect of $\text{Zn}^{2+}$ Cations or ZnO Species on the Reaction Occurrence?. <i>Journal of Physical Chemistry C</i> , 2019, 123, 27573-27583.	1.5	23
84	Propane activation on Zn-modified zeolite. The effect of the nature of Zn-species on the mechanism of H/D hydrogen exchange of the alkane with Brønsted acid sites. <i>Journal of Catalysis</i> , 2019, 378, 341-352.	3.1	23
85	Mobility of Aromatic Guests and Isobutane in ZIF-8 Metal-Organic Framework Studied by $^2\text{H}$ Solid State NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 13765-13774.	1.5	23
86	$^2\text{H}$ Solid-State NMR Spectroscopy Reveals the Dynamics of a Pyridine Probe Interacting with Coordinatively Unsaturated Metal Sites of MIL-100(Al) Metal-Organic Frameworks. <i>Chemistry - A European Journal</i> , 2019, 25, 10808-10812.	1.7	22
87	NMR Study of the Host Structure and Guest Dynamics Investigated with Alkane/Alkene Mixtures in Metal Organic Frameworks ZIF-8. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1904-1912.	1.5	22
88	Comparison of the dynamics of n-hexane in ZSM-5 and 5A zeolite structures. <i>European Physical Journal E</i> , 2003, 12, 57-61.	0.7	21
89	Dynamics of n-Hexane Inside Silicalite, As Studied by $^2\text{H}$ NMR. <i>Journal of Physical Chemistry B</i> , 2003, 107, 7095-7101.	1.2	21
90	In situ NMR spectroscopy in heterogeneous catalysis: Kinetic study of hydrocarbon conversion mechanisms. <i>Kinetics and Catalysis</i> , 2007, 48, 521-534.	0.3	21

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91	Water Dynamics in Bulk and Dispersed in Silica $\text{CaCl}_2$ Hydrates Studied by $^2\text{H}$ NMR. <i>Journal of Physical Chemistry C</i> , 2008, 112, 12853-12860.	1.5	21
92	H/D exchange of molecular hydrogen with Brønsted acid sites of Zn- and Ga-modified zeolite BEA. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5149.	1.3	21
93	Dynamical heterogeneities in ionic liquids as revealed from deuterium NMR. <i>Chemical Communications</i> , 2018, 54, 3098-3101.	2.2	21
94	Deuterium solid-state NMR study of the molecular mobility and dehydration of tert-butyl alcohol on zeolite H-ZSM-5. <i>Magnetic Resonance in Chemistry</i> , 1994, 32, 16-23.	1.1	20
95	Molecular Dynamics of iso-Butyl Alcohol Inside Zeolite H-ZSM-5 as Studied by Deuterium Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2000, 104, 7677-7685.	1.2	20
96	n-Butane conversion on sulfated zirconia: in situ $^{13}\text{C}$ MAS NMR monitoring of the kinetics of the $^{13}\text{C}$ -label scrambling and isomerization. <i>Catalysis Letters</i> , 2005, 101, 181-185.	1.4	20
97	Coaromatization of Methane with Propane on Mo-Containing Zeolite H-BEA: A Solid-State NMR and GC-MS Study. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22867-22873.	1.5	20
98	Solid-state NMR study of the kinetics and mechanism of dimethyl ether carbonylation on cesium salt of 12-tungstophosphoric acid modified with Ag, Pt, and Rh. <i>Journal of Catalysis</i> , 2013, 308, 250-257.	3.1	20
99	Probing the Guest-Mediated Structural Mobility in the UiO-66(Zr) Framework by $^2\text{H}$ NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 11593-11600.	1.5	20
100	Pulse EPR Study of Gas Adsorption in $\text{Cu}^{2+}$ -Doped Metal-Organic Framework $[\text{Zn}_2(1,4\text{-bdc})_2(\text{dabco})]$ . <i>Applied Magnetic Resonance</i> , 2018, 49, 255-264.	0.6	20
101	$^1\text{H}$ MAS NMR monitoring of the $^{13}\text{C}$ -labeled carbon scrambling for propane in zeolite H-ZSM-5. <i>Chemical Physics Letters</i> , 2006, 420, 574-576.	1.2	19
102	Probing Gas Adsorption in Metal-Organic Framework ZIF-8 by EPR of Embedded Nitroxides. <i>Journal of Physical Chemistry C</i> , 2017, 121, 19880-19886.	1.5	19
103	Characterization of Fast Restricted Librations of Terephthalate Linkers in MOF UiO-66(Zr) by $^2\text{H}$ NMR Spin-Lattice Relaxation Analysis. <i>Journal of Physical Chemistry C</i> , 2018, 122, 12956-12962.	1.5	19
104	Study of the mechanism of ethylene oxidation by palladium(II) complexes containing nitro and/or nitrate ligands in chloroform. <i>Journal of Molecular Catalysis</i> , 1989, 50, 167-179.	1.2	17
105	High-resolution solid-state NMR spectroscopy in studies of conversions of hydrocarbons and alcohols on zeolites. <i>Russian Chemical Reviews</i> , 1999, 68, 563-580.	2.5	17
106	Dynamics of Linear $n\text{-C}_6$ to $n\text{-C}_{22}$ Alkanes Inside 5A Zeolite Studied by $^2\text{H}$ NMR. <i>Journal of Physical Chemistry C</i> , 2007, 111, 4393-4403.	1.5	17
107	Mobility of <i>n</i> -Butane in ZSM-5 Zeolite Studied by $^2\text{H}$ NMR. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2958-2966.	1.5	17
108	Mobility of <i>tert</i> -Butyl Alcohol in MFI Framework Type Studied by Deuterium NMR. <i>Journal of Physical Chemistry C</i> , 2012, 116, 8956-8963.	1.5	17

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109	Monitoring the Diffusivity of Light Hydrocarbons in a Mixture by Magic Angle Spinning Pulsed Field Gradient NMR: Methane/Ethane/Ethene in ZIF-8. <i>Journal of Physical Chemistry C</i> , 2017, 121, 25372-25376.	1.5	17
110	Counting cations involved in cationic clusters of hydroxy-functionalized ionic liquids by means of infrared and solid-state NMR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 6861-6867.	1.3	17
111	Isobutene Transformation to Aromatics on Zn-Modified Zeolite: Particular Effects of Zn <sup>2+</sup> and ZnO Species on the Reaction Occurrence Revealed with Solid-State NMR and FTIR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 15343-15353.	1.5	17
112	Mobility of Solidtert-Butyl Alcohol Studied by Deuterium NMR. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7428-7436.	1.1	16
113	Structure of Allylic Intermediate on Zinc Oxide, $\pi$ or $\sigma$ ? <i>Journal of Physical Chemistry C</i> , 2012, 116, 11096-11099.	1.5	16
114	Carbonylation of dimethyl ether on Rh/Cs2HPW12O40: Solid-state NMR study of the mechanism of reaction in the presence of a methyl iodide promoter. <i>Journal of Catalysis</i> , 2012, 291, 9-16.	3.1	16
115	Direct <sup>2</sup> H NMR Observation of the Proton Mobility of the Acidic Sites of Anhydrous 12-tungstophosphoric Acid. <i>ChemPhysChem</i> , 2013, 14, 1783-1786.	1.0	16
116	Effect of Copper State in Cu/H-ZSM-5 on Methane Activation by Brønsted Acid Sites, Studied by 1H MAS NMR In Situ Monitoring the H/D Hydrogen Exchange of the Alkane with Brønsted Acid Sites. <i>Journal of Physical Chemistry C</i> , 2021, 125, 2182-2193.	1.5	16
117	Two-dimensional J-resolved 13C solid-state NMR analysis of the products of ethylene conversion on zeolite H-ZSM-5. <i>Solid State Nuclear Magnetic Resonance</i> , 1993, 2, 89-93.	1.5	15
118	Methane Interaction with Zn <sup>2+</sup> -Exchanged Zeolite H-ZSM-5: Study of Adsorption and Mobility by One- and Two-Dimensional Variable-Temperature <sup>1</sup> H Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14255-14261.	1.5	15
119	Mechanism of H/D Hydrogen Exchange of <i>n</i> -Butane with Brønsted Acid Sites on Zn-Modified Zeolite: The Effect of Different Zn Species (Zn <sup>2+</sup> and ZnO) on the Activation of Alkane C-H Bonds. <i>Journal of Physical Chemistry C</i> , 2020, 124, 20270-20279.	1.5	15
120	Dynamics of propene and propane in ZIF-8 probed by solid-state 2H NMR. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 5976-5984.	1.3	15
121	Dynamics of xylene isomers in MIL-53 (Al) MOF probed by solid state 2H NMR. <i>Microporous and Mesoporous Materials</i> , 2020, 300, 110155.	2.2	15
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