

# Asher Schmidt

## List of Publications by Year in descending order

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45  
papers

1,535  
citations

331670

21  
h-index

302126

39  
g-index

47  
all docs

47  
docs citations

47  
times ranked

1773  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Floquet theory of nuclear magnetic resonance spectroscopy of single spins and dipolar coupled spin pairs in rotating solids. <i>Journal of Chemical Physics</i> , 1992, 96, 2655-2680.	3.0	130
2	NMR line shape analysis for two-site exchange in rotating solids. <i>Journal of Chemical Physics</i> , 1987, 87, 6895-6907.	3.0	103
3	Structural Constraints on the Ternary Complex of 5-Enolpyruvylshikimate-3-phosphate Synthase from Rotational-echo Double-resonance NMR. <i>Journal of Molecular Biology</i> , 1996, 256, 160-171.	4.2	84
4	Molecular control of quantum-dot internal electric field and its application to CdSe-based solar cells. <i>Nature Materials</i> , 2011, 10, 974-979.	27.5	84
5	In situ molecular NMR picture of bioavailable calcium stabilized as amorphous $\text{CaCO}_3$ biomineral in crayfish gastroliths. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14763-14768.	7.1	82
6	Compatibilization of Polymer Blends by Complexation. 1. Spectroscopic Characterization of Ion <sup>+</sup> Amide Interactions in Ionomer/Polyamide Blends. <i>Macromolecules</i> , 1996, 29, 3909-3917.	4.8	81
7	Phosphate-Water Interplay Tunes Amorphous Calcium Carbonate Metastability: Spontaneous Phase Separation and Crystallization vs Stabilization Viewed by Solid State NMR. <i>Journal of the American Chemical Society</i> , 2015, 137, 990-998.	13.7	76
8	Chemical exchange effects in the NMR spectra of rotating solids. <i>Journal of Chemical Physics</i> , 1986, 85, 4248-4253.	3.0	66
9	Solid-State $^{29}\text{Si}$ NMR Study of $\text{RSiSiR}$ : A Tool for Analyzing the Nature of the $\text{Si}^+\text{Si}$ Bond. <i>Journal of the American Chemical Society</i> , 2006, 128, 14472-14473.	13.7	62
10	Polyaniline <sup>+</sup> Dodecylbenzene Sulfonic Acid Polymerized from Aqueous Medium: A Solid State NMR Characterization. <i>Macromolecules</i> , 1999, 32, 5357-5364.	4.8	52
11	Binding Specificity of Amino Acids to Amorphous Silica Surfaces: Solid-State NMR of Glycine on SBA-15. <i>Journal of Physical Chemistry C</i> , 2012, 116, 9691-9702.	3.1	52
12	Molecular Level Characterization of the Inorganic <sup>+</sup> Bioorganic Interface by Solid State NMR: Alanine on a Silica Surface, a Case Study. <i>Journal of Physical Chemistry B</i> , 2010, 114, 5989-5996.	2.6	48
13	Celecoxib Encapsulation in $\beta$ -Casein Micelles: Structure, Interactions, and Conformation. <i>Langmuir</i> , 2015, 31, 7183-7192.	3.5	45
14	Measuring the Temperature Width of a First-Order Single Crystal to Single Crystal Phase Transition Using Solid-State NMR: A Application to the Polymorphism of 2-(2,4-Dinitrobenzyl)-3-methylpyridine. <i>Journal of the American Chemical Society</i> , 1999, 121, 11291-11299.	13.7	44
15	Biomacromolecules within bivalve shells: Is chitin abundant?. <i>Acta Biomaterialia</i> , 2018, 80, 176-187.	8.3	44
16	Local packing in glassy polycarbonate by carbon-deuterium REDOR NMR. <i>Macromolecules</i> , 1993, 26, 1729-1733.	4.8	43
17	Inhibition Mode of a Bisubstrate Inhibitor of KDO8P Synthase: A Frequency-Selective REDOR Solid-State and Solution NMR Characterization. <i>Journal of the American Chemical Society</i> , 2003, 125, 4662-4669.	13.7	33
18	Exposed and Buried Biomineral Interfaces in the Aragonitic Shell of <i>Perna canaliculus</i> Revealed by Solid-State NMR. <i>Chemistry of Materials</i> , 2013, 25, 4595-4602.	6.7	31

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19	Novel semi-IPN through vinyl silane polymerization and crosslinking within PVC films. Journal of Polymer Science Part A, 2001, 39, 8-22.	2.3	28
20	<i>In Situ</i> Observation of the Internal Structure and Composition of Biomineralized <i>Emiliana huxleyi</i> Calcite by Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2008, 130, 13425-13432.	13.7	28
21	Structural and Mechanistic Investigation of 3-Deoxy-d-manno-octulosonate-8-phosphate Synthase by Solid-State REDOR NMR. Biochemistry, 2000, 39, 14865-14876.	2.5	24
22	Molecular Details of Amorphous Silica Surfaces Determine Binding Specificity to Small Amino Acids. Journal of Physical Chemistry C, 2014, 118, 7901-7909.	3.1	22
23	The Transition Amplitudes of Centerband and Sidebands in NMR Spectra of Rotating Solids. Israel Journal of Chemistry, 1992, 32, 215-230.	2.3	21
24	Activator Carbamino Carbon to Inhibitor Phosphorus Internuclear Distances in Ribulose-1,5-bisphosphate Carboxylase/Oxygenase. A Solid-State NMR Study. Biochemistry, 1995, 34, 5597-5603.	2.5	20
25	Novel Aggregation Motif of gem-Dilithiosilanes: A Coaggregation of Two R <sub>2</sub> SiLi <sub>2</sub> Molecules with Two RLi Molecules. Organometallics, 2006, 25, 4719-4721.	2.3	20
26	Internuclear distance measurement between Deuterium (I = 1) and a nucleus in rotating solids. Journal of Magnetic Resonance, 1992, 96, 644-650.	0.5	19
27	Scaling-down the CSA recoupling in S-CODEX 1D-MAS exchange experiments. Chemical Physics Letters, 2003, 380, 583-588.	2.6	19
28	A <sup>13</sup> C solid-state NMR study of the structure and the dynamics of the polymorphs of sulphanilamide. Molecular Physics, 1990, 70, 563-579.	1.7	17
29	The shell matrix and microstructure of the Ramon's Horn squid: Molecular and structural characterization. Journal of Structural Biology, 2020, 211, 107507.	2.8	17
30	Direct Identification of Enzyme Active Site Residues by Solid-State REDOR NMR: Application to KDO8P Synthase. Journal of the American Chemical Society, 2000, 122, 2649-2650.	13.7	15
31	[{(tBu <sub>2</sub> Me) <sub>2</sub> Si}Li <sub>4</sub> ] <sup>2-</sup> : An Aggregated Dianion of a 1,1-Dilithiosilane with a Unique Structural Motif. Angewandte Chemie - International Edition, 2006, 45, 4157-4159.	13.8	15
32	CONTRA: Improving the performance of dynamic investigations in natural abundance organic solids by mirror-symmetric constant-time CODEX. Journal of Magnetic Resonance, 2008, 191, 141-147.	2.1	13
33	Deuterium MAS NMR and Local Molecular Dynamic Model to Study Adsorption/Desorption Kinetics of a Dipeptide at the Inner Surfaces of SBA-15. Journal of Physical Chemistry C, 2016, 120, 2797-2806.	3.1	13
34	Molecular-Level Structure-Property Relationships in Biogenic Calcium Carbonates: The Unique Insights of Solid-State NMR Spectroscopy. Israel Journal of Chemistry, 2014, 54, 74-85.	2.3	12
35	Playing Hardball with Hydrogen: Metastable Mechanochemical Hydrogenation of Magnesium Nitride. Journal of Physical Chemistry C, 2013, 117, 1237-1246.	3.1	11
36	Dynamic off-magic-angle sample spinning NMR spectroscopy. Chemical Physics Letters, 1989, 157, 539-542.	2.6	10

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37	Resilient Intracrystalline Occlusions: A Solid-State NMR View of Local Structure as It Tunes Bulk Lattice Properties. <i>Journal of the American Chemical Society</i> , 2020, 142, 13743-13755.	13.7	10
38	A Nature's Curiosity: The Argonaut "Shell" and Its Organic Content. <i>Crystals</i> , 2020, 10, 839.	2.2	9
39	Identifying critical unrecognized sugar-protein interactions in GH10 xylanases from <i>G. eobacillus</i> <i>stearothermophilus</i> using STD NMR. <i>FEBS Journal</i> , 2013, 280, 4652-4665.	4.7	8
40	Thermal conductivity-structure-processing relationships for amorphous nano-porous organo-silicate thin films. <i>Journal of Porous Materials</i> , 2020, 27, 565-586.	2.6	6
41	Binding of the natural substrates and products to KDO8P synthase: 31P and 13C solution NMR characterization. <i>Bioorganic Chemistry</i> , 2003, 31, 306-321.	4.1	5
42	NMR investigations of reactively extruded PVC/PMMA and PVC/PS blends. <i>Polymers for Advanced Technologies</i> , 2007, 18, 756-765.	3.2	5
43	Transformation of Organosilicon-Loaded Alumina Gel to Homogeneous Alumino-silicates: A Solid-State NMR Study. <i>Chemistry of Materials</i> , 2001, 13, 247-249.	6.7	4
44	Spin-echo, double-resonance NMR with flipped spinning (SEDORFS). <i>Journal of Magnetic Resonance</i> , 1991, 94, 362-369.	0.5	3
45	Superlattice ordering transitions driven by short-range structure in barium calcium carbonates. <i>Faraday Discussions</i> , 2022, 235, 416-432.	3.2	1