

Yongchao Su

List of Publications by Year in descending order

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101543

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docs citations

101
times ranked

4124
citing authors

#	ARTICLE	IF	CITATIONS
1	Brønsted/Lewis Acid Synergy in Dealuminated HY Zeolite: A Combined Solid-State NMR and Theoretical Calculation Study. <i>Journal of the American Chemical Society</i> , 2007, 129, 11161-11171.	13.7	349
2	Roles of Arginine and Lysine Residues in the Translocation of a Cell-Penetrating Peptide from ¹³ C, ³¹ P, and ¹⁹ F Solid-State NMR. <i>Biochemistry</i> , 2009, 48, 4587-4595.	2.5	131
3	Magic Angle Spinning NMR of Proteins: High-Frequency Dynamic Nuclear Polarization and ¹ H Detection. <i>Annual Review of Biochemistry</i> , 2015, 84, 465-497.	11.1	128
4	The structure of a β 2-microglobulin fibril suggests a molecular basis for its amyloid polymorphism. <i>Nature Communications</i> , 2018, 9, 4517.	12.8	124
5	Acid sites in mesoporous Al-SBA-15 material as revealed by solid-state NMR spectroscopy. <i>Microporous and Mesoporous Materials</i> , 2006, 92, 22-30.	4.4	110
6	High Resolution Structural Characterization of $\text{A}\beta_{42}$ Amyloid Fibrils by Magic Angle Spinning NMR. <i>Journal of the American Chemical Society</i> , 2015, 137, 7509-7518.	13.7	103
7	Membrane-Bound Dynamic Structure of an Arginine-Rich Cell-Penetrating Peptide, the Protein Transduction Domain of HIV TAT, from Solid-State NMR. <i>Biochemistry</i> , 2010, 49, 6009-6020.	2.5	92
8	Extra-framework aluminium species in hydrated faujasite zeolite as investigated by two-dimensional solid-state NMR spectroscopy and theoretical calculations. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3895.	2.8	92
9	Structure and dynamics of cationic membrane peptides and proteins: Insights from solid-state NMR. <i>Protein Science</i> , 2011, 20, 641-655.	7.6	87
10	Combined DFT Theoretical Calculation and Solid-State NMR Studies of Al Substitution and Acid Sites in Zeolite MCM-22. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24273-24279.	2.6	80
11	Asymmetric Insertion of Membrane Proteins in Lipid Bilayers by Solid-State NMR Paramagnetic Relaxation Enhancement: A Cell-Penetrating Peptide Example. <i>Journal of the American Chemical Society</i> , 2008, 130, 8856-8864.	13.7	79
12	Effect of input current modes on intermetallic layer and mechanical property of aluminum-steel lap joint obtained by gas metal arc welding. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 578, 340-345.	5.6	79
13	Solid-state NMR spectroscopy in pharmaceutical sciences. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 135, 116152.	11.4	78
14	Water-Protein Interactions of an Arginine-Rich Membrane Peptide in Lipid Bilayers Investigated by Solid-State Nuclear Magnetic Resonance Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2010, 114, 4063-4069.	2.6	74
15	Acidity of Mesoporous MoO _x /ZrO ₂ and WO _x /ZrO ₂ Materials: A Combined Solid-State NMR and Theoretical Calculation Study. <i>Journal of Physical Chemistry B</i> , 2006, 110, 10662-10671.	2.6	70
16	Solid-State Spectroscopic Investigation of Molecular Interactions between Clofazimine and Hypromellose Phthalate in Amorphous Solid Dispersions. <i>Molecular Pharmaceutics</i> , 2016, 13, 3964-3975.	4.6	69
17	Peptide and Protein Dynamics and Low-Temperature/DNP Magic Angle Spinning NMR. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4997-5006.	2.6	60
18	Molecular Interactions in Posaconazole Amorphous Solid Dispersions from Two-Dimensional Solid-State NMR Spectroscopy. <i>Molecular Pharmaceutics</i> , 2019, 16, 2579-2589.	4.6	59

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19	The peptide hormone glucagon forms amyloid fibrils with two coexisting β^2 -strand conformations. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 592-598.	8.2	58
20	Cationic membrane peptides: atomic-level insight of structure–activity relationships from solid-state NMR. <i>Amino Acids</i> , 2013, 44, 821-833.	2.7	57
21	Rheology Guided Rational Selection of Processing Temperature To Prepare Copovidone–Nifedipine Amorphous Solid Dispersions via Hot Melt Extrusion (HME). <i>Molecular Pharmaceutics</i> , 2016, 13, 3494-3505.	4.6	52
22	In Situ Characterization of Pharmaceutical Formulations by Dynamic Nuclear Polarization Enhanced MAS NMR. <i>Journal of Physical Chemistry B</i> , 2017, 121, 8132-8141.	2.6	51
23	Insights into Nano- and Micron-Scale Phase Separation in Amorphous Solid Dispersions Using Fluorescence-Based Techniques in Combination with Solid State Nuclear Magnetic Resonance Spectroscopy. <i>Pharmaceutical Research</i> , 2017, 34, 1364-1377.	3.5	49
24	Interaction between Histidine and Zn(II) Metal Ions over a Wide pH as Revealed by Solid-State NMR Spectroscopy and DFT Calculations. <i>Journal of Physical Chemistry B</i> , 2013, 117, 8954-8965.	2.6	48
25	Predicting physical stability of ternary amorphous solid dispersions using specific mechanical energy in a hot melt extrusion process. <i>International Journal of Pharmaceutics</i> , 2018, 548, 571-585.	5.2	47
26	Paramagnetic Cu(II) for Probing Membrane Protein Structure and Function: Inhibition Mechanism of the Influenza M2 Proton Channel. <i>Journal of the American Chemical Society</i> , 2012, 134, 8693-8702.	13.7	46
27	Influence of mechanical and thermal energy on nifedipine amorphous solid dispersions prepared by hot melt extrusion: Preparation and physical stability. <i>International Journal of Pharmaceutics</i> , 2019, 561, 324-334.	5.2	44
28	Selective Laser Sintering 3-Dimensional Printing as a Single Step Process to Prepare Amorphous Solid Dispersion Dosage Forms for Improved Solubility and Dissolution Rate. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 1432-1443.	3.3	44
29	Structures of β^2 -Hairpin Antimicrobial Protegrin Peptides in Lipopolysaccharide Membranes: Mechanism of Gram Selectivity Obtained from Solid-State Nuclear Magnetic Resonance. <i>Biochemistry</i> , 2011, 50, 2072-2083.	2.5	43
30	Reversible Sheet–Turn Conformational Change of a Cell-Penetrating Peptide in Lipid Bilayers Studied by Solid-State NMR. <i>Journal of Molecular Biology</i> , 2008, 381, 1133-1144.	4.2	41
31	Secondary Structure in the Core of Amyloid Fibrils Formed from Human β^2 and its Truncated Variant β^2 N6. <i>Journal of the American Chemical Society</i> , 2014, 136, 6313-6325.	13.7	40
32	Understanding molecular mechanisms of biologics drug delivery and stability from NMR spectroscopy. <i>Advanced Drug Delivery Reviews</i> , 2021, 174, 1-29.	13.7	40
33	Orientation, Dynamics, and Lipid Interaction of an Antimicrobial Arylamide Investigated by ^{19}F and ^{31}P Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2010, 132, 9197-9205.	13.7	39
34	Using thin film freezing to minimize excipients in inhalable tacrolimus dry powder formulations. <i>International Journal of Pharmaceutics</i> , 2020, 586, 119490.	5.2	39
35	Lipid bilayer-bound conformation of an integral membrane beta barrel protein by multidimensional MAS NMR. <i>Journal of Biomolecular NMR</i> , 2015, 61, 299-310.	2.8	38
36	Three-Dimensional NMR Spectroscopy of Fluorinated Pharmaceutical Solids under Ultrafast Magic Angle Spinning. <i>Analytical Chemistry</i> , 2019, 91, 6217-6224.	6.5	38

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37	Conformational Disorder of Membrane Peptides Investigated from Solid-State NMR Line Widths and Line Shapes. <i>Journal of Physical Chemistry B</i> , 2011, 115, 10758-10767.	2.6	36
38	Expanding the Repertoire of Amyloid Polymorphs by Co-polymerization of Related Protein Precursors. <i>Journal of Biological Chemistry</i> , 2013, 288, 7327-7337.	3.4	36
39	Understanding the process-product-performance interplay of spray dried drug-polymer systems through complete structural and chemical characterization of single spray dried particles. <i>Powder Technology</i> , 2017, 320, 685-695.	4.2	35
40	High-Resolution Orientation and Depth of Insertion of the Voltage-Sensing S4 Helix of a Potassium Channel in Lipid Bilayers. <i>Journal of Molecular Biology</i> , 2010, 401, 642-652.	4.2	34
41	Magic Angle Spinning Nuclear Magnetic Resonance Characterization of Voltage-Dependent Anion Channel Gating in Two-Dimensional Lipid Crystalline Bilayers. <i>Biochemistry</i> , 2015, 54, 994-1005.	2.5	34
42	Enhanced Aerosolization of High Potency Nanoaggregates of Voriconazole by Dry Powder Inhalation. <i>Molecular Pharmaceutics</i> , 2019, 16, 1799-1812.	4.6	33
43	Selectively Enhanced ^1H Correlations in Proton-Detected Solid-State NMR under Ultrafast MAS Conditions. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 8077-8083.	4.6	33
44	In Situ Stimulated Raman Scattering (SRS) Microscopy Study of the Dissolution of Sustained-Release Implant Formulation. <i>Molecular Pharmaceutics</i> , 2018, 15, 5793-5801.	4.6	30
45	Solid-state NMR analysis of crystalline and amorphous Indomethacin: An experimental protocol for full resonance assignments. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2019, 165, 47-55.	2.8	29
46	Understanding Molecular Interactions in Rafoxanide-Povidone Amorphous Solid Dispersions from Ultrafast Magic Angle Spinning NMR. <i>Molecular Pharmaceutics</i> , 2020, 17, 2196-2207.	4.6	29
47	Rheological and solid-state NMR assessments of copovidone/clotrimazole model solid dispersions. <i>International Journal of Pharmaceutics</i> , 2016, 500, 20-31.	5.2	28
48	Quantifying Disproportionation in Pharmaceutical Formulations with ^{35}Cl Solid-State NMR. <i>Molecular Pharmaceutics</i> , 2018, 15, 4038-4048.	4.6	28
49	Detecting and Quantifying Microscale Chemical Reactions in Pharmaceutical Tablets by Stimulated Raman Scattering Microscopy. <i>Analytical Chemistry</i> , 2019, 91, 6894-6901.	6.5	28
50	Understanding Compression-Induced Amorphization of Crystalline Posaconazole. <i>Molecular Pharmaceutics</i> , 2019, 16, 825-833.	4.6	28
51	Atomic-Level Drug Substance and Polymer Interaction in Posaconazole Amorphous Solid Dispersion from Solid-State NMR. <i>Molecular Pharmaceutics</i> , 2020, 17, 2585-2598.	4.6	28
52	Clay-Polymer Nanocomposites Prepared by Reactive Melt Extrusion for Sustained Drug Release. <i>Pharmaceutics</i> , 2020, 12, 51.	4.5	27
53	Methanol carbonylation over copper-modified mordenite zeolite: A solid-state NMR study. <i>Solid State Nuclear Magnetic Resonance</i> , 2016, 80, 1-6.	2.3	26
54	Quantifying Molecular Mixing and Heterogeneity in Pharmaceutical Dispersions at Sub-100 nm Resolution by Spin Diffusion NMR. <i>Molecular Pharmaceutics</i> , 2020, 17, 3567-3580.	4.6	26

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55	Molecular Mechanism of Crystalline-to-Amorphous Conversion of Pharmaceutical Solids from ¹⁹ F Magic Angle Spinning NMR. <i>Journal of Physical Chemistry B</i> , 2020, 124, 5271-5283.	2.6	25
56	Understanding the Impact of Protein-Excipient Interactions on Physical Stability of Spray-Dried Protein Solids. <i>Molecular Pharmaceutics</i> , 2021, 18, 2657-2668.	4.6	24
57	<i>In Vitro</i> and <i>In Vivo</i> Behaviors of KinetiSol and Spray-Dried Amorphous Solid Dispersions of a Weakly Basic Drug and Ionic Polymer. <i>Molecular Pharmaceutics</i> , 2020, 17, 2789-2808.	4.6	23
58	Second harmonic generation microscopy as a tool for the early detection of crystallization in spray dried dispersions. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2017, 146, 86-95.	2.8	22
59	Molecular packing of pharmaceuticals analyzed with paramagnetic relaxation enhancement and ultrafast magic angle pinning NMR. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 13160-13170.	2.8	22
60	Acid sites and oxidation center in molybdena supported on tin oxide as studied by solid-state NMR spectroscopy and theoretical calculation. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 2378.	2.8	19
61	Alteration of Interaction Between Astrocytes and Neurons in Different Stages of Diabetes: a Nuclear Magnetic Resonance Study Using [1- ¹³ C]Glucose and [2- ¹³ C]Acetate. <i>Molecular Neurobiology</i> , 2015, 51, 843-852.	4.0	18
62	Homogeneity of amorphous solid dispersions – an example with KinetiSol®. <i>Drug Development and Industrial Pharmacy</i> , 2019, 45, 724-735.	2.0	17
63	Optimizing Solvent Selection and Processing Conditions to Generate High Bulk-Density, Co-Precipitated Amorphous Dispersions of Posaconazole. <i>Pharmaceutics</i> , 2021, 13, 2017.	4.5	16
64	Thermally Conductive Excipient Expands KinetiSol® Processing Capabilities. <i>AAPS PharmSciTech</i> , 2020, 21, 319.	3.3	14
65	Partial Dehydration of Levothyroxine Sodium Pentahydrate in a Drug Product Environment: Structural Insights into Stability. <i>Molecular Pharmaceutics</i> , 2020, 17, 3915-3929.	4.6	13
66	Probing Microenvironmental Acidity in Lyophilized Protein and Vaccine Formulations Using Solid-state NMR Spectroscopy. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 1292-1301.	3.3	13
67	Can drug release rate from implants be tailored using poly(urethane) mixtures?. <i>International Journal of Pharmaceutics</i> , 2019, 557, 390-401.	5.2	12
68	Quantitative Analysis of Linker Composition and Spatial Arrangement of Multivariate Metal-Organic Framework UiO-66 through ¹ H Fast MAS NMR. <i>Journal of Physical Chemistry C</i> , 2020, 124, 17640-17647.	3.1	12
69	Toward Developing Discriminating Dissolution Methods for Formulations Containing Nanoparticulates in Solution: The Impact of Particle Drift and Drug Activity in Solution. <i>Molecular Pharmaceutics</i> , 2020, 17, 4125-4140.	4.6	12
70	Primary Adsorption Sites of Light Alkanes in Multivariate UiO-66 at Room Temperature as Revealed by Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3738-3746.	3.1	12
71	¹³ C and ¹⁵ N spectral editing inside histidine imidazole ring through solid-state NMR spectroscopy. <i>Solid State Nuclear Magnetic Resonance</i> , 2013, 54, 13-17.	2.3	11
72	Ilatravir Case Study for Enhanced Screening of Thermodynamically Stable Crystalline Anhydrate Phases in Pharmaceutical Process Development by Hot Melt Extrusion. <i>Molecular Pharmaceutics</i> , 2020, 17, 2874-2881.	4.6	11

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73	The effect of drug loading on the properties of abirateroneâ€™hydroxypropyl beta cyclodextrin solid dispersions processed by solvent free KinetiSolÂ® technology. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 165, 52-65.	4.3	11
74	Formulation and Processing Strategies which Underpin Susceptibility to Matrix Crystallization in Amorphous Solid Dispersions. <i>Journal of Pharmaceutical Sciences</i> , 2023, 112, 108-122.	3.3	11
75	19F Solid-state NMR characterization of pharmaceutical solids. <i>Solid State Nuclear Magnetic Resonance</i> , 2022, 120, 101796.	2.3	10
76	A novel approach for measuring room temperature enthalpy of mixing and associated solubility estimation of a drug in a polymer matrix. <i>Polymer</i> , 2018, 135, 50-60.	3.8	9
77	How broadly can poly(urethane)-based implants be applied to drugs of varied properties?. <i>International Journal of Pharmaceutics</i> , 2019, 568, 118550.	5.2	9
78	Probing the Molecular-Level Interactions in an Active Pharmaceutical Ingredient (API) - Polymer Dispersion and the Resulting Impact on Drug Product Formulation. <i>Pharmaceutical Research</i> , 2020, 37, 94.	3.5	9
79	Solid-state NMR in the field of drug delivery: State of the art and new perspectives. <i>Magnetic Resonance Letters</i> , 2021, 1, 28-70.	1.3	9
80	Efficient, balanced, transmission line RF circuits by back propagation of common impedance nodes. <i>Journal of Magnetic Resonance</i> , 2013, 231, 32-38.	2.1	8
81	Paramagnetic relaxation enhancement solid-state NMR studies of heterogeneous catalytic reaction over HY zeolite using natural abundance reactant. <i>Solid State Nuclear Magnetic Resonance</i> , 2015, 66-67, 29-32.	2.3	8
82	Quantifying Pharmaceutical Formulations from Proton Detected Solid-State NMR under Ultrafast Magic Angle Spinning. <i>Journal of Pharmaceutical Sciences</i> , 2020, 109, 3045-3053.	3.3	8
83	An Imaging Toolkit for Physical Characterization of Long-Acting Pharmaceutical Implants. <i>Journal of Pharmaceutical Sciences</i> , 2020, 109, 2798-2811.	3.3	8
84	Molecular Dynamics of Neutral Polymer Bonding Agent (NPBA) as Revealed by Solid-State NMR Spectroscopy. <i>Molecules</i> , 2014, 19, 1353-1366.	3.8	7
85	Effect of Buffer Salts on Physical Stability of Lyophilized and Spray-Dried Protein Formulations Containing Bovine Serum Albumin and Trehalose. <i>Pharmaceutical Research</i> , 2023, 40, 1355-1371.	3.5	7
86	In situ solidâ€™state NMR characterization of pharmaceutical materials: An example of drugâ€™polymer thermal mixing. <i>Magnetic Resonance in Chemistry</i> , 2020, 58, 1049-1054.	1.9	6
87	Formulating a heat- and shear-labile drug in an amorphous solid dispersion: Balancing drug degradation and crystallinity. <i>International Journal of Pharmaceutics: X</i> , 2021, 3, 100092.	1.6	6
88	Investigating Crystalline Protein Suspension Formulations of Pembrolizumab from MAS NMR Spectroscopy. <i>Molecular Pharmaceutics</i> , 2022, 19, 936-952.	4.6	6
89	Optimization of Amorphization Kinetics during Hot Melt Extrusion by Particle Engineering: An Experimental and Computational Study. <i>Crystal Growth and Design</i> , 2022, 22, 821-841.	3.0	6
90	Effect of Storage Humidity on Physical Stability of Spray-Dried Naproxen Amorphous Solid Dispersions with Polyvinylpyrrolidone: Two Fluid Nozzle vs. Three Fluid Nozzle. <i>Pharmaceutics</i> , 2021, 13, 1074.	4.5	5

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91	Solubilizing temperature of crystalline drug in polymer carrier: A rheological investigation on a posaconazole-copovidone system with low drug load. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 164, 28-35.	4.3	5
92	Design of Ternary Amorphous Solid Dispersions for Enhanced Dissolution of Drug Combinations. <i>Molecular Pharmaceutics</i> , 2022, 19, 2950-2961.	4.6	5
93	Intramolecular ^1H - ^{13}C distance measurement in uniformly ^{13}C , ^{15}N labeled peptides by solid-state NMR. <i>Solid State Nuclear Magnetic Resonance</i> , 2012, 45-46, 51-58.	2.3	4
94	Mechanistic Investigation of Drug Supersaturation in the Presence of Polysorbates as Solubilizing Additives by Solution Nuclear Magnetic Resonance Spectroscopy. <i>Molecular Pharmaceutics</i> , 2021, 18, 4310-4321.	4.6	4
95	Probing Molecular Packing of Drug Substances in Nanometer Domains in Pharmaceutical Formulations Using ^{19}F Magic Angle Spinning NMR. <i>Journal of Physical Chemistry C</i> , 2022, 126, 12025-12037.	3.1	4
96	Antimicrobial Excipient-Induced Reversible Association of Therapeutic Peptides in Parenteral Formulations. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 850-859.	3.3	3
97	A novel amorphous solid dispersion based on drug-polymer complexation. <i>Drug Delivery and Translational Research</i> , 2021, 11, 2072-2084.	5.8	2
98	Selective Nuclear Magnetic Resonance Method for Enhancing Long-Range Heteronuclear Correlations in Solids. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6376-6382.	4.6	2
99	Advances of solid-state NMR spectroscopy in material sciences. <i>Magnetic Resonance in Chemistry</i> , 2020, 58, 987-987.	1.9	1