

# Zdenek Tosner

## List of Publications by Year in descending order

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56  
papers

1,404  
citations

331670

21  
h-index

361022

35  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1670  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimal control in NMR spectroscopy: Numerical implementation in SIMPSON. <i>Journal of Magnetic Resonance</i> , 2009, 197, 120-134.	2.1	171
2	Computer-intensive simulation of solid-state NMR experiments using SIMPSON. <i>Journal of Magnetic Resonance</i> , 2014, 246, 79-93.	2.1	143
3	Optimal control design of NMR and dynamic nuclear polarization experiments using monotonically convergent algorithms. <i>Journal of Chemical Physics</i> , 2008, 128, 184505.	3.0	81
4	Stealth Amphiphiles: Self-Assembly of Polyhedral Boron Clusters. <i>Langmuir</i> , 2016, 32, 6713-6722.	3.5	69
5	Classical Amphiphilic Behavior of Nonclassical Amphiphiles: A Comparison of Metallocarborane Self-Assembly with SDS Micellization. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14113-14117.	13.8	57
6	Fast numerical design of spatial-selective rf pulses in MRI using Krotov and quasi-Newton based optimal control methods. <i>Journal of Chemical Physics</i> , 2012, 137, 054203.	3.0	52
7	Thermodynamic and Kinetic Aspects of Coassembly of PEO- <i>b</i> -PMAA Block Copolymer and DPCI Surfactants into Ordered Nanoparticles in Aqueous Solutions Studied by ITC, NMR, and Time-Resolved SAXS Techniques. <i>Macromolecules</i> , 2013, 46, 2172-2181.	4.8	48
8	Structural Insight into the 14-3-3 Protein-dependent Inhibition of Protein Kinase ASK1 (Apoptosis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.4	45
9	Limits of Resolution and Sensitivity of Proton Detected MAS Solid-State NMR Experiments at 111 kHz in Deuterated and Protonated Proteins. <i>Scientific Reports</i> , 2017, 7, 7444.	3.3	41
10	Effective Hamiltonians by optimal control: Solid-state NMR double-quantum planar and isotropic dipolar recoupling. <i>Journal of Chemical Physics</i> , 2006, 125, 184502.	3.0	37
11	The effect of tree species on seasonal fluctuations in water-soluble and hot water-extractable organic matter at post-mining sites. <i>Geoderma</i> , 2016, 275, 19-27.	5.1	36
12	Radiofrequency fields in MAS solid state NMR probes. <i>Journal of Magnetic Resonance</i> , 2017, 284, 20-32.	2.1	35
13	Magic-Angle Spinning Frequencies beyond 300 kHz Are Necessary To Yield Maximum Sensitivity in Selectively Methyl Protonated Protein Samples in Solid-State NMR. <i>Journal of Physical Chemistry C</i> , 2018, 122, 16437-16442.	3.1	33
14	Complexation of Buffer Constituents with Neutral Complexation Agents: Part I. Impact on Common Buffer Properties. <i>Analytical Chemistry</i> , 2013, 85, 8518-8525.	6.5	31
15	Overcoming Volume Selectivity of Dipolar Recoupling in Biological Solid-State NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 14514-14518.	13.8	31
16	Dynamics of an Inclusion Complex of Dichloromethane and Cryptophane-E. <i>Journal of Physical Chemistry A</i> , 2002, 106, 8870-8875.	2.5	28
17	Determination of thermodynamic values of acidic dissociation constants and complexation constants of profens and their utilization for optimization of separation conditions by Simul 5 Complex. <i>Journal of Chromatography A</i> , 2014, 1364, 276-288.	3.7	27
18	A combined NMR and DFT study of conformational dynamics in lanthanide complexes of macrocyclic DOTA-like ligands. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 26662-26671.	2.8	26

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19	Nickel(II) complexes of N-CH <sub>2</sub> CF <sub>3</sub> cyclam derivatives as contrast agents for <sup>19</sup> F magnetic resonance imaging. Dalton Transactions, 2016, 45, 474-478.	3.3	24
20	Role of pK <sub>A</sub> in Charge Regulation and Conformation of Various Peptide Sequences. Polymers, 2021, 13, 214.	4.5	24
21	A <sup>13</sup> C solid-state NMR study of cryptophane-E:chloromethane inclusion complexes. Chemical Physics Letters, 2004, 388, 208-211.	2.6	22
22	Probing Receptor Specificity by Sampling the Conformational Space of the Insulin-like Growth Factor II C-domain. Journal of Biological Chemistry, 2016, 291, 21234-21245.	3.4	22
23	Dynamics of Chloromethanes in Cryptophane-E Inclusion Complexes: A <sup>2</sup> H Solid-State NMR and X-ray Diffraction Study. Journal of Physical Chemistry A, 2005, 109, 4442-4451.	2.5	20
24	Expanding the Scope of the Organocatalytic Addition of Fluorobis(phenylsulfonyl)methane to Enals: Enantioselective Cascade Synthesis of Fluoroindane and Fluorochromanol Derivatives. Advanced Synthesis and Catalysis, 2014, 356, 437-446.	4.3	19
25	Quantitative prediction of charge regulation in oligopeptides. Molecular Systems Design and Engineering, 2021, 6, 122-131.	3.4	18
26	Impact of Magnetic Field Strength on Resolution and Sensitivity of Proton Resonances in Biological Solids. Journal of Physical Chemistry C, 2020, 124, 22631-22637.	3.1	15
27	MAS dependent sensitivity of different isotopomers in selectively methyl protonated protein samples in solid state NMR. Journal of Biomolecular NMR, 2019, 73, 625-631.	2.8	14
28	Rotational Dynamics of Adamantanecarboxylic Acid in Complex with $\beta$ -cyclodextrin. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2006, 55, 59-70.	1.6	13
29	Molecular mechanism for the action of the anti-CD44 monoclonal antibody MEM-85. Journal of Structural Biology, 2015, 191, 214-223.	2.8	13
30	Total Description of Intrinsic Amphiphile Aggregation: Calorimetry Study and Molecular Probing. Langmuir, 2018, 34, 14448-14457.	3.5	13
31	Versatile NMR simulations using SIMPSON. Annual Reports on NMR Spectroscopy, 2020, 100, 1-59.	1.5	13
32	Broadband heteronuclear dipolar recoupling without <sup>1</sup> H decoupling in solid-state NMR using simple cross-polarization methods. Chemical Physics Letters, 2010, 494, 326-330.	2.6	12
33	Micellization of Zonyl FSN-100 fluorosurfactant in aqueous solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 443, 209-215.	4.7	12
34	Internal Structure of Thermoresponsive Physically Crosslinked Nanogel of Poly[N-(2-hydroxypropyl)methacrylamide]-Block-Poly[N-(2,2-difluoroethyl)acrylamide], Prominent <sup>19</sup> F MRI Tracer. Nanomaterials, 2020, 10, 2231.	4.1	11
35	Designed Boron-Rich Polymeric Nanoparticles Based on Nanoion Pairing for Boron Delivery. Chemistry - A European Journal, 2020, 26, 14283-14289.	3.3	11
36	Toward Controlling Disassembly Step within the ADOR Process for the Synthesis of Zeolites. Chemistry of Materials, 2021, 33, 1228-1237.	6.7	11

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37	Maximizing efficiency of dipolar recoupling in solid-state NMR using optimal control sequences. <i>Science Advances</i> , 2021, 7, eabj5913.	10.3	11
38	Resolution-Enhanced Solid-State NMR $^{13}\text{C}$ ~ $^{13}\text{C}$ Correlation Spectroscopy by Optimal Control Dipolar-Driven Spin-State-Selective Coherence Transfer. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 543-547.	4.6	10
39	Chiral Unsymmetrically Substituted Bipyridine $\text{N}^{\ominus}$ -Dioxides as Catalysts for the Allylation of Aldehydes. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 5109-5116.	2.4	10
40	The <i>in vivo</i> J-difference editing MEGA-PRESS technique for the detection of $\omega$ fatty acids. <i>NMR in Biomedicine</i> , 2014, 27, 1293-1299.	2.8	9
41	Using nutation-frequency-selective pulses to reduce radio-frequency field inhomogeneity in solid-state NMR. <i>Magnetic Resonance</i> , 2020, 1, 187-195.	1.9	9
42	Counterion-Induced Aggregation of Metallocarboranes. <i>Journal of Physical Chemistry C</i> , 2022, 126, 5735-5742.	3.1	9
43	Synthesis of C <sub>3</sub> -symmetric tri(alkylamino) guests and their interaction with cyclodextrins. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2015, 81, 141-152.	1.6	7
44	Effects of radial radio-frequency field inhomogeneity on MAS solid-state NMR experiments. <i>Magnetic Resonance</i> , 2021, 2, 523-543.	1.9	6
45	2D-to-3D zeolite transformation for the preparation of Pd@MWW catalysts with tuneable acidity. <i>Catalysis Today</i> , 2022, 390-391, 109-116.	4.4	6
46	Behavior of Two Almost Identical Spins during the CPMG Pulse Sequence. <i>ChemPhysChem</i> , 2010, 11, 638-645.	2.1	5
47	Reversible multilayered vesicle-like structures with fluid hydrophobic and interpolyelectrolyte layers. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 313-325.	9.4	5
48	Reorientational dynamics of two isomers of thiacalix[4]arene. <i>Magnetic Resonance in Chemistry</i> , 2003, 41, 819-827.	1.9	4
49	A Study of Polarization and Directing Effects of Unsymmetrical Alkynes Using Regioselective Pd-Catalyzed Bromoallylation. <i>European Journal of Organic Chemistry</i> , 2020, 2020, 234-240.	2.4	4
50	Polynorbornene-Based Polyelectrolytes with Covalently Attached Metallocarboranes: Synthesis, Characterization, and Lithium-Ion Mobility. <i>Macromolecules</i> , 2021, 54, 6867-6877.	4.8	4
51	Bis(phosphonate)-Building Blocks Modified with Fluorescent Dyes. <i>Heteroatom Chemistry</i> , 2013, 24, 413-425.	0.7	3
52	Field and magic angle spinning frequency dependence of proton resonances in rotating solids. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2022, 130-131, 47-61.	7.5	2
53	Application of two-dimensional CSI for absolute quantification of phosphorus metabolites in the human liver. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2001, 13, 40-46.	2.0	1
54	Backbone resonance assignments of human cytosolic dNT-1 nucleotidase. <i>Biomolecular NMR Assignments</i> , 2014, 8, 425-428.	0.8	1

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55	Overcoming Volume Selectivity of Dipolar Recoupling in Biological Solid-State NMR Spectroscopy. <i>Angewandte Chemie</i> , 2018, 130, 14722-14726.	2.0	1
56	Insight into the Structure of a Comb Copolymer-Surfactant Coacervate from Dynamic Measurements by DOSY NMR and Neutron Spin Echo Spectroscopy. <i>Macromolecules</i> , 0, , .	4.8	1