Thomas Meersmann

List of Publications by Year
in descending order

47	1,525	331670 21	302126 39
papers	citations	h-index	g-index

50	50	50	1298
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-field NMR of adsorbed xenon polarized by laser pumping. Physical Review Letters, 1991, 66, 584-587.	7.8	250
2	A Porous Crystalline Molecular Solid Explored by Hyperpolarized Xenon. Angewandte Chemie - International Edition, 2000, 39, 2695-2699.	13.8	232
3	Exploring Single-File Diffusion in One-Dimensional Nanochannels by Laser-Polarized129Xe NMR Spectroscopy. Journal of Physical Chemistry A, 2000, 104, 11665-11670.	2.5	128
4	Perspectives of hyperpolarized noble gas MRI beyond 3He. Journal of Magnetic Resonance, 2013, 229, 173-186.	2.1	77
5	Hyperpolarized krypton-83 as a contrast agent for magnetic resonance imaging. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18275-18279.	7.1	66
6	Operando visualisation of battery chemistry in a sodium-ion battery by 23Na magnetic resonance imaging. Nature Communications, 2020, 11, 2083.	12.8	62
7	Spin-exchange optical pumping of high-density xenon-129. Journal of Chemical Physics, 2003, 118, 1581-1584.	3.0	46
8	Hyperpolarized 131Xe NMR spectroscopy. Journal of Magnetic Resonance, 2011, 208, 58-69.	2.1	42
9	Visualization of gas flow and diffusion in porous media. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 2414-2418.	7.1	41
10	Pathway to Cryogen Free Production of Hyperpolarized Krypton-83 and Xenon-129. PLoS ONE, 2012, 7, e49927.	2.5	37
11	In Situ NMR Spectroscopy of Combustion. Journal of the American Chemical Society, 2003, 125, 13298-13302.	13.7	34
12	Multiple-Quantum Filtered Xenon-131 NMR as a Surface Probe. Physical Review Letters, 1998, 80, 1398-1401.	7.8	32
13	Hyperpolarized83Kr and129Xe NMR Relaxation Measurements of Hydrated Surfaces:Â Implications for Materials Science and Pulmonary Diagnostics. Journal of the American Chemical Society, 2007, 129, 1784-1792.	13.7	29
14	Magnetic Field Dependent Xenon-131 Quadrupolar Splitting in Gas and Liquid Phase NMR. Physical Review Letters, 1998, 81, 1211-1214.	7.8	28
15	Cryogenics free production of hyperpolarized 129Xe and 83Kr for biomedical MRI applications. Journal of Magnetic Resonance, 2013, 237, 23-33.	2.1	27
16	Xenon-131 Surface Sensitive Imaging of Aerogels in Liquid Xenon near the Critical Point. Journal of Magnetic Resonance, 1999, 137, 258-264.	2.1	25
17	Quadrupolar relaxation of hyperpolarized krypton-83 as a probe for surfaces. Solid State Nuclear Magnetic Resonance, 2006, 29, 79-84.	2.3	25
18	Molecular hydrogen and catalytic combustion in the production of hyperpolarized ⁸³ Kr and ¹²⁹ Xe MRI contrast agents. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3164-3168.	7.1	24

#	Article	IF	Citations
19	Dynamic NMR Microscopy of Gas Phase Poiseuille Flow. Journal of Magnetic Resonance, 2001, 149, 144-148.	2.1	22
20	Exploring hyperpolarized Kr83 by remotely detected NMR relaxometry. Journal of Chemical Physics, 2006, 124, 044312.	3.0	22
21	Hyperpolarized 83Kr MRI of lungs. Journal of Magnetic Resonance, 2008, 195, 232-237.	2.1	22
22	Probing Aerogels by Multiple Quantum Filtered131Xe NMR Spectroscopy. Journal of the American Chemical Society, 2001, 123, 941-945.	13.7	21
23	Introducing Krypton NMR Spectroscopy as a Probe of Void Space in Solids. Journal of the American Chemical Society, 2005, 127, 1958-1962.	13.7	19
24	Metallic Clusters and Color Changes in Silver-Exchanged Zeolites:â€‰ 109Ag Solid State NMR and Optical Studies. Journal of Physical Chemistry B, 2004, 108, 1584-1589.	2.6	18
25	Studying porous materials with krypton-83 NMR spectroscopy. Magnetic Resonance in Chemistry, 2007, 45, S12-S23.	1.9	16
26	Detection of tobacco smoke deposition by hyperpolarized krypton-83 MRI. Magnetic Resonance Imaging, 2008, 26, 270-278.	1.8	15
27	Pulmonary MRI contrast using Surface Quadrupolar Relaxation (SQUARE) of hyperpolarized 83Kr. Magnetic Resonance Imaging, 2014, 32, 48-53.	1.8	14
28	Investigating lung responses with functional hyperpolarized xenonâ€129 MRI in an ex vivo rat model of asthma. Magnetic Resonance in Medicine, 2016, 76, 1224-1235.	3.0	13
29	Relaxation-induced oscillations of spin-echo envelopes. Chemical Physics Letters, 1996, 257, 374-380.	2.6	12
30	Densityâ€Independent Contributions to Longitudinal Relaxation in ⁸³Kr. ChemPhysChem, 2008, 9, 1375-1379.	2.1	11
31	In Situ Monitoring of Heterogeneous Catalytic Hydrogenation via ¹²⁹Xe NMR Spectroscopy and Proton MRI. ACS Catalysis, 2020, 10, 1417-1422.	11.2	11
32	Hyperpolarised xenon MRI and time-resolved X-ray computed tomography studies of structure-transport relationships in hierarchical porous media. Chemical Engineering Journal, 2021, 405, 126750.	12.7	11
33	Combustion resistance of the¹²⁹Xe hyperpolarized nuclear spin state. Physical Chemistry Chemical Physics, 2013, 15, 94-97.	2.8	10
34	Validating Excised Rodent Lungs for Functional Hyperpolarized Xenon-129 MRI. PLoS ONE, 2013, 8, e73468.	2.5	10
35	Probe-Specific Procedure to Estimate Sensitivity and Detection Limits for 19F Magnetic Resonance Imaging. PLoS ONE, 2016, 11, e0163704.	2.5	9
36	Transverse Relaxation in Proton NMR. Separate Measurement of Decay Rates of In-phase and Antiphase Coherences. Journal of Magnetic Resonance Series A, 1995, 115, 277-282.	1.6	8

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37	Sodium in the dermis colocates to glycosaminoglycan scaffold, with diminishment in type 2 diabetes mellitus. JCI Insight, 2021, 6, .	5.0	8
38	Hyperpolarized ⁸³ Kr magnetic resonance imaging of alveolar degradation in a rat model of emphysema. Journal of the Royal Society Interface, 2015, 12, 20150192.	3.4	7
39	Molecular Sensing with Hyperpolarized ¹²⁹Xe Using Switchable Chemical Exchange Relaxation Transfer. ChemPhysChem, 2015, 16, 2294-2298.	2.1	6
40	Binary-collision-induced longitudinal relaxation in gas-phase Kr83. Journal of Chemical Physics, 2008, 129, 244304.	3.0	5
41	Spatial Mapping of Flow-Induced Molecular Alignment in a Noncrystalline Biopolymer Fluid Using Double Quantum Filtered (DQF) ²³Na MRI. Journal of Physical Chemistry Letters, 2014, 5, 2632-2636.	4.6	5
42	Accelerated ¹⁹FÂ·MRI Detection of Matrix Metalloproteinase-2/-9 through Responsive Deactivation of Paramagnetic Relaxation Enhancement. Contrast Media and Molecular Imaging, 2019, 2019, 1-13.	0.8	5
43	Structural and chemical heterogeneity in ancient glass probed using gas overcondensation, X-ray tomography, and solid-state NMR. Materials Characterization, 2020, 167, 110467.	4.4	5
44	Reactors and Reactions. , 2006, , 551-570.		2
45	Novel perspectives of sodium handling in type 2 diabetes mellitus. Expert Review of Endocrinology and Metabolism, 0, , 1-9.	2.4	1
46	Hyperpolarized83Kr MRI. , 0, , 129-144.		0
47	Advances in magnetic resonance tomography. , 2022, , 107-152.		0