Mohaddese Mohammadi

List of Publications by Year
in descending order

61	2,383	304743 22	206112 48
papers	citations	h-index	g-index

65	65	65	3120
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	7Li MRI of Li batteries reveals location of microstructural lithium. Nature Materials, 2012, 11, 311-315.	27.5	390
2	Parahydrogenâ€Based Hyperpolarization for Biomedicine. Angewandte Chemie - International Edition, 2018, 57, 11140-11162.	13.8	251
3	Correlating Microstructural Lithium Metal Growth with Electrolyte Salt Depletion in Lithium Batteries Using ⁷Li MRI. Journal of the American Chemical Society, 2015, 137, 15209-15216.	13.7	221
4	Sodium MRI: Methods and applications. Progress in Nuclear Magnetic Resonance Spectroscopy, 2014, 79, 14-47.	7.5	176
5	Investigating Li Microstructure Formation on Li Anodes for Lithium Batteries by in Situ ⁶Li/⁷Li NMR and SEM. Journal of Physical Chemistry C, 2015, 119, 16443-16451.	3.1	130
6	From nuclear structure to the quadrupolar NMR interaction and high-resolution spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 2005, 46, 63-78.	7.5	127
7	Real-time 3D imaging of microstructure growth in battery cells using indirect MRI. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10779-10784.	7.1	110
8	Rechargeable lithium-ion cell state of charge and defectÂdetection by in-situ inside-out magnetic resonance imaging. Nature Communications, 2018, 9, 1776.	12.8	75
9	Multinuclear in situ magnetic resonance imaging of electrochemical double-layer capacitors. Nature Communications, 2014, 5, 4536.	12.8	68
10	Visualizing skin effects in conductors with MRI: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si5.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math>Li MRI experiments and calculations. Journal of Magnetic Resonance, 2014, 245, 143-149.	2.1	63
11	Parawasserstoffâ€basierte Hyperpolarisierung fÃ¼r die Biomedizin. Angewandte Chemie, 2018, 130, 11310-11333.	2.0	54
12	Ultrafast Z-Spectroscopy for 129Xe NMR-Based Sensors. Journal of Physical Chemistry Letters, 2013, 4, 4172-4176.	4.6	48
13	MathNMR: Spin and spatial tensor manipulations in Mathematica. Journal of Magnetic Resonance, 2005, 176, 7-14.	2.1	46
14	Sensitive magnetometry reveals inhomogeneities in charge storage and weak transient internal currents in Li-ion cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10667-10672.	7.1	43
15	Limits in Proton Nuclear Singletâ€State Lifetimes Measured with paraâ€Hydrogenâ€Induced Polarization. ChemPhysChem, 2016, 17, 2967-2971.	2.1	38
16	In vitro study of endogenous CEST agents at 3â€‰T and 7â€‰T. Contrast Media and Molecular Imaging, 2016, 11, 4-14.	0.8	37
17	Calculation of coherence pathway selection and cogwheel cycles. Journal of Magnetic Resonance, 2003, 160, 59-64.	2.1	35
18	Assessment of frequency drift on CEST MRI and dynamic correction: application to gagCEST at 7 T. Magnetic Resonance in Medicine, 2019, 81, 573-582.	3.0	35

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19	In situ and operando magnetic resonance imaging of electrochemical cells: A perspective. Journal of Magnetic Resonance, 2019, 308, 106600.	2.1	31
20	Probing Solid-Electrolyte Interphase (SEI) Growth and Ion Permeability at Undriven Electrolyteâ€“Metal Interfaces Using ⁷Li NMR. Journal of Physical Chemistry C, 2018, 122, 12598-12604.	3.1	27
21	Concurrent saturation transfer contrast in in vivo brain by a uniform magnetization transfer MRI. NeuroImage, 2014, 95, 22-28.	4.2	24
22	Diagnosing current distributions in batteries with magnetic resonance imaging. Journal of Magnetic Resonance, 2019, 309, 106601.	2.1	23
23	Accurate Visualization of Operating Commercial Batteries Using Specialized Magnetic Resonance Imaging with Magnetic Field Sensing. Chemistry of Materials, 2020, 32, 2107-2113.	6.7	23
24	Generalised magnetisation-to-singlet-order transfer in nuclear magnetic resonance. Physical Chemistry Chemical Physics, 2020, 22, 9703-9712.	2.8	23
25	Screening CEST contrast agents using ultrafast CEST imaging. Journal of Magnetic Resonance, 2016, 265, 224-229.	2.1	21
26	Distortion-free inside-out imaging for rapid diagnostics of rechargeable Li-ion cells. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18783-18789.	7.1	20
27	Multiple frequency saturation pulses reduce CEST acquisition time for quantifying conformational exchange in biomolecules. Journal of Biomolecular NMR, 2018, 71, 19-30.	2.8	17
28	Battery Characterization via Eddy-Current Imaging with Nitrogen-Vacancy Centers in Diamond. Applied Sciences (Switzerland), 2021, 11, 3069.	2.5	16
29	Transfer Rate Edited experiment for the selective detection of Chemical Exchange via Saturation Transfer (TRE-CEST). Journal of Magnetic Resonance, 2015, 256, 43-51.	2.1	14
30	Observation of memory effects associated with degradation of rechargeable lithium-ion cells using ultrafast surface-scan magnetic resonance imaging. Journal of Materials Chemistry A, 2021, 9, 21078-21084.	10.3	13
31	Dependence of NMR noise line shapes on tuning, matching, and transmission line properties. Concepts in Magnetic Resonance Part B, 2014, 44, 1-11.	0.7	12
32	Correlation of Phosphorus Cross-Linking to Hydration Rates in Sodium Starch Glycolate Tablet Disintegrants Using MRI. Journal of Pharmaceutical Sciences, 2016, 105, 1907-1913.	3.3	11
33	Nuclear magnetic resonance spin-lattice relaxation of lithium ions in aqueous solution by NMR and molecular dynamics. Journal of Chemical Physics, 2020, 153, 184502.	3.0	11
34	In Situ Unilateral 1H-NMR Studies of the Interaction Between Lead White Pigments and Collagen-Based Binders. Applied Magnetic Resonance, 2012, 42, 363-376.	1.2	10
35	Super-resolution Surface Microscopy of Conductors using Magnetic Resonance. Scientific Reports, 2017, 7, 5425.	3.3	9
36	Rapid Online Solid-State Battery Diagnostics with Optically Pumped Magnetometers. Applied Sciences (Switzerland), 2020, 10, 7864.	2.5	9

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37	MRI and Unilateral NMR Study of Reindeer Skin Tanning Processes. Analytical Chemistry, 2015, 87, 3820-3825.	6.5	8
38	Multinuclear absolute magnetic resonance thermometry. Communications Physics, 2019, 2, .	5.3	8
39	Ultrafast Insideâ€Out NMR Assessment of Rechargeable Cells. Batteries and Supercaps, 2021, 4, 322-326.	4.7	8
40	Characterization of Al(III) complexes with hematein in artistic alum logwood inks. Journal of Raman Spectroscopy, 2010, 41, 445-451.	2.5	7
41	³¹P nuclear spin singlet lifetimes in a system with switchable magnetic inequivalence: experiment and simulation. Physical Chemistry Chemical Physics, 2021, 23, 19465-19471.	2.8	7
42	Weak nuclear spin singlet relaxation mechanisms revealed by experiment and computation. Physical Chemistry Chemical Physics, 2022, 24, 7531-7538.	2.8	7
43	Bloch equations for proton exchange reactions in an aqueous solution. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2016, 45A, .	0.5	6
44	Unusual Proton Transfer Kinetics in Water at the Temperature of Maximum Density. Physical Review Letters, 2018, 121, 076001.	7.8	6
45	Nuclear magnetic resonance spectroscopy of rechargeable pouch cell batteries: beating the skin depth by excitation and detection via the casing. Scientific Reports, 2020, 10, 13781.	3.3	6
46	Mapping oscillating magnetic fields around rechargeable batteries. Journal of Magnetic Resonance, 2020, 319, 106811.	2.1	5
47	Quadrupole sensitive pulse for signal filtering. Journal of Magnetic Resonance, 2016, 265, 153-163.	2.1	3
48	¹H NMR study and multivariate data analysis of reindeer skin tanning methods. Magnetic Resonance in Chemistry, 2017, 55, 312-317.	1.9	3
49	Aspects of NMR reciprocity and applications in highly conductive media. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2018, 47A, .	0.5	3
50	Magnetization transfer in liposome and proteoliposome samples that mimic the protein and lipid composition of myelin. NMR in Biomedicine, 2019, 32, e4097.	2.8	3
51	Solid-State NMR Studies Of Ultramarine Pigments Discoloration. Materials Research Society Symposia Proceedings, 2006, 984, 1.	0.1	2
52	Low-power suppression of fast-motion spin 3/2 signals. Journal of Magnetic Resonance, 2016, 272, 129-140.	2.1	2
53	Magnetization transfer in a partly deuterated lyotropic liquid crystal by single- and dual-frequency RF irradiations. Journal of Magnetic Resonance, 2017, 281, 141-150.	2.1	2
54	Monitoring Molecular Transport across Colloidal Membranes. Journal of Physical Chemistry B, 2018, 122, 4931-4936.	2.6	1

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55	Optimal control RF pulses for excitation and suppression of NMR signals in a conductive medium. Journal of Chemical Physics, 2018, 149, 034201.	3.0	1
56	CHEMICAL EXCHANGE SATURATION TRANSFER CONTRAST BY GLYCOSAMINOGLYCANS AND ITS APPLICATION FOR MONITORING KNEE JOINT REPAIR. , 2014, , 249-271.		1
57	Solid-State NMR and Resonance Raman Studies of Ultramarine Pigments. Materials Research Society Symposia Proceedings, 2004, 852, 140.	0.1	0
58	Low-power slice selective imaging of broad signals. Journal of Magnetic Resonance, 2016, 272, 61-67.	2.1	0
59	1 Hâ€decoupling and Isotopic Labeling for the Measurement of the Longitudinal Relaxation Time of Hyperpolarized 13 Câ€Methylenes in Choline Analogs. Israel Journal of Chemistry, 2019, 59, 1014-1019.	2.3	0
60	7Li intermolecular multiple-quantum coherences in liquids. Journal of Magnetic Resonance, 2021, 329, 107010.	2.1	0
61	Functional Imaging of the Knee Joint. , 2010, , 185-233.		0