John Blanchard

List of Publications by Year
in descending order

47 papers	1,629 citations	257450 24 h-index	302126 39 g-index
48 all docs	48 docs citations	48 times ranked	1135 citing authors

#	Article	IF	Citations
1	Near-Zero-Field Nuclear Magnetic Resonance. Physical Review Letters, 2011, 107, 107601.	7.8	92
2	Zero-Field NMR Enhanced by Parahydrogen in Reversible Exchange. Journal of the American Chemical Society, 2012, 134, 3987-3990.	13.7	83
3	Invited Review Article: Instrumentation for nuclear magnetic resonance in zero and ultralow magnetic field. Review of Scientific Instruments, 2017, 88, 091101.	1.3	83
4	Search for Axionlike Dark Matter with a Liquid-State Nuclear Spin Comagnetometer. Physical Review Letters, 2019, 122, 191302.	7.8	79
5	Constraints on bosonic dark matter from ultralow-field nuclear magnetic resonance. Science Advances, 2019, 5, eaax4539.	10.3	75
6	Stochastic fluctuations of bosonic dark matter. Nature Communications, 2021, 12, 7321.	12.8	59
7	High-Resolution Zero-Field NMR J-Spectroscopy of Aromatic Compounds. Journal of the American Chemical Society, 2013, 135, 3607-3612.	13.7	54
8	Rapid hyperpolarization and purification of the metabolite fumarate in aqueous solution. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	54
9	Long-Lived Heteronuclear Spin-Singlet States in Liquids at a Zero Magnetic field. Physical Review Letters, 2014, 112, 077601.	7.8	52
10	Eddy current imaging with an atomic radio-frequency magnetometer. Applied Physics Letters, 2016, 108, .	3.3	51
11	Search for Axionlike Dark Matter Using Solid-State Nuclear Magnetic Resonance. Physical Review Letters, 2021, 126, 141802.	7.8	51
12	Application of spin-exchange relaxation-free magnetometry to the Cosmic Axion Spin Precession Experiment. Physics of the Dark Universe, 2018, 19, 27-35.	4.9	50
13	The cosmic axion spin precession experiment (CASPEr): a dark-matter search with nuclear magnetic resonance. Quantum Science and Technology, 2018, 3, 014008.	5.8	48
14	Polarization transfer via field sweeping in parahydrogen-enhanced nuclear magnetic resonance. Journal of Chemical Physics, 2019, 150, 174202.	3.0	46
15	NMR Determination of the Diffusion Mechanisms in Triethylamine-Based Protic Ionic Liquids. Journal of Physical Chemistry Letters, 2011, 2, 1077-1081.	4.6	43
16	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
17	Measurement of untruncated nuclear spin interactions via zero- to ultralow-field nuclear magnetic resonance. Physical Review B, 2015, 92, .	3.2	38
18	Chemical analysis using J-coupling multiplets in zero-field NMR. Chemical Physics Letters, 2013, 580, 160-165.	2.6	37

#	Article	IF	Citations
19	Experimental benchmarking of quantum control in zero-field nuclear magnetic resonance. Science Advances, 2018, 4, eaar6327.	10.3	36
20	Zero-field nuclear magnetic resonance of chemically exchanging systems. Nature Communications, 2019, 10, 3002.	12.8	36
21	Zero- to ultralow-field nuclear magnetic resonance J-spectroscopy with commercial atomic magnetometers. Journal of Magnetic Resonance, 2020, 314, 106723.	2.1	36
22	Liquid-State Nuclear Spin Comagnetometers. Physical Review Letters, 2012, 108, 243001.	7.8	31
23	Overview of the Cosmic Axion Spin Precession Experiment (CASPEr). Springer Proceedings in Physics, 2020, , 105-121.	0.2	31
24	Nuclear-Spin Comagnetometer Based on a Liquid of Identical Molecules. Physical Review Letters, 2018, 121, 023202.	7.8	30
25	Chemical Reaction Monitoring using Zeroâ€Field Nuclear Magnetic Resonance Enables Study of Heterogeneous Samples in Metal Containers. Angewandte Chemie - International Edition, 2020, 59, 17026-17032.	13.8	26
26	Lower than low: Perspectives on zero- to ultralow-field nuclear magnetic resonance. Journal of Magnetic Resonance, 2021, 323, 106886.	2.1	26
27	Nondestructive in-line sub-picomolar detection of magnetic nanoparticles in flowing complex fluids. Scientific Reports, 2018, 8, 3491.	3.3	25
28	Hyperpolarized Solution-State NMR Spectroscopy with Optically Polarized Crystals. Journal of the American Chemical Society, 2022, 144, 2511-2519.	13.7	25
29	Multiplets at zero magnetic field: The geometry of zero-field NMR. Journal of Chemical Physics, 2013, 138, 184202.	3.0	23
30	Magnetic Gradiometer for the Detection of Zero- to Ultralow-Field Nuclear Magnetic Resonance. Physical Review Applied, 2019, 11, .	3.8	22
31	Parahydrogen-induced polarization at zero magnetic field. Journal of Chemical Physics, 2013, 138, 234201.	3.0	19
32	Antisymmetric Couplings Enable Direct Observation of Chirality in Nuclear Magnetic Resonance Spectroscopy. Journal of Physical Chemistry Letters, 2017, 8, 710-714.	4.6	19
33	A method for measurement of spin-spin couplings with sub-mHz precision using zero- to ultralow-field nuclear magnetic resonance. Journal of Magnetic Resonance, 2017, 284, 66-72.	2.1	19
34	Investigating Hydrogen-Bonded Phosphonic Acids with Proton Ultrafast MAS NMR and DFT Calculations. Journal of Physical Chemistry C, 2012, 116, 18824-18830.	3.1	16
35	Measuring molecular parity nonconservation using nuclear-magnetic-resonance spectroscopy. Physical Review A, 2017, 96, .	2.5	16
36	Universal quantum control in zero-field nuclear magnetic resonance. Physical Review A, 2017, 95, .	2.5	14

#	Article	IF	Citations
37	Photochemically Induced Dynamic Nuclear Polarization of Heteronuclear Singlet Order. Journal of Physical Chemistry Letters, 2021, 12, 4686-4691.	4.6	12
38	Molecular parity nonconservation in nuclear spin couplings. Physical Review Research, 2020, 2, .	3.6	11
39	Quantum sensitivity limits of nuclear magnetic resonance experiments searching for new fundamental physics. Quantum Science and Technology, 2021, 6, 034007.	5.8	10
40	Two-dimensional single- and multiple-quantum correlation spectroscopy in zero-field nuclear magnetic resonance. Journal of Magnetic Resonance, 2020, 318, 106781.	2.1	9
41	Rapid Online Solid-State Battery Diagnostics with Optically Pumped Magnetometers. Applied Sciences (Switzerland), 2020, 10, 7864.	2.5	9
42	Towards largeâ€scale steadyâ€state enhanced nuclear magnetization with in situ detection. Magnetic Resonance in Chemistry, 2021, 59, 1208-1215.	1.9	8
43	Raman and nuclear magnetic resonance investigation of alkali metal vapor interaction with alkene-based anti-relaxation coating. Journal of Chemical Physics, 2016, 144, 094707.	3.0	7
44	Zero-field nuclear magnetic resonance spectroscopy of viscous liquids. Journal of Magnetic Resonance, 2015, 250, 1-6.	2.1	5
45	Correlation of high-field and zero- to ultralow-field NMR properties using 2D spectroscopy. Journal of Chemical Physics, 2021, 154, 144201.	3.0	3
46	Wu etÂal. Reply:. Physical Review Letters, 2019, 123, 169002.	7.8	2
47	Chemical Reaction Monitoring using Zeroâ€Field Nuclear Magnetic Resonance Enables Study of Heterogeneous Samples in Metal Containers. Angewandte Chemie, 2020, 132, 17174-17180.	2.0	0