Stephan Appelt

List of Publications by Year
in descending order

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61	2,612	218677	189892
papers	citations	26 h-index	50 g-index

66	66	66	1578
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	RASER MRI: Magnetic resonance images formed spontaneously exploiting cooperative nonlinear interaction. Science Advances, 2022, 8, .	10.3	12
2	SABRE and PHIP pumped RASER and the route to chaos. Journal of Magnetic Resonance, 2021, 322, 106815.	2.1	19
3	A Versatile Compact Parahydrogen Membrane Reactor. ChemPhysChem, 2021, 22, 2526-2534.	2.1	17
4	Backgroundâ€Free Proton NMR Spectroscopy with Radiofrequency Amplification by Stimulated Emission Radiation. Angewandte Chemie - International Edition, 2021, 60, 26298-26302.	13.8	12
5	Innentitelbild: Backgroundâ€Free Proton NMR Spectroscopy with Radiofrequency Amplification by Stimulated Emission Radiation (Angew. Chem. 50/2021). Angewandte Chemie, 2021, 133, 26206-26206.	2.0	0
6	SABRE polarized low field rare-spin spectroscopy. Journal of Chemical Physics, 2020, 152, 184202.	3.0	15
7	Parahydrogenâ€Induced Radio Amplification by Stimulated Emission of Radiation. Angewandte Chemie - International Edition, 2020, 59, 8654-8660.	13.8	22
8	Parahydrogenâ€Induced Radio Amplification by Stimulated Emission of Radiation. Angewandte Chemie, 2020, 132, 8732-8738.	2.0	14
9	From LASER physics to the para-hydrogen pumped RASER. Progress in Nuclear Magnetic Resonance Spectroscopy, 2019, 114-115, 1-32.	7.5	30
10	Para-hydrogen raser delivers sub-millihertz resolution in nuclear magnetic resonance. Nature Physics, 2017, 13, 568-572.	16.7	70
11	External high-quality-factor resonator tunes up nuclear magnetic resonance. Nature Physics, 2015, 11, 767-771.	16.7	48
12	Analysis of parahydrogen polarized spin system in low magnetic fields. Physical Chemistry Chemical Physics, 2014, 16, 15411-15421.	2.8	12
13	Para-hydrogen perspectives in hyperpolarized NMR. Journal of Magnetic Resonance, 2013, 235, 130-142.	2.1	55
14	Ligand effects of NHCâ€“iridium catalysts for signal amplification by reversible exchange (SABRE). Chemical Communications, 2013, 49, 7388.	4.1	87
15	Fundamental Aspects of Parahydrogen Enhanced Low-Field Nuclear Magnetic Resonance. Physical Review Letters, 2013, 110, 137602.	7.8	32
16	Online Monitoring of Intelligent Polymers for Drug Release with Hyperpolarized Xenon. ChemPhysChem, 2012, 13, 4120-4123.	2.1	11
17	Polarized nuclear target based on parahydrogen induced polarization. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 694, 246-250.	1.6	4
18	Studies of 6Li-NMR properties in different salt solutions in low magnetic fields. Journal of Magnetic Resonance, 2012, 214, 10-14.	2.1	2

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19	Selective drug trace detection with low-field NMR. Analyst, The, 2011, 136, 1566.	3.5	48
20	Para-hydrogen induced polarization of amino acids, peptides and deuteriumâ€“hydrogen gas. Physical Chemistry Chemical Physics, 2011, 13, 13759.	2.8	108
21	NMR Spectroscopy for Chemical Analysis at Low Magnetic Fields. Topics in Current Chemistry, 2011, 335, 1-22.	4.0	10
22	Near-Zero-Field Nuclear Magnetic Resonance. Physical Review Letters, 2011, 107, 107601.	7.8	92
23	Real-time Detection of Polymerization Reactions with Hyperpolarized Xenon at Low Magnetic Fields. , 2011, , .		3
24	NMR and MRI of Bloodâ€Dissolved Hyperpolarized Xeâ€129 in Different Hollowâ€Fiber Membranes. ChemPhysChem, 2011, 12, 2941-2947.	2.1	9
25	NMR spectroscopy in the milli-Tesla regime: Measurement of 1H chemical-shift differences below the line width. Chemical Physics Letters, 2010, 485, 217-220.	2.6	21
26	Paths from weak to strong coupling in NMR. Physical Review A, 2010, 81, .	2.5	54
27	Trace Analysis by Low-Field NMR: Breaking the Sensitivity Limit. Analytical Chemistry, 2010, 82, 7078-7082.	6.5	46
28	NMR at low magnetic fields. Chemical Physics Letters, 2009, 477, 231-240.	2.6	127
29	Simulation of passenger check-in at a medium-sized us airport. , 2007, , .		23
30	Publisher's Note: Phenomena in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>J</mml:mi></mml:mrow></mml:math>-coupled nuclear magnetic resonance spectroscopy in low magnetic fields [Phys. Rev. A76, 023420 (2007)]. Physical Review A, 2007, 76, .	2.5	0
31	Phenomena in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>J</mml:mi></mml:mrow></mml:math>-coupled nuclear magnetic resonance spectroscopy in low magnetic fields. Physical Review A, 2007, 76, .	2.5	29
32	Analysis of molecular structures by homo- and hetero-nuclear J-coupled NMR in ultra-low field. Chemical Physics Letters, 2007, 440, 308-312.	2.6	34
33	Chemical analysis by ultrahigh-resolution nuclear magnetic resonance in the Earthâ€™s magnetic field. Nature Physics, 2006, 2, 105-109.	16.7	132
34	Mobile High Resolution Xenon Nuclear Magnetic Resonance Spectroscopy in the Earthâ€™s Magnetic Field. Physical Review Letters, 2005, 94, 197602.	7.8	52
35	Imaging of a mixture of hyperpolarized 3He and 129Xe. Magnetic Resonance Imaging, 2004, 22, 1077-1083.	1.8	9
36	Progress of 3He spin-exchange for neutron polarization in JÃ¼lich. Physica B: Condensed Matter, 2004, 350, E707-E710.	2.7	3

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37	Time resolved spectroscopic NMR imaging using hyperpolarized 129Xe. Journal of Magnetic Resonance, 2004, 167, 298-305.	2.1	10
38	Progress in the production of polarized 3He in JÃ¼lich. Physica B: Condensed Matter, 2003, 335, 278-281.	2.7	2
39	Inactivation of bacteriophages in water by means of non-ionizing (uv-253.7nm) and ionizing (gamma) radiation: a comparative approach. Water Research, 2001, 35, 3109-3116.	11.3	100
40	Proton magnetization enhancement of solvents with hyperpolarized xenon in very low-magnetic fields. Chemical Physics Letters, 2001, 348, 263-269.	2.6	41
41	Measurement of rubidium and xenon absolute polarization at high temperatures as a means of improved production of hyperpolarized 129Xe. NMR in Biomedicine, 2000, 13, 214-219.	2.8	0
42	Light narrowing of rubidium magnetic-resonance lines in high-pressure optical-pumping cells. Physical Review A, 1999, 59, 2078-2084.	2.5	106
43	Experimental studies of rubidium absolute polarization at high temperatures. Applied Physics Letters, 1999, 75, 427-429.	3.3	27
44	Spin-polarized noble gases: A playground for geometric quantum-phase studies in magnetic resonance. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 402, 464-472.	1.6	4
45	Theory of spin-exchange optical pumping of3Heand129Xe. Physical Review A, 1998, 58, 1412-1439.	2.5	330
46	Polarization of3Heby Spin Exchange with Optically Pumped Rb and K Vapors. Physical Review Letters, 1998, 80, 2801-2804.	7.8	103
47	Magnetic resonance imaging of hyperpolarized 129Xe produced by spin exchange with diode-laser pumped Cs. Applied Physics Letters, 1998, 73, 2666-2668.	3.3	16
48	Alkali-metal-atom polarization imaging in high-pressure optical-pumping cells. Physical Review A, 1998, 58, 2282-2294.	2.5	40
49	Three-dimensional imaging of spin polarization of alkali-metal vapor in optical pumping cells. Applied Physics Letters, 1997, 70, 3081-3083.	3.3	29
50	Enhancement of surface NMR by laser-polarized noble gases. Physical Review B, 1997, 55, 11604-11610.	3.2	66
51	SQUID detected NMR of laser-polarized xenon at 4.2 K and at frequencies down to 200 Hz. Chemical Physics Letters, 1997, 272, 245-249.	2.6	25
52	Enhancement of Solution NMR and MRI with Laser-Polarized Xenon. Science, 1996, 271, 1848-1851.	12.6	319
53	A magnetic resonance study of non-adiabatic evolution of spin quantum states. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1995, 34, 75-85.	1.0	11
54	Geometric phase in nonadiabatic figure-8 experiments. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 204, 210-216.	2.1	23

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55	Deviation from Berryâ€™s adiabatic geometric phase in aXe131nuclear gyroscope. Physical Review Letters, 1994, 72, 3921-3924.	7.8	57
56	Transient Oscillations in Phase-Switched Cross-Polarization Experiments. Journal of Magnetic Resonance Series A, 1993, 101, 60-66.	1.6	17
57	Separation of the magnetic quantization axes by lightshift interaction in a Rb/Xe gas mixture. Optics Communications, 1993, 96, 45-51.	2.1	5
58	Two-dimensional optical spectroscopy by periodic excitation of sublevel coherence with sub-Doppler resolution. Physical Review A, 1991, 43, 242-250.	2.5	9
59	Direct observation of single- and double-quantum sublevel coherence in rubidium vapor by optical raman beat detection. Optics Communications, 1989, 74, 110-114.	2.1	5
60	The Physics of NMR-Gyroscopes. , 1989, , 556-570.		2
61	Backgroundâ€Free Proton NMR Spectroscopy with Radiofrequency Amplification by Stimulated Emission Radiation. Angewandte Chemie, 0, , .	2.0	2