Patrick Hautle

List of Publications by Year
in descending order

95 papers	3,777 citations	172457 29 h-index	128289 60 g-index
97 all docs	97 docs citations	97 times ranked	1725 citing authors

#	Article	IF	Citations
1	Measurement of the spin-dependent structure function g1(x) of the deuteron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 302, 533-539.	4.1	354
2	Measurement of the spin-dependent structure function g1(x) of the proton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 329, 399-406.	4.1	311
3	Spin asymmetriesA1and structure functionsg1of the proton and the deuteron from polarized high energy muon scattering. Physical Review D, 1998, 58, .	4.7	266
4	Spin structure of the proton from polarized inclusive deep-inelastic muon-proton scattering. Physical Review D, 1997, 56, 5330-5358.	4.7	233
5	Long-lived states to sustain hyperpolarized magnetization. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18469-18473.	7.1	173
6	Design and performance of a DNP prepolarizer coupled to a rodent MRI scanner. Concepts in Magnetic Resonance Part B, 2007, 31B, 255-269.	0.7	172
7	A new measurement of the spin-dependent structure function g1(x) of the deuteron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 357, 248-254.	4.1	149
8	Next-to-leading order QCD analysis of the spin structure functiong1. Physical Review D, 1998, 58, .	4.7	117
9	Boosting Dissolution Dynamic Nuclear Polarization by Cross Polarization. Journal of Physical Chemistry Letters, 2013, 4, 111-114.	4.6	116
10	A 140GHz prepolarizer for dissolution dynamic nuclear polarization. Journal of Chemical Physics, 2008, 128, 241102.	3.0	98
11	The spin-dependent structure function g1(x) of the deuteron from polarized deep-inelastic muon scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 396, 338-348.	4.1	97
12	Spin asymmetries for events with highpThadrons in DIS and an evaluation of the gluon polarization. Physical Review D, 2004, 70, .	4.7	96
13	Polarisation of valence and non-strange sea quarks in the nucleon from semi-inclusive spin asymmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 369, 93-100.	4.1	95
14	Dynamic nuclear polarization of small labelled molecules in frozen waterâ€“alcohol solutions. Journal Physics D: Applied Physics, 2008, 41, 155506.	2.8	90
15	Spin asymmetry in muon-proton deep inelastic scattering on a transversely-polarized target. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 336, 125-130.	4.1	89
16	The spin-dependent structure function g1(x) of the proton from polarized deep-inelastic muon scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 412, 414-424.	4.1	74
17	Spin asymmetriesA1of the proton and the deuteron in the lowxand lowQ2region from polarized high energy muon scattering. Physical Review D, 1999, 60, .	4.7	69
18	Automated transfer and injection of hyperpolarized molecules with polarization measurement prior to in vivo NMR. NMR in Biomedicine, 2013, 26, 1582-1588.	2.8	62

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19	The PSI ultra-cold neutron source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 611, 272-275.	1.6	58
20	Hyperpolarized lithiumâ€6 as a sensor of nanomolar contrast agents. Magnetic Resonance in Medicine, 2009, 61, 1489-1493.	3.0	53
21	Principles of Operation of a DNP Prepolarizer Coupled to a Rodent MRI Scanner. Applied Magnetic Resonance, 2008, 34, 313-319.	1.2	40
22	Producing over 100ml of highly concentrated hyperpolarized solution by means of dissolution DNP. Journal of Magnetic Resonance, 2008, 194, 152-155.	2.1	39
23	Time-resolved nuclear spin-dependent small-angle neutron scattering from polarised proton domains in deuterated solutions. European Physical Journal B, 2006, 49, 157-165.	1.5	36
24	Quantitative Radiography of Magnetic Fields Using Neutron Spin Phase Imaging. Physical Review Letters, 2009, 102, 145501.	7.8	36
25	Hyperpolarizing Gases via Dynamic Nuclear Polarization and Sublimation. Physical Review Letters, 2010, 105, 018104.	7.8	35
26	Production of ultracold neutrons from a cold neutron beam on a2H2target. Physical Review C, 2005, 71, .	2.9	33
27	Measured Total Cross Sections of Slow Neutrons Scattered by Solid Deuterium and Implications for Ultracold Neutron Sources. Physical Review Letters, 2005, 95, 182502.	7.8	31
28	Cold Neutron Energy Dependent Production of Ultracold Neutrons in Solid Deuterium. Physical Review Letters, 2007, 99, 262502.	7.8	30
29	Dynamic nuclear polarisation via the integrated solid effect II: experiments on naphthalene-h₈ doped with pentacene-d₁₄. Molecular Physics, 2014, 112, 1773-1782.	1.7	30
30	High proton spin polarization with DNP using the triplet state of pentacene-. Chemical Physics Letters, 2013, 555, 296-299.	2.6	26
31	Characterisation of the polarised neutron beam at the small angle scattering instrument SANS-I with a polarised proton target. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 586, 86-89.	1.6	25
32	Proton polarization above 70% by DNP using photo-excited triplet states, a first step towards a broadband neutron spin filter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 754, 10-14.	1.6	25
33	Spin filters and supermirrors: a comparison study of two methods of high-precision neutron polarisation analysis. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 764-771.	1.6	23
34	Neutron scattering from polarised proton domains. Europhysics Letters, 2002, 59, 62-67.	2.0	23
35	Neutron spin phase imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 586, 15-17.	1.6	23
36	Microstructural-defect-induced Dzyaloshinskii-Moriya interaction. Physical Review B, 2019, 99, .	3.2	23

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37	Large enhancement of deuteron polarization with frequency modulated microwaves. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 372, 339-343.	1.6	22
38	Ultra High-Resolution NMR: Sustained Induction Decays of Long-Lived Coherences. Journal of the American Chemical Society, 2011, 133, 15644-15649.	13.7	22
39	An apparatus for pulsed ESR and DNP experiments using optically excited triplet states down to liquid helium temperatures. Journal of Magnetic Resonance, 2013, 234, 58-66.	2.1	21
40	A Ramsey apparatus for the measurement of the incoherent neutron scattering length of the deuteron. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 589, 318-329.	1.6	18
41	A line-shape analysis for spin-1 NMR signals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 398, 109-125.	1.6	17
42	Polarized scintillator targets. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 446, 592-599.	1.6	17
43	Spin filtering neutrons with a proton target dynamically polarized using photo-excited triplet states. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 678, 91-97.	1.6	17
44	Search for the hypothetical Ï€ â† Î¼x decay. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 363, 41-45.	4.1	15
45	Measured Total Cross Sections of Slow Neutrons Scattered by Gaseous and LiquidH22. Physical Review Letters, 2005, 94, 212502.	7.8	15
46	Measurement of proton and nitrogen polarization in ammonia and a test of equal spin temperature. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 419, 60-82.	1.6	14
47	Creating local contrast in small-angle neutron scattering by dynamic nuclear polarization. Journal of Applied Crystallography, 2007, 40, s106-s110.	4.5	14
48	Investigation of solid , and for ultracold neutron production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 611, 252-255.	1.6	14
49	Polarization analysis in neutron small-angle scattering with a novel triplet dynamic nuclear polarization spin filter. Journal of Applied Crystallography, 2015, 48, 1514-1521.	4.5	14
50	Measurement of theÏ€+pâ†'analyzing power at 68.3 MeV. Physical Review C, 1996, 54, 1930-1934.	2.9	13
51	The nucleon facility NA at PSI. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 386, 211-227.	1.6	13
52	An experimental approach to the dynamics of nuclear polarisation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 81-90.	1.6	13
53	The investigation of solid D<mml:math altimg="si24.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.	1.6	13
54	Low energy analyzing powers in pionâ€"proton elastic scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 588, 155-162.	4.1	13

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55	Polarized neutron Laue diffraction on a crystal containing dynamically polarized proton spins. Journal of Applied Crystallography, 2013, 46, 30-34.	4.5	13
56	Measurement of the SMC muon beam polarisation using the asymmetry in the elastic scattering off polarised electrons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 443, 1-19.	1.6	12
57	DNP with the free radicals deuterated TEMPO and deuterated oxo-TEMPO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 53-55.	1.6	12
58	Magnetic microstructure of a textured Ndâ€“Feâ€“B sintered magnet characterized by small-angle neutron scattering. Journal of Alloys and Compounds, 2016, 661, 110-114.	5.5	11
59	A new method for the precise absolute calibration of polarization effects in scattering applied to p-Î± scattering at 25.68 MeV and Î¸lab = 117.5Â°. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1989, 281, 17-27.	1.6	10
60	Dynamic nuclear polarization in crystals of Nd3+:LaAlO3, a polarized 139La target for a test of time-reversal invariance. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 638-642.	1.6	10
61	A compact neutron Ramsey resonance apparatus for polarised neutron radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 5-8.	1.6	10
62	Production of ultracold neutrons from cryogenic 2 H 2 , O 2 , and C 2 H 4 converters. Europhysics Letters, 2011, 95, 12001.	2.0	10
63	Polarization reversal by adiabatic fast passage in a deuterated alcohol. Physical Review B, 1992, 46, 6596-6599.	3.2	9
64	Dynamic nuclear polarization in thin polyethylene foils cooled via a superfluid 4He film. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 381, 219-222.	1.6	9
65	Polarized Neutron Scattering from Polarized Nuclei Near Paramagnetic Centers. Journal of Applied Crystallography, 1997, 30, 839-843.	4.5	8
66	The spin-dependent nd scattering lengthâ€”a proposed high-accuracy measurement. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 91-95.	1.6	8
67	Recent progress in the development of a polarized proton target for reactions with radioactive ion beams. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 1112-1116.	1.4	8
68	Neutron scattering from polarised proton domains. Physica B: Condensed Matter, 2003, 335, 193-195.	2.7	7
69	The measurement of the incoherent neutron scattering length of the deuteron. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 611, 231-234.	1.6	7
70	Neutron spectroscopy with [sup 6]LiF bolometers. , 2009, , .		7
71	The neutron spin phase imaging technique applied to dia- and paramagnetic samples. Physica B: Condensed Matter, 2011, 406, 2409-2411.	2.7	7
72	Analyzing powers forâ†'1(Ï€+,Ï€+p) atTÏ€=165 and 240 MeV. Physical Review C, 1996, 53, 1005-1008.	2.9	5

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73	Measurement of the Î³-anisotropy in. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 736-743.	1.6	5
74	Magnetic small-angle neutron scattering on bulk metallic glasses: A feasibility study for imaging displacement fields. Physical Review Materials, 2017, 1, .	2.4	5
75	Polarization transfer observables in Ï€d elastic scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 425, 19-24.	4.1	4
76	Dynamic Nuclear Polarization â€“ from Polarized Targets to Metabolic Imaging. Applied Magnetic Resonance, 2008, 34, 475-481.	1.2	4
77	Concepts of Neutron Polarisation Analysis Devices for a New Neutron Chopper Spectrometer, POLANO, in J-PARC. Journal of Physics: Conference Series, 2014, 502, 012051.	0.4	4
78	Using parabolic supermirror lenses to focus and de-focus a neutron beam. Journal of Physics: Conference Series, 2014, 528, 012009.	0.4	4
79	Defect-induced Dzyaloshinskiiâ€“Moriya interaction in a nanocrystalline two-phase alloy. Journal of Physics Condensed Matter, 2020, 32, 285804.	1.8	4
80	Kinetic energy spectrum and polarization of neutrons from the reaction 12C(p,n)X at 590 MeV. European Physical Journal A, 1998, 2, 411-415.	2.5	3
81	Magnetic coupling between 3He and nuclei in a substrate A possible way to polarize bulk 3He. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 356, 138-141.	1.6	2
82	Measurement and calculation of polarization transfer coefficients in the reaction2H(p,p)2H at Ep=22.5 MeV. Journal of Physics G: Nuclear and Particle Physics, 1995, 21, 1363-1378.	3.6	2
83	A large Streamer Chamber muon tracking detector in a high-flux fixed-target application. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 435, 354-374.	1.6	2
84	Spin polarized solid target as a prospective tool for radioactive ion beam physics. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 1001-1005.	1.4	2
85	Dilution refrigerators for particle physics experiments: Two variants with sample cooling by helium-4. Journal of Physics: Conference Series, 2009, 150, 012024.	0.4	2
86	Neutron spin filtering with dynamically polarized protons using photo-excited triplet states. Journal of Physics: Conference Series, 2014, 528, 012022.	0.4	2
87	Impact of the neutron-depolarization effect on polarized neutron scattering in ferromagnets. IUCrJ, 2021, 8, 455-461.	2.2	2
88	A comparison of NMR concepts for polarization experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 76-80.	1.6	1
89	A High-Accuracy Measurement Of The Spin-Dependent Neutron Scattering Length Of The Deuteron. AIP Conference Proceedings, 2006, , .	0.4	1
90	A Drabkin-type spin resonator as tunable neutron beam monochromator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 794, 47-53.	1.6	1

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91	Neutron phase spin echo. Physical Review C, 2016, 93, .	2.9	1
92	Investigation of solid D-2 for UCN sources. Journal of Research of the National Institute of Standards and Technology, 2005, 110, 491.	1.2	1
93	Polarization transfer observables inï€delastic scattering. Physical Review C, 2002, 66, .	2.9	0
94	An Accurate Measurement of the Spin-Dependent Neutron-Deuteron Scattering Length. AIP Conference Proceedings, 2007, , .	0.4	0
95	Polarized Nuclei: From Fundamental Nuclear Physics To Applications In Neutron Scattering and Magnetic Resonance Imaging. AIP Conference Proceedings, 2008, , .	0.4	0