

Neil S Sullivan

List of Publications by Year in descending order

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122
papers

2,870
citations

257450

24
h-index

175258

52
g-index

126
all docs

126
docs citations

126
times ranked

1628
citing authors

#	ARTICLE	IF	CITATIONS
1	First-principles study of an $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{S} \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle = \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mi} \rangle$ quasi one-dimensional quantum molecular magnetic material. <i>Physical Review B</i> , 2021, 103, .	3.2	1
2	Anomalous frequency dependence of magneto-electric effect in doped DTN. <i>Physica B: Condensed Matter</i> , 2021, 608, 412875.	2.7	1
3	Axion Dark Matter Experiment: Detailed design and operations. <i>Review of Scientific Instruments</i> , 2021, 92, 124502.	1.3	18
4	NMR studies of the dynamics of HD adsorbed in MCM-41. <i>Microporous and Mesoporous Materials</i> , 2020, 294, 109921.	4.4	0
5	Extended Search for the Invisible Axion with the Axion Dark Matter Experiment. <i>Physical Review Letters</i> , 2020, 124, 101303.	7.8	275
6	NMR Studies of the Dynamics of 1D ^3He in ^4He Plated MCM-41. <i>Journal of Low Temperature Physics</i> , 2020, 201, 146-153.	1.4	3
7	Search for 5×10^{-9} eV Axions with ADMX Four-Cavity Array. <i>Springer Proceedings in Physics</i> , 2020, , 53-62.	0.2	4
8	Avoided Mode Crossings in Cylindrical Microwave Cavities. <i>Physical Review Applied</i> , 2019, 12, .	3.8	7
9	Nuclear Spin Relaxometry of ^3He Atoms Confined in Mesoporous MCM-41. <i>Journal of Low Temperature Physics</i> , 2019, 196, 308-313.	1.4	6
10	Search for Invisible Axion Dark Matter with the Axion Dark Matter Experiment. <i>Physical Review Letters</i> , 2018, 120, 151301.	7.8	384
11	Piezoelectrically Tuned Multimode Cavity Search for Axion Dark Matter. <i>Physical Review Letters</i> , 2018, 121, 261302.	7.8	91
12	Symmetry Breaking in Haloscope Microwave Cavities. <i>Springer Proceedings in Physics</i> , 2018, , 21-29.	0.2	1
13	Phase separation in dilute solutions of ^3He in solid ^4He . <i>Physical Review B</i> , 2017, 95, .	3.2	3
14	Magneto-electric Effect and Dielectric Susceptibility Measurement Technique at Very Low Temperature. <i>Journal of Low Temperature Physics</i> , 2017, 187, 627-632.	1.4	2
15	Orientational Glasses: NMR and Electric Susceptibility Studies. <i>Magnetochemistry</i> , 2017, 3, 33.	2.4	1
16	Molecular glasses: NMR and dielectric susceptibility measurements. <i>Journal of Structural Chemistry</i> , 2016, 57, 301-307.	1.0	1
17	NMR studies of methane and hydrogen in microporous materials. <i>Low Temperature Physics</i> , 2016, 42, 76-79.	0.6	0
18	Quantum Tunneling of ^3He in Solid ^4He : A New Analysis. <i>Journal of Low Temperature Physics</i> , 2016, 185, 354-362.	1.4	1

#	ARTICLE	IF	CITATIONS
19	Cavity design for high-frequency axion dark matter detectors. Review of Scientific Instruments, 2015, 86, 123305.	1.3	31
20	Nuclear magnetic resonance studies of tunneling in quantum solids at very low temperatures. Progress in Nuclear Magnetic Resonance Spectroscopy, 2015, 90-91, 74-91.	7.5	3
21	Unusual Mott transition in multiferroic PbCrO_3 . Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15320-15325.	7.1	18
22	Lattice Relaxation in Solid ^4He : Effect on Dynamics of ^3He Impurities. Journal of Low Temperature Physics, 2014, 175, 133-139.	1.4	3
23	Lattice Relaxation of ^4He with ^3He Impurities: NMR Studies. Journal of Physics: Conference Series, 2014, 568, 012017.	0.4	3
24	NMR Studies of ^3He Films on Boron Nitride. Journal of Physics: Conference Series, 2014, 568, 012018.	0.4	3
25	NMR investigation of the low-temperature dynamics of solid ^4He doped with ^3He impurities. Physical Review B, 2013, 87, .	3.2	8
26	Interactions and Diffusion of Methane and Hydrogen in Microporous Structures: Nuclear Magnetic Resonance (NMR) Studies. Materials, 2013, 6, 2464-2482.	2.9	2
27	NMR Study of HD Adsorbed in a Z-type Metal-Organic Framework. Journal of Physics: Conference Series, 2012, 400, 012024.	0.4	2
28	Nuclear Spin Relaxation of Very Dilute ^3He impurities in Solid ^4He . Journal of Physics: Conference Series, 2012, 400, 012031.	0.4	4
29	Measurements of the Dielectric Constant of Solid Helium at Low Temperatures. Journal of Low Temperature Physics, 2012, 168, 251-257.	1.4	3
30	Bose glass and Mott glass of quasiparticles in a doped quantum magnet. Nature, 2012, 489, 379-384.	27.8	111
31	Design and performance of the ADMX SQUID-based microwave receiver. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 656, 39-44.	1.6	56
32	Dynamics of HD Molecules Trapped in Cages of Zeolite. Journal of Low Temperature Physics, 2011, 162, 121-126.	1.4	4
33	NMR Studies of ^3He Droplets in Dilute ^3He - ^4He Solid Solutions. Journal of Low Temperature Physics, 2011, 162, 167-173.	1.4	11
34	Dielectric Constant Measurements of Solid ^4He . Journal of Low Temperature Physics, 2011, 162, 407-411.	1.4	5
35	Search for nonvirialized axionic dark matter. Physical Review D, 2011, 84, .	4.7	71
36	NMR Study of the Dynamics of ^3He Impurities in the Proposed Supersolid State of Solid ^4He . Physical Review Letters, 2011, 106, 185303.	7.8	18

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37	NMR Studies of Quantum Rotors Confined in Zeolite. Journal of Low Temperature Physics, 2010, 158, 509-514.	1.4	6
38	NMR Studies of ^3He Impurities in ^4He in the Proposed Supersolid Phase. Journal of Low Temperature Physics, 2010, 158, 584-589.	1.4	9
39	A Novel Design of a Low Temperature Preamplifier for Pulsed NMR Experiments of Dilute ^3He in Solid ^4He . Journal of Low Temperature Physics, 2010, 158, 692-696.	1.4	8
40	Measurements of the nuclear spin-spin relaxation times for commensurate ^3He -Ne films adsorbed on hexagonal boron nitride. Journal of Physics: Conference Series, 2009, 150, 032099.	0.4	0
41	Direct Measurement of the Bose-Einstein Condensation Universality Class in $\text{NiCl}_2 \cdot 4\text{SC}(\text{NH}_2)_2$ at Ultralow Temperatures. Physical Review Letters, 2008, 101, 187205.	7.8	64
42	Thermal hysteresis of the dielectric susceptibility of solid oxygen in the audio frequency range. Physical Review B, 2008, 77, .	3.2	1
43	Giant Viscosity Enhancement in a Spin-Polarized Fermi Liquid. Physical Review Letters, 2007, 99, 095301.	7.8	3
44	Kapton Capacitance Thermometry at Low Temperatures and in High Magnetic Fields. Journal of Low Temperature Physics, 2007, 148, 899-902.	1.4	2
45	Ortho-Para Hydrogen Ratiometer Design. AIP Conference Proceedings, 2006, , .	0.4	0
46	Improved rf cavity search for halo axions. Physical Review D, 2004, 69, .	4.7	153
47	Determination of the Ortho-Para Ratio in Gaseous Hydrogen Mixtures. Journal of Low Temperature Physics, 2004, 134, 401-406.	1.4	6
48	Cryogenic Mass Gauging in a Free-Falling Storage Tank. Journal of Low Temperature Physics, 2004, 134, 437-442.	1.4	2
49	New Results of Ultra-Low Temperature Experiments in the Second Landau Level in a Two-Dimensional Electron System. Journal of Low Temperature Physics, 2004, 134, 579-583.	1.4	3
50	Measurements of the Nuclear Spin Relaxation Times for Small Grains of Solid Hydrogen Suspended in Liquid Helium. Journal of Low Temperature Physics, 2004, 134, 775-780.	1.4	0
51	The National High Magnetic Field Laboratory Ultra-High B/T Facility. Physica B: Condensed Matter, 2004, 346-347, 649-653.	2.7	3
52	Nuclear spin-spin relaxation in ^4He films. Physica B: Condensed Matter, 2003, 329-333, 140-141.	2.7	1
53	Memory effects for glass-like states of solid N_2/Ar mixtures. Physica B: Condensed Matter, 2003, 329-333, 1223-1224.	2.7	1
54	Asymmetries of local arsenic bonding sites in $\text{As}_x\text{S}_{1-x}$ and $\text{As}_x\text{Se}_{1-x}$ glasses. Physical Review B, 2003, 67, .	3.2	11

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55	New Evidence for Zero-Temperature Relaxation in a Spin-Polarized Fermi Liquid. <i>Physical Review Letters</i> , 2003, 90, 105301.	7.8	13
56	Orientational ordering in monolayers of ortho-para hydrogen. <i>Low Temperature Physics</i> , 2003, 29, 736-739.	0.6	0
57	ORDER/DISORDER TRANSITIONS OF ORTHO-PARA HYDROGEN MONOLAYERS AT LOW TEMPERATURES. <i>International Journal of Modern Physics B</i> , 2002, 16, 3127-3130.	2.0	0
58	INVESTIGATION OF MULTIPLE-SPIN EXCHANGE IN 2D FILMS OF ^3He : NMR STUDIES. <i>International Journal of Modern Physics B</i> , 2002, 16, 3123-3126.	2.0	0
59	Experimental Constraints on the Axion Dark Matter Halo Density. <i>Astrophysical Journal</i> , 2002, 571, L27-L30.	4.5	71
60	Spin Transport in Very Dilute ^3He - ^4He at Very High B/T. <i>Journal of Low Temperature Physics</i> , 2002, 126, 109-114.	1.4	4
61	ORDER/DISORDER TRANSITIONS OF ORTHO-PARA HYDROGEN MONOLAYERS AT LOW TEMPERATURES. , 2002, , .		0
62	INVESTIGATION OF MULTIPLE-SPIN EXCHANGE IN 2D FILMS OF ^3He : NMR STUDIES. , 2002, , .		0
63	Molecular solid glasses: new insights into frustrated systems. <i>New Journal of Physics</i> , 2001, 3, 17-17.	2.9	8
64	The National High Magnetic Field Laboratory. <i>Physica B: Condensed Matter</i> , 2001, 294-295, 505-511.	2.7	12
65	The National High Magnetic Field Laboratory Ultra-High B/T Facility. <i>Physica B: Condensed Matter</i> , 2001, 294-295, 519-522.	2.7	5
66	Mechanisms of Primary Relaxation near Orientational-Glass and Structural-Glass Transitions. <i>Journal of Low Temperature Physics</i> , 2001, 122, 224-413.	1.4	6
67	Large-scale microwave cavity search for dark-matter axions. <i>Physical Review D</i> , 2001, 64, .	4.7	154
68	Nonlinear spin dynamics of dilute ^3He - ^4He at very high B/T. <i>Physica B: Condensed Matter</i> , 2000, 284-288, 313-314.	2.7	5
69	Cryogenic cavity detector for a large-scale cold dark-matter axion search. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2000, 444, 569-583.	1.6	45
70	NMR Studies of Submonolayer ^3He Adsorbed on Hexagonal Boron Nitride. <i>Journal of Low Temperature Physics</i> , 2000, 121, 489-494.	1.4	3
71	The Orientational Ordering of Molecular Hydrogen in 2D. <i>Journal of Low Temperature Physics</i> , 2000, 120, 89-106.	1.4	3
72	Orientational Ordering in Monolayer Films of Molecular Hydrogen on Boron Nitride. <i>Journal of Low Temperature Physics</i> , 1999, 114, 173-201.	1.4	15

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73	Very high sensitivity ac capacitance bridge for the dielectric study of molecular solids at low temperatures. Review of Scientific Instruments, 1999, 70, 4055-4058.	1.3	31
74	New Phases for the Orientational Ordering of Quantum Rotors: H ₂ on Hexagonal BN. Journal of Low Temperature Physics, 1998, 111, 533-543.	1.4	5
75	The Orientational Ordering in Dilute Solid N ₂ -Ar Mixtures. Journal of Low Temperature Physics, 1998, 111, 365-370.	1.4	7
76	Nuclear Spin Relaxation of Powdered Metallic Antimony in Liquid ³ He. Journal of Low Temperature Physics, 1998, 112, 21-45.	1.4	4
77	Critical Concentrations for the Orientational Ordering of Molecular Hydrogen in 2D. Journal of Low Temperature Physics, 1998, 113, 705-710.	1.4	7
78	Relaxation in Powdered Metallic Antimony in Contact with Liquid ³ He. Journal of Low Temperature Physics, 1998, 110, 369-374.	1.4	0
79	Coupling of the Nuclear Spin Alignment of Quadrupolar Nuclei to ³ He at Interfaces. Journal of Low Temperature Physics, 1998, 113, 323-328.	1.4	2
80	Orientational Ordering in Ultra-Thin Films of Quantum Rotors on Boron Nitride. Journal of Low Temperature Physics, 1998, 110, 597-602.	1.4	7
81	Ultra-Low Temperature Thermometry Using Zeeman Perturbed NQR. Journal of Low Temperature Physics, 1998, 110, 763-778.	1.4	4
82	Results from a High-Sensitivity Search for Cosmic Axions. Physical Review Letters, 1998, 80, 2043-2046.	7.8	162
83	Molecular spectroscopy at very high magnetic fields. International Journal of Quantum Chemistry, 1997, 64, 629-633.	2.0	2
84	Nuclear spin coupling of ³ He to metallic Sb at low temperatures. European Physical Journal D, 1996, 46, 219-220.	0.4	5
85	A new orientational glass in low concentration N ₂ -Ar solid mixtures. European Physical Journal D, 1996, 46, 513-514.	0.4	2
86	Orientational ordering in thick films of molecular hydrogen on BN. European Physical Journal D, 1996, 46, 515-516.	0.4	0
87	NMR studies of the orientational ordering in dilute solid N ₂ -Ar mixtures. Journal of Low Temperature Physics, 1996, 103, 49-70.	1.4	18
88	Quantum diffusion in the solid heliums. Applied Magnetic Resonance, 1995, 8, 361-372.	1.2	3
89	A NEXT-GENERATION CAVITY MICROWAVE EXPERIMENT TO SEARCH FOR DARK-MATTER AXIONS. International Journal of Modern Physics D, 1994, 03, 33-42.	2.1	8
90	Orientational Ordering of Frustrated Molecular Quadrupoles: NMR Studies of N ₂ -Ar Solid Mixtures. Physical Review Letters, 1994, 73, 2720-2723.	7.8	22

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91	Shifts of ortho-H ₂ NMR lines relative to HD in solid H ₂ .. Physica B: Condensed Matter, 1994, 194-196, 957-958.	2.7	4
92	Multistage separator column for ortho-hydrogen and para-deuterium production. Cryogenics, 1993, 33, 1008-1009.	1.7	2
93	EXACT PHASE DIAGRAMS FOR THE CONDENSATION OF A KAGOMÉ LATTICE GAS WITH THREE-PARTICLE INTERACTIONS. International Journal of Modern Physics B, 1993, 07, 2831-2857.	2.0	8
94	Nuclear spin-spin relaxation of isotopic impurities in solid hydrogen. Physical Review B, 1992, 45, 2800-2808.	3.2	31
95	Nuclear spin-lattice relaxation of HD impurities in solid hydrogen. Physical Review B, 1992, 46, 2814-2820.	3.2	5
96	Ultralow power low noise ultrahigh frequency magnetic resonance spectrometer. Review of Scientific Instruments, 1992, 63, 157-162.	1.3	6
97	Boron nitride as a substrate for H ₂ monolayer studies. Journal of Low Temperature Physics, 1992, 89, 653-656.	1.4	12
98	Anomalous ortho-para conversion of solid hydrogen in constrained geometries. Physical Review B, 1991, 44, 9932-9935.	3.2	11
99	Precise and efficient in situ ortho → para-hydrogen converter. Cryogenics, 1990, 30, 734-735.	1.7	36
100	NMR studies of vacancy motion in solid hydrogen. Physical Review B, 1990, 42, 1929-1939.	3.2	19
101	Field-resolved NQR spectroscopy for ultra-low temperature thermometry. AIP Conference Proceedings, 1989, , .	0.4	0
102	Quantum diffusion of vacancies and impurities in solid hydrogen. Physical Review Letters, 1989, 62, 1528-1531.	7.8	36
103	Low-Energy Excitations in the Orientational Glass State of Solid Hydrogen. Physica Status Solidi (B): Basic Research, 1989, 155, K109.	1.5	0
104	Cryogenic UHF FET oscillator for magnetic resonance detection. Cryogenics, 1988, 28, 32-35.	1.7	3
105	Local ordering in dilute ortho-para-hydrogen mixtures at low temperatures. Journal of Low Temperature Physics, 1988, 72, 1-24.	1.4	14
106	Orientational order → disorder transitions in solid hydrogen. Canadian Journal of Chemistry, 1988, 66, 908-914.	1.1	22
107	Orientational Order Parameters in Solid Hydrogen: A Density Matrix Approach. Molecular Crystals and Liquid Crystals, 1987, 142, 141-156.	0.8	14
108	Analog simulation of interacting diatomic molecules on two-dimensional lattices. American Journal of Physics, 1987, 55, 565-570.	0.7	0

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109	Orientational ordering in solid hydrogen. Canadian Journal of Physics, 1987, 65, 1463-1470.	1.1	33
110	Measurements of the nuclear spin-lattice relaxation times in BCC3He for high magnetic fields, high molar volumes, and low temperatures. Journal of Low Temperature Physics, 1985, 59, 45-81.	1.4	65
111	New behavior for the density dependence of vacancy formation and mobility in bccHe3at high molar volumes. Physical Review B, 1984, 30, 2940-2943.	3.2	57
112	On the orientational ordering in the quadrupolar glass phase of solid ortho-para hydrogen mixtures. AIP Conference Proceedings, 1983, , .	0.4	0
113	Efficient fast-recovery scheme for NMR pulse spectrometers. Revue De Physique Appliquée, 1983, 18, 253-261.	0.4	20
114	NMR pulse studies of molecular solids:15N2and H2. II. Stimulated echoes and slow rotational motions. Journal of Physics C: Solid State Physics, 1982, 15, 4895-4911.	1.5	38
115	Orientational ordering in a dilute system of classical interacting quadrupoles : (N2-Ar) solid mixtures. Journal De Physique (Paris), Lettres, 1982, 43, 793-799.	2.8	47
116	Critical slowing-down in spin glasses: Quadrupolar glass phase of solid H2. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1981, 107, 189-190.	0.9	21
117	Quantum tunneling and motional narrowing of HD NMR line shapes in solid hcpH2. Physical Review B, 1981, 23, 3197-3207.	3.2	79
118	Evidence for quadrupolar glass phases in solid hydrogen at reduced ortho concentrations. Physical Review B, 1978, 17, 5016-5024.	3.2	149
119	Integrated circuit Robinson oscillator for NMR detection. Review of Scientific Instruments, 1977, 48, 664-668.	1.3	14
120	Orientational ordering in solid hydrogen. Journal De Physique, 1976, 37, 981-989.	1.8	21
121	Splitting of NMR spectrum of solid hydrogen. Physics Letters, Section A: General, Atomic and Solid State Physics, 1972, 39, 23-24.	2.1	19
122	Nuclear Resonance Spectrometers Using Field Effect Transistors. Review of Scientific Instruments, 1971, 42, 462-465.	1.3	21