

John L Orrell

List of Publications by Year in descending order

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Version: 2024-02-01

83
papers

10,162
citations

136740

32
h-index

62479

80
g-index

85
all docs

85
docs citations

85
times ranked

6388
citing authors

#	ARTICLE	IF	CITATIONS
1	nEXO: neutrinoless double beta decay search beyond 10^{28} year half-life sensitivity. Journal of Physics G: Nuclear and Particle Physics, 2022, 49, 015104.	1.4	51
2	Antineutrino Detectors Remain Impractical for Nuclear Explosion Monitoring. Pure and Applied Geophysics, 2021, 178, 2753-2763.	0.8	2
3	Decision trees for optimizing the minimum detectable concentration of radioxen detectors. Journal of Environmental Radioactivity, 2021, 229-230, 106542.	0.9	0
4	Constraints on Lightly Ionizing Particles from CDMSlite. Physical Review Letters, 2021, 127, 081802.	2.9	4
5	Sensor-Assisted Fault Mitigation in Quantum Computation. Physical Review Applied, 2021, 16, .	1.5	6
6	Effect of interfacial structures on phonon transport across atomically precise Si/Al heterojunctions. Physical Review Materials, 2021, 5, .	0.9	1
7	Light Dark Matter Search with a High-Resolution Athermal Phonon Detector Operated above Ground. Physical Review Letters, 2021, 127, 061801.	2.9	53
8	Characterization of a low background proportional counter for a high throughput Argon-37 collection and measurement system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 954, 161794.	0.7	4
9	Evaluation and mitigation of trace ^{210}Pb contamination on copper surfaces. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 967, 163870.	0.7	11
10	Constraints on dark photons and axionlike particles from the SuperCDMS Soudan experiment. Physical Review D, 2020, 101, .	1.6	40
11	Measurements of electron transport in liquid and gas Xenon using a laser-driven photocathode. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 972, 163965.	0.7	5
12	Impact of ionizing radiation on superconducting qubit coherence. Nature, 2020, 584, 551-556.	13.7	118
13	Constraints on low-mass, relic dark matter candidates from a surface-operated SuperCDMS single-charge sensitive detector. Physical Review D, 2020, 102, .	1.6	83
14	Reflectivity and PDE of VUV4 Hamamatsu SiPMs in liquid xenon. Journal of Instrumentation, 2020, 15, P01019-P01019.	0.5	9
15	Reflectance of Silicon Photomultipliers at Vacuum Ultraviolet Wavelengths. IEEE Transactions on Nuclear Science, 2020, 67, 2501-2510.	1.2	8
16	Characterization of the Hamamatsu VUV4 MPPCs for nEXO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 940, 371-379.	0.7	28
17	Simulation of charge readout with segmented tiles in nEXO. Journal of Instrumentation, 2019, 14, P09020-P09020.	0.5	8
18	Search for low-mass dark matter with CDMSlite using a profile likelihood fit. Physical Review D, 2019, 99, .	1.6	72

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19	Imaging individual barium atoms in solid xenon for barium tagging in nEXO. Nature, 2019, 569, 203-207.	13.7	26
20	Production rate measurement of Tritium and other cosmogenic isotopes in Germanium with CDMSlite. Astroparticle Physics, 2019, 104, 1-12.	1.9	17
21	Results from the Super Cryogenic Dark Matter Search Experiment at Soudan. Physical Review Letters, 2018, 120, 061802.	2.9	92
22	Low-mass dark matter search with CDMSlite. Physical Review D, 2018, 97, .	1.6	142
23	Search for Neutrinoless Double- β Decay in ^{76}Ge . Physical Review Letters, 2018, 120, 061802.	2.9	162
24	Naturally occurring ^{32}Si and low-background silicon dark matter detectors. Astroparticle Physics, 2018, 99, 9-20.	1.9	7
25	Characterization of an Ionization Readout Tile for nEXO. Journal of Instrumentation, 2018, 13, P01006-P01006.	0.5	14
26	VUV-Sensitive Silicon Photomultipliers for Xenon Scintillation Light Detection in nEXO. IEEE Transactions on Nuclear Science, 2018, 65, 2823-2833.	1.2	29
27	Study of silicon photomultiplier performance in external electric fields. Journal of Instrumentation, 2018, 13, T09006-T09006.	0.5	5
28	Energy loss due to defect formation from ^{206}Pb recoils in SuperCDMS germanium detectors. Applied Physics Letters, 2018, 113, .	1.5	4
29	First Dark Matter Constraints from a SuperCDMS Single-Charge Sensitive Detector. Physical Review Letters, 2018, 121, 051301.	2.9	183
30	Sensitivity and discovery potential of the proposed nEXO experiment to neutrinoless double- β decay. Physical Review C, 2018, 97, .	1.1	115
31	Recent Bremsstrahlung-based assays of ^{210}Pb in lead and comments on current availability of low-background lead in North America. Applied Radiation and Isotopes, 2017, 126, 185-187.	0.7	4
32	Muon flux measurements at the davis campus of the sanford underground research facility with the majorana demonstrator veto system. Astroparticle Physics, 2017, 93, 70-75.	1.9	21
33	Background characterization of an ultra-low background liquid scintillation counter. Applied Radiation and Isotopes, 2017, 126, 168-170.	0.7	8
34	Observation of coherent elastic neutrino-nucleus scattering. Science, 2017, 357, 1123-1126.	6.0	500
35	The Majorana Demonstrator calibration system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 872, 16-22.	0.7	19
36	Projected sensitivity of the SuperCDMS SNOLAB experiment. Physical Review D, 2017, 95, .	1.6	191

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37	A Low-Noise Germanium Ionization Spectrometer for Low-Background Science. IEEE Transactions on Nuclear Science, 2016, 63, 2782-2792.	1.2	4
38	The Majorana Demonstrator radioassay program. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 828, 22-36.	0.7	86
39	High voltage testing for the Majorana Demonstrator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 823, 83-90.	0.7	7
40	Development of a low-level ^{37}Ar calibration standard. Applied Radiation and Isotopes, 2016, 109, 430-434.	0.7	8
41	Search for Pauli exclusion principle violating atomic transitions and electron decay with a p-type point contact germanium detector. European Physical Journal C, 2016, 76, 1.	1.4	14
42	Assay methods for ^{238}U , ^{232}Th , and ^{210}Pb in lead and calibration of ^{210}Bi bremsstrahlung emission from lead. Journal of Radioanalytical and Nuclear Chemistry, 2016, 309, 1271-1281.	0.7	12
43	Shielding concepts for low-background proportional counter arrays in surface laboratories. Applied Radiation and Isotopes, 2016, 108, 92-99.	0.7	8
44	Liquid scintillation counting of environmental radionuclides: a review of the impact of background reduction. Journal of Radioanalytical and Nuclear Chemistry, 2016, 307, 2495-2504.	0.7	12
45	Status of the Majorana Demonstrator. AIP Conference Proceedings, 2015, , .	0.3	2
46	Low background signal readout electronics for the MAJORANA DEMONSTRATOR. AIP Conference Proceedings, 2015, , .	0.3	1
47	Analysis techniques for background rejection at the MAJORANA DEMONSTRATOR. AIP Conference Proceedings, 2015, , .	0.3	0
48	The Majorana Demonstrator: A Search for Neutrinoless Double-beta Decay of ^{76}Ge . Journal of Physics: Conference Series, 2015, 606, 012004.	0.3	7
49	Low Background Signal Readout Electronics for the Majorana Demonstrator. Journal of Physics: Conference Series, 2015, 606, 012009.	0.3	5
50	The DarkSide Multiton Detector for the Direct Dark Matter Search. Advances in High Energy Physics, 2015, 2015, 1-8.	0.5	21
51	Status of the MAJORANA DEMONSTRATOR: A search for neutrinoless double-beta decay. International Journal of Modern Physics A, 2015, 30, 1530032.	0.5	0
52	The Majorana Parts Tracking Database. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 779, 52-62.	0.7	13
53	Method of fission product beta spectra measurements for predicting reactor anti-neutrino emission. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 776, 75-82.	0.7	1
54	Optical design considerations for efficient light collection from liquid scintillation counters. Applied Optics, 2015, 54, 2413.	0.9	5

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55	Development of a low background liquid scintillation counter for a shallow underground laboratory. Applied Radiation and Isotopes, 2015, 105, 209-218.	0.7	12
56	The MAJORANA DEMONSTRATOR Neutrinoless Double-Beta Decay Experiment. Advances in High Energy Physics, 2014, 2014, 1-18.	0.5	158
57	The Majorana Demonstrator: Progress towards showing the feasibility of a tonne-scale ^{76}Ge neutrinoless double-beta decay experiment. Journal of Physics: Conference Series, 2014, 485, 012042.	0.3	1
58	CoGeNT: A search for low-mass dark matter using p -type point contact germanium detectors. Physical Review D, 2013, 88, .	1.6	299
59	The μ -Witness Detector: A Ruggedized, Portable, Flux Meter for Cosmogenic Activation Monitoring. IEEE Transactions on Nuclear Science, 2013, 60, 689-692.	1.2	6
60	Cryostat for Ultra-Low-Energy Threshold Germanium Spectrometers. IEEE Transactions on Nuclear Science, 2013, 60, 1168-1174.	1.2	2
61	Characteristics of signals originating near the lithium-diffused N^+ contact of high purity germanium p -type point contact detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 701, 176-185.	0.7	46
62	The C-4 dark matter experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 712, 27-33.	0.7	10
63	Dark matter sensitivities of the Majorana Demonstrator. Journal of Physics: Conference Series, 2012, 375, 012014.	0.3	6
64	The MAJORANA experiment: an ultra-low background search for neutrinoless double-beta decay. Journal of Physics: Conference Series, 2012, 381, 012044.	0.3	14
65	Production of ^{37}Ar in The University of Texas TRIGA reactor facility. Journal of Radioanalytical and Nuclear Chemistry, 2012, 291, 257-260.	0.7	12
66	Search for an Annual Modulation in a p -Type Point Contact Germanium Dark Matter Detector. Physical Review Letters, 2011, 107, 141301.	2.9	428
67	Astroparticle physics with a customized low-background broad energy Germanium detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 652, 692-695.	0.7	12
68	Measurement of ^{37}Ar to support technology for On-Site Inspection under the Comprehensive Nuclear-Test-Ban Treaty. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 652, 58-61.	0.7	34
69	Results from a Search for Light-Mass Dark Matter with a p -Type Point Contact Germanium Detector. Physical Review Letters, 2011, 106, 131301.	2.9	657
70	The MAJORANA Project. Journal of Physics: Conference Series, 2010, 203, 012057.	0.3	9
71	Real-time digital signal-processor implementation of self-calibrating pulse-shape discriminator for high-purity germanium. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 586, 276-285.	0.7	2
72	Experimental Constraints on a Dark Matter Origin for the DAMA Annual Modulation Effect. Physical Review Letters, 2008, 101, 251301.	2.9	129

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73	Determination of the $\bar{\nu}_e$ and total B^8 solar neutrino fluxes using the Sudbury Neutrino Observatory Phase I data set. <i>Physical Review C</i> , 2007, 75, .	1.1	112
74	Operation of a high-purity germanium crystal in liquid argon as a Compton-suppressed radiation spectrometer. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 579, 91-93.	0.7	4
75	The proposed Majorana ^{76}Ge double-beta decay experiment. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2005, 138, 217-220.	0.5	48
76	Search for periodicities in the B^8 solar neutrino flux measured by the Sudbury Neutrino Observatory. <i>Physical Review D</i> , 2005, 72, .	1.6	54
77	Electron energy spectra, fluxes, and day-night asymmetries of B^8 solar neutrinos from measurements with NaCl dissolved in the heavy-water detector at the Sudbury Neutrino Observatory. <i>Physical Review C</i> , 2005, 72, .	1.1	459
78	Constraints on Nucleon Decay via Invisible Modes from the Sudbury Neutrino Observatory. <i>Physical Review Letters</i> , 2004, 92, 102004.	2.9	40
79	Electron antineutrino search at the Sudbury Neutrino Observatory. <i>Physical Review D</i> , 2004, 70, .	1.6	33
80	Measurement of the Total Active B^8 Solar Neutrino Flux at the Sudbury Neutrino Observatory with Enhanced Neutral Current Sensitivity. <i>Physical Review Letters</i> , 2004, 92, 181301.	2.9	654
81	Measurement of Day and Night Neutrino Energy Spectra at SNO and Constraints on Neutrino Mixing Parameters. <i>Physical Review Letters</i> , 2002, 89, 011302.	2.9	812
82	Direct Evidence for Neutrino Flavor Transformation from Neutral-Current Interactions in the Sudbury Neutrino Observatory. <i>Physical Review Letters</i> , 2002, 89, 011301.	2.9	2,236
83	Measurement of the Rate of $\bar{\nu}_e + d \rightarrow p + p + e^-$ Interactions Produced by B^8 Solar Neutrinos at the Sudbury Neutrino Observatory. <i>Physical Review Letters</i> , 2001, 87, 071301.	2.9	1,593