

Wesley C Campbell

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

3,110
citations

218381

26
h-index

168136

53
g-index

54
all docs

54
docs citations

54
times ranked

2673
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Order of Magnitude Smaller Limit on the Electric Dipole Moment of the Electron. <i>Science</i> , 2014, 343, 269-272. | 6.0 | 820 |
| 2 | Emergence and Frustration of Magnetism with Variable-Range Interactions in a Quantum Simulator. <i>Science</i> , 2013, 340, 583-587. | 6.0 | 366 |
| 3 | Optical Billiards for Atoms. <i>Physical Review Letters</i> , 2001, 86, 1514-1517. | 2.9 | 180 |
| 4 | Entanglement of Atomic Qubits Using an Optical Frequency Comb. <i>Physical Review Letters</i> , 2010, 104, 140501. | 2.9 | 123 |
| 5 | Ultrafast Gates for Single Atomic Qubits. <i>Physical Review Letters</i> , 2010, 105, 090502. | 2.9 | 120 |
| 6 | Magnetic Trapping and Zeeman Relaxation of $\text{NH}(\text{X}\hat{\Sigma}^{\circ}\hat{\Lambda}^{\circ}3)$. <i>Physical Review Letters</i> , 2007, 98, 213001. | 2.9 | 113 |
| 7 | Quantum simulation of spin models on an arbitrary lattice with trapped ions. <i>New Journal of Physics</i> , 2012, 14, 095024. | 1.2 | 106 |
| 8 | Search for the electric dipole moment of the electron with thorium monoxide. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2010, 43, 074007. | 0.6 | 104 |
| 9 | Cold N Collisions in a Magnetic Trap. <i>Physical Review Letters</i> , 2011, 106, 053201. | 2.9 | 82 |
| 10 | Coherent imaging spectroscopy of a quantum many-body spin system. <i>Science</i> , 2014, 345, 430-433. | 6.0 | 72 |
| 11 | Ultrafast Spin-Motion Entanglement and Interferometry with a Single Atom. <i>Physical Review Letters</i> , 2013, 110, 203001. | 2.9 | 69 |
| 12 | Buffer-gas cooling of NH via the beam loaded buffer-gas method. <i>European Physical Journal D</i> , 2004, 31, 307-311. | 0.6 | 63 |
| 13 | Dipolar quantum logic for freely rotating trapped molecular ions. <i>Physical Review A</i> , 2018, 98, . | 1.0 | 53 |
| 14 | High-fidelity manipulation of a qubit enabled by a manufactured nucleus. <i>Npj Quantum Information</i> , 2020, 6, . | 2.8 | 49 |
| 15 | Time-Domain Measurement of Spontaneous Vibrational Decay of Magnetically Trapped NH . <i>Physical Review Letters</i> , 2008, 100, 083003. | 2.9 | 48 |
| 16 | Methods, analysis, and the treatment of systematic errors for the electron electric dipole moment search in thorium monoxide. <i>New Journal of Physics</i> , 2017, 19, 073029. | 1.2 | 47 |
| 17 | Quantum control of qubits and atomic motion using ultrafast laser pulses. <i>Applied Physics B: Lasers and Optics</i> , 2014, 114, 45-61. | 1.1 | 46 |
| 18 | Mechanism of Collisional Spin Relaxation in NH_3 Molecules. <i>Physical Review Letters</i> , 2009, 102, 013003. | 2.9 | 44 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Rotation sensing with trapped ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 064002. Magnetic trapping of atomic nitrogen | 0.6 | 40 |
| 20 | cotrapping of NH | | |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Isomer-specific kinetics of the $C^{+} + H_2O$ reaction at the temperature of interstellar clouds. <i>Science Advances</i> , 2021, 7, . | 4.7 | 16 |
| 38 | Suppressed Spontaneous Emission for Coherent Momentum Transfer. <i>Physical Review Letters</i> , 2019, 123, 033603. | 2.9 | 15 |
| 39 | Isotope-selective chemistry in the $Be^{+}(^2S_{1/2}) + HOD \hat{=} BeOD^{+}/BeOH^{+} + H/D$ reaction. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 14005-14011. | 1.3 | 14 |
| 40 | Diabatic-ramping spectroscopy of many-body excited states. <i>Physical Review A</i> , 2014, 90, . | 1.0 | 9 |
| 41 | Advanced cold molecule electron EDM. <i>EPJ Web of Conferences</i> , 2013, 57, 02004. | 0.1 | 7 |
| 42 | Application of a self-injection locked cyan laser for Barium ion cooling and spectroscopy. <i>Scientific Reports</i> , 2020, 10, 16494. | 1.6 | 7 |
| 43 | Search for the electric dipole moment of the electron with thorium monoxide. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011, 44, 079803. | 0.6 | 6 |
| 44 | Certified quantum gates. <i>Physical Review A</i> , 2020, 102, . | 1.0 | 6 |
| 45 | Tunable transverse spin-motion coupling for quantum information processing. <i>Quantum Science and Technology</i> , 2021, 6, 024003. | 2.6 | 6 |
| 46 | Dipole-phonon quantum logic with alkaline-earth monoxide and monosulfide cations. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24964-24973. | 1.3 | 6 |
| 47 | Coherent control for qubit state readout. <i>New Journal of Physics</i> , 2020, 22, 073038. | 1.2 | 6 |
| 48 | Weak dissipation for high-fidelity qubit-state preparation and measurement. <i>Physical Review A</i> , 2021, 104, . | 1.0 | 6 |
| 49 | Surface chemical trapping of optical cycling centers. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 211-218. | 1.3 | 5 |
| 50 | Hyperfine structure of ^{173}Yb $\langle \text{mml:math} \rangle$ $\langle \text{mml:mi} \rangle Yb \langle \text{mml:mi} \rangle$ $\langle \text{mml:none} \rangle$ $\langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle$ $\langle \text{mml:mml} \rangle 173 \langle \text{mml:mml} \rangle \langle \text{mml:mml} \rangle \langle \text{mml:math} \rangle$: Toward resolving the ^{173}Yb $\langle \text{mml:mi} \rangle Yb \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle$ $\langle \text{mml:none} \rangle \langle \text{mml:mml} \rangle 173 \langle \text{mml:mml} \rangle \langle \text{mml:math} \rangle$ nuclear-octupole-moment | 1.0 | 4 |
| 51 | pu Laserless quantum gates for electric dipoles in thermal motion. <i>Physical Review A</i> , 2021, 104, . | 1.0 | 4 |
| 52 | High-resolution laser-induced fluorescence spectroscopy of $^{28}Si^{16}O^{+}$ and $^{29}Si^{16}O^{+}$ in a cryogenic buffer-gas cell. <i>Journal of Molecular Spectroscopy</i> , 2022, 384, 111582. | 0.4 | 2 |
| 53 | Displacement operators: the classical face of their quantum phase. <i>European Journal of Physics</i> , 2018, 39, 025405. | 0.3 | 1 |
| 54 | Cooling, Trap Loading, and Beam Production Using a Cryogenic Helium Buffer Gas. , 2009, , . | | 0 |