Daniel S Barker

List of Publications by Year
in descending order

25	431	840776 11	713466 21
papers	citations	h-index	g-index

25	25	25	314
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Perspectives for a new realization of the pascal by optical methods. Metrologia, 2017, 54, S146-S161.	1.2	79
2	Development of a new UHV/XHV pressure standard (cold atom vacuum standard). Metrologia, 2017, 54, S125-S132.	1.2	43
3	Challenges to miniaturizing cold atom technology for deployable vacuum metrology. Metrologia, 2018, 55, S182-S193.	1.2	37
4	Magneto-optical trapping using planar optics. New Journal of Physics, 2021, 23, 013021.	2.9	37
5	Single-Beam Zeeman Slower and Magneto-Optical Trap Using a Nanofabricated Grating. Physical Review Applied, 2019, 11, .	3.8	35
6	Nuclear-spin dependent parity violation in optically trapped polyatomic molecules. Communications Physics, 2019, 2, .	5.3	26
7	Review Article: Quantum-based vacuum metrology at the National Institute of Standards and Technology. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	25
8	Confinement of an alkaline-earth element in a grating magneto-optical trap. Review of Scientific Instruments, 2020, 91, 103202.	1.3	24
9	Elastic rate coefficients for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">Li</mml:mi><mml:mo>+</mml:mo><mml:msub><mml:mi mathvariant="normal">H</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> collisions in the calibration of a cold-atom vacuum standard. Physical Review A, 2019, 99, .	2.5	19
10	Note: A 3D-printed alkali metal dispenser. Review of Scientific Instruments, 2018, 89, 056101.	1.3	13
11	Collisions of room-temperature helium with ultracold lithium and the van der Waals bound state of HeLi. Physical Review A, 2020, 101, .	2.5	13
12	Light-induced atomic desorption of lithium. Physical Review A, 2018, 98, .	2.5	10
13	Three-photon process for producing a degenerate gas of metastable alkaline-earth-metal atoms. Physical Review A, 2016, 93, .	2.5	9
14	Comparison of two multiplexed portable cold-atom vacuum standards. AVS Quantum Science, 2022, 4, .	4.9	9
15	An ultra-low noise, high-voltage piezo-driver. Review of Scientific Instruments, 2016, 87, 124702.	1.3	8
16	Outgassing rate comparison of seven geometrically similar vacuum chambers of different materials and heat treatments. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2021, 39, .	1.2	8
17	PyLCP: A Python package for computing laser cooling physics. Computer Physics Communications, 2022, 270, 108166.	7.5	8
18	Enhanced magnetic trap loading for atomic strontium. Physical Review A, 2015, 92, .	2.5	6

#	Article	IF	Citations
19	Î›-enhanced gray molasses in a tetrahedral laser beam geometry. Optics Express, 2022, 30, 9959.	3.4	6
20	A Bitter-type electromagnet for complex atomic trapping and manipulation. Review of Scientific Instruments, 2021, 92, 033201.	1.3	5
21	Progress towards comparison of quantum and classical vacuum standards. Measurement: Sensors, 2021, 18, 100229.	1.7	4
22	Laser spectroscopy of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>y</mml:mi><mml:mspace width="4pt" /><mml:mmultiscripts><mml:mi>P</mml:mi><mml:mi>J</mml:mi><mml:mi>o</mml:mi><mml:mprescripts /><mml:none /><mml:mn>7</mml:mn></mml:mmultiscripts></mml:math> states of Cr i. Physical Review A, 2022, 105, .	2.5	4
23	Elastic rate coefficients for Li+H collisions in the calibration of a cold-atom vacuum standard. Physical Review A, 2019, 99, .	2.5	2
24	The Emerging Field of Quantum Based Measurements for Pressure, Vacuum and Beyond. Journal of Physics: Conference Series, 2018, 1065, 162017.	0.4	1
25	A radiofrequency voltage-controlled current source for quantum spin manipulation. Review of Scientific Instruments, 2020, 91, 104708.	1.3	0