Harald KÃ¼bler

List of Publications by Year
in descending order

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42 papers	2,005 citations	430874 18 h-index	377865 34 g-index
43 all docs	43 docs citations	43 times ranked	973 citing authors

#	Article	IF	Citations
1	Microwave electrometry with Rydberg atoms in a vapour cell using bright atomic resonances. Nature Physics, 2012, 8, 819-824.	16.7	475
2	Atom-Based Vector Microwave Electrometry Using Rubidium Rydberg Atoms in a Vapor Cell. Physical Review Letters, 2013, 111, 063001.	7.8	220
3	Atom based RF electric field sensing. Journal of Physics B: Atomic, Molecular and Optical Physics, 2015, 48, 202001.	1.5	216
4	Coherent excitation of Rydberg atoms in micrometre-sized atomic vapour cells. Nature Photonics, 2010, 4, 112-116.	31.4	157
5	A room-temperature single-photon source based on strongly interacting Rydberg atoms. Science, 2018, 362, 446-449.	12.6	122
6	Atom-Based Sensing of Weak Radio Frequency Electric Fields Using Homodyne Readout. Scientific Reports, 2017, 7, 42981.	3.3	113
7	Rydberg-atom based radio-frequency electrometry using frequency modulation spectroscopy in room temperature vapor cells. Optics Express, 2017, 25, 8625.	3.4	101
8	Subwavelength microwave electric-field imaging using Rydberg atoms inside atomic vapor cells. Optics Letters, 2014, 39, 3030.	3.3	95
9	GHz Rabi Flopping to Rydberg States in Hot Atomic Vapor Cells. Physical Review Letters, 2011, 107, 243001.	7.8	55
10	Four-wave mixing involving Rydberg states in thermal vapor. Physical Review A, 2012, 85, .	2.5	51
11	Atomic vapor spectroscopy in integrated photonic structures. Applied Physics Letters, 2015, 107, .	3.3	48
12	Electrical Readout for Coherent Phenomena Involving Rydberg Atoms in Thermal Vapor Cells. Physical Review Letters, 2013, 110, 123002.	7.8	38
13	Coupling Thermal Atomic Vapor to Slot Waveguides. Physical Review X, 2018, 8, .	8.9	32
14	Charge-induced optical bistability in thermal Rydberg vapor. Physical Review A, 2016, 94, .	2.5	30
15	Coupling thermal atomic vapor to an integrated ring resonator. New Journal of Physics, 2016, 18, 103031.	2.9	29
16	Dispersive radio frequency electrometry using Rydberg atoms in a prism-shaped atomic vapor cell. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 104004.	1.5	28
17	Triple stack glass-to-glass anodic bonding for optogalvanic spectroscopy cells with electrical feedthroughs. Applied Physics Letters, 2014, 105, .	3.3	24
18	Fabrication and characterization of an electrically contacted vapor cell. Optics Letters, 2012, 37, 2271.	3.3	21

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19	RF-dressed Rydberg atoms in hollow-core fibres. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 134005.	1.5	18
20	Interplay between thermal Rydberg gases and plasmas. Physical Review A, 2019, 99, .	2.5	18
21	Coherent interaction of atoms with a beam of light confined in a light cage. Light: Science and Applications, 2021, 10, 114.	16.6	16
22	Fiber-integrated spectroscopy device for hot alkali vapor. Applied Optics, 2017, 56, 5898.	1.8	12
23	Atomic Faraday beam splitter for light generated from pump-degenerate four-wave mixing in a hollow-core photonic crystal fiber. Physical Review A, 2021, 103, .	2.5	12
24	Proof of concept for an optogalvanic gas sensor for NO based on Rydberg excitations. Applied Physics Letters, 2018, 113, .	3.3	11
25	Two-frequency acousto-optic modulator driver to improve the beam pointing stability during intensity ramps. Review of Scientific Instruments, 2007, 78, 043101.	1.3	9
26	A read-out enhancement for microwave electric field sensing with Rydberg atoms. , 2018, , .		9
27	Narrow bandwidth electromagnetically induced transparency in optically trapped atoms. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, 1907-1915.	1.5	7
28	Exploiting the coupling between a Rydberg atom and a surface phonon polariton for single-photon subtraction. Physical Review A, 2013, 88, .	2.5	7
29	Highly customized 1010â€…nm, ns-pulsed Yb-doped fiber amplifier as a key tool for on-demand single-photon generation. Optics Express, 2020, 28, 17362.	3.4	6
30	Integrating two-photon nonlinear spectroscopy of rubidium atoms with silicon photonics. Optics Express, 2020, 28, 19593.	3.4	5
31	Low retaining force optical viewport seal. Review of Scientific Instruments, 2007, 78, 046107.	1.3	4
32	An optogalvanic gas sensor based on Rydberg excitations. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 094001.	1.5	4
33	Transient Density-Induced Dipolar Interactions in a Thin Vapor Cell. Physical Review Letters, 2022, 128, 173401.	7.8	4
34	High vacuum compatible fiber feedthrough for hot alkali vapor cells. Applied Optics, 2017, 56, 1546.	2.1	2
35	Rydberg atom-based radio frequency electrometry: hyperfine effects. , 2022, , .		2
36	A transimpedance amplifier based on an LTPS process operated in alkali vapor for the measurement of an ionization current. , 2018, , .		1

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37	Atom-based sensing of microwave electric fields using highly excited atoms: mechanisms affecting sensitivity. , 2019, , .		1
38	Atom Based Vector Microwave Electrometry Using Rubidium Rydberg Atoms in a Vapor Cell. , 2014, , .		1
39	Coherent Rydberg excitation in microscopic thermal vapor cells. , 2010, , .		0
40	Commissioning of a Highly Customized 1010 nm, ns-Pulsed, Yb-Doped Fiber Amplifier for On-Demand Single-Photon Generation. , 2021, , .		0
41	Quantum Assisted Sensing Using Rydberg Atoms. , 2012, , .		0
42	Towards an Optogalvanic Flux Sensor for Nitric Oxide Based on Rydberg Excitation. , 2021, , .		0