

Kjeld S Eikema

List of Publications by Year in descending order

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67
papers

3,296
citations

126907

33
h-index

149698

56
g-index

67
all docs

67
docs citations

67
times ranked

2172
citing authors

#	ARTICLE	IF	CITATIONS
1	Determination of the ionization and dissociation energies of the hydrogen molecule. Journal of Chemical Physics, 2009, 130, 174306.	3.0	168
2	A source of 2 terawatt, 2.7 cycle laser pulses based on noncollinear optical parametric chirped pulse amplification. Optics Express, 2006, 14, 8168.	3.4	154
3	Extreme Ultraviolet Frequency Comb Metrology. Physical Review Letters, 2010, 105, 063001.	7.8	147
4	Lamb shift measurement in the $1s$ ground state of helium. Physical Review A, 1997, 55, 1866-1884.	2.5	142
5	Deep-Ultraviolet Quantum Interference Metrology with Ultrashort Laser Pulses. Science, 2005, 307, 400-403.	12.6	142
6	Fundamental Vibration of Molecular Hydrogen. Physical Review Letters, 2013, 110, 193601.	7.8	135
7	First positron cooling of antiprotons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 507, 1-6.	4.1	126
8	Bounds on fifth forces from precision measurements on molecules. Physical Review D, 2013, 87, .	4.7	122
9	Ultrafast Optical Parametric Chirped-Pulse Amplification. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 296-307.	2.9	121
10	Generation of few-cycle terawatt light pulses using optical parametric chirped pulse amplification. Optics Express, 2005, 13, 4903.	3.4	109
11	Frequency Metrology in Quantum Degenerate Helium: Direct Measurement of the $2^3S_1 \rightarrow 2^1S_0$ Transition. Science, 2011, 333, 196-198.	12.6	109
12	Proton-electron mass ratio from laser spectroscopy of HD $\nu=1$ at the part-per-trillion level. Science, 2020, 369, 1238-1241.	12.6	100
13	Continuous Coherent Lyman- α Excitation of Atomic Hydrogen. Physical Review Letters, 2001, 86, 5679-5682.	7.8	95
14	Lensless diffractive imaging with ultra-broadband table-top sources: from infrared to extreme-ultraviolet wavelengths. Light: Science and Applications, 2014, 3, e163-e163.	16.6	89
15	High-power parametric amplification of 118-fs laser pulses with carrier-envelope phase control. Optics Letters, 2005, 30, 78.	3.3	77
16	Continuous Wave Coherent Lyman- α Radiation. Physical Review Letters, 1999, 83, 3828-3831.	7.8	76
17	On a possible variation of the proton-to-electron mass ratio: H2 spectra in the line of sight of high-redshift quasars and in the laboratory. Journal of Molecular Spectroscopy, 2007, 241, 155-179.	1.2	68
18	Precision spectroscopy of the $2^3S_1 \rightarrow 2^1S_0$ transition. Journal of Molecular Spectroscopy, 2014, 300, 44-54.	1.2	60

#	ARTICLE	IF	CITATIONS
19	Predissociation rates in carbon monoxide: dependence on rotational state, parity and isotope. Chemical Physics, 1994, 181, 217-245.	1.9	56
20	Precision Measurements in Helium at 58 nm: Ground State Lamb Shift and the $1S-2P$ Transition Isotope Shift. Physical Review Letters, 1996, 76, 1216-1219.	7.8	55
21	Narrow-band tunable extreme-ultraviolet laser source for lifetime measurements and precision spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 2469.	2.1	55
22	Frequency metrology on the $F_2(0,0)$ transition in H_2 , HD, and D_2 . Physical Review A, 2006, 74, .	2.5	51
23	Frequency comb laser spectroscopy in the vacuum-ultraviolet region. Physical Review A, 2006, 73, .	2.5	50
24	Lensless phase contrast microscopy based on multiwavelength Fresnel diffraction. Optics Letters, 2014, 39, 193.	3.3	49
25	Control and precise measurement of carrier-envelope phase dynamics. Applied Physics B: Lasers and Optics, 2004, 78, 5-12.	2.2	44
26	Ramsey-comb spectroscopy with intense ultrashort laser pulses. Nature Physics, 2014, 10, 30-33.	16.7	42
27	High-Precision Spectroscopy with Counterpropagating Femtosecond Pulses. Physical Review Letters, 2013, 111, 023007.	7.8	41
28	First laser excitation of the $He\ 41S-21P$ resonance line at 58 nm. Physical Review Letters, 1993, 71, 1690-1692.	7.8	39
29	Numerical simulations for performance optimization of a few-cycle terawatt NOPCPA system. Applied Physics B: Lasers and Optics, 2007, 87, 677-684.	2.2	36
30	High-energy, high-repetition-rate picosecond pulses from a quasi-CW diode-pumped Nd:YAG system. Optics Letters, 2013, 38, 3021.	3.3	36
31	High-speed multi-wavelength Fresnel diffraction imaging. Optics Express, 2014, 22, 30504.	3.4	36
32	Improved Laboratory Values of the H Lyman and Werner Lines for Constraining Time Variation of the Proton-to-Electron Mass Ratio. Physical Review Letters, 2008, 101, 223001.	7.8	35
33	Phase stability of terawatt-class ultrabroadband parametric amplification. Optics Letters, 2007, 32, 2363.	3.3	33
34	Spatial and spectral coherent control with frequency combs. Nature Photonics, 2013, 7, 38-42.	31.4	33
35	Narrow-band extreme-ultraviolet laser radiation tunable in the range 90.5-95 nm. Applied Physics B, Photophysics and Laser Chemistry, 1993, 57, 411-416.	1.5	32
36	Direct Frequency Comb Spectroscopy of Trapped Ions. Physical Review Letters, 2009, 102, 223901.	7.8	32

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37	XUV frequency-comb metrology on the ground state of helium. <i>Physical Review A</i> , 2011, 84, .	2.5	32
38	Improved potentials and Born-Oppenheimer corrections by new measurements of transitions of $129\text{I}^2\text{S}$ and $127\text{I}^2\text{S}$ in the B3 $\pi_{u} - X1 \sigma_{g}^{+}$ band system. <i>European Physical Journal D</i> , 2008, 47, 171-179.	1.3	29
39	Frequency metrology on the $4s^1S - 4p^1P$ transition in Ca^{+40} for a comparison with quasar data. <i>Physical Review A</i> , 2008, 78, .	2.5	29
40	Passively Mode-Locked 4.6 and 10.5 GHz Quantum Dot Laser Diodes Around 1.55 μm With Large Operating Regime. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2009, 15, 634-643.	2.9	29
41	Three-body QED test and fifth-force constraint from vibrations and rotations of HD^{+} . <i>Physical Review Research</i> , 2021, 3, .	2.0	20
42	Accurate determination of predissociation rates and transition frequencies for carbon monoxide. <i>Astrophysical Journal</i> , 1994, 427, L55.	4.5	27
43	Isotopically resolved calibration of the 285-nm MgI resonance line for comparison with quasar absorptions. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2006, 373, L41-L44.	3.3	25
44	Frequency metrology on the $\text{Mg} 3s^2S - 3s4pP$ line for comparison with quasar data. <i>Physical Review A</i> , 2006, 74, .	2.5	24
45	Ultrafast double-pulse parametric amplification for precision Ramsey metrology. <i>Optics Express</i> , 2008, 16, 7071.	3.4	24
46	Isotope shift in the neon ground state by extreme-ultraviolet laser spectroscopy at 74 nm. <i>Physical Review A</i> , 1994, 49, 803-808.	2.5	23
47	Generation and characterization of focused helical x-ray beams. <i>Science Advances</i> , 2020, 6, eaax8836.	10.3	21
48	The hyperfine structure of $129\text{I}^2\text{S}$ and $127\text{I}^2\text{S}$ in the B band system. <i>Molecular Physics</i> , 2006, 104, 2641-2652.	1.7	20
49	Analysis of hybrid mode-locking of two-section quantum dot lasers operating at 15 μm . <i>Optics Express</i> , 2009, 17, 18063.	3.4	18
50	Effect of soil temperature on optical frequency transfer through unidirectional dense-wavelength-division-multiplexing fiber-optic links. <i>Applied Optics</i> , 2015, 54, 728.	1.8	18
51	UV-frequency metrology on CO^+ . <i>Physical Review A</i> , 2011, 84, .	2.5	16
52	High-precision frequency measurement of the 423-nm Ca^{II} line. <i>Physical Review A</i> , 2011, 83, .	2.5	15
53	A 1.8 mJ, picosecond $\text{Nd}:\text{YVO}_4$ amplifier pump front-end system for high-accuracy XUV-frequency comb spectroscopy. <i>Laser Physics Letters</i> , 2012, 9, 781-785.	1.4	15
54	Improved ionization and dissociation energies of the deuterium molecule. <i>Physical Review A</i> , 2022, 105, .	2.5	15

#	ARTICLE	IF	CITATIONS
55	Multi-delay, phase coherent pulse pair generation for precision Ramsey-frequency comb spectroscopy. Optics Express, 2013, 21, 5275.	3.4	13
56	Fourier transform holography with extended references using a coherent ultra-broadband light source. Optics Express, 2014, 22, 25397.	3.4	12
57	Ramsey-comb spectroscopy: Theory and signal analysis. Physical Review A, 2014, 89, .	2.5	12
58	Direct frequency-comb spectroscopy of a dipole-forbidden clock transition in trapped Ca ⁴⁰ ions. Optics Letters, 2011, 36, 49.	3.3	11
59	XUV-laser excitation of molecular fluorine. Chemical Physics Letters, 1993, 210, 307-314.	2.6	9
60	Frequency comb generation by CW laser injection into a quantum-dot mode-locked laser. Optics Express, 2012, 20, 21357.	3.4	9
61	On the Determination of a Heterogeneous vs a Homogeneous Perturbation in the Spectrum of a Diatomic Molecule: The K1 Σ^+ , v = 0 state of ¹³ C ¹⁸ O. Journal of Molecular Spectroscopy, 1994, 163, 19-26.	1.2	8
62	Precision metrology on the hydrogen atom in search for new physics. Annalen Der Physik, 2013, 525, A113.	2.4	7
63	Novel techniques in VUV high-resolution spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2014, 196, 159-164.	1.7	6
64	Liberated from material dispersion. Nature Photonics, 2011, 5, 258-260.	31.4	3
65	Towards laser spectroscopy of antihydrogen. , 2000, 127, 167-174.		2
66	Combined trap for laser stimulated recombination. , 2000, 127, 181-184.		1
67	Ramsey-comb precision spectroscopy in xenon at vacuum ultraviolet wavelengths produced with high-order harmonic generation. Physical Review A, 2020, 101, .	2.5	1