

Erik Kerstel

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62
papers

1,585
citations

24
h-index

37
g-index

73
ext. papers

1,758
ext. citations

3.2
avg, IF

4.15
L-index

#	Paper	IF	Citations
62	Advances in laser-based isotope ratio measurements: selected applications. <i>Applied Physics B: Lasers and Optics</i> , 2008 , 92, 439-449	1.9	106
61	Simultaneous determination of the (2)h/(1)h, (17)o/(16)o, and (18)o/(16)o isotope abundance ratios in water by means of laser spectrometry. <i>Analytical Chemistry</i> , 1999 , 71, 5297-303	7.8	104
60	A water isotope (2H, 17O, and 18O) spectrometer based on optical feedback cavity-enhanced absorption for in situ airborne applications. <i>Applied Physics B: Lasers and Optics</i> , 2006 , 85, 397-406	1.9	89
59	Eigenstate resolved infrared/infrared double resonance spectroscopy of the 3 μ overtone band of 1-propyne: Intramolecular vibrational energy redistribution into a Coriolis-coupled bath. <i>Journal of Chemical Physics</i> , 1994 , 100, 2612-2622	3.9	73
58	Sub-Doppler, infrared laser spectroscopy of the propyne 2 μ band: Evidence of z-axis Coriolis dominated intramolecular state mixing in the acetylenic CH stretch overtone. <i>Journal of Chemical Physics</i> , 1994 , 100, 2596-2611	3.9	68
57	Isotope analysis of water by means of near infrared dual-wavelength diode laser spectroscopy. <i>Optics Express</i> , 2003 , 11, 1566-76	3.3	62
56	Campargue-type supersonic beam sources: Absolute intensities, skimmer transmission and scaling laws for mono-atomic gases He, Ne and Ar. <i>Chemical Physics</i> , 1985 , 96, 153-173	2.3	61
55	An introduction to the SCOUT-AMMA stratospheric aircraft, balloons and sondes campaign in West Africa, August 2006: rationale and roadmap. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 2237-2256	6.8	51
54	Isotope Ratio Infrared Spectrometry 2004 , 759-787		49
53	Validation of the DLW method in Japanese quail at different water fluxes using laser and IRMS. <i>Journal of Applied Physiology</i> , 2002 , 93, 2147-54	3.7	48
52	High-precision determination of the 13CO ₂ /12CO ₂ isotope ratio using a portable 2.008- μ m diode-laser spectrometer. <i>Applied Physics B: Lasers and Optics</i> , 2003 , 77, 119-124	1.9	46
51	Reinvestigation of the acetylenic C μ stretching fundamental of propyne via high resolution, optothermal infrared spectroscopy: Nonresonant perturbations to μ . <i>Journal of Chemical Physics</i> , 1994 , 100, 2588-2595	3.9	44
50	Determination of the 2H/1H, 17O/16O, and 18O/16O isotope ratios in water by means of tunable diode laser spectroscopy at 1.39 microm. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2002 , 58, 2389-96	4.4	43
49	High-resolution absorption, excitation, and microwave-UV double resonance spectroscopy on a molecular beam: S1 aniline. <i>Chemical Physics</i> , 1995 , 199, 263-273	2.3	41
48	Continuous measurements of isotopic composition of water vapour on the East Antarctic Plateau. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 8521-8538	6.8	37
47	Water isotope ratio (2 H and 18 O) measurements in atmospheric moisture using an optical feedback cavity enhanced absorption laser spectrometer. <i>Journal of Geophysical Research</i> , 2010 , 115,		34
46	Very high finesse optical-feedback cavity-enhanced absorption spectrometer for low concentration water vapor isotope analyses. <i>Optics Letters</i> , 2014 , 39, 1795-8	3	27

45	Kalman filtering real-time measurements of H ₂ O isotopologue ratios by laser absorption spectroscopy at 2.73 microm. <i>Optics Letters</i> , 2010 , 35, 634-6	3	27
44	Molecular Beam Spectroscopy of S ₁ Aniline: Assignments for the 000, 6a ₁₀ , I ₂₀ , and 110 Rovibronic Bands. <i>Journal of Molecular Spectroscopy</i> , 1996 , 177, 74-78	1.3	27
43	The π vibrational predissociation lifetime of (HCN) ₂ determined from upperstate microwave-infrared double-resonance measurements. <i>Journal of Chemical Physics</i> , 1993 , 99, 8559-8570	3.9	27
42	Sub-Doppler rotationally resolved overtone spectroscopy of the HCN dimer. <i>Journal of Chemical Physics</i> , 1989 , 90, 4623-4625	3.9	27
41	Development and airborne operation of a compact water isotope ratio infrared spectrometer. <i>Isotopes in Environmental and Health Studies</i> , 2009 , 45, 303-20	1.5	26
40	Nanobob: a CubeSat mission concept for quantum communication experiments in an uplink configuration. <i>EPJ Quantum Technology</i> , 2018 , 5,	6.9	26
39	Diode laser absorption spectrometry for ¹³ CO ₂ / ¹² CO ₂ isotope ratio analysis: Investigation on precision and accuracy levels. <i>Applied Physics B: Lasers and Optics</i> , 2005 , 81, 863-869	1.9	24
38	Introduction to Cavity Enhanced Absorption Spectroscopy. <i>Springer Series in Optical Sciences</i> , 2014 , 1-60	0.5	23
37	Stable isotope ratio measurements on highly enriched water samples by means of laser spectrometry. <i>Analytical Chemistry</i> , 2001 , 73, 2445-52	7.8	23
36	A Microdrop Generator for the Calibration of a Water Vapor Isotope Ratio Spectrometer. <i>Journal of Atmospheric and Oceanic Technology</i> , 2009 , 26, 1275-1288	2	22
35	Intermolecular potentials for the metastable Ne*-rare gas and Ne*-molecule systems. <i>Chemical Physics</i> , 1988 , 119, 325-341	2.3	21
34	High resolution optothermal spectroscopy of pyridine in the S ₁ state. <i>Journal of Chemical Physics</i> , 1997 , 107, 10399-10405	3.9	20
33	High resolution infrared molecular beam spectroscopy of cyanoacetylene clusters. <i>Journal of Chemical Physics</i> , 1995 , 103, 8828-8839	3.9	19
32	Experimental determination and theoretical framework of kinetic fractionation at the water vapour/ice interface at low temperature. <i>Geochimica Et Cosmochimica Acta</i> , 2016 , 174, 54-69	5.5	18
31	Measuring stable isotopes of hydrogen and oxygen in ice by means of laser spectrometry: the Belling transition in the Dye-3 (south Greenland) ice core. <i>Annals of Glaciology</i> , 2002 , 35, 125-130	2.5	18
30	Long-range intermolecular potentials for the metastable rare gas-rare gas systems Ar*, Kr*(3P _{0,2})+Ar, Kr, Xe. <i>Chemical Physics</i> , 1988 , 121, 211-235	2.3	18
29	Cavity Enhanced Absorption Spectroscopy with Optical Feedback. <i>Springer Series in Optical Sciences</i> , 2014 , 163-209	0.5	17
28	The SUBGLACIOR drilling probe: concept and design. <i>Annals of Glaciology</i> , 2014 , 55, 233-242	2.5	16

27	Sub-Doppler infrared spectroscopy of HCCCNBF ₃ (v ₁) and HCNBF ₃ (v ₁ and 2v ₁). <i>Journal of Chemical Physics</i> , 1994 , 101, 2762-2771	3.9	16
26	Optical-feedback cavity-enhanced absorption spectroscopy with an interband cascade laser: application to SO ₂ trace analysis. <i>Applied Physics B: Lasers and Optics</i> , 2016 , 122, 1	1.9	16
25	Q3Sat: quantum communications uplink to a 3U CubeSat feasibility & design. <i>EPJ Quantum Technology</i> , 2018 , 5,	6.9	15
24	Invited article: SUBGLACIOR: an optical analyzer embedded in an Antarctic ice probe for exploring the past climate. <i>Review of Scientific Instruments</i> , 2014 , 85, 111301	1.7	14
23	Modelling the isotopic composition of snow using backward trajectories: a particular precipitation event in Dronning Maud Land, Antarctica. <i>Annals of Glaciology</i> , 2004 , 39, 293-299	2.5	13
22	A new high-quality set of singly ((² H) and doubly ((² H and (¹⁸ O) stable isotope labeled reference waters for biomedical and other isotope-labeled research. <i>Rapid Communications in Mass Spectrometry</i> , 2015 , 29, 311-21	2.2	12
21	Structure and predissociation dynamics of (HCCCN) ₂ : A high resolution infrared study. <i>Journal of Chemical Physics</i> , 1993 , 99, 876-884	3.9	12
20	Intramolecular coupling enhanced predissociation in HCCCNHCN. <i>Journal of Chemical Physics</i> , 1993 , 98, 2727-2734	3.9	12
19	The endothermic excitation transfer process Kr*(3P _j) + N ₂ (X) → Kr(1S ₀) + N ₂ (C): a sensitive probe for the 3P ₂ : 3P ₀ population ratio. <i>Chemical Physics</i> , 1987 , 118, 407-415	2.3	12
18	Assessment of the amount of body water in the Red Knot (<i>Calidris canutus</i>): an evaluation of the principle of isotope dilution with ² H, (¹⁷ O), and (¹⁸ O) as measured with laser spectrometry and isotope ratio mass spectrometry. <i>Isotopes in Environmental and Health Studies</i> , 2006 , 42, 1-7	1.5	10
17	Measuring delta ¹³ C of atmospheric air with non-dispersive infrared spectroscopy. <i>Isotopes in Environmental and Health Studies</i> , 2005 , 41, 373-8	1.5	10
16	Simultaneous detection of C ₂ H ₆ , CH ₄ , and ¹³ C-CH ₄ using optical feedback	4	9
15	Optothermal spectroscopy of the dissociating lowest electronic singlet states of s-tetrazine and dimethyl-s-tetrazine in a molecular beam. <i>Journal of Chemical Physics</i> , 1997 , 106, 1318-1325	3.9	9
14	High-Resolution Spectrum of the 3 μ Band of Cyanoacetylene Obtained via Infrared/Infrared Double Resonance. <i>Journal of Molecular Spectroscopy</i> , 1996 , 175, 198-202	1.3	9
13	First real-time measurement of the evolving ² H/ ¹ H ratio during water evaporation from plant leaves. <i>Isotopes in Environmental and Health Studies</i> , 2005 , 41, 207-16	1.5	7
12	The rotationally resolved 1.5 μ m spectrum of the HCNHF hydrogen-bonded complex. <i>Journal of Chemical Physics</i> , 1992 , 97, 8896-8905	3.9	7
11	A high resolution infrared study of HCCCNHCN and HCCCNHF. <i>Journal of Chemical Physics</i> , 1993 , 99, 760-761	3.9	6
10	The Rotationally Resolved 3- μ m Spectrum and the Structure of the ICCH Dimer. <i>Journal of Molecular Spectroscopy</i> , 1993 , 162, 342-352	1.3	3

9	A dedicated robust instrument for water vapor generation at low humidity for use with a laser water isotope analyzer in cold and dry polar regions. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 2907-2918	4	3
8	Optothermal detection of non-radiative excited states of aromatic molecules in a molecular beam. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1997 , 105, 109-113	4-7	1
7	Nanobob: a cubesat mission concept for quantum communication experiments in an uplink configuration 2019 ,		1
6	Real Time Determination of Water Isotope ratios by Laser Absorption Spectroscopy at 2.73 μm using Kalman Filter 2010 ,		1
5	Continuous measurements of isotopic composition of water vapour on the East Antarctic Plateau 2016 ,		1
4	AMICal Sat and ATISE: two space missions for auroral monitoring. <i>Journal of Space Weather and Space Climate</i> , 2018 , 8, A44	2.5	1
3	Obituary for Dr Peter Werle. <i>Isotopes in Environmental and Health Studies</i> , 2013 , 49, 575-8	1.5	0
2	Introduction to the Issue on Photonics for Environmental Sensing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012 , 18, 1527-1528	3.8	
1	Modeling the dynamic behavior of a droplet evaporation device for the delivery of isotopically calibrated low-humidity water vapor. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 4657-4667	4	