

# Erik Kerstel

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	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> , <b>2021</b> , 14, 2907-2918	4	3
61	Modeling the dynamic behavior of a droplet evaporation device for the delivery of isotopically calibrated low-humidity water vapor. <i>Atmospheric Measurement Techniques</i> , <b>2021</b> , 14, 4657-4667	4	
60	Simultaneous detection of $\text{C}_2\text{H}_6$ , $\text{CH}_4$ , and $\text{C}_2\text{H}_2$ using optical feedback cavity-enhanced absorption spectroscopy in the mid-infrared region towards application for	4	9
59	Nanobob: a cubesat mission concept for quantum communication experiments in an uplink configuration <b>2019</b> ,		1
58	Q3Sat: quantum communications uplink to a 3U CubeSat feasibility & design. <i>EPJ Quantum Technology</i> , <b>2018</b> , 5,	6.9	15
57	AMICal Sat and ATISE: two space missions for auroral monitoring. <i>Journal of Space Weather and Space Climate</i> , <b>2018</b> , 8, A44	2.5	1
56	Nanobob: a CubeSat mission concept for quantum communication experiments in an uplink configuration. <i>EPJ Quantum Technology</i> , <b>2018</b> , 5,	6.9	26
55	Continuous measurements of isotopic composition of water vapour on the East Antarctic Plateau. <i>Atmospheric Chemistry and Physics</i> , <b>2016</b> , 16, 8521-8538	6.8	37
54	Experimental determination and theoretical framework of kinetic fractionation at the water vapour/ice interface at low temperature. <i>Geochimica Et Cosmochimica Acta</i> , <b>2016</b> , 174, 54-69	5.5	18
53	Continuous measurements of isotopic composition of water vapour on the East Antarctic Plateau <b>2016</b> ,		1
52	Optical-feedback cavity-enhanced absorption spectroscopy with an interband cascade laser: application to SO <sub>2</sub> trace analysis. <i>Applied Physics B: Lasers and Optics</i> , <b>2016</b> , 122, 1	1.9	16
51	A new high-quality set of singly ( <sup>2</sup> H) and doubly ( <sup>2</sup> H and <sup>18</sup> O) stable isotope labeled reference waters for biomedical and other isotope-labeled research. <i>Rapid Communications in Mass Spectrometry</i> , <b>2015</b> , 29, 311-21	2.2	12
50	The SUBGLACIOR drilling probe: concept and design. <i>Annals of Glaciology</i> , <b>2014</b> , 55, 233-242	2.5	16
49	Invited article: SUBGLACIOR: an optical analyzer embedded in an Antarctic ice probe for exploring the past climate. <i>Review of Scientific Instruments</i> , <b>2014</b> , 85, 111301	1.7	14
48	Very high finesse optical-feedback cavity-enhanced absorption spectrometer for low concentration water vapor isotope analyses. <i>Optics Letters</i> , <b>2014</b> , 39, 1795-8	3	27
47	Introduction to Cavity Enhanced Absorption Spectroscopy. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 1-60	0.5	23
46	Cavity Enhanced Absorption Spectroscopy with Optical Feedback. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 163-209	0.5	17

45	Obituary for Dr Peter Werle. <i>Isotopes in Environmental and Health Studies</i> , <b>2013</b> , 49, 575-8	1.5	0
44	Introduction to the Issue on Photonics for Environmental Sensing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2012</b> , 18, 1527-1528	3.8	
43	Kalman filtering real-time measurements of H <sub>2</sub> O isotopologue ratios by laser absorption spectroscopy at 2.73 microm. <i>Optics Letters</i> , <b>2010</b> , 35, 634-6	3	27
42	Water isotope ratio ( <sup>2</sup> H and <sup>18</sup> O) measurements in atmospheric moisture using an optical feedback cavity enhanced absorption laser spectrometer. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		34
41	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> , <b>2010</b> , 10, 2237-2256	6.8	51
40	Real Time Determination of Water Isotope ratios by Laser Absorption Spectroscopy at 2.73 μm using Kalman Filter <b>2010</b> ,		1
39	A Microdrop Generator for the Calibration of a Water Vapor Isotope Ratio Spectrometer. <i>Journal of Atmospheric and Oceanic Technology</i> , <b>2009</b> , 26, 1275-1288	2	22
38	Development and airborne operation of a compact water isotope ratio infrared spectrometer. <i>Isotopes in Environmental and Health Studies</i> , <b>2009</b> , 45, 303-20	1.5	26
37	Advances in laser-based isotope ratio measurements: selected applications. <i>Applied Physics B: Lasers and Optics</i> , <b>2008</b> , 92, 439-449	1.9	106
36	Assessment of the amount of body water in the Red Knot ( <i>Calidris canutus</i> ): an evaluation of the principle of isotope dilution with <sup>2</sup> H, ( <sup>17</sup> O), and ( <sup>18</sup> O) as measured with laser spectrometry and isotope ratio mass spectrometry. <i>Isotopes in Environmental and Health Studies</i> , <b>2006</b> , 42, 1-7	1.5	10
35	A water isotope ( <sup>2</sup> H, <sup>17</sup> O, and <sup>18</sup> O) spectrometer based on optical feedback cavity-enhanced absorption for in situ airborne applications. <i>Applied Physics B: Lasers and Optics</i> , <b>2006</b> , 85, 397-406	1.9	89
34	Diode laser absorption spectrometry for <sup>13</sup> CO <sub>2</sub> / <sup>12</sup> CO <sub>2</sub> isotope ratio analysis: Investigation on precision and accuracy levels. <i>Applied Physics B: Lasers and Optics</i> , <b>2005</b> , 81, 863-869	1.9	24
33	First real-time measurement of the evolving <sup>2</sup> H/ <sup>1</sup> H ratio during water evaporation from plant leaves. <i>Isotopes in Environmental and Health Studies</i> , <b>2005</b> , 41, 207-16	1.5	7
32	Measuring delta <sup>13</sup> C of atmospheric air with non-dispersive infrared spectroscopy. <i>Isotopes in Environmental and Health Studies</i> , <b>2005</b> , 41, 373-8	1.5	10
31	Isotope Ratio Infrared Spectrometry <b>2004</b> , 759-787		49
30	Modelling the isotopic composition of snow using backward trajectories: a particular precipitation event in Dronning Maud Land, Antarctica. <i>Annals of Glaciology</i> , <b>2004</b> , 39, 293-299	2.5	13
29	High-precision determination of the <sup>13</sup> CO <sub>2</sub> / <sup>12</sup> CO <sub>2</sub> isotope ratio using a portable 2.008-μm diode-laser spectrometer. <i>Applied Physics B: Lasers and Optics</i> , <b>2003</b> , 77, 119-124	1.9	46
28	Isotope analysis of water by means of near infrared dual-wavelength diode laser spectroscopy. <i>Optics Express</i> , <b>2003</b> , 11, 1566-76	3.3	62

27	Validation of the DLW method in Japanese quail at different water fluxes using laser and IRMS. <i>Journal of Applied Physiology</i> , <b>2002</b> , 93, 2147-54	3.7	48
26	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> , <b>2002</b> , 58, 2389-96	4.4	43
25	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> , <b>2002</b> , 35, 125-130	2.5	18
24	Stable isotope ratio measurements on highly enriched water samples by means of laser spectrometry. <i>Analytical Chemistry</i> , <b>2001</b> , 73, 2445-52	7.8	23
23	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> , <b>1999</b> , 71, 5297-303	7.8	104
22	High resolution optothermal spectroscopy of pyridine in the S1 state. <i>Journal of Chemical Physics</i> , <b>1997</b> , 107, 10399-10405	3.9	20
21	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> , <b>1997</b> , 106, 1318-1325	3.9	9
20	Optothermal detection of non-radiative excited states of aromatic molecules in a molecular beam. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>1997</b> , 105, 109-113	4.7	1
19	High-Resolution Spectrum of the 3 $\bar{1}$ Band of Cyanoacetylene Obtained via Infrared/Infrared Double Resonance. <i>Journal of Molecular Spectroscopy</i> , <b>1996</b> , 175, 198-202	1.3	9
18	Molecular Beam Spectroscopy of S1 Aniline: Assignments for the 000, 6a10, I20, and 110 Rovibronic Bands. <i>Journal of Molecular Spectroscopy</i> , <b>1996</b> , 177, 74-78	1.3	27
17	High resolution infrared molecular beam spectroscopy of cyanoacetylene clusters. <i>Journal of Chemical Physics</i> , <b>1995</b> , 103, 8828-8839	3.9	19
16	High-resolution absorption, excitation, and microwave-UV double resonance spectroscopy on a molecular beam: S1 aniline. <i>Chemical Physics</i> , <b>1995</b> , 199, 263-273	2.3	41
15	Eigenstate resolved infrared/infrared double resonance spectroscopy of the 3 $\bar{1}$ overtone band of 1-propyne: Intramolecular vibrational energy redistribution into a Coriolis-coupled bath. <i>Journal of Chemical Physics</i> , <b>1994</b> , 100, 2612-2622	3.9	73
14	Reinvestigation of the acetylenic C $\bar{1}$ stretching fundamental of propyne via high resolution, optothermal infrared spectroscopy: Nonresonant perturbations to $\bar{1}$ . <i>Journal of Chemical Physics</i> , <b>1994</b> , 100, 2588-2595	3.9	44
13	Sub-Doppler, infrared laser spectroscopy of the propyne 2 $\bar{1}$ band: Evidence of z-axis Coriolis dominated intramolecular state mixing in the acetylenic CH stretch overtone. <i>Journal of Chemical Physics</i> , <b>1994</b> , 100, 2596-2611	3.9	68
12	Sub-Doppler infrared spectroscopy of HCCCNBF3 (v1) and HCNBF3 (v1 and 2v1). <i>Journal of Chemical Physics</i> , <b>1994</b> , 101, 2762-2771	3.9	16
11	Structure and predissociation dynamics of (HCCCN)2: A high resolution infrared study. <i>Journal of Chemical Physics</i> , <b>1993</b> , 99, 876-884	3.9	12
10	The $\bar{1}$ vibrational predissociation lifetime of (HCN)2 determined from upperstate microwave-infrared double-resonance measurements. <i>Journal of Chemical Physics</i> , <b>1993</b> , 99, 8559-8570	3.9	27

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|---|--|-----|----|
| 9 | A high resolution infrared study of HCCN $\cdot$ HCN and HCCN $\cdot$ HF. <i>Journal of Chemical Physics</i> , <b>1993</b> , 99, 760-761   | 3.9 | 6  |
| 8 | Intramolecular coupling enhanced predissociation in HCCN $\cdot$ HCN. <i>Journal of Chemical Physics</i> , <b>1993</b> , 98, 2727-2734   | 3.9 | 12 |
| 7 | The Rotationally Resolved 3- $\mu$ m Spectrum and the Structure of the ICCH Dimer. <i>Journal of Molecular Spectroscopy</i> , <b>1993</b> , 162, 342-352   | 1.3 | 3  |
| 6 | The rotationally resolved 1.5 $\mu$ m spectrum of the HCN $\cdot$ HF hydrogen-bonded complex. <i>Journal of Chemical Physics</i> , <b>1992</b> , 97, 8896-8905   | 3.9 | 7  |
| 5 | Sub-Doppler rotationally resolved overtone spectroscopy of the HCN dimer. <i>Journal of Chemical Physics</i> , <b>1989</b> , 90, 4623-4625   | 3.9 | 27 |
| 4 | Intermolecular potentials for the metastable Ne*-rare gas and Ne*-molecule systems. <i>Chemical Physics</i> , <b>1988</b> , 119, 325-341   | 2.3 | 21 |
| 3 | Long-range intermolecular potentials for the metastable rare gas-rare gas systems Ar*, Kr*(3P <sub>0,2</sub> )+Ar, Kr, Xe. <i>Chemical Physics</i> , <b>1988</b> , 121, 211-235  | 2.3 | 18 |
| 2 | The endothermic excitation transfer process Kr*(3P <sub>j</sub> ) + N <sub>2</sub> (X) $\rightarrow$ Kr(1S <sub>0</sub> ) + N <sub>2</sub> (C): a sensitive probe for the 3P <sub>2</sub> : 3P <sub>0</sub> population ratio. <i>Chemical Physics</i> , <b>1987</b> , 118, 407-415 | 2.3 | 12 |
| 1 | Campargue-type supersonic beam sources: Absolute intensities, skimmer transmission and scaling laws for mono-atomic gases He, Ne and Ar. <i>Chemical Physics</i> , <b>1985</b> , 96, 153-173   | 2.3 | 61 |