Virginie Zeninari

List of Publications by Year
in descending order

52 papers	1,073 citations	304743 22 h-index	454955 30 g-index
52 all docs	52 docs citations	52 times ranked	827 citing authors

#	Article	IF	Citations
1	Near infrared diode laser spectroscopy of C2H2, H2O, CO2 andÂtheir isotopologues and the application to TDLAS, a tunable diode laser spectrometer for the martian PHOBOS-GRUNT space mission. Applied Physics B: Lasers and Optics, 2010, 99, 339-351.	2.2	78
2	A complete study of the line intensities of four bands of CO2 around 1.6 and 2.0Î¼m: A comparison between Fourier transform and diode laser measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 325-338.	2.3	61
3	Diode laser spectroscopy of CO2 in the region for the in situ sensing of the middle atmosphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 619-628.	2.3	48
4	Pressure broadening and shift coefficients of H2O due to perturbation by N2, O2, H2and He in the 1.39â€‰Î¼m region: experiment and calculations. Molecular Physics, 2004, 102, 1697-1706.	1.7	42
5	Development of a compact CO2 sensor open to the atmosphere and based on near-infrared laser technology at 2.68ÂÎ¼m. Applied Physics B: Lasers and Optics, 2007, 86, 743-748.	2.2	39
6	Diode laser spectroscopy of H2O in the 7165â€“ range for atmospheric applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 493-505.	2.3	36
7	Miniaturized differential Helmholtz resonators for photoacoustic trace gas detection. Sensors and Actuators B: Chemical, 2016, 236, 1104-1110.	7.8	35
8	Pressure-broadening coefficients and line strengths of H2O near 1.39Î¼m: application to the in situ sensing of the middle atmosphere with balloonborne diode lasers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 94, 387-403.	2.3	33
9	Laboratory spectroscopic calibration of infrared tunable laser spectrometers for the in situ sensing of the Earth and Martian atmospheres. Applied Physics B: Lasers and Optics, 2006, 85, 265-272.	2.2	32
10	New improvements in methane detection using a Helmholtz resonant photoacoustic laser sensor: A comparison between near-IR diode lasers and mid-IR quantum cascade lasers. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2006, 63, 1021-1028.	3.9	31
11	A complete study of CO2 line parameters around 4845cmâˆ'1 for Lidar applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 426-434.	2.3	31
12	Title is missing!. Journal of Atmospheric Chemistry, 2002, 43, 175-194.	3.2	30
13	Quantitative simulation of photoacoustic signals using finite element modelling software. Applied Physics B: Lasers and Optics, 2013, 111, 383-389.	2.2	30
14	Diode laser spectroscopy of H2O and CO2 in the 1.877-Î¼m region for the in situ monitoring of the Martian atmosphere. Applied Physics B: Lasers and Optics, 2006, 82, 133-140.	2.2	28
15	Photoacoustic detection of nitric oxide with a Helmholtz resonant quantum cascade laser sensor. Infrared Physics and Technology, 2007, 51, 95-101.	2.9	28
16	Multi-gas sensing with quantum cascade laser array in the mid-infrared region. Applied Physics B: Lasers and Optics, 2017, 123, 1.	2.2	28
17	Laser diode absorption spectroscopy for accurate CO_2 line parameters at 2 Î¼m: consequences for space-based DIAL measurements and potential biases. Applied Optics, 2009, 48, 5475.	2.1	27
18	Laser diode spectroscopy of H2O at 2.63ÂÎ¼m for atmospheric applications. Applied Physics B: Lasers and Optics, 2008, 90, 573-580.	2.2	26

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19	Self-broadening coefficients and positions of acetylene around 1.533Î¼m studied by high-resolution diode laser absorption spectrometry. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 2332-2340.	2.3	25
20	Challenges in the Design and Fabrication of a Lab-on-a-Chip Photoacoustic Gas Sensor. Sensors, 2014, 14, 957-974.	3.8	24
21	Unraveling the evolving nature of gaseous and dissolved carbon dioxide in champagne wines: A state-of-the-art review, from the bottle to the tasting glass. Analytica Chimica Acta, 2012, 732, 1-15.	5.4	23
22	Monitoring gas-phase CO2 in the headspace of champagne glasses through combined diode laser spectrometry and micro-gas chromatography analysis. Food Chemistry, 2018, 264, 255-262.	8.2	22
23	Tunable diode laser measurement of pressure-induced shift coefficients of CO2 around 2.05 Î¼m for Lidar application. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1411-1419.	2.3	21
24	In situ sensing of atmospheric CO2 with laser diodes near 2.05 Î¼m: a spectroscopic study. Infrared Physics and Technology, 2004, 45, 229-237.	2.9	20
25	Line strengths and self-broadening coefficients of carbon dioxide isotopologues (13CO2 and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T Quantitative Spectroscopy and Radiative Transfer, 2006, 98, 264-276.	2.3	20
26	Continuous-wave quantum cascade lasers absorption spectrometers for trace gas detection in the atmosphere. Laser Physics, 2011, 21, 805-812.	1.2	19
27	Development and validation of a diode laser sensor for gas-phase CO2 monitoring above champagne and sparkling wines. Sensors and Actuators B: Chemical, 2018, 257, 745-752.	7.8	19
28	Development of a versatile atmospheric N2O sensor based on quantum cascade laser technology at 4.5 Î¼m. Applied Physics B: Lasers and Optics, 2011, 103, 717-723.	2.2	18
29	Water-vapor isotope ratio measurements in air with a quantum-cascade laser spectrometer. Optics Letters, 2006, 31, 143.	3.3	17
30	A spectroscopic study of water vapor isotopologues H216O, H218O and HDO using a continuous wave DFB quantum cascade laser in the 6.7Î¼m region for atmospheric applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 129-138.	2.3	17
31	Development of a spectrometer using a continuous wave distributed feedback quantum cascade laser operating at room temperature for the simultaneous analysis of N_2O and CH_4 in the Earth's atmosphere. Applied Optics, 2008, 47, 1206.	2.1	17
32	Alternative method for gas detection using pulsed quantum-cascade-laser spectrometers. Optics Letters, 2009, 34, 181.	3.3	16
33	Wavelet Denoising for Infrared Laser Spectroscopy and Gas Detection. Applied Spectroscopy, 2012, 66, 700-710.	2.2	15
34	Self-induced pressure shift and temperature dependence measurements of CO2 at 2.05Î¼m with a tunable diode laser spectrometer. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2012, 85, 74-78.	3.9	15
35	Quantum cascade laser spectroscopy of N2O in the 7.9Î¼m region for the in situ monitoring of the atmosphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1845-1855.	2.3	14
36	Photoacoustic Detection of Methane in Large Concentrations with a Helmholtz Sensor: Simulation and Experimentation. International Journal of Thermophysics, 2016, 37, 1.	2.1	14

#	Article	IF	Citations
37	Diode laser spectroscopy of two acetylene isotopologues (12C2H2, 13C12CH2) in the 1.533Î¼m region for the PHOBOS-Grunt space mission. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2009, 74, 1204-1208.	3.9	13
38	Laser diode spectroscopy of the H2O isotopologues in the 2.64Î¼m region for the in situ monitoring of the Martian atmosphere. Infrared Physics and Technology, 2008, 51, 229-235.	2.9	11
39	Inter-comparison of 2Î¼m Heterodyne Differential Absorption Lidar, Laser Diode Spectrometer, LICOR NDIR analyzer and flasks measurements of near-ground atmospheric CO2 mixing ratio. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2009, 71, 1914-1921.	3.9	9
40	Optimization and complete characterization of a photoacoustic gas detector. Applied Physics B: Lasers and Optics, 2015, 118, 319-326.	2.2	8
41	Photoacoustic spectroscopy for trace gas detection with cryogenic and room-temperature continuous-wave quantum cascade lasers. Open Physics, 2010, 8, .	1.7	7
42	A Case Study of CO2, CO and Particles Content Evolution in the Suburban Atmospheric Boundary Layer Using a 2-Î¼m Doppler DIAL, a 1-Î¼m Backscatter Lidar and an Array of In-situ Sensors. Boundary-Layer Meteorology, 2008, 128, 381-401.	2.3	6
43	How Does Gas-Phase CO₂ Evolve in the Headspace of Champagne Glasses?. Journal of Agricultural and Food Chemistry, 2021, 69, 2262-2270.	5.2	6
44	Widely-Tunable Quantum Cascade-Based Sources for the Development of Optical Gas Sensors. Sensors, 2020, 20, 6650.	3.8	5
45	External cavity coherent quantum cascade laser array. Infrared Physics and Technology, 2016, 76, 415-420.	2.9	4
46	The absorption line profiles of H2O near 1.39 Î¼m in binary mixtures with N2, O2, and H2 at low pressures. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2006, 100, 682-688.	0.6	3
47	Carbon Dioxide and Ethanol Release from Champagne Glasses, Under Standard Tasting Conditions. Advances in Food and Nutrition Research, 2012, 67, 289-340.	3.0	1
48	A first step towards the mapping of gas-phase CO2 in the headspace of champagne glasses. Infrared Physics and Technology, 2020, 109, 103437.	2.9	1
49	Development of a Compact Instrument using Fiber Laser based Difference-Frequency Generation Source for Chemical Gas Detection. , 2006, , .		0
50	Intracavity Gas Detection with an extended-cavity Quantum Cascade Laser emitting @ 7.6 Î¼m. , 2018, , .		0
51	Test and Development of an OPO-Based Spectrometer for SAFESIDE - An INTERREG V Project for Gases Detection. , 2018, , .		0
52	Applications of IR Laser Spectrometry to the Monitoring of Gaseous CO2 in the Headspace of Champagne Glasses. , 2018, , .		0