

# Richard Wehr

## List of Publications by Year in descending order

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Version: 2024-02-01

30  
papers

1,201  
citations

361413  
20  
h-index

477307  
29  
g-index

50  
all docs

50  
docs citations

50  
times ranked

1836  
citing authors

#	ARTICLE	IF	CITATIONS
1	Seasonality of temperate forest photosynthesis and daytime respiration. <i>Nature</i> , 2016, 534, 680-683.	27.8	196
2	Partitioning controls on Amazon forest photosynthesis between environmental and biotic factors at hourly to interannual timescales. <i>Global Change Biology</i> , 2017, 23, 1240-1257.	9.5	102
3	Reviews and syntheses: Carbonyl sulfide as a multi-scale tracer for carbon and water cycles. <i>Biogeosciences</i> , 2018, 15, 3625-3657.	3.3	98
4	Dynamics of canopy stomatal conductance, transpiration, and evaporation in a temperate deciduous forest, validated by carbonyl sulfide uptake. <i>Biogeosciences</i> , 2017, 14, 389-401.	3.3	88
5	Primary Gas Thermometry by Means of Laser-Absorption Spectroscopy: Determination of the Boltzmann Constant. <i>Physical Review Letters</i> , 2008, 100, 200801.	7.8	83
6	Detecting forest response to droughts with global observations of vegetation water content. <i>Global Change Biology</i> , 2021, 27, 6005-6024.	9.5	73
7	Shifting and broadening in the fundamental band of CO highly diluted in He and Ar: A comparison with theory. <i>Journal of Chemical Physics</i> , 2001, 115, 2198-2206.	3.0	61
8	The line shape problem in the near-infrared spectrum of self-colliding CO <sub>2</sub> molecules: Experimental investigation and test of semiclassical models. <i>Journal of Chemical Physics</i> , 2009, 130, 184306.	3.0	54
9	Dicke-narrowed spectral line shapes of CO in Ar: Experimental results and a revised interpretation. <i>Journal of Molecular Spectroscopy</i> , 2006, 235, 54-68.	1.2	53
10	An improved isotopic method for partitioning net ecosystem-atmosphere CO <sub>2</sub> exchange. <i>Agricultural and Forest Meteorology</i> , 2015, 214-215, 515-531.	4.8	49
11	Spectral line shape of the P(2) transition in CO-Ar: Uncorrelated ab initio calculation. <i>Physical Review A</i> , 2002, 66, .	2.5	42
12	Long-term eddy covariance measurements of the isotopic composition of the ecosystem-atmosphere exchange of CO <sub>2</sub> in a temperate forest. <i>Agricultural and Forest Meteorology</i> , 2013, 181, 69-84.	4.8	35
13	Highly accurate determinations of CO <sub>2</sub> line strengths using intensity-stabilized diode laser absorption spectrometry. <i>Journal of Chemical Physics</i> , 2007, 127, 084311.	3.0	30
14	Optical feedback cavity-enhanced absorption spectroscopy for in situ measurements of the ratio <sup>13</sup> C: <sup>12</sup> C in CO <sub>2</sub> . <i>Applied Physics B: Lasers and Optics</i> , 2008, 92, 459.	2.2	28
15	The long-solved problem of the best-fit straight line: application to isotopic mixing lines. <i>Biogeosciences</i> , 2017, 14, 17-29.	3.3	28
16	Collisional line shifting and broadening in the fundamental P-branch of CO in Ar between 214 and 324 K. <i>Journal of Molecular Spectroscopy</i> , 2006, 235, 69-76.	1.2	27
17	The impact theory of spectral line shapes: a paradigm shift. <i>Canadian Journal of Physics</i> , 2013, 91, 879-895.	1.1	25
18	Spatiotemporal Controls on Observed Daytime Ozone Deposition Velocity Over Northeastern U.S. Forests During Summer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 5612-5628.	3.3	24

#	ARTICLE	IF	CITATIONS
19	Carbonyl sulfide: comparing a mechanistic representation of the vegetation uptake in a land surface model and the leaf relative uptake approach. Biogeosciences, 2021, 18, 2917-2955.	3.3	21
20	Evaluation of carbonyl sulfide biosphere exchange in the Simple Biosphere Model (SiB4). Biogeosciences, 2021, 18, 6547-6565.	3.3	21
21	Calculating canopy stomatal conductance from eddy covariance measurements, in light of the energy budget closure problem. Biogeosciences, 2021, 18, 13-24.	3.3	15
22	Broadening, shifting, and line mixing in the 0310â†0110 parallel Q branch of N2O. Journal of Molecular Spectroscopy, 2004, 226, 71-80.	1.2	12
23	Global modelling of soil carbonyl sulfide exchanges. Biogeosciences, 2022, 19, 2427-2463.	3.3	10
24	Design of a difference-frequency infrared laser spectrometer for absorption line-shape studies. Applied Optics, 2007, 46, 978.	2.1	8
25	Dynamic Spectroscopic Measurements of the Temperature and Pressure Cycles in a MOPITT Pressure Modulator Cell. Applied Optics, 2003, 42, 6595.	2.1	6
26	Does vapor pressure deficit drive the seasonality of Î¹ 13 C of the net landâ€ˆatmosphere CO 2 exchange across the United States?. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1969-1987.	3.0	3
27	Development and field testing of a rapid and ultra-stable atmospheric carbon dioxide spectrometer. Atmospheric Measurement Techniques, 2014, 7, 4445-4453.	3.1	2
28	High Resolution and High Signal-to-Noise Measurements in the 0310 â†0110 Q-Branch of N2O at 1160 cmâˆ’1. AIP Conference Proceedings, 2002, , .	0.4	0
29	Comparison of an ab initio calculation of the CO-Ar P(2) line shape with high-resolution measurements. AIP Conference Proceedings, 2002, , .	0.4	0
30	Dicke-Narrowed Line Shapes in CO-Ar: Measurements, Calculations, and a Revised Interpretation. AIP Conference Proceedings, 2006, , .	0.4	0