Patrick Rairoux

List of Publications by Year
in descending order

23 papers	538 citations	687363 13 h-index	642732 23 g-index
28 all docs	28 docs citations	28 times ranked	840 citing authors

#	Article	IF	Citations
1	Mineral dust photochemistry induces nucleation events in the presence of SO₂. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20842-20847.	7.1	113
2	MERLIN: A French-German Space Lidar Mission Dedicated to Atmospheric Methane. Remote Sensing, 2017, 9, 1052.	4.0	88
3	Retrieving simulated volcanic, desert dust and sea-salt particle properties from two/three-component particle mixtures using UV-VIS polarization lidar and T matrix. Atmospheric Chemistry and Physics, 2013, 13, 6757-6776.	4.9	45
4	Atmospheric non-spherical particles optical properties from UV-polarization lidar and scattering matrix. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	33
5	UVâ€“VIS depolarization from Arizona Test Dust particles at exact backscattering angle. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 169, 79-90.	2.3	32
6	Error Budget of the MEthane Remote LIdar missioN and Its Impact on the Uncertainties of the Global Methane Budget. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,766.	3.3	23
7	Remote sensing of atmospheric gases with optical correlation spectroscopy and lidar: first experimental results on water vapor profile measurements. Applied Physics B: Lasers and Optics, 2013, 113, 265-275.	2.2	22
8	Investigating the size, shape and surface roughness dependence of polarization lidars with light-scattering computations on real mineral dust particles: Application to dust particles' external mixtures and dust mass concentration retrievals. Atmospheric Research, 2018, 203, 44-61.	4.1	22
9	UV polarization lidar for remote sensing new particles formation in the atmosphere. Optics Express, 2014, 22, A1009.	3.4	17
10	Gas concentration measurement by optical similitude absorption spectroscopy: methodology and experimental demonstration. Optics Express, 2016, 24, 12588.	3.4	16
11	Lidar remote sensing of laser-induced incandescence on light absorbing particles in the atmosphere. Optics Express, 2015, 23, 2347.	3.4	15
12	Towards DCS in the UV Spectral Range for Remote Sensing of Atmospheric Trace Gases. Remote Sensing, 2020, 12, 3444.	4.0	14
13	Polarization-resolved exact light backscattering by an ensemble of particles in air. Optics Express, 2013, 21, 18624.	3.4	13
14	Laboratory evaluation of the scattering matrix elements of mineral dust particles from 176.0Â° up to 180.0Â°-exact backscattering angle. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 222-223, 45-59.	2.3	13
15	Remote sensing of methane with broadband laser and optical correlation spectroscopy on the Q-branch of the 2Î½3 band. Journal of Molecular Spectroscopy, 2013, 291, 3-8.	1.2	12
16	On the use of light polarization to investigate the size, shape, and refractive index dependence of backscattering Ã…ngstrÃ¶m exponents. Optics Letters, 2020, 45, 1084.	3.3	11
17	Remote Sensing Observation of New Particle Formation Events with a (UV, VIS) Polarization Lidar. Remote Sensing, 2019, 11, 1761.	4.0	10
18	Laboratory evaluation of the (VIS, IR) scattering matrix of complex-shaped ragweed pollen particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 254, 107223.	2.3	9

#	Article	IF	Citations
19	Origins and Spatial Distribution of Non-Pure Sulfate Particles (NSPs) in the Stratosphere Detected by the Balloon-Borne Light Optical Aerosols Counter (LOAC). Atmosphere, 2020, 11, 1031.	2.3	8
20	Laboratory evaluation of the scattering matrix of ragweed, ash, birch and pine pollen towards pollen classification. Atmospheric Measurement Techniques, 2022, 15, 1021-1032.	3.1	6
21	High-resolution dual comb spectroscopy using a free-running, bidirectional ring titanium sapphire laser. Optics Express, 2022, 30, 21148.	3.4	5
22	(UV, VIS) Laboratory evaluation of the lidar depolarization ratio of freshly emitted soot aggregates from pool fire in ambient air at exact backscattering angle. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 260, 107451.	2.3	4
23	Remote sensing of methane with OSAS-lidar on the 2Î½3 band Q-branch: Experimental proof. Journal of Molecular Spectroscopy, 2018, 348, 130-136.	1.2	3