

Jordi Vila-Guerau de Arellano

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162
papers

4,827
citations

35
h-index

64
g-index

210
ext. papers

5,578
ext. citations

5.1
avg, IF

5.5
L-index

#	Paper	IF	Citations
162	The Meso-NH Atmospheric Simulation System. Part I: adiabatic formulation and control simulations. <i>Annales Geophysicae</i> , 1998 , 16, 90-109	2	580
161	Mega-heatwave temperatures due to combined soil desiccation and atmospheric heat accumulation. <i>Nature Geoscience</i> , 2014 , 7, 345-349	18.3	459
160	Formulation of the Dutch Atmospheric Large-Eddy Simulation (DALES) and overview of its applications. <i>Geoscientific Model Development</i> , 2010 , 3, 415-444	6.3	167
159	The BLLAST field experiment: Boundary-Layer Late Afternoon and Sunset Turbulence. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 10931-10960	6.8	126
158	Interactions between dry-air entrainment, surface evaporation and convective boundary-layer development. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2009 , 135, 1277-1291	6.4	108
157	The impact of weather and atmospheric circulation on O ₃ and PM ₁₀ levels at a rural mid-latitude site. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 2695-2714	6.8	108
156	Summertime total OH reactivity measurements from boreal forest during HUMPPA-COPEC 2010. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 8257-8270	6.8	103
155	The Contribution of Shear to the Evolution of a Convective Boundary Layer. <i>Journals of the Atmospheric Sciences</i> , 2003 , 60, 1913-1926	2.1	90
154	The summertime Boreal forest field measurement intensive (HUMPPA-COPEC-2010): an overview of meteorological and chemical influences. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 10599-10618	6.8	87
153	Evaluation of Limited-Area Models for the Representation of the Diurnal Cycle and Contrasting Nights in CASES-99. <i>Journal of Applied Meteorology and Climatology</i> , 2008 , 47, 869-887	2.7	87
152	Surface Wind Regionalization over Complex Terrain: Evaluation and Analysis of a High-Resolution WRF Simulation. <i>Journal of Applied Meteorology and Climatology</i> , 2010 , 49, 268-287	2.7	79
151	Understanding the Daily Cycle of Evapotranspiration: A Method to Quantify the Influence of Forcings and Feedbacks. <i>Journal of Hydrometeorology</i> , 2010 , 11, 1405-1422	3.7	74
150	Relative Humidity as an Indicator for Cloud Formation over Heterogeneous Land Surfaces. <i>Journals of the Atmospheric Sciences</i> , 2008 , 65, 3263-3277	2.1	73
149	Entrainment process of carbon dioxide in the atmospheric boundary layer. <i>Journal of Geophysical Research</i> , 2004 , 109,		73
148	Observational evidence for cloud cover enhancement over western European forests. <i>Nature Communications</i> , 2017 , 8, 14065	17.4	71
147	Amplification of mega-heatwaves through heat torrents fuelled by upwind drought. <i>Nature Geoscience</i> , 2019 , 12, 712-717	18.3	69
146	Surface and boundary layer exchanges of volatile organic compounds, nitrogen oxides and ozone during the GABRIEL campaign. <i>Atmospheric Chemistry and Physics</i> , 2008 , 8, 6223-6243	6.8	67

145	Modelled suppression of boundary-layer clouds by plants in a CO ₂ -rich atmosphere. <i>Nature Geoscience</i> , 2012 , 5, 701-704	18.3	64
144	Atmospheric Boundary Layer: Integrating Air Chemistry and Land Interactions 2015 ,		62
143	Influence of chemistry on the flux-gradient relationships for the NO-O ₃ -NO ₂ system. <i>Boundary-Layer Meteorology</i> , 1992 , 61, 375-387	3.4	60
142	Role of Shear and the Inversion Strength During Sunset Turbulence Over Land: Characteristic Length Scales. <i>Boundary-Layer Meteorology</i> , 2006 , 121, 537-556	3.4	59
141	On the segregation of chemical species in a clear boundary layer over heterogeneous land surfaces. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 10681-10704	6.8	57
140	Flux estimates of isoprene, methanol and acetone from airborne PTR-MS measurements over the tropical rainforest during the GABRIEL 2005 campaign. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 4207-4227	6.8	56
139	Tethered-balloon measurements of actinic flux in a cloud-capped marine boundary layer. <i>Journal of Geophysical Research</i> , 1994 , 99, 3699		55
138	Impacts of topography and land degradation on the sea breeze over eastern Spain. <i>Meteorology and Atmospheric Physics</i> , 2003 , 84, 157-170	2	54
137	The role of boundary layer dynamics on the diurnal evolution of isoprene and the hydroxyl radical over tropical forests. <i>Journal of Geophysical Research</i> , 2011 , 116,		45
136	Diurnal and vertical variability of the sensible heat and carbon dioxide budgets in the atmospheric surface layer. <i>Journal of Geophysical Research</i> , 2008 , 113,		44
135	Transport and chemical transformations influenced by shallow cumulus over land. <i>Atmospheric Chemistry and Physics</i> , 2005 , 5, 3219-3231	6.8	43
134	Introducing effective reaction rates to account for the inefficient mixing of the convective boundary layer. <i>Atmospheric Environment</i> , 2005 , 39, 445-461	5.3	43
133	Control of Chemical Reactions by Convective Turbulence in the Boundary Layer. <i>Journals of the Atmospheric Sciences</i> , 1998 , 55, 568-579	2.1	41
132	On inferring isoprene emission surface flux from atmospheric boundary layer concentration measurements. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 3629-3640	6.8	40
131	Impacts of Aerosol Shortwave Radiation Absorption on the Dynamics of an Idealized Convective Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2013 , 148, 31-49	3.4	39
130	Representing Sheared Convective Boundary Layer by Zeroth- and First-Order-Jump Mixed-Layer Models: Large-Eddy Simulation Verification. <i>Journal of Applied Meteorology and Climatology</i> , 2006 , 45, 1224-1243	2.7	39
129	Turbulence vertical structure of the boundary layer during the afternoon transition. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 10071-10086	6.8	38
128	An evaluation of WRF's ability to reproduce the surface wind over complex terrain based on typical circulation patterns. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 7651-7669	4.4	36

127	Characterization of a boreal convective boundary layer and its impact on atmospheric chemistry during HUMPPA-COPEC-2010. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 9335-9353	6.8	35
126	Atmospheric surface layer similarity theory applied to chemically reactive species. <i>Journal of Geophysical Research</i> , 1995 , 100, 1397-1408		35
125	Direct and Diffuse Radiation in the Shallow Cumulus-Vegetation System: Enhanced and Decreased Evapotranspiration Regimes. <i>Journal of Hydrometeorology</i> , 2017 , 18, 1731-1748	3.7	34
124	Role of the residual layer and large-scale subsidence on the development and evolution of the convective boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 4515-4530	6.8	34
123	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2003 , 55, 935-949	3.3	34
122	Aerosols in the convective boundary layer: Shortwave radiation effects on the coupled land-atmosphere system. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 5845-5863	4.4	32
121	The dispersion of chemically reactive species in the atmospheric boundary layer. <i>Meteorology and Atmospheric Physics</i> , 2004 , 87, 23	2	32
120	Tomography of the lower troposphere using a small dense network of GPS receivers. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2001 , 39, 439-447	8.1	32
119	The Stove, Dome, and Umbrella Effects of Atmospheric Aerosol on the Development of the Planetary Boundary Layer in Hazy Regions. <i>Geophysical Research Letters</i> , 2020 , 47, e2020GL087373	4.9	31
118	Shallow cumulus rooted in photosynthesis. <i>Geophysical Research Letters</i> , 2014 , 41, 1796-1802	4.9	31
117	Dispersion of a Passive Tracer in Buoyancy- and Shear-Driven Boundary Layers. <i>Journal of Applied Meteorology and Climatology</i> , 2003 , 42, 1116-1130		31
116	Relating Eulerian and Lagrangian Statistics for the Turbulent Dispersion in the Atmospheric Convective Boundary Layer. <i>Journals of the Atmospheric Sciences</i> , 2005 , 62, 1175-1191	2.1	31
115	Parameterization of Entrainment in a Sheared Convective Boundary Layer Using a First-order Jump Model. <i>Boundary-Layer Meteorology</i> , 2006 , 120, 455-475	3.4	30
114	Land-atmosphere coupling explains the link between pan evaporation and actual evapotranspiration trends in a changing climate. <i>Geophysical Research Letters</i> , 2010 , 37, n/a-n/a	4.9	28
113	Case study of the diurnal variability of chemically active species with respect to boundary layer dynamics during DOMINO. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 5329-5341	6.8	28
112	Subcloud-Layer Feedbacks Driven by the Mass Flux of Shallow Cumulus Convection over Land. <i>Journals of the Atmospheric Sciences</i> , 2014 , 71, 881-895	2.1	25
111	Analysis of the role of the planetary boundary layer schemes during a severe convective storm. <i>Annales Geophysicae</i> , 2004 , 22, 1861-1874	2	25
110	BRIDGING THE GAP BETWEEN ATMOSPHERIC PHYSICS AND CHEMISTRY IN STUDIES OF SMALL-SCALE TURBULENCE. <i>Bulletin of the American Meteorological Society</i> , 2003 , 84, 51-56	6.1	24

109	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1993 , 45, 23-33	3.3	24
108	Stable Nocturnal Boundary Layers: A Comparison of One-Dimensional and Large-Eddy Simulation Models. <i>Boundary-Layer Meteorology</i> , 1998 , 88, 181-210	3.4	23
107	Effects of shear in the convective boundary layer: analysis of the turbulent kinetic energy budget. <i>Acta Geophysica</i> , 2008 , 56, 167-193	2.2	23
106	The effect of micro-scale turbulence on the reaction rate in a chemically reactive plume. <i>Atmospheric Environment</i> , 1995 , 29, 87-95	5.3	23
105	A conceptual framework to quantify the influence of convective boundary layer development on carbon dioxide mixing ratios. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 2969-2985	6.8	22
104	An inter-comparison study to estimate zenith wet delays using VLBI, GPS, and NWP models. <i>Earth, Planets and Space</i> , 2000 , 52, 691-694	2.9	22
103	. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1995 , 47, 353-364	3.3	22
102	A chemically reactive plume model for the NO _x /NO ₂ /O ₃ system. <i>Atmospheric Environment Part A General Topics</i> , 1990 , 24, 2237-2246		22
101	Plant water-stress parameterization determines the strength of land-atmosphere coupling. <i>Agricultural and Forest Meteorology</i> , 2016 , 217, 61-73	5.8	21
100	Combined effects of surface conditions, boundary layer dynamics and chemistry on diurnal SOA evolution. <i>Atmospheric Chemistry and Physics</i> , 2012 , 12, 6827-6843	6.8	21
99	Land-atmosphere interactions in the tropics: a review. <i>Hydrology and Earth System Sciences</i> , 2019 , 23, 4171-4197	5.5	20
98	Study of a prototypical convective boundary layer observed during BLLAST: contributions by large-scale forcings. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 4241-4257	6.8	20
97	Turbulent dispersion in cloud-topped boundary layers. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 1289-1302	6.8	20
96	Effects of soil moisture gradients on the path and the intensity of a West African squall line. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2010 , 136, 2162-2175	6.4	20
95	Mean and Flux Horizontal Variability of Virtual Potential Temperature, Moisture, and Carbon Dioxide: Aircraft Observations and LES Study. <i>Monthly Weather Review</i> , 2008 , 136, 4435-4451	2.4	19
94	Second-order closure study of the covariance between chemically reactive species in the surface layer. <i>Journal of Atmospheric Chemistry</i> , 1993 , 16, 145-155	3.2	19
93	Understanding isoprene photooxidation using observations and modeling over a subtropical forest in the southeastern US. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 7725-7741	6.8	18
92	Cloud Shading Effects on Characteristic Boundary-Layer Length Scales. <i>Boundary-Layer Meteorology</i> , 2015 , 157, 237-263	3.4	18

91	Statistics of Absolute and Relative Dispersion in the Atmospheric Convective Boundary Layer: A Large-Eddy Simulation Study. <i>Journals of the Atmospheric Sciences</i> , 2006 , 63, 1253-1272	2.1	17
90	Evolution of Nitrogen Oxide Chemistry in the Nocturnal Boundary Layer. <i>Journal of Applied Meteorology and Climatology</i> , 1997 , 36, 943-957		16
89	Fluxes of chemically reactive species inferred from mean concentration measurements. <i>Atmospheric Environment</i> , 1997 , 31, 2371-2374	5.3	16
88	Scaling the turbulent transport of chemical compounds in the surface layer under neutral and stratified conditions. <i>Quarterly Journal of the Royal Meteorological Society</i> , 1997 , 123, 223-242	6.4	16
87	The divergence of the turbulent diffusion flux in the surface layer due to chemical reactions: the NO-O3-NO2 system. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1993 , 45, 23-33	3.3	16
86	Role of synoptic- and meso-scales on the evolution of the boundary-layer wind profile over a coastal region: the near-coast diurnal acceleration. <i>Meteorology and Atmospheric Physics</i> , 2016 , 128, 39-56		15
85	The Effect of Heat Waves and Drought on Surface Wind Circulations in the Northeast of the Iberian Peninsula during the Summer of 2003. <i>Journal of Climate</i> , 2011 , 24, 5416-5422	4.4	15
84	The Chemistry of a Dry Cloud: The Effects of Radiation and Turbulence. <i>Journals of the Atmospheric Sciences</i> , 2000 , 57, 1573-1584	2.1	15
83	The BLLAST field experiment: Boundary-Layer Late Afternoon and Sunset Turbulence		15
82	Impacts of afternoon and evening sea-breeze fronts on local turbulence, and on CO2 and radon-222 transport. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2018 , 144, 990-1011	6.4	14
81	An observational study on the effects of time and space averaging in photochemical models. <i>Atmospheric Environment Part A General Topics</i> , 1993 , 27, 353-362		14
80	The combined effect of elevation and meteorology on potato crop dynamics: a 10-year study in the Gamo Highlands, Ethiopia. <i>Agricultural and Forest Meteorology</i> , 2018 , 262, 166-177	5.8	12
79	Characterizing the influence of the marine stratocumulus cloud on the land fog at the Atacama Desert. <i>Atmospheric Research</i> , 2018 , 214, 109-120	5.4	12
78	Large-Eddy Simulation Comparison of Neutral Flow Over a Canopy: Sensitivities to Physical and Numerical Conditions, and Similarity to Other Representations. <i>Boundary-Layer Meteorology</i> , 2017 , 162, 71-89	3.4	12
77	Influence of boundary layer dynamics and isoprene chemistry on the organic aerosol budget in a tropical forest. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 9351-9366	4.4	12
76	The boundary layer growth in an urban area. <i>Science of the Total Environment</i> , 2004 , 334-335, 207-13	10.2	12
75	Understanding Land-Atmosphere Interactions across a Range of Spatial and Temporal Scales. <i>Bulletin of the American Meteorological Society</i> , 2014 , 95, ES14-ES17	6.1	11
74	Analytical Solution for the Convectively-Mixed Atmospheric Boundary Layer. <i>Boundary-Layer Meteorology</i> , 2013 , 148, 557-583	3.4	11

73	Cumulative ozone effect on canopy stomatal resistance and the impact on boundary layer dynamics and CO ₂ assimilation at the diurnal scale: A case study for grassland in the Netherlands. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015 , 120, 1348-1365	3.7	11
72	Quantifying the transport of subcloud layer reactants by shallow cumulus clouds over the Amazon. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 13,041-13,059	4.4	11
71	Analyzing the basic features of different complex terrain flows by means of a Doppler Sodar and a numerical model: Some implications for air pollution problems. <i>Meteorology and Atmospheric Physics</i> , 2004 , 85, 141	2	11
70	Substantial Reductions in Cloud Cover and Moisture Transport by Dynamic Plant Responses. <i>Geophysical Research Letters</i> , 2019 , 46, 1870-1878	4.9	11
69	Interactions between vegetation, atmospheric turbulence and clouds under a wide range of background wind conditions. <i>Agricultural and Forest Meteorology</i> , 2018 , 255, 31-43	5.8	10
68	Influence of Canopy Seasonal Changes on Turbulence Parameterization within the Roughness Sublayer over an Orchard Canopy. <i>Journal of Applied Meteorology and Climatology</i> , 2016 , 55, 1391-1407	2.7	10
67	Characteristic Length Scales of Reactive Species in a Convective Boundary Layer. <i>Journals of the Atmospheric Sciences</i> , 2004 , 61, 41-56	2.1	10
66	Fifty Years of Atmospheric Boundary-Layer Research at Cabauw Serving Weather, Air Quality and Climate. <i>Boundary-Layer Meteorology</i> , 2020 , 177, 583-612	3.4	10
65	Integrating continuous atmospheric boundary layer and tower-based flux measurements to advance understanding of land-atmosphere interactions. <i>Agricultural and Forest Meteorology</i> , 2021 , 307, 108509	5.8	10
64	Atmospheric boundary layer dynamics from balloon soundings worldwide: CLASS4GL v1.0. <i>Geoscientific Model Development</i> , 2019 , 12, 2139-2153	6.3	9
63	Meteorology during the DOMINO campaign and its connection with trace gases and aerosols. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 2325-2342	6.8	9
62	Numerical simulation of the interaction between ammonium nitrate aerosol and convective boundary-layer dynamics. <i>Atmospheric Environment</i> , 2015 , 105, 202-211	5.3	9
61	The role of atmospheric boundary layer-surface interactions on the development of coastal fronts. <i>Annales Geophysicae</i> , 2007 , 25, 341-360	2	9
60	Study of a prototypical convective boundary layer observed during BLLAST: contributions by large-scale forcings		9
59	Flux estimates of isoprene, methanol and acetone from airborne PTR-MS measurements over the tropical rainforest during the GABRIEL 2005 campaign		9
58	Integrating canopy and large-scale effects in the convective boundary-layer dynamics during the CHATS experiment. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 1623-1640	6.8	8
57	Two perspectives on the coupled carbon, water and energy exchange in the planetary boundary layer. <i>Biogeosciences</i> , 2015 , 12, 103-123	4.6	8
56	Role of nocturnal turbulence and advection in the formation of shallow cumulus over land. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2007 , 133, 1615	6.4	8

55	A Photoelectric Detector Suspended under a Balloon for Actinic Flux Measurements. <i>Journal of Atmospheric and Oceanic Technology</i> , 1994 , 11, 674-679	2	8
54	Reductions in nitrogen oxides over the Netherlands between 2005 and 2018 observed from space and on the ground: Decreasing emissions and increasing O3 indicate changing NOx chemistry. <i>Atmospheric Environment: X</i> , 2021 , 9, 100104	2.8	8
53	Sub-diurnal variability of the carbon dioxide and water vapor isotopologues at the field observational scale. <i>Agricultural and Forest Meteorology</i> , 2019 , 275, 114-135	5.8	7
52	Intensive measurements of gas, water, and energy exchange between vegetation and troposphere during the MONTES campaign in a vegetation gradient from short semi-desertic shrublands to tall wet temperate forests in the NW Mediterranean Basin. <i>Atmospheric Environment</i> , 2013 , 75, 348-364	5.3	7
51	A large-eddy simulation of the phase transition of ammonium nitrate in a convective boundary layer. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 826-836	4.4	7
50	Formulation of and numerical studies with the Dutch Atmospheric Large-Eddy Simulation (DALES)		7
49	Biogenic emissions and land-atmosphere interactions as drivers of the daytime evolution of secondary organic aerosol in the southeastern US. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 701-729	6.8	6
48	Impact of Future Warming and Enhanced [CO2] on the Vegetation-Cloud Interaction. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 12444-12454	4.4	6
47	Spatio-temporal tomography of the lower troposphere using GPS signals. <i>Physics and Chemistry of the Earth</i> , 2001 , 26, 405-411		6
46	Soil drought can mitigate deadly heat stress thanks to a reduction of air humidity.. <i>Science Advances</i> , 2022 , 8, eabe6653	14.3	6
45	Evaluation of Atmospheric Boundary Layer Height From Wind Profiling Radar and Slab Models and Its Responses to Seasonality of Land Cover, Subsidence, and Advection. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021 , 126, e2020JD033775	4.4	6
44	Cloud Patterns in the Trades Have Four Interpretable Dimensions. <i>Geophysical Research Letters</i> , 2021 , 48, e2020GL091001	4.9	6
43	The diurnal stratocumulus-to-cumulus transition over land in southern West Africa. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 2735-2754	6.8	5
42	Turbulence vertical structure of the boundary layer during the afternoon transition		5
41	CloudRoots: integration of advanced instrumental techniques and process modelling of sub-hourly and sub-kilometre land-atmosphere interactions. <i>Biogeosciences</i> , 2020 , 17, 4375-4404	4.6	5
40	E-DATA: A Comprehensive Field Campaign to Investigate Evaporation Enhanced by Advection in the Hyper-Arid Altiplano. <i>Water (Switzerland)</i> , 2020 , 12, 745	3	5
39	Grain Yield Observations Constrain Cropland CO2 Fluxes Over Europe. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017 , 122, 3238-3259	3.7	4
38	Surface and boundary layer exchanges of volatile organic compounds, nitrogen oxides and ozone during the GABRIEL Campaign		4

37	Analyzing the Synoptic-, Meso- and Local- Scale Involved in Sea Breeze Formation and Frontal Characteristics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2019JD031302	4.4	3
36	Quantifying the Feedback Between Rice Architecture, Physiology, and Microclimate Under Current and Future CO2 Conditions. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020 , 125, e2019JG005452	3.7	3
35	Teaching Atmospheric Modeling at the Graduate Level: 15 Years of Using Mesoscale Models as Educational Tools in an Active Learning Environment. <i>Bulletin of the American Meteorological Society</i> , 2019 , 100, 2157-2174	6.1	3
34	Understanding the impact of plant competition on the coupling between vegetation and the atmosphere. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015 , 120, 2212-2228	3.7	3
33	How do aerosols above the residual layer affect the planetary boundary layer height?. <i>Science of the Total Environment</i> , 2021 , 814, 151953	10.2	3
32	The summertime Boreal forest field measurement intensive (HUMPPA-COPEC-2010): an overview of meteorological and chemical influences		3
31	Summertime total OH reactivity measurements from boreal forest during HUMPPA-COPEC 2010		3
30	Role of the residual layer and large-scale subsidence on the development and evolution of the convective boundary layer		3
29	Three-Dimensional Radiative Effects By Shallow Cumulus Clouds on Dynamic Heterogeneities Over a Vegetated Surface. <i>Journal of Advances in Modeling Earth Systems</i> , 2020 , 12, e2019MS001990	7.1	3
28	Explicit aerosol-cloud interactions in the Dutch Atmospheric Large-Eddy Simulation model DALES4.1-M7. <i>Geoscientific Model Development</i> , 2019 , 12, 5177-5196	6.3	3
27	Soil moisture signature in global weather balloon soundings. <i>Npj Climate and Atmospheric Science</i> , 2021 , 4,	8	3
26	From weak to intense downslope winds: origin, interaction with boundary-layer turbulence and impact on CO ₂ variability. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 4615-4635	6.8	2
25	Quantifying the uncertainties of advection and boundary layer dynamics on the diurnal carbon dioxide budget. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 9376-9392	4.4	2
24	Boundary Layer Characteristics over Homogeneous and Heterogeneous Surfaces Simulated by MM5 and DALES. <i>Journal of Applied Meteorology and Climatology</i> , 2011 , 50, 1372-1386	2.7	2
23	Characterization of a boreal convective boundary layer and its impact on atmospheric chemistry during HUMPPA-COPEC-2010		2
22	Study of the diurnal variability of atmospheric chemistry with respect to boundary layer dynamics during DOMINO		2
21	Combined effects of surface conditions, boundary layer dynamics and chemistry on diurnal SOA-evolution		2
20	Local evaporation controlled by regional atmospheric circulation in the Altiplano of the Atacama Desert. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 9125-9150	6.8	2

19	Unraveling the diurnal atmospheric ammonia budget of a prototypical convective boundary layer. <i>Atmospheric Environment</i> , 2021 , 249, 118153	5.3	2
18	Observational Characterization of the Synoptic and Mesoscale Circulations in Relation to Crop Dynamics: Belg 2017 in the Gamo Highlands, Ethiopia. <i>Atmosphere</i> , 2018 , 9, 398	2.7	2
17	River winds and pollutant recirculation near the Manaus city in the central Amazon. <i>Communications Earth & Environment</i> , 2021 , 2,	6.1	2
16	Shallow Cumulus Representation and Its Interaction with Radiation and Surface at the Convection Gray Zone. <i>Monthly Weather Review</i> , 2019 , 147, 2467-2483	2.4	1
15	Interactions Between the Amazonian Rainforest and Cumuli Clouds: A Large-Eddy Simulation, High-Resolution ECMWF, and Observational Intercomparison Study. <i>Journal of Advances in Modeling Earth Systems</i> , 2020 , 12, e2019MS001828	7.1	1
14	Ozone exchange within and above an irrigated Californian orchard. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2020 , 72, 1-17	3.3	1
13	Assessment report on NRP subtheme "Atmospheric processes & UV-B radiation" <i>Studies in Environmental Science</i> , 1995 , 65, 155-233		1
12	The behaviour of vertical flux profiles of NO, O3, and NO2 explained in terms of the photostationary state relationship. <i>Journal of Atmospheric Chemistry</i> , 1993 , 16, 293-297	3.2	1
11	Understanding isoprene photo-oxidation using observations and modelling over a subtropical forest in the Southeast US		1
10	Two perspectives on the coupled carbon, water, and energy exchange in the planetary boundary layer		1
9	Optimization and Representativeness of Atmospheric Chemical Sampling by Hovering Unmanned Aerial Vehicles Over Tropical Forests. <i>Earth and Space Science</i> , 2021 , 8, e2020EA001335	3.1	1
8	Surface representation impacts on turbulent heat fluxes in the Weather Research and Forecasting (WRF) model (v.4.1.3). <i>Geoscientific Model Development</i> , 2021 , 14, 3939-3967	6.3	1
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