Renate Forkel

List of Publications by Year
in descending order

67 papers	3,977 citations	109137 35 h-index	143772 57 g-index
87 all docs	87 docs citations	87 times ranked	3972 citing authors

#	Article	IF	Citations
1	Online coupled regional meteorology chemistry models in Europe: current status and prospects. Atmospheric Chemistry and Physics, 2014, 14, 317-398.	1.9	271
2	Operational model evaluation for particulate matter in Europe and North America in the context of AQMEII. Atmospheric Environment, 2012, 53, 75-92.	1.9	214
3	Model evaluation and ensemble modelling of surface-level ozone in Europe and North America in the context of AQMEII. Atmospheric Environment, 2012, 53, 60-74.	1.9	192
4	Application of a multiscale, coupled MM5/chemistry model to the complex terrain of the VOTALP valley campaign. Atmospheric Environment, 2000, 34, 1435-1453.	1.9	188
5	Evaluation of operational on-line-coupled regional air quality models over Europe and North America in the context of AQMEII phase 2. Part I: Ozone. Atmospheric Environment, 2015, 115, 404-420.	1.9	168
6	Overview of the PALM model system 6.0. Geoscientific Model Development, 2020, 13, 1335-1372.	1.3	152
7	What is the benefit of ceilometers for aerosol remote sensing? An answer from EARLINET. Atmospheric Measurement Techniques, 2014, 7, 1979-1997.	1.2	143
8	Secondary effects of urban heat island mitigation measures on air quality. Atmospheric Environment, 2016, 125, 199-211.	1.9	140
9	Effect of aerosol-radiation feedback on regional air quality â€“ A case study with WRF/Chem. Atmospheric Environment, 2012, 53, 202-211.	1.9	139
10	Evaluation of operational online-coupled regional air quality models over Europe and North America in the context of AQMEII phase 2. Part II: Particulate matter. Atmospheric Environment, 2015, 115, 421-441.	1.9	133
11	Feedbacks between air pollution and weather, Part 1: Effects on weather. Atmospheric Environment, 2015, 115, 442-469.	1.9	102
12	Feedbacks between air pollution and weather, part 2: Effects on chemistry. Atmospheric Environment, 2015, 115, 499-526.	1.9	99
13	Impact of the vertical mixing induced by low-level jets on boundary layer ozone concentration. Atmospheric Environment, 2013, 70, 123-130.	1.9	98
14	Influence of the choice of gas-phase mechanism on predictions of key gaseous pollutants during the AQMEII phase-2 intercomparison. Atmospheric Environment, 2015, 115, 553-568.	1.9	92
15	Trace gas exchange and gas phase chemistry in a Norway spruce forest: A study with a coupled 1-dimensional canopy atmospheric chemistry emission model. Atmospheric Environment, 2006, 40, 28-42.	1.9	91
16	Analysis of the WRF-Chem contributions to AQMEII phase2 with respect to aerosol radiative feedbacks on meteorology and pollutant distributions. Atmospheric Environment, 2015, 115, 630-645.	1.9	87
17	Comparative analysis of meteorological performance of coupled chemistry-meteorology models in the context of AQMEII phase 2. Atmospheric Environment, 2015, 115, 470-498.	1.9	85
18	Uncertainties of simulated aerosol optical properties induced by assumptions on aerosol physical and chemical properties: An AQMEII-2 perspective. Atmospheric Environment, 2015, 115, 541-552.	1.9	84

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19	Regional climate change and its impact on photooxidant concentrations in southern Germany: Simulations with a coupled regional climate-chemistry model. Journal of Geophysical Research, 2006, 111, .	3.3	81
20	Mixing layer height as an indicator for urban air quality?. Atmospheric Measurement Techniques, 2017, 10, 2969-2988.	1.2	80
21	Measurement and simulation of the 16/17 April 2010 EyjafjallajÃ¶kull volcanic ash layer dispersion in the northern Alpine region. Atmospheric Chemistry and Physics, 2011, 11, 2689-2701.	1.9	78
22	In-canopy gas-phase chemistry during CABINEX 2009: sensitivity of a 1-D canopy model to vertical mixing and isoprene chemistry. Atmospheric Chemistry and Physics, 2012, 12, 8829-8849.	1.9	78
23	Impact analysis of climate change for an Alpine catchment using high resolution dynamic downscaling of ECHAM4 time slices. Hydrology and Earth System Sciences, 2004, 8, 1031-1045.	1.9	61
24	Analysis of meteorologyâ€“chemistry interactions during air pollution episodes using online coupled models within AQMEII phase-2. Atmospheric Environment, 2015, 115, 527-540.	1.9	61
25	FORest Canopy Atmosphere Transfer (FORCAsT) 1.0: a 1-D model of biosphereâ€“atmosphere chemical exchange. Geoscientific Model Development, 2015, 8, 3765-3784.	1.3	60
26	WRF-Chem model sensitivity to chemical mechanisms choice in reconstructing aerosol optical properties. Atmospheric Environment, 2015, 115, 604-619.	1.9	60
27	Characterization of the EyjafjallajÃ¶kull ash-plume: Potential of lidar remote sensing. Physics and Chemistry of the Earth, 2012, 45-46, 79-86.	1.2	59
28	Assessment of the MACC reanalysis and its influence as chemical boundary conditions for regional air quality modeling in AQMEII-2. Atmospheric Environment, 2015, 115, 371-388.	1.9	59
29	Observations of particle formation and growth in a mountainous forest region in central Europe. Journal of Geophysical Research, 2004, 109, .	3.3	55
30	Future scenarios of N2O and NO emissions from European forest soils. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	50
31	Evaluating the capability of regional-scale air quality models to capture the vertical distribution of pollutants. Geoscientific Model Development, 2013, 6, 791-818.	1.3	49
32	Development of a new urban climate model based on the model PALMÂâ€“ Project overview, planned work, and first achievements. Meteorologische Zeitschrift, 2019, 28, 105-119.	0.5	47
33	Spectral actinic flux and its ratio to spectral irradiance by radiation transfer calculations. Journal of Geophysical Research, 1993, 98, 1151-1162.	3.3	46
34	Influences of the 2010 EyjafjallajÃ¶kull volcanic plume on air quality in the northern Alpine region. Atmospheric Chemistry and Physics, 2011, 11, 8555-8575.	1.9	46
35	A relaxed-eddy-accumulation method for the measurement of isoprenoid canopy-fluxes using an online gas-chromatographic technique and PTR-MS simultaneously. Atmospheric Environment, 2006, 40, 43-54.	1.9	44
36	Sensitivity of feedback effects in CBMZ/MOSAIC chemical mechanism. Atmospheric Environment, 2015, 115, 646-656.	1.9	37

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37	Sensitivity analysis of the microphysics scheme in WRF-Chem contributions to AQMEII phase 2. Atmospheric Environment, 2015, 115, 620-629.	1.9	37
38	Modelling of radiation quantities and photolysis frequencies in the aqueous phase in the troposphere. Atmospheric Environment, 1997, 31, 3137-3150.	1.9	35
39	Experiments on forest/atmosphere exchange: Climatology and fluxes during two summer campaigns in NE Bavaria. Atmospheric Environment, 2006, 40, 3-20.	1.9	35
40	Nested regional climateâ€“chemistry simulations for central Europe. Comptes Rendus - Geoscience, 2007, 339, 734-746.	0.4	30
41	Application of transilient turbulent theory to study interactions between the atmospheric boundary layer and forest canopies. Boundary-Layer Meteorology, 1996, 79, 315-344.	1.2	29
42	Emission fluxes and atmospheric degradation of monoterpenes above a boreal forest: field measurements and modelling. Tellus, Series B: Chemical and Physical Meteorology, 2022, 53, 406.	0.8	27
43	Emission fluxes and atmospheric degradation of monoterpenes above a boreal forest: field measurements and modelling. Tellus, Series B: Chemical and Physical Meteorology, 2001, 53, 406-422.	0.8	26
44	Evaluation of the high resolution WRF-Chem (v3.4.1) air quality forecast and its comparison with statistical ozone predictions. Geoscientific Model Development, 2015, 8, 2119-2137.	1.3	23
45	Insights into the deterministic skill of air quality ensembles from the analysis of AQMEII data. Atmospheric Chemistry and Physics, 2016, 16, 15629-15652.	1.9	23
46	Development of an atmospheric chemistry model coupled to the PALM model system 6.0: implementation and first applications. Geoscientific Model Development, 2021, 14, 1171-1193.	1.3	21
47	A oneâ€dimensional numerical model to simulate formation and balance of sulfate during radiation fog events. Journal of Geophysical Research, 1990, 95, 18501-18515.	3.3	20
48	An assessment of aerosol optical properties from remote-sensing observations and regional chemistryâ€“climate coupled models over Europe. Atmospheric Chemistry and Physics, 2018, 18, 5021-5043.	1.9	18
49	Title is missing!. Journal of Atmospheric Chemistry, 2002, 42, 159-177.	1.4	17
50	Regional effects of atmospheric aerosols on temperature: an evaluation of an ensemble of online coupled models. Atmospheric Chemistry and Physics, 2017, 17, 9677-9696.	1.9	14
51	Comparison of energy fluxes calculated with the Penman-Monteith equation and the vegetation models SiB and Cupid. Journal of Hydrology, 1995, 166, 193-211.	2.3	12
52	Evaluating cloud properties in an ensemble of regional online coupled models against satellite observations. Atmospheric Chemistry and Physics, 2018, 18, 15183-15199.	1.9	8
53	Fog chemistry during EUMAC Joint Cases: Analysis of routine measurements in southern Germany and model calculations. Meteorology and Atmospheric Physics, 1995, 57, 61-86.	0.9	7
54	Biogenic aerosol formation in the boreal forest. Journal of Aerosol Science, 2000, 31, 598-599.	1.8	6

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55	A Multi-model Case Study on Aerosol Feedbacks in Online Coupled Chemistry-Meteorology Models Within the COST Action ES1004 EuMetChem. Springer Proceedings in Complexity, 2016, , 23-28.	0.2	6
56	Emission of Biogenic Volatile Organic Compounds: An Overview of Field, Laboratory and Modelling Studies Performed during the â€˜Tropospheric Research Programâ€™ (TFS) 1997â€“2000. , 2002, , 159-177.		6
57	Application and intercomparison of the RADM2 and RACM chemistry mechanism including a new isoprene degradation scheme within the regional meteorology-chemistry-model MCCM. International Journal of Environment and Pollution, 2010, 40, 136.	0.2	4
58	Advances in Boundary-Layer/Air Pollution Meteorology. Advances in Meteorology, 2016, 2016, 1-2.	0.6	4
59	Temporal and spatial structure of a volcanic ash cloud: ground-based remote sensing and numerical modeling. , 2010, , .		1
60	The On-Line Coupled Mesoscale Climateâ€“Chemistry Model MCCM: A Modelling Tool for Short Episodes as well as for Climate Periods. , 2010, , 81-88.		1
61	Cloud and Fog Effects and Their Parameterisation in Regional Air Quality Models. , 1997, , 121-155.		1
62	A one-dimensional numerical model to simulate liquid phase chemical reactions within radiation fog. Journal of Aerosol Science, 1989, 20, 1139-1142.	1.8	0
63	Front Matter: Volume 7827. , 2010, , .		0
64	Ozone and volatile organic compounds: isoprene, terpenes, aldehydes, and organic acids. Tree Physiology, 2002, , 257-276.	0.9	0
65	A Case Study on the Impact of Aerosol-Radiation Feedback on Meteorology and Regional Pollutant Distributions. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 357-361.	0.1	0
66	Cool Citiesâ€”Clean Cities? Secondary Impacts of Urban Heat Island Mitigation Strategies on Urban Air Quality. Springer Proceedings in Complexity, 2016, , 371-375.	0.2	0
67	Air Pollution Assessment in an Alpine Valley. NATO Security Through Science Series C: Environmental Security, 2008, , 723-724.	0.1	0