

Christian Hogrefe

List of Publications by Year in descending order

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127
papers

5,146
citations

94433

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191
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4499
citing authors

#	ARTICLE	IF	CITATIONS
1	Four Decades of United States Mobile Source Pollutants: Spatialâ€Temporal Trends Assessed by Ground-Based Monitors, Air Quality Models, and Satellites. <i>Environmental Science & Technology</i> , 2021, 55, 882-892.	10.0	17
2	Estimating US Background Ozone Using Data Fusion. <i>Environmental Science & Technology</i> , 2021, 55, 4504-4512.	10.0	5
3	The Community Multiscale Air Quality (CMAQ) model versions 5.3 and 5.3.1: system updates and evaluation. <i>Geoscientific Model Development</i> , 2021, 14, 2867-2897.	3.6	114
4	Incorporation of volcanic SO ₂ emissions in the Hemispheric CMAQ (H-CMAQ) version 5.2 modeling system and assessing their impacts on sulfate aerosol over the Northern Hemisphere. <i>Geoscientific Model Development</i> , 2021, 14, 5751-5768.	3.6	3
5	A reflection on 10 years of the Air Quality Model Evaluation International Initiative. <i>Journal of the Air and Waste Management Association</i> , 2021, 71, 1454-1457.	1.9	0
6	Need and Potential Benefits of Improving Aloft Air Pollution Characterization: A Modeling Perspective. <i>Springer Proceedings in Complexity</i> , 2021, , 139-144.	0.3	0
7	Technical note: AQMEII4 Activity 1: evaluation of wet and dry deposition schemes as an integral part of regional-scale air quality models. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 15663-15697.	4.9	14
8	Impact of Reductions in Emissions from Major Source Sectors on Fine Particulate Matterâ€Related Cardiovascular Mortality. <i>Environmental Health Perspectives</i> , 2020, 128, 17005.	6.0	15
9	Unexpected air quality impacts from implementation of green infrastructure in urban environments: A Kansas City case study. <i>Science of the Total Environment</i> , 2020, 744, 140960.	8.0	12
10	Assessing the manageable portion of ground-level ozone in the contiguous United States. <i>Journal of the Air and Waste Management Association</i> , 2020, 70, 1136-1147.	1.9	3
11	On the limit to the accuracy of regional-scale air quality models. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 1627-1639.	4.9	12
12	Modeling stratospheric intrusion and trans-Pacific transport on tropospheric ozone using hemispheric CMAQ during April 2010 â€ Part 1: Model evaluation and air mass characterization for stratosphereâ€troposphere transport. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3373-3396.	4.9	14
13	Modeling stratospheric intrusion and trans-Pacific transport on tropospheric ozone using hemispheric CMAQ during April 2010 â€ Part 2: Examination of emission impacts based on the higher-order decoupled direct method. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3397-3413.	4.9	12
14	A Proof-of-Concept for Linking the Global Meteorological Model, MPAS-a with the Air Quality Model, CMAQ. <i>Springer Proceedings in Complexity</i> , 2020, , 35-40.	0.3	1
15	Long-Term Trends in Sulfur and Reactive Nitrogen Deposition Across the Northern Hemisphere and United States. <i>Springer Proceedings in Complexity</i> , 2020, , 41-45.	0.3	1
16	Evaluating trends and seasonality in modeled PM _{2.5} concentrations using empirical mode decomposition. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13801-13815.	4.9	9
17	Continental-Scale Analysis of Atmospheric Deposition Over North America and Europe Using the AQMEII Database. <i>Springer Proceedings in Complexity</i> , 2020, , 305-308.	0.3	3
18	Multi-model Assessment of Air Pollution-Related Premature Mortality in Europe and U.S.: Domestic Versus Foreign Contributions. <i>Springer Proceedings in Complexity</i> , 2020, , 461-467.	0.3	0

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19	Evaluating trends and seasonality in modeled PM concentrations using empirical mode decomposition. Atmospheric Chemistry and Physics, 2020, 20, 13801-13815.	4.9	1
20	A new method for assessing the efficacy of emission control strategies. Atmospheric Environment, 2019, 199, 233-243.	4.1	9
21	Modelling black carbon absorption of solar radiation: combining external and internal mixing assumptions. Atmospheric Chemistry and Physics, 2019, 19, 181-204.	4.9	24
22	Impacts of different characterizations of large-scale background on simulated regional-scale ozone over the continental United States. Atmospheric Chemistry and Physics, 2018, 18, 3839-3864.	4.9	45
23	Attributing differences in the fate of lateral boundary ozone in AQMEII3 models to physical process representations. Atmospheric Chemistry and Physics, 2018, 18, 17157-17175.	4.9	5
24	Two-scale multi-model ensemble: is a hybrid ensemble of opportunity telling us more?. Atmospheric Chemistry and Physics, 2018, 18, 8727-8744.	4.9	10
25	Modeled deposition of nitrogen and sulfur in Europe estimated by 14 air quality model systems: evaluation, effects of changes in emissions and implications for habitat protection. Atmospheric Chemistry and Physics, 2018, 18, 10199-10218.	4.9	47
26	Seasonal ozone vertical profiles over North America using the AQMEII3 group of air quality models: model inter-comparison and stratospheric intrusions. Atmospheric Chemistry and Physics, 2018, 18, 13925-13945.	4.9	2
27	Long-term trends in the ambient PM _{2.5} and O ₃ -related mortality burdens in the United States under emission reductions from 1990 to 2010. Atmospheric Chemistry and Physics, 2018, 18, 15003-15016.	4.9	56
28	A Call for an Aloft Air Quality Monitoring Network: Need, Feasibility, and Potential Value. Environmental Science & Technology, 2018, 52, 10903-10908.	10.0	15
29	Assessment and economic valuation of air pollution impacts on human health over Europe and the United States as calculated by a multi-model ensemble in the framework of AQMEII3. Atmospheric Chemistry and Physics, 2018, 18, 5967-5989.	4.9	68
30	Influence of anthropogenic emissions and boundary conditions on multi-model simulations of major air pollutants over Europe and North America in the framework of AQMEII3. Atmospheric Chemistry and Physics, 2018, 18, 8929-8952.	4.9	32
31	Long-term trends in total inorganic nitrogen and sulfur deposition in the US from 1990 to 2010. Atmospheric Chemistry and Physics, 2018, 18, 9091-9106.	4.9	74
32	Influence of Boundary Conditions on Regional Air Quality Simulations—Analysis of AQMEII Phase 3 Results. Springer Proceedings in Complexity, 2018, , 393-399.	0.3	0
33	The New Generation of Air Quality Modeling Systems. Em: Air and Waste Management Association's Magazine for Environmental Managers, 2018, 1, 1-6.	0.2	0
34	Persistence of initial conditions in continental scale air quality simulations. Atmospheric Environment, 2017, 160, 36-45.	4.1	14
35	Dynamic evaluation of two decades of WRF-CMAQ ozone simulations over the contiguous United States. Atmospheric Environment, 2017, 164, 102-116.	4.1	42
36	A reduced form model for ozone based on two decades of CMAQ simulations for the continental United States. Atmospheric Pollution Research, 2017, 8, 275-284.	3.8	12

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37	Evaluation and error apportionment of an ensemble of atmospheric chemistry transport modeling systems: multivariable temporal and spatial breakdown. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 3001-3054.	4.9	69
38	Extending the Community Multiscale Air Quality (CMAQ) modeling system to hemispheric scales: overview of process considerations and initial applications. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 12449-12474.	4.9	83
39	Advanced error diagnostics of the CMAQ and Chimere modelling systems within the AQMEII3 model evaluation framework. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 10435-10465.	4.9	22
40	Technical note: Coordination and harmonization of the multi-scale, multi-model activities HTAP2, AQMEII3, and MICS-Asia3: simulations, emission inventories, boundary conditions, and model output formats. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1543-1555.	4.9	81
41	Impacts of aerosol direct effects on tropospheric ozone through changes in atmospheric dynamics and photolysis rates. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 9869-9883.	4.9	129
42	Description and evaluation of the Community Multiscale Air Quality (CMAQ) modeling system version 5.1. <i>Geoscientific Model Development</i> , 2017, 10, 1703-1732.	3.6	187
43	Historical Trends in PM _{2.5} -Related Premature Mortality during 1990–2010 across the Northern Hemisphere. <i>Environmental Health Perspectives</i> , 2017, 125, 400-408.	6.0	80
44	Assessment of the effects of horizontal grid resolution on long-term air quality trends using coupled WRF-CMAQ simulations. <i>Atmospheric Environment</i> , 2016, 132, 207-216.	4.1	35
45	Improved meteorology from an updated WRF/CMAQ modeling system with MODIS vegetation and albedo. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 2393-2415.	3.3	32
46	Representing the effects of stratosphere–troposphere exchange on 3-D O ₃ distributions in chemistry transport models using a potential vorticity-based parameterization. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 10865-10877.	4.9	22
47	Insights into the deterministic skill of air quality ensembles from the analysis of AQMEII data. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 15629-15652.	4.9	23
48	Unexpected Benefits of Reducing Aerosol Cooling Effects. <i>Environmental Science & Technology</i> , 2016, 50, 7527-7534.	10.0	30
49	Global and Regional Modeling of Long-Range Transport and Intercontinental Source-Receptor Linkages. <i>Springer Proceedings in Complexity</i> , 2016, , 245-250.	0.3	1
50	Application and Evaluation of MODIS LAI, FPAR, and Albedo Products in the WRF/CMAQ System. <i>Springer Proceedings in Complexity</i> , 2016, , 619-624.	0.3	1
51	Metamodels for Ozone: Comparison of Three Estimation Techniques. <i>Springer Proceedings in Complexity</i> , 2016, , 537-542.	0.3	0
52	Air pollution and climate response to aerosol direct radiative effects: A modeling study of decadal trends across the northern hemisphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 12,221.	3.3	33
53	Impact of inherent meteorology uncertainty on air quality model predictions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 12,259.	3.3	35
54	Observations and modeling of air quality trends over 1990–2010 across the Northern Hemisphere: China, the United States and Europe. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 2723-2747.	4.9	178

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55	Assessment of long-term WRF&CMAQ simulations for understanding direct aerosol effects on radiation "brightening" in the United States. Atmospheric Chemistry and Physics, 2015, 15, 12193-12209.	4.9	39
56	Can a coupled meteorology&chemistry model reproduce the historical trend in aerosol direct radiative effects over the Northern Hemisphere?. Atmospheric Chemistry and Physics, 2015, 15, 9997-10018.	4.9	37
57	Dynamic evaluation of CMAQ part I: Separating the effects of changing emissions and changing meteorology on ozone levels between 2002 and 2005 in the eastern US. Atmospheric Environment, 2015, 103, 247-255.	4.1	42
58	Dynamic evaluation of CMAQ part II: Evaluation of relative response factor metrics for ozone attainment demonstrations. Atmospheric Environment, 2015, 103, 188-195.	4.1	23
59	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.	4.1	92
60	Annual application and evaluation of the online coupled WRF&CMAQ system over North America under AQMEII phase 2. Atmospheric Environment, 2015, 115, 683-694.	4.1	61
61	A multi-model assessment for the 2006 and 2010 simulations under the Air Quality Model Evaluation International Initiative (AQMEII) phase 2 over North America: Part I. Indicators of the sensitivity of O3 and PM2.5 formation regimes. Atmospheric Environment, 2015, 115, 569-586.	4.1	36
62	Comparative analysis of meteorological performance of coupled chemistry-meteorology models in the context of AQMEII phase 2. Atmospheric Environment, 2015, 115, 470-498.	4.1	85
63	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.	4.1	168
64	Methods for reducing biases and errors in regional photochemical model outputs for use in emission reduction and exposure assessments. Atmospheric Environment, 2015, 112, 178-188.	4.1	16
65	A comparison between 2010 and 2006 air quality and meteorological conditions, and emissions and boundary conditions used in simulations of the AQMEII-2 North American domain. Atmospheric Environment, 2015, 115, 389-403.	4.1	17
66	Respiratory hospitalizations in association with fine PM and its components in New York State. Journal of the Air and Waste Management Association, 2015, 65, 559-569.	1.9	25
67	A multi-model assessment for the 2006 and 2010 simulations under the Air Quality Model Evaluation International Initiative (AQMEII) Phase 2 over North America: Part II. Evaluation of column variable predictions using satellite data. Atmospheric Environment, 2015, 115, 587-603.	4.1	25
68	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.	4.1	133
69	Assessment of the effect of air pollution controls on trends in shortwave radiation over the United States from 1995 through 2010 from multiple observation networks. Atmospheric Chemistry and Physics, 2014, 14, 1701-1715.	4.9	43
70	Investigation of Trends in Aerosol Direct Radiative Effects over North America Using a Coupled Meteorology-Chemistry Model. Springer Proceedings in Complexity, 2014, , 67-72.	0.3	5
71	Air Quality Model Evaluation International Initiative (AQMEII): A Two-Continent Effort for the Evaluation of Regional Air Quality Models. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 455-462.	0.2	0
72	Dynamic Evaluation of the CMAQv5.0 Modeling System: Assessing the Model&TM's Ability to Simulate Ozone Changes Due to NOx Emission Reductions. Springer Proceedings in Complexity, 2014, , 433-438.	0.3	0

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73	Application of the Kolmogorov-Zurbenko filter and the decoupled direct 3D method for the dynamic evaluation of a regional air quality model. Atmospheric Environment, 2013, 80, 58-69.	4.1	31
74	Historical gaseous and primary aerosol emissions in the United States from 1990 to 2010. Atmospheric Chemistry and Physics, 2013, 13, 7531-7549.	4.9	148
75	Emissions versus climate change. Nature Geoscience, 2012, 5, 685-686.	12.9	4
76	Trace gas/aerosol boundary concentrations and their impacts on continental-scale AQMEII modeling domains. Atmospheric Environment, 2012, 53, 38-50.	4.1	72
77	New Directions: Understanding interactions of air quality and climate change at regional scales. Atmospheric Environment, 2012, 49, 419-421.	4.1	33
78	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.	4.1	192
79	Comparison of measured and forecast-based vertical ozone profiles in the lowest 3 km of the atmosphere over the Eastern US during summer 2007. Atmospheric Pollution Research, 2011, 2, 351-357.	3.8	0
80	Integrating PM25 Observations, Model Estimates and Satellite Signals for the Eastern United States by Projection onto Latent Structures. NATO Science for Peace and Security Series C: Environmental Security, 2011, , 353-358.	0.2	0
81	Dynamic Evaluation of Long-Term Air Quality Model Simulations over the Northeastern U.S.. NATO Science for Peace and Security Series C: Environmental Security, 2011, , 519-524.	0.2	0
82	Testing GISS-MM5 physics configurations for use in regional impacts studies. Climatic Change, 2010, 99, 567-587.	3.6	9
83	A framework for evaluating regional-scale numerical photochemical modeling systems. Environmental Fluid Mechanics, 2010, 10, 471-489.	1.6	171
84	Dynamic evaluation of a regional air quality model: Assessing the emissions-induced weekly ozone cycle. Atmospheric Environment, 2010, 44, 3583-3596.	4.1	45
85	Evaluation of an 18-year CMAQ simulation: Seasonal variations and long-term temporal changes in sulfate and nitrate. Atmospheric Environment, 2010, 44, 3745-3752.	4.1	20
86	A Retrospective Comparison of Model-Based Forecasted PM2.5 Concentrations with Measurements. Journal of the Air and Waste Management Association, 2010, 60, 1293-1308.	1.9	25
87	A combined model-observation approach to estimate historic gridded fields of PM2.5 mass and species concentrations. Atmospheric Environment, 2009, 43, 2561-2570.	4.1	46
88	A diagnostic comparison of measured and model-predicted speciated VOC concentrations. Atmospheric Environment, 2009, 43, 5759-5770.	4.1	16
89	Simulated effects of climate change on summertime nitrogen deposition in the eastern US. Atmospheric Environment, 2008, 42, 2074-2082.	4.1	10
90	Dynamic evaluation of regional air quality models: Assessing changes in O3 stemming from changes in emissions and meteorology. Atmospheric Environment, 2008, 42, 5110-5123.	4.1	116

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91	A procedure for inter-comparing the skill of regional-scale air quality model simulations of daily maximum 8-h ozone concentrations. Atmospheric Environment, 2008, 42, 5403-5412.	4.1	6
92	Performance evaluation of an air quality forecast modeling system for a summer and winter season “ Photochemical oxidants and their precursors. Atmospheric Environment, 2008, 42, 8585-8599.	4.1	29
93	Linking global to regional models to assess future climate impacts on surface ozone levels in the United States. Journal of Geophysical Research, 2008, 113, .	3.3	106
94	Rethinking the Assessment of Photochemical Modeling Systems in Air Quality Planning Applications. Journal of the Air and Waste Management Association, 2008, 58, 1086-1099.	1.9	26
95	Modeling Analyses of the Effects of Changes in Nitrogen Oxides Emissions from the Electric Power Sector on Ozone Levels in the Eastern United States. Journal of the Air and Waste Management Association, 2008, 58, 580-588.	1.9	25
96	Impacts of Heat and Ozone on Mortality Risk in the New York City Metropolitan Region Under a Changing Climate. , 2008, , 143-160.		10
97	Evaluating Regional-Scale Air Quality Models. NATO Security Through Science Series C: Environmental Security, 2008, , 412-419.	0.1	1
98	Linking Global and Regional Models to Simulate U.S. Air Quality in the Year 2050. NATO Security Through Science Series C: Environmental Security, 2008, , 559-567.	0.1	1
99	Chapter 2.10 Modeling assessment of the impact of nitrogen oxides emission reductions on ozone air quality in the Eastern United States: Offsetting increases in energy use. Developments in Environmental Science, 2007, , 177-188.	0.5	1
100	Projecting Heat-Related Mortality Impacts Under a Changing Climate in the New York City Region. American Journal of Public Health, 2007, 97, 2028-2034.	2.7	193
101	Estimating the effects of increased urbanization on surface meteorology and ozone concentrations in the New York City metropolitan region. Atmospheric Environment, 2007, 41, 1803-1818.	4.1	141
102	Climate change, ambient ozone, and health in 50 US cities. Climatic Change, 2007, 82, 61-76.	3.6	288
103	Temporal Signatures of Observations and Model Outputs: Do Time Series Decomposition Methods Capture Relevant Time Scales?. , 2007, , 421-429.		0
104	Objective Reduction of the Space-Time Domain Dimensionality for Evaluating Model Performance. , 2007, , 543-552.		0
105	Evaluation of an Annual Simulation of Ozone and Fine Particulate Matter over the Continental United States “ Which Temporal Features are Captured?. , 2007, , 562-570.		0
106	An objective comparison of CMAQ and REMSAD performances. Atmospheric Environment, 2006, 40, 4920-4934.	4.1	7
107	New methods for evaluating meteorological models used in air quality applications. Atmospheric Environment, 2006, 40, 5073-5086.	4.1	89
108	Assessing the Comparability of Ammonium, Nitrate and Sulfate Concentrations Measured by Three Air Quality Monitoring Networks. Pure and Applied Geophysics, 2005, 162, 1919-1939.	1.9	20

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109	Examination of model predictions at different horizontal grid resolutions. Environmental Fluid Mechanics, 2005, 5, 63-85.	1.6	29
110	Ozone: Kinney et al. Respond. Environmental Health Perspectives, 2005, 113, .	6.0	0
111	An Assessment of the Sensitivity and Reliability of the Relative Reduction Factor Approach in the Development of 8-hr Ozone Attainment Plans. Journal of the Air and Waste Management Association, 2005, 55, 13-19.	1.9	18
112	Ozone: Kinney et al. Respond. Environmental Health Perspectives, 2005, 113, A87-A87.	6.0	3
113	Assessing Ozone-Related Health Impacts under a Changing Climate. Environmental Health Perspectives, 2004, 112, 1557-1563.	6.0	208
114	HEALTH IMPACTS FROM CLIMATE-CHANGE INDUCED CHANGES IN OZONE LEVELS IN 85 UNITED STATES CITIES. Epidemiology, 2004, 15, S94-S95.	2.7	2
115	EVALUATING GLOBAL CLIMATE CHANGE IMPACTS ON LOCAL HEALTH ACROSS A DIVERSE URBAN REGION. Epidemiology, 2004, 15, S100.	2.7	6
116	CHILDHOOD ASTHMA PROJECTIONS FOR ATLANTA UNDER A FUTURE CLIMATE CHANGE SCENARIO. Epidemiology, 2004, 15, S97.	2.7	0
117	Comparison of the Space-Time Signatures of Air Quality Data From Different Monitoring Networks. , 2004, , 481-490.		1
118	A comparison of four techniques for separating different time scales in atmospheric variables. Atmospheric Environment, 2003, 37, 313-325.	4.1	35
119	Evaluating the performance of regional-scale meteorological models: effect of clouds simulation on temperature prediction. Atmospheric Environment, 2003, 37, 1425-1433.	4.1	6
120	An Assessment of the Emissions Inventory Processing Systems EMS-2001 and SMOKE in Grid-Based Air Quality Models. Journal of the Air and Waste Management Association, 2003, 53, 1121-1129.	1.9	16
121	Demonstrating Attainment of the Air Quality Standards: Integration of Observations and Model Predictions into the Probabilistic Framework. Journal of the Air and Waste Management Association, 2001, 51, 1060-1072.	1.9	18
122	Evaluating the performance of regional-scale photochemical modeling systems: Part I – meteorological predictions. Atmospheric Environment, 2001, 35, 4159-4174.	4.1	89
123	Evaluating the performance of regional-scale photochemical modeling systems: Part II – ozone predictions. Atmospheric Environment, 2001, 35, 4175-4188.	4.1	111
124	Evaluating the performance of regional-scale photochemical modeling systems. Part III – Precursor predictions. Atmospheric Environment, 2001, 35, 6129-6149.	4.1	24
125	Interpreting the Information in Ozone Observations and Model Predictions Relevant to Regulatory Policies in the Eastern United States. Bulletin of the American Meteorological Society, 2000, 81, 2083-2106.	3.3	78
126	An Integrated Modeling and Observational Approach for Designing Ozone Control Strategies for the Eastern U.S., 2000, , 3-18.		2

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127	LONG-RANGE TRANSPORT OF ATMOSPHERIC POLLUTANTS AND TRANSBOUNDARY POLLUTION. , 0, , 35-46.		0