Carlos Borrego

List of Publications by Year
in descending order

166 papers	4,458 citations	81743 39 h-index	133063 59 g-index
172 all docs	172 docs citations	172 times ranked	5140 citing authors

#	Article	IF	Citations
1	Tourism and Air Quality: Factors Influencing the Role of Air Quality in Visitors Travel Planning. Tourism Planning and Development, 2024, 21, 20-40.	1.3	3
2	pollution and respiratory diseases: Perspectives from Angola, Brazil, Canada, Iran, Mozambique and Portugal. Pulmonology, 2022, 28, 376-395.	1.0	11
3	How can the built environment affect the impact of autonomous vehiclesâ€™ operational behaviour on air quality?. Journal of Environmental Management, 2022, 315, 115154.	3.8	4
4	Worldwide Evaluation of CAMS-EGG4 CO2 Data Re-Analysis at the Surface Level. Toxics, 2022, 10, 331.	1.6	1
5	The impact of air quality on tourism: a systematic literature review. Journal of Tourism Futures, 2021, 7, 111-130.	2.3	27
6	Improving the design of an open auditorium: On the relationship between flow dynamics and building arrangement. Sustainable Cities and Society, 2021, 64, 102513.	5.1	4
7	High-Resolution Analysis of Wind Flow Behavior on Ship Stacks Configuration: A Portuguese Case Study. Atmosphere, 2021, 12, 303.	1.0	1
8	Emission inventory for harbour-related activities: comparison of two distinct bottom-up methodologies. Air Quality, Atmosphere and Health, 2021, 14, 831-842.	1.5	10
9	Assessing Douro Vineyards Exposure to Tropospheric Ozone. Atmosphere, 2021, 12, 200.	1.0	8
10	Tourism and Air Quality during COVID-19 Pandemic: Lessons for the Future. Sustainability, 2021, 13, 3906.	1.6	10
11	Estimating emissions from tourism activities. Atmospheric Environment, 2020, 220, 117048.	1.9	33
12	Impact of harbour activities on local air quality: A review. Environmental Pollution, 2020, 257, 113542.	3.7	66
13	Re-Naturing Cities: Evaluating the effects on future air quality in the city of Porto. Atmospheric Environment, 2020, 222, 117123.	1.9	5
14	Annual and seasonal variability of greenhouse gases fluxes over coastal urban and suburban areas in Portugal: Measurements and source partitioning. Atmospheric Environment, 2020, 223, 117204.	1.9	9
15	Application of SUEWS model forced with WRF: Energy fluxes validation in urban and suburban Portuguese areas. Urban Climate, 2020, 33, 100662.	2.4	10
16	Climate-Change Adaptation Framework for Multiple Urban Areas in Northern Portugal. Environmental Management, 2020, 66, 395-406.	1.2	9
17	Comparison of Methodologies for Assessing Desert Dust Contribution to Regional PM10 and PM2.5 Levels: A One-Year Study Over Portugal. Atmosphere, 2020, 11, 134.	1.0	12
18	Autonomous vehicles opportunities for cities air quality. Science of the Total Environment, 2020, 712, 136546.	3.9	50

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19	Modelling of Regional Economic Metabolism. Climate, 2020, 8, 52.	1.2	0
20	Analysis of regional economic metabolism through modeling. Energy Reports, 2020, 6, 102-107.	2.5	6
21	Spatial analysis of aerosol optical depth obtained by air quality modelling and SEVIRI satellite observations over Portugal. Atmospheric Pollution Research, 2019, 10, 234-243.	1.8	3
22	Integrating road traffic externalities through a sustainability indicator. Science of the Total Environment, 2019, 691, 483-498.	3.9	38
23	Assessment of source contribution to air quality in an urban area close to a harbor: Case-study in Porto, Portugal. Science of the Total Environment, 2019, 662, 347-360.	3.9	38
24	Performance assessment of CHIMERE and EURAD-IMâ€™ dust modules. Atmospheric Pollution Research, 2019, 10, 1336-1346.	1.8	15
25	Assessing the importance of transportation activity data for urban emission inventories. Transportation Research, Part D: Transport and Environment, 2018, 62, 27-35.	3.2	22
26	Emissions from residential combustion sector: how to build a high spatially resolved inventory. Air Quality, Atmosphere and Health, 2018, 11, 259-270.	1.5	12
27	How economic crisis influence air quality over Portugal (Lisbon and Porto)?. Atmospheric Pollution Research, 2018, 9, 439-445.	1.8	20
28	How healthy will be the air quality in 2050?. Air Quality, Atmosphere and Health, 2018, 11, 353-362.	1.5	12
29	Influence of different complexity levels of road traffic models on air quality modelling at street scale. Air Quality, Atmosphere and Health, 2018, 11, 1217-1232.	1.5	20
30	Adaptation to Climate Change at Local Scale: A CFD Study in Porto Urban Area. , 2018, , .		3
31	Impacts of green infrastructures on aerodynamic flow and air quality in Porto's urban area. Atmospheric Environment, 2018, 190, 317-330.	1.9	54
32	How important are maritime emissions for the air quality: At European and national scale. Environmental Pollution, 2018, 242, 565-575.	3.7	44
33	Numerical and physical assessment of control measures to mitigate fugitive dust emissions from harbor activities. Air Quality, Atmosphere and Health, 2018, 11, 493-504.	1.5	16
34	Long-term monitoring of trace metals in PM10 and total gaseous mercury in the atmosphere of Porto, Portugal. Atmospheric Pollution Research, 2017, 8, 535-544.	1.8	19
35	Case Studies: Modeling the Atmospheric Benefits of Urban Greening. Future City, 2017, , 89-99.	0.2	0
36	A cost-efficiency and health benefit approach to improve urban air quality. Science of the Total Environment, 2016, 569-570, 342-351.	3.9	35

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37	Assessment of health benefits related to air quality improvement strategies in urban areas: An Impact Pathway Approach. Journal of Environmental Management, 2016, 183, 694-702.	3.8	33
38	Influence of urban resilience measures in the magnitude and behaviour of energy fluxes in the city of Porto (Portugal) under a climate change scenario. Science of the Total Environment, 2016, 566-567, 1500-1510.	3.9	32
39	Air quality plan for ozone: an urgent need for North Portugal. Air Quality, Atmosphere and Health, 2016, 9, 447-460.	1.5	21
40	Climate change and pollutant emissions impacts on air quality in 2050 over Portugal. Atmospheric Environment, 2016, 131, 209-224.	1.9	37
41	Urban scale air quality modelling using detailed traffic emissions estimates. Atmospheric Environment, 2016, 131, 341-351.	1.9	45
42	Long-term monitoring and seasonal analysis of polycyclic aromatic hydrocarbons (PAHs) measured over a decade in the ambient air of Porto, Portugal. Science of the Total Environment, 2016, 543, 439-448.	3.9	68
43	Evaluating strategies to reduce urban air pollution. Atmospheric Environment, 2016, 127, 196-204.	1.9	44
44	Air Quality Modelling to Support Decision-Making: Scenario and Optimization Approaches. Springer Proceedings in Complexity, 2016, , 161-165.	0.2	1
45	How does the use of biodiesel affect urban air quality?. International Journal of Environment and Pollution, 2015, 58, 79.	0.2	2
46	Current air quality plans in Europe designed to support air quality management policies. Atmospheric Pollution Research, 2015, 6, 434-443.	1.8	77
47	Meteorological driven changes on air quality over Portugal: a KZ filterÂapplication. Atmospheric Pollution Research, 2015, 6, 979-989.	1.8	33
48	Challenges for a New Air Quality Directive: The role of monitoring and modelling techniques. Urban Climate, 2015, 14, 328-341.	2.4	28
49	Effects of moisture content on wind erosion thresholds of biochar. Atmospheric Environment, 2015, 123, 121-128.	1.9	23
50	Long-time monitoring of polychlorinated dibenzo-p-dioxins and dibenzofurans over a decade in the ambient air of Porto, Portugal. Chemosphere, 2015, 137, 207-213.	4.2	18
51	Impact of forest biomass residues to the energy supply chain on regional air quality. Science of the Total Environment, 2015, 505, 640-648.	3.9	34
52	Seasonal patterns of Saharan dust over Cape Verde â€“ a combined approach using observations and modelling. Tellus, Series B: Chemical and Physical Meteorology, 2015, 67, 24410.	0.8	37
53	Children's exposure to traffic-related pollution: assessment of CO exposure in a typical school day. International Journal of Environment and Pollution, 2014, 55, 104.	0.2	3
54	Integrating Health on Air Quality Assessmentâ€"Review Report on Health Risks of Two Major European Outdoor Air Pollutants: PM and NO₂. Journal of Toxicology and Environmental Health - Part B: Critical Reviews, 2014, 17, 307-340.	2.9	138

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55	Emissions characterization from EURO 5 diesel/biodiesel passenger car operating under the new European driving cycle. Atmospheric Environment, 2014, 84, 339-348.	1.9	53
56	Area burned in Portugal over recent decades: an extreme value analysis. International Journal of Wildland Fire, 2014, 23, 812.	1.0	12
57	Individual Exposure to Air Pollutants in a Portuguese Urban Industrialized Area. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2014, 77, 888-899.	1.1	11
58	Assessment of potential improvements on regional air quality modelling related with implementation of a detailed methodology for traffic emission estimation. Science of the Total Environment, 2014, 470-471, 127-137.	3.9	45
59	The EFFIS forest fire atmospheric emission model: Application to a major fire event in Portugal. Atmospheric Environment, 2014, 84, 355-362.	1.9	8
60	Air Pollution and Health Effects. , 2014, , 1-13.		2
61	Merging the Gap Between Meso and Micro Scales: Enhanced Inflow Boundary Conditions for CFD Modeling of Urban Air Quality. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 637-641.	0.1	0
62	Air Quality Modelling and Its Applications. , 2014, , 45-56.		0
63	Modelling the Effects of Urban Morphology, Traffic and Pedestrian Dynamics on Studentsâ€™ Exposure to Air Pollution. Springer Proceedings in Complexity, 2014, , 355-360.	0.2	0
64	Reducing Emissions of Atmospheric Pollutants. , 2014, , 469-478.		0
65	The role of transboundary air pollution over Galicia and North Portugal area. Environmental Science and Pollution Research, 2013, 20, 2924-2936.	2.7	9
66	Ensemble Techniques to Improve Air Quality Assessment: Focus on O3 and PM. Environmental Modeling and Assessment, 2013, 18, 249-257.	1.2	11
67	Analysis of long-range transport of aerosols for Portugal using 3D chemical transport model and satellite measurements. Atmospheric Environment, 2013, 64, 229-241.	1.9	8
68	A comparative analysis of two highly spatially resolved European atmospheric emission inventories. Atmospheric Environment, 2013, 75, 43-57.	1.9	36
69	Air quality assessment of Estarreja, an urban industrialized area, in a coastal region of Portugal. Environmental Monitoring and Assessment, 2013, 185, 5847-5860.	1.3	18
70	CFD modelling of the aerodynamic effect of trees on urban air pollution dispersion. Science of the Total Environment, 2013, 461-462, 541-551.	3.9	186
71	Bias Correction Techniques to Improve Air Quality Ensemble Predictions: Focus on O3 and PM Over Portugal. Environmental Modeling and Assessment, 2013, 18, 533-546.	1.2	27
72	Pedestrian Exposure to Air Pollution in Cities: Modeling the Effect of Roadside Trees. Advances in Meteorology, 2013, 2013, 1-7.	0.6	27

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73	EMISSION MODELLING OF HAZARDOUS AIR POLLUTANTS FROM ROAD TRANSPORT AT URBAN SCALE. Transport, 2012, 27, 299-306.	0.6	20
74	The ACCENT-protocol: a framework for benchmarking and model evaluation. Geoscientific Model Development, 2012, 5, 611-618.	1.3	12
75	Plans and programmes to improve air quality over Portugal: a numerical modelling approach. International Journal of Environment and Pollution, 2012, 48, 60.	0.2	17
76	Children exposure to PM levels in a typical school morning. , 2012, , .		2
77	Reducing NO2 Pollution over Urban Areas: Air Quality Modelling as a Fundamental Management Tool. Water, Air, and Soil Pollution, 2012, 223, 5307-5320.	1.1	13
78	Wildland Smoke Exposure Values and Exhaled Breath Indicators in Firefighters. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2012, 75, 831-843.	1.1	43
79	Particulate Matter and Exposure Modelling in Europe. Handbook of Environmental Chemistry, 2012, , 259-273.	0.2	0
80	Particulate Matter and Health Risk under a Changing Climate: Assessment for Portugal. Scientific World Journal, The, 2012, 2012, 1-10.	0.8	21
81	Urban Structure and Air Quality. , 2012, , .		4
82	Airways changes related to air pollution exposure in wheezing children. European Respiratory Journal, 2012, 39, 246-253.	3.1	67
83	Investigating a high ozone episode in a rural mountain site. Environmental Pollution, 2012, 162, 176-189.	3.7	49
84	Air quality simulations for North America - MM5â€“CAMx modelling performance for main gaseous pollutants. Atmospheric Environment, 2012, 53, 212-224.	1.9	14
85	Trends in ozone concentrations in the Iberian Peninsula by quantile regression and clustering. Atmospheric Environment, 2012, 56, 184-193.	1.9	25
86	Impact of forest fires on particulate matter and ozone levels during the 2003, 2004 and 2005 fire seasons in Portugal. Science of the Total Environment, 2012, 414, 53-62.	3.9	45
87	Detailed modelling of the wind comfort in a city avenue at the pedestrian level. , 2012, , .		5
88	Modelling of tree-induced effects on pedestrian exposure to road traffic pollution. WIT Transactions on the Built Environment, 2012, , .	0.0	3
89	A contribution to air quality management in urban industrialized areas. , 2012, , .		1
90	Modelling the exposure of firefighters to smoke based on measured data. WIT Transactions on Ecology and the Environment, 2012, , .	0.0	2

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91	Recommendations for the spatial assessment of air quality resulting from the FP6 EU project Air4EU. International Journal of Environment and Pollution, 2011, 44, 128.	0.2	1
92	COST 732 in practice: the MUST model evaluation exercise. International Journal of Environment and Pollution, 2011, 44, 403.	0.2	67
93	Impact of land use on urban mobility patterns, emissions and air quality in a Portuguese medium-sized city. Science of the Total Environment, 2011, 409, 1154-1163.	3.9	66
94	Forest fires in a changing climate and their impacts on air quality. Atmospheric Environment, 2011, 45, 5545-5553.	1.9	66
95	How bias-correction can improve air quality forecasts over Portugal. Atmospheric Environment, 2011, 45, 6629-6641.	1.9	50
96	Numerical Model Inter-comparison for Wind Flow and Turbulence Around Single-Block Buildings. Environmental Modeling and Assessment, 2011, 16, 169-181.	1.2	40
97	Fire weather risk assessment under climate change using a dynamical downscaling approach. Environmental Modelling and Software, 2011, 26, 1123-1133.	1.9	44
98	Impact of urban planning alternatives on air quality: URBAIR model application. , 2011, , .		4
99	High Ozone Levels in a Rural Mountainous Area: Where Does It Come from?. NATO Science for Peace and Security Series C: Environmental Security, 2011, , 161-167.	0.1	0
100	The impact of spatial resolution on area burned and fire occurrence projections in Portugal under climate change. Climatic Change, 2010, 98, 177-197.	1.7	86
101	Determination of background concentrations for air quality models using spectral analysis and filtering of monitoring data. Atmospheric Environment, 2010, 44, 106-114.	1.9	47
102	Modelling the photochemical pollution over the metropolitan area of Porto Alegre, Brazil. Atmospheric Environment, 2010, 44, 370-380.	1.9	11
103	Contribution of residential wood combustion to PM10 levels in Portugal. Atmospheric Environment, 2010, 44, 642-651.	1.9	59
104	High ozone levels in the northeast of Portugal: Analysis and characterization. Atmospheric Environment, 2010, 44, 1020-1031.	1.9	48
105	Transport impacts on atmosphere and climate: Land transport. Atmospheric Environment, 2010, 44, 4772-4816.	1.9	285
106	Climate-driven changes in air quality over Europe by the end of the 21st century, with special reference to Portugal. Environmental Science and Policy, 2010, 13, 445-458.	2.4	54
107	Monitoring of firefighters exposure to smoke during fire experiments in Portugal. Environment International, 2010, 36, 736-745.	4.8	50
108	Frequency analysis of air quality time series for traffic related pollutants. Journal of Environmental Monitoring, 2010, 12, 544-550.	2.1	40

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109	Air quality modelling as a tool for sustainable urban traffic management. WIT Transactions on Ecology and the Environment, 2010, , .	0.0	4
110	Numerical modelling of 2003 summer forest fire impacts on air quality over Portugal. , 2010, , .		3
111	Costs and externalities of road transport in Portugal. WIT Transactions on the Built Environment, 2010, , .	0.0	1
112	Monitoring fire-fightersâ€™ smoke exposure and related health effects during Gestosa experimental fires. , 2010, , .		1
113	Forecasting human exposure to atmospheric pollutants in Portugal â€“ A modelling approach. Atmospheric Environment, 2009, 43, 5796-5806.	1.9	25
114	Influence of Thermal Effects on the Wind Field Within the Urban Environment. Boundary-Layer Meteorology, 2009, 131, 223-243.	1.2	27
115	Lisbon air quality: evaluating traffic hot-spots. International Journal of Environment and Pollution, 2009, 39, 306.	0.2	15
116	Effects of road traffic scenarios on human exposure to air pollution. , 2009, , .		2
117	Health impact assessment of exposure to inhalable particles in Lisbon Metropolitan Area. WIT Transactions on Biomedicine and Health, 2009, , .	0.0	1
118	Photochemical Air Pollution Modeling. , 2009, , 269-285.		0
119	Procedures for estimation of modelling uncertainty in air quality assessment. Environment International, 2008, 34, 613-620.	4.8	96
120	Fire activity in Portugal and its relationship to weather and the Canadian Fire Weather Index System. International Journal of Wildland Fire, 2008, 17, 328.	1.0	129
121	A Gaussian puff model with optimal interpolation for air pollution modelling assessment. International Journal of Environment and Pollution, 2008, 35, 111.	0.2	6
122	Linking Urban Structure and Air Quality. , 2008, , .		0
123	Forest Fires Impact on Air Quality over Portugal. NATO Security Through Science Series C: Environmental Security, 2008, , 190-198.	0.1	9
124	The role of PM10in air quality and exposure in urban areas. , 2008, , .		4
125	An operational dropping model towards efficient aerial firefighting. , 2008, , .		1
126	Numerical modelling of the impact of wildland-urban interface fires on Coimbra air quality. , 2008, , .		2

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127	Estimation of the Modelling Uncertainty Related with Stochastic Processes. NATO Security Through Science Series C: Environmental Security, 2008, , 461-469.	0.1	0
128	Chapter 5.6 Long-term aerosol simulation for Portugal using the CHIMERE model. Developments in Environmental Science, 2007, , 534-547.	0.5	0
129	Monitoring of ambient air PCDD/F levels in Portugal. Chemosphere, 2007, 67, 1715-1721.	4.2	53
130	Air quality impact due to scrap-metal handling on a sea port: A wind tunnel experiment. Atmospheric Environment, 2007, 41, 6396-6405.	1.9	9
131	Long-term assessment of particulate matter using CHIMERE model. Atmospheric Environment, 2007, 41, 7726-7738.	1.9	48
132	Air quality assessment for Portugal. Science of the Total Environment, 2007, 373, 22-31.	3.9	53
133	RISK AND EMERGENCY MODELLING FOR ENVIRONMENTAL SECURITY: GENERAL ASPECTS. , 2007, , 1-13.		2
134	Local-scale modelling system to simulate smoke dispersion. International Journal of Wildland Fire, 2007, 16, 196.	1.0	12
135	Air pollution and child respiratory diseases: the Viseu case study, Portugal. WIT Transactions on Ecology and the Environment, 2007, , .	0.0	1
136	Application of TAPM to predict photochemical air pollution over Portugal. WIT Transactions on Ecology and the Environment, 2007, , .	0.0	0
137	How urban structure can affect city sustainability from an air quality perspective. Environmental Modelling and Software, 2006, 21, 461-467.	1.9	165
138	Influence of topography and land use on pollutants dispersion in the Atlantic coast of Iberian Peninsula. Atmospheric Environment, 2006, 40, 3969-3982.	1.9	63
139	Traffic-related particulate air pollution exposure in urban areas. Atmospheric Environment, 2006, 40, 7205-7214.	1.9	59
140	Impact of medical waste incineration in the atmospheric PCDD/F levels of Porto, Portugal. Science of the Total Environment, 2006, 362, 157-165.	3.9	28
141	Air Quality Modelling Application to Evaluate Effects of PM Air Concentrations on Urban Population Exposure.. Epidemiology, 2006, 17, S252-S253.	1.2	5
142	National emissions ceilings for 2005 and 2010 and their impact on Portuguese air quality. WIT Transactions on Ecology and the Environment, 2006, , .	0.0	0
143	Simulation of the plume emitted by a municipal waste incinerator in Madeira Island. International Journal of Environment and Pollution, 2005, 24, 218.	0.2	0
144	Air pollution forecast in Portugal: a demand from the new air quality framework directive. International Journal of Environment and Pollution, 2005, 25, 4.	0.2	26

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145	Portuguese industry and the EU trade emissions directive: development and analysis of CO2 emission scenarios. Environmental Science and Policy, 2005, 8, 75-84.	2.4	9
146	Pesticides in Esteros del Ibera (AR): evaluation of impacts and proposal of guidelines for water quality protection. Ecological Modelling, 2005, 186, 85-97.	1.2	20
147	Long-term simulations of photo oxidant pollution over Portugal using the CHIMERE model. Atmospheric Environment, 2005, 39, 3089-3101.	1.9	46
148	Smoke measurements during Gestosa-2002 experimental field fires. International Journal of Wildland Fire, 2005, 14, 107.	1.0	48
149	INTEGRATED MODELING OF ROAD TRAFFIC EMISSIONS: APPLICATION TO LISBON AIR QUALITY MANAGEMENT. Cybernetics and Systems, 2004, 35, 535-548.	1.6	27
150	Emission and dispersion modelling of Lisbon air quality at local scale. Atmospheric Environment, 2003, 37, 5197-5205.	1.9	101
151	Urban Photochemical Pollution in the Iberian Peninsula: Lisbon and Barcelona Airsheds. Journal of the Air and Waste Management Association, 2003, 53, 347-359.	0.9	56
152	Air quality management in Portugal: example of needs and available tools. Environmental Pollution, 2002, 120, 115-123.	3.7	13
153	Influence of Traffic Emissions Estimation Variability on Urban Air Quality Modelling. Water, Air and Soil Pollution, 2002, 2, 487-499.	0.8	9
154	Atmospheric baseline levels of PCDD and PCDF in the region of Oporto. Chemosphere, 2001, 43, 497-500.	4.2	7
155	Climate Change and Fire Weather Risk. , 2001, , 555-565.		2
156	A modelling system for air quality management. International Journal of Environment and Pollution, 2000, 14, 607.	0.2	1
157	Importance of handling organic atmospheric pollutants for assessing air quality. Journal of Chromatography A, 2000, 889, 271-279.	1.8	16
158	Impact of road traffic emissions on air quality of the Lisbon region. Atmospheric Environment, 2000, 34, 4683-4690.	1.9	52
159	Atmospheric impact assessment and monitoring of dioxin emissions of municipal solid waste incinerators in Portugal. Chemosphere, 1998, 37, 2119-2126.	4.2	18
160	Introduction of a Forest Fire Effect in a Mesoscale Dispersion Model. , 1998, , 419-428.		0
161	Intercomparison of two meso-meteorological models applied to the Lisbon region. Meteorology and Atmospheric Physics, 1995, 57, 21-29.	0.9	7
162	Forest fire emissions in Portugal: A contribution to global warming?. Environmental Pollution, 1994, 83, 121-123.	3.7	41

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163	Water, air and soil pollution problems in Portugal. Science of the Total Environment, 1993, 129, 55-70.	3.9	4
164	Introduction of terrain roughness effects into a Gaussian dispersion model. Science of the Total Environment, 1990, 99, 153-161.	3.9	3
165	Air Quality Plans for the Northern Region of Portugal: Improving Particulate Matter and Coping with Legislation. , 0, , .		3
166	The air pollution modelling system URBAIR: how to use a Gaussian model to accomplish high spatial and temporal resolutions. Air Quality, Atmosphere and Health, 0, , 1.	1.5	2