Rokjin J Park

List of Publications by Year
in descending order

138 papers	10,380 citations	44066 48 h-index	39667 94 g-index
172 all docs	172 docs citations	172 times ranked	8038 citing authors

#	Article	IF	Citations
1	Natural and transboundary pollution influences on sulfate-nitrate-ammonium aerosols in the United States: Implications for policy. Journal of Geophysical Research, 2004, 109, .	3.3	791
2	A large organic aerosol source in the free troposphere missing from current models. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	576
3	Sources of carbonaceous aerosols over the United States and implications for natural visibility. Journal of Geophysical Research, 2003, 108, .	3.3	468
4	Multimodel estimates of intercontinental sourceâ€receptor relationships for ozone pollution. Journal of Geophysical Research, 2009, 114, .	3.3	430
5	The impact of transpacific transport of mineral dust in the United States. Atmospheric Environment, 2007, 41, 1251-1266.	4.1	426
6	Estimating ground-level PM2.5using aerosol optical depth determined from satellite remote sensing. Journal of Geophysical Research, 2006, 111, .	3.3	396
7	Chemical cycling and deposition of atmospheric mercury: Global constraints from observations. Journal of Geophysical Research, 2007, 112, .	3.3	351
8	Sulfate formation in sea-salt aerosols: Constraints from oxygen isotopes. Journal of Geophysical Research, 2005, 110, .	3.3	311
9	Regional visibility statistics in the United States: Natural and transboundary pollution influences, and implications for the Regional Haze Rule. Atmospheric Environment, 2006, 40, 5405-5423.	4.1	223
10	Rethinking the global secondary organic aerosol (SOA) budget: stronger production, faster removal, shorter lifetime. Atmospheric Chemistry and Physics, 2016, 16, 7917-7941.	4.9	216
11	Convective outflow of South Asian pollution: A global CTM simulation compared with EOS MLS observations. Geophysical Research Letters, 2005, 32, n/a-n/a.	4.0	206
12	Transpacific transport of Asian anthropogenic aerosols and its impact on surface air quality in the United States. Journal of Geophysical Research, 2006, 111, .	3.3	203
13	Ozone production in transpacific Asian pollution plumes and implications for ozone air quality in California. Journal of Geophysical Research, 2004, 109, .	3.3	197
14	Air-sea exchange in the global mercury cycle. Global Biogeochemical Cycles, 2007, 21, .	4.9	193
15	Validation of OMI tropospheric NO2 observations during INTEX-B and application to constrain NOxNOx emissions over the eastern United States and Mexico. Atmospheric Environment, 2008, 42, 4480-4497.	4.1	190
16	Modeling of gas and aerosol with WRF/Chem over Europe: Evaluation and sensitivity study. Journal of Geophysical Research, 2012, 117, .	3.3	185
17	Transition metalâ€catalyzed oxidation of atmospheric sulfur: Global implications for the sulfur budget. Journal of Geophysical Research, 2009, 114, .	3.3	176
18	Export efficiency of black carbon aerosol in continental outflow: Global implications. Journal of Geophysical Research, 2005, 110, .	3.3	171

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19	Mapping annual mean ground-level PM2.5concentrations using Multiangle Imaging Spectroradiometer aerosol optical thickness over the contiguous United States. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	165
20	A global simulation of brown carbon: implications for photochemistry and direct radiative effect. Atmospheric Chemistry and Physics, 2016, 16, 3413-3432.	4.9	165
21	New Era of Air Quality Monitoring from Space: Geostationary Environment Monitoring Spectrometer (GEMS). Bulletin of the American Meteorological Society, 2020, 101, E1-E22.	3.3	165
22	North American pollution outflow and the trapping of convectively lifted pollution by upper-level anticyclone. Journal of Geophysical Research, 2005, 110, .	3.3	156
23	Observations of reactive gaseous mercury in the free troposphere at the Mount Bachelor Observatory. Journal of Geophysical Research, 2006, 111, .	3.3	153
24	Impacts of local vs. trans-boundary emissions from different sectors on PM2.5 exposure in South Korea during the KORUS-AQ campaign. Atmospheric Environment, 2019, 203, 196-205.	4.1	131
25	Intercontinental Impacts of Ozone Pollution on Human Mortality. Environmental Science & Technology, 2009, 43, 6482-6487.	10.0	126
26	Fire and biofuel contributions to annual mean aerosol mass concentrations in the United States. Atmospheric Environment, 2007, 41, 7389-7400.	4.1	125
27	A contribution of brown carbon aerosol to the aerosol light absorption and its radiative forcing in East Asia. Atmospheric Environment, 2010, 44, 1414-1421.	4.1	118
28	Wildfires drive interannual variability of organic carbon aerosol in the western U.S. in summer. Geophysical Research Letters, 2007, 34, .	4.0	116
29	Recent increase of surface particulate matter concentrations in the Seoul Metropolitan Area, Korea. Scientific Reports, 2017, 7, 4710.	3.3	111
30	Impacts of enhanced biomass burning in the boreal forests in 1998 on tropospheric chemistry and the sensitivity of model results to the injection height of emissions. Journal of Geophysical Research, 2007, 112, .	3.3	94
31	Surface ozone background in the United States: Canadian and Mexican pollution influences. Atmospheric Environment, 2009, 43, 1310-1319.	4.1	90
32	Winter monsoon variability and its impact on aerosol concentrations in East Asia. Environmental Pollution, 2017, 221, 285-292.	7.5	87
33	Global distribution of solid and aqueous sulfate aerosols: Effect of the hysteresis of particle phase transitions. Journal of Geophysical Research, 2008, 113, .	3.3	84
34	Resolving intercontinental pollution plumes in global models of atmospheric transport. Journal of Geophysical Research, 2010, 115, .	3.3	82
35	The Koreaâ€“United States Air Quality (KORUS-AQ) field study. Elementa, 2021, 9, 1-27.	3.2	82
36	Effects of the meteorological variability on regional air quality in East Asia. Atmospheric Environment, 2013, 69, 46-55.	4.1	79

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37	Urban air quality modeling with full O3â€“NOxâ€“VOC chemistry: Implications for O3 and PM air quality in a street canyon. Atmospheric Environment, 2012, 47, 330-340.	4.1	77
38	A multi-model study of the hemispheric transport and deposition of oxidised nitrogen. Geophysical Research Letters, 2008, 35, .	4.0	76
39	The North American Mercury Model Intercomparison Study (NAMMIS): Study description and modelâ€toâ€model comparisons. Journal of Geophysical Research, 2008, 113, .	3.3	74
40	The role of mineral-dust aerosols in polar temperature amplification. Nature Climate Change, 2013, 3, 487-491.	18.8	70
41	Estimation of ground-level particulate matter concentrations through the synergistic use of satellite observations and process-based models over South Korea. Atmospheric Chemistry and Physics, 2019, 19, 1097-1113.	4.9	69
42	Impacts of intercontinental transport of anthropogenic fine particulate matter on human mortality. Air Quality, Atmosphere and Health, 2014, 7, 369-379.	3.3	64
43	Meteorology influencing springtime air quality, pollution transport, and visibility in Korea. Elementa, 2019, 7, .	3.2	62
44	Source apportionment of PM10 mass and particulate carbon in the Kathmandu Valley, Nepal. Atmospheric Environment, 2015, 123, 190-199.	4.1	59
45	The Impact of Aerosols on the Summer Rainfall Frequency in China. Journal of Applied Meteorology and Climatology, 2008, 47, 1802-1813.	1.5	58
46	Effects of chemical aging on global secondary organic aerosol using the volatility basis set approach. Atmospheric Environment, 2013, 81, 230-244.	4.1	58
47	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>PM</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn> source attribution for Seoul in May from 2009 to 2013 using GEOS-Chem and its adjoint model. Environmental Pollution, 2017, 221, 377-384.	7.5	58
48	Model evidence for a significant source of secondary organic aerosol from isoprene. Atmospheric Environment, 2007, 41, 1267-1274.	4.1	57
49	Projections of excess mortality related to diurnal temperature range under climate change scenarios: a multi-country modelling study. Lancet Planetary Health, The, 2020, 4, e512-e521.	11.4	56
50	HTAP2 multi-model estimates of premature human mortality due to intercontinental transport of air pollution and emission sectors. Atmospheric Chemistry and Physics, 2018, 18, 10497-10520.	4.9	54
51	Source contributions to carbonaceous aerosol concentrations in Korea. Atmospheric Environment, 2011, 45, 1116-1125.	4.1	52
52	An analysis of simulated wet deposition of mercury from the North American Mercury Model Intercomparison Study. Journal of Geophysical Research, 2009, 114, .	3.3	51
53	Transport of NO_x in East Asia identified by satellite and in situ measurements and Lagrangian particle dispersion model simulations. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2574-2596.	3.3	51
54	Impact of intercontinental pollution transport on North American ozone air pollution: an HTAP phase 2 multi-model study. Atmospheric Chemistry and Physics, 2017, 17, 5721-5750.	4.9	51

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55	Observation-based estimates of the mass absorption cross-section of black and brown carbon and their contribution to aerosol light absorption in East Asia. Atmospheric Environment, 2019, 212, 65-74.	4.1	46
56	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
57	Contributions of international sources to PM2.5 in South Korea. Atmospheric Environment, 2021, 261, 118542.	4.1	44
58	Investigation of factors controlling PM2.5 variability across the South Korean Peninsula during KORUS-AQ. Elementa, 2020, 8, .	3.2	44
59	Characteristics of flow and reactive pollutant dispersion in urban street canyons. Atmospheric Environment, 2015, 108, 20-31.	4.1	43
60	Future ozone and oxidants change under the RCP scenarios. Atmospheric Environment, 2015, 101, 103-115.	4.1	43
61	MICS-Asia II: Modeling gaseous pollutants and evaluating an advanced modeling system over East Asia. Atmospheric Environment, 2008, 42, 3571-3583.	4.1	42
62	Multi-model intercomparisons of air quality simulations for the KORUS-AQ campaign. Elementa, 2021, 9, .	3.2	41
63	Effects of Siberian forest fires on air quality in East Asia during May 2003 and its climate implication. Atmospheric Environment, 2008, 42, 8910-8922.	4.1	40
64	Estimation of spatially continuous daytime particulate matter concentrations under all sky conditions through the synergistic use of satellite-based AOD and numerical models. Science of the Total Environment, 2020, 713, 136516.	8.0	39
65	Tropospheric jet response to Antarctic ozone depletion: An update with Chemistry-Climate Model Initiative (CCMI) models. Environmental Research Letters, 2018, 13, 054024.	5.2	38
66	Evaluation of simulated O3 production efficiency during the KORUS-AQ campaign: Implications for anthropogenic NOx emissions in Korea. Elementa, 2019, 7, .	3.2	38
67	Air quality modeling in East Asia: present issues and future directions. Asia-Pacific Journal of Atmospheric Sciences, 2014, 50, 105-120.	2.3	36
68	Projections of summertime ozone concentration over East Asia under multiple IPCC SRES emission scenarios. Atmospheric Environment, 2015, 106, 335-346.	4.1	35
69	Effects of sulfate aerosol forcing on East Asian summer monsoon for 1985â€“2010. Geophysical Research Letters, 2016, 43, 1364-1372.	4.0	32
70	An evaluation of ozone dry deposition simulations in East Asia. Atmospheric Chemistry and Physics, 2014, 14, 7929-7940.	4.9	31
71	OH reactivity in urban and suburban regions in Seoul, South Korea â€“ an East Asian megacity in a rapid transition. Faraday Discussions, 2016, 189, 231-251.	3.2	31
72	Contrasting synoptic weather patterns between non-dust high particulate matter events and Asian dust events in Seoul, South Korea. Atmospheric Environment, 2019, 214, 116864.	4.1	30

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73	Estimates of groundâ€level aerosol mass concentrations using a chemical transport model with Moderate Resolution Imaging Spectroradiometer (MODIS) aerosol observations over East Asia. Journal of Geophysical Research, 2009, 114, .	3.3	29
74	Effects of below-cloud scavenging on the regional aerosol budget in East Asia. Atmospheric Environment, 2012, 58, 14-22.	4.1	28
75	Validation of OMI HCHO data and its analysis over Asia. Science of the Total Environment, 2014, 490, 93-105.	8.0	28
76	Dissimilar effects of two El NiÃ±o types on PM2.5 concentrations in East Asia. Environmental Pollution, 2018, 242, 1395-1403.	7.5	27
77	Weekend effect: Anthropogenic or natural?. Geophysical Research Letters, 2010, 37, .	4.0	26
78	Effects of buildingâ€“roof cooling on the flow and dispersion of reactive pollutants in an idealized urban street canyon. Building and Environment, 2016, 109, 175-189.	6.9	25
79	Changes in column aerosol optical depth and ground-level particulate matter concentration over East Asia. Air Quality, Atmosphere and Health, 2018, 11, 49-60.	3.3	25
80	Statistical predictability of wintertime PM2.5 concentrations over East Asia using simple linear regression. Science of the Total Environment, 2021, 776, 146059.	8.0	25
81	Threshold of the volcanic forcing that leads the El NiÃ±o-like warming in the last millennium: results from the ERIK simulation. Climate Dynamics, 2016, 46, 3725-3736.	3.8	24
82	Impact of transboundary transport of carbonaceous aerosols on the regional air quality in the United States: A case study of the South American wildland fire of May 1998. Journal of Geophysical Research, 2007, 112, .	3.3	23
83	Inverse modeling analysis of soil dust sources over East Asia. Atmospheric Environment, 2011, 45, 5903-5912.	4.1	23
84	Airborne formaldehyde and volatile organic compound measurements over the Daesan petrochemical complex on Koreaâ€™s northwest coast during the Korea-United States Air Quality study. Elementa, 2020, 8, .	3.2	21
85	Wintertime aerosol optical and radiative properties in the Kathmandu Valley during the SusKat-ABC field campaign. Atmospheric Chemistry and Physics, 2017, 17, 12617-12632.	4.9	19
86	Sensitivity of formaldehyde (HCHO) column measurements from a geostationary satellite to temporal variation of the air mass factor in East Asia. Atmospheric Chemistry and Physics, 2017, 17, 4673-4686.	4.9	18
87	The Controlling Factors of Photochemical Ozone Production in Seoul, South Korea. Aerosol and Air Quality Research, 2018, 18, 2253-2261.	2.1	18
88	Relating geostationary satellite measurements of aerosol optical depth (AOD) over East Asia to fine particulate matter (PM_{2.5}): insights from the KORUS-AQ aircraft campaign and GEOS-Chem model simulations. Atmospheric Chemistry and Physics, 2021, 21, 16775-16791.	4.9	18
89	Changes in the variability of the North Pacific sea surface temperature caused by direct sulfate aerosol forcing in China in a coupled general circulation model. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1261-1270.	3.3	17
90	Source identification and budget analysis on elevated levels of formaldehyde within the ship plumes: a ship-plume photochemical/dynamic model analysis. Atmospheric Chemistry and Physics, 2010, 10, 11969-11985.	4.9	16

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91	Description of a formaldehyde retrieval algorithm for the Geostationary Environment Monitoring Spectrometer (GEMS). Atmospheric Measurement Techniques, 2019, 12, 3551-3571.	3.1	16
92	Top-down estimates of anthropogenic VOC emissions in South Korea using formaldehyde vertical column densities from aircraft during the KORUS-AQ campaign. Elementa, 2021, 9, .	3.2	16
93	Possible Link Between Arctic Sea Ice and January PM10 Concentrations in South Korea. Atmosphere, 2019, 10, 619.	2.3	14
94	Comparative inverse analysis of satellite (MODIS) and ground (PM10) observations to estimate dust emissions in East Asia. Asia-Pacific Journal of Atmospheric Sciences, 2013, 49, 3-17.	2.3	13
95	Aerosol versus greenhouse gas impacts on Southern Hemisphere general circulation changes. Climate Dynamics, 2019, 52, 4127-4142.	3.8	13
96	Computational fluid dynamics simulation of reactive fine particulate matter in a street canyon. Atmospheric Environment, 2019, 209, 54-66.	4.1	13
97	Global simulation of tropospheric ozone using the University of Maryland Chemical Transport Model (UMD-CTM): 2. Regional transport and chemistry over the central United States using a stretched grid. Journal of Geophysical Research, 2004, 109, .	3.3	12
98	Global simulation of tropospheric ozone using the University of Maryland Chemical Transport Model (UMD-CTM): 1. Model description and evaluation. Journal of Geophysical Research, 2004, 109, .	3.3	11
99	Impacts of aerosols on regional meteorology due to Siberian forest fires in May 2003. Atmospheric Environment, 2011, 45, 1407-1412.	4.1	11
100	A missing component of Arctic warming: black carbon from gas flaring. Environmental Research Letters, 2019, 14, 094011.	5.2	11
101	Effect of anthropogenic sulphate aerosol in China on the drought in the western-to-central US. Scientific Reports, 2015, 5, 14305.	3.3	10
102	Foraging trip duration of honeybee increases during a poor air quality episode and the increase persists thereafter. Ecology and Evolution, 2021, 11, 1492-1500.	1.9	10
103	A Study of the Effects of SST Deviations on Heavy Snowfall over the Yellow Sea. Atmosphere, 2013, 23, 161-169.	0.3	10
104	Evaluation of Secondary Organic Aerosol (SOA) Simulations for Seoul, Korea. Journal of Advances in Modeling Earth Systems, 2022, 14, .	3.8	10
105	Efficacy of dust aerosol forecasts for East Asia using the adjoint of GEOS-Chem with ground-based observations. Environmental Pollution, 2018, 234, 885-893.	7.5	9
106	Light-absorption enhancement of black carbon in the Asian outflow inferred from airborne SP2 and in-situ measurements during KORUS-AQ. Science of the Total Environment, 2021, 773, 145531.	8.0	9
107	Estimating bulk optical properties of aerosols over the western North Pacific by using MODIS and CERES measurements. Atmospheric Environment, 2009, 43, 5654-5660.	4.1	8
108	Impact of Meteorological Changes on Particulate Matter and Aerosol Optical Depth in Seoul during the Months of June over Recent Decades. Atmosphere, 2020, 11, 1282.	2.3	8

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109	An Inversion Framework for Optimizing Nonâ€Methane VOC Emissions Using Remote Sensing and Airborne Observations in Northeast Asia During the KORUSâ€AQ Field Campaign. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	8
110	Contributions of Asian pollution and SST forcings on precipitation change in the North Pacific. Atmospheric Research, 2017, 192, 30-37.	4.1	7
111	A Global/Regional Integrated Model Systemâ€Chemistry Climate Model: 1. Simulation Characteristics. Earth and Space Science, 2019, 6, 2016-2030.	2.6	7
112	Effect of Sea Surface Temperature Errors on Snowfall in WRF: A Case Study of a Heavy Snowfall Event in Korea in December 2012. Terrestrial, Atmospheric and Oceanic Sciences, 2014, 25, 827.	0.6	7
113	Impact of biogenic emissions on early summer ozone and fine particulate matter exposure in the Seoul Metropolitan Area of Korea. Air Quality, Atmosphere and Health, 2018, 11, 1021-1035.	3.3	6
114	Contributions to OH reactivity from unexplored volatile organic compounds measured by PTR-ToF-MS â€“ a case study in a suburban forest of the Seoul metropolitan area during the Koreaâ€“United States Air Quality Study (KORUS-AQ) 2016. Atmospheric Chemistry and Physics, 2021, 21, 6331-6345.	4.9	6
115	La NiÃ±a-related tropospheric column ozone enhancement over East Asia. Atmospheric Environment, 2021, 261, 118575.	4.1	6
116	Preface to a Special Issue â€œMegacity Air Pollution Studies (MAPS)â€. Aerosol and Air Quality Research, 2018, 18, I-IV.	2.1	6
117	Direct and semi-direct radiative effects of anthropogenic aerosols in the Western United States: Seasonal and geographical variations according to regional climate characteristics. Climatic Change, 2012, 111, 859-877.	3.6	5
118	Influence of the Anthropogenic Fugitive, Combustion, and Industrial Dust on Winter Air Quality in East Asia. Atmosphere, 2019, 10, 790.	2.3	5
119	Parametric analysis for global single scattering albedo calculations. Atmospheric Environment, 2020, 234, 117616.	4.1	5
120	Diversity of ENSOâ€Related Surface Temperature Response in Future Projection in CMIP6 Climate Models: Climate Change Scenario Versus ENSO Intensity. Geophysical Research Letters, 2022, 49, .	4.0	5
121	Meteorological responses to Mt. Baekdu volcanic eruption over east asia in an offline global climate-chemistry model: A pilot study. Asia-Pacific Journal of Atmospheric Sciences, 2011, 47, 345-351.	2.3	4
122	Contributions of solar and greenhouse gases forcing during the present warm period. Meteorology and Atmospheric Physics, 2014, 126, 71-79.	2.0	4
123	Two notable features in PM10 data and analysis of their causes. Air Quality, Atmosphere and Health, 2017, 10, 991-998.	3.3	4
124	Boundary layer versus free tropospheric submicron particle formation: A case study from NASA DC-8 observations in the Asian continental outflow during the KORUS-AQ campaign. Atmospheric Research, 2021, 264, 105857.	4.1	4
125	Projections of future drought intensity associated with various local greenhouse gas emission scenarios in East Asia. Terrestrial, Atmospheric and Oceanic Sciences, 2020, 31, 9-19.	0.6	4
126	Peroxy acetyl nitrate (PAN) measurements at northern midlatitude mountain sites in April: a constraint on continental sourceâ€“receptor relationships. Atmospheric Chemistry and Physics, 2018, 18, 15345-15361.	4.9	3

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127	Regional Arctic Amplification by a Fast Atmospheric Response to Anthropogenic Sulfate Aerosol Forcing in China. Journal of Climate, 2019, 32, 6337-6348.	3.2	3
128	Effect of Error in SO2 Slant Column Density on the Accuracy of SO2 Transport Flow Rate Estimates Based on GEMS Synthetic Radiances. Remote Sensing, 2021, 13, 3047.	4.0	3
129	Weekly variability of precipitation induced by anthropogenic aerosols: A case study in Korea in summer 2004. Science of the Total Environment, 2016, 541, 1531-1539.	8.0	2
130	Impact of high-resolution a priori profiles on satellite-based formaldehyde retrievals. Atmospheric Chemistry and Physics, 2018, 18, 7639-7655.	4.9	2
131	A Study on the Characteristics of Flow and Reactive Pollutants' Dispersion in Step-up Street Canyons Using a CFD Model. Atmosphere, 2015, 25, 473-482.	0.3	2
132	A general parallelization approach to improve computation efficiency in a global chemical transport model (GEOS-Chem). Geochemical Journal, 2010, 44, 323-329.	1.0	1
133	Simple Analysis on the Relationship Between Sea Salt Aerosols and Precipitation in the North Pacific Ocean Using the Global Chemical Transport Model Simulation. Asia-Pacific Journal of Atmospheric Sciences, 2018, 54, 179-186.	2.3	1
134	Korean Global Data Assimilation and Prediction System. Asia-Pacific Journal of Atmospheric Sciences, 2018, 54, 265-265.	2.3	1
135	Impact of the Stratospheric Ozone on the Northern Hemisphere Surface Climate During Boreal Winter. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034958.	3.3	1
136	Effects of the El NiÃ±o on Tropospheric Ozone in a Simulation using a Climate-Chemistry Model. Journal of the Korean Earth Science Society, 2013, 34, 662-668.	0.2	1
137	Development of an Emissions Processing System for Climate Scenario Inventories to Support Global and Asian Air Quality Modeling Studies. Asian Journal of Atmospheric Environment, 2017, 11, 330-343.	1.1	1
138	A New Chemistry-Climate Model GRIMs-CCM: Model Evaluation of Interactive Chemistry-Meteorology Simulations. Asia-Pacific Journal of Atmospheric Sciences, 2022, 58, 647-666.	2.3	1