

# Atmospheric new particle formation from sulfuric acid

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Citation Report

#	ARTICLE	IF	CITATIONS
1	The non-covalently bound $\text{SO}_2$ system, including an interpretation of the differences between $\text{SO}_2$ and $\text{O}_2$ . Physical Chemistry Chemical Physics, 2018, 20, 28840-28847.	1.3	5
2	Morphology engineering of protein fabrics for advanced and sustainable filtration. Journal of Materials Chemistry A, 2018, 6, 21585-21595.	5.2	69
5	Atmospheric new particle formation and growth: review of field observations. Environmental Research Letters, 2018, 13, 103003.	2.2	308
7	Self-Catalytic Reaction of $\text{SO}_3$ and $\text{NH}_3$ To Produce Sulfamic Acid and Its Implication to Atmospheric Particle Formation. Journal of the American Chemical Society, 2018, 140, 11020-11028.	6.6	86
8	Interaction between succinic acid and sulfuric acid-base clusters. Atmospheric Chemistry and Physics, 2019, 19, 8003-8019.	1.9	33
9	The heterogeneous reaction of dimethylamine/ammonia with sulfuric acid to promote the growth of atmospheric nanoparticles. Environmental Science: Nano, 2019, 6, 2767-2776.	2.2	9
11	Temperature effects on sulfuric acid aerosol nucleation and growth: initial results from the TANGENT study. Atmospheric Chemistry and Physics, 2019, 19, 8915-8929.	1.9	13
12	Piperazine Enhancing Sulfuric Acid-Based New Particle Formation: Implications for the Atmospheric Fate of Piperazine. Environmental Science & Technology, 2019, 53, 8785-8795.	4.6	41
13	New Particle Formation in the Atmosphere: From Molecular Clusters to Global Climate. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7098-7146.	1.2	185
14	New particle formation, growth and apparent shrinkage at a rural background site in western Saudi Arabia. Atmospheric Chemistry and Physics, 2019, 19, 10537-10555.	1.9	19
15	Unraveling a New Chemical Mechanism of Missing Sulfate Formation in Aerosol Haze: Gaseous $\text{NO}_2$ with Aqueous $\text{HSO}_3^+$ / $\text{SO}_3^{2+}$ . Journal of the American Chemical Society, 2019, 141, 19312-19320.	6.6	36
16	Methanesulfonic Acid-driven New Particle Formation Enhanced by Monoethanolamine: A Computational Study. Environmental Science & Technology, 2019, 53, 14387-14397.	4.6	50
17	Sources-specific carcinogenicity and mutagenicity of PM <sub>2.5</sub> -bound PAHs in Beijing, China: Variations of contributions under diverse anthropogenic activities. Ecotoxicology and Environmental Safety, 2019, 183, 109552.	2.9	28
18	Infrared Spectroscopy of Hydrogen-Bonding Interactions in Neutral Dimethylamine-Methanol Complexes. Journal of Physical Chemistry A, 2019, 123, 10109-10115.	1.1	13
19	Spectroscopic Signature of Proton Location in Proton Bound $\text{HSO}_4^+$ $\cdot\text{H}^+$ $\cdot\text{X}^+$ (X = F, Cl, Br, and I) Clusters. Journal of Physical Chemistry Letters, 2019, 10, 6714-6719.	2.1	17
20	Key role of atmospheric water content in the formation of regional haze in southern China. Atmospheric Environment, 2019, 216, 116918.	1.9	12
21	Nonlocal heat conduction approach in a bi-layer tissue during magnetic fluid hyperthermia with dual phase lag model. Bio-Medical Materials and Engineering, 2019, 30, 387-402.	0.4	12
22	Role of base strength, cluster structure and charge in sulfuric-acid-driven particle formation. Atmospheric Chemistry and Physics, 2019, 19, 9753-9768.	1.9	49

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24	Comprehensive understanding of SO <sub>3</sub> effects on synergies among air pollution control devices in ultra-low emission power plants burning high-sulfur coal. <i>Journal of Cleaner Production</i> , 2019, 239, 118096.	4.6	70
25	Co(II) triggered radical reaction between SO <sub>2</sub> and o-phenylenediamine for highly selective visual colorimetric detection of SO <sub>2</sub> gas and its derivatives. <i>Sensors and Actuators B: Chemical</i> , 2019, 299, 126983.	4.0	15
26	Molecular insights into organic particulate formation. <i>Communications Chemistry</i> , 2019, 2, .	2.0	6
27	Characteristics and sources of aerosol aminiums over the eastern coast of China: insights from the integrated observations in a coastal city, adjacent island and surrounding marginal seas. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 10447-10467.	1.9	29
30	Contrary Role of H <sub>2</sub> O and O <sub>2</sub> in the Kinetics of Heterogeneous Photochemical Reactions of SO <sub>2</sub> on TiO <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2019, 123, 1311-1318.	1.1	26
32	Long-term aerosol size distributions and the potential role of volatile organic compounds (VOCs) in new particle formation events in Shanghai. <i>Atmospheric Environment</i> , 2019, 202, 345-356.	1.9	25
33	Potential factors and mechanism of particulate matters explosive increase induced by free radicals oxidation. <i>Journal of Environmental Sciences</i> , 2019, 81, 205-213.	3.2	4
34	Hydration motifs of ammonium bisulfate clusters of relevance to atmospheric new particle formation. <i>Faraday Discussions</i> , 2019, 217, 47-66.	1.6	17
35	Simulation of the radiative effect of haze on the urban hydrological cycle using reanalysis data in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7001-7017.	1.9	11
36	Characteristics of atmospheric fungi in particle growth events along with new particle formation in the central North China Plain. <i>Science of the Total Environment</i> , 2019, 683, 389-398.	3.9	2
37	Colored TiO <sub>2</sub> composites embedded on fabrics as photocatalysts: Decontamination of formaldehyde and deactivation of bacteria in water and air. <i>Chemical Engineering Journal</i> , 2019, 375, 121949.	6.6	26
38	Dispersion of a Traffic Related Nanocluster Aerosol Near a Major Road. <i>Atmosphere</i> , 2019, 10, 309.	1.0	14
39	Direct measurement of new particle formation based on tethered airship around the top of the planetary boundary layer in eastern China. <i>Atmospheric Environment</i> , 2019, 209, 92-101.	1.9	26
40	Severe haze in northern China: A synergy of anthropogenic emissions and atmospheric processes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8657-8666.	3.3	609
42	On the Relationship Between Aerosol and Boundary Layer Height in Summer in China Under Different Thermodynamic Conditions. <i>Earth and Space Science</i> , 2019, 6, 887-901.	1.1	62
43	How well can we predict cluster fragmentation inside a mass spectrometer?. <i>Chemical Communications</i> , 2019, 55, 5946-5949.	2.2	43
44	Chemistry of new particle growth during springtime in the Seoul metropolitan area, Korea. <i>Chemosphere</i> , 2019, 225, 713-722.	4.2	13
45	A new insight into the SO <sub>2</sub> adsorption behavior of oxidized carbon materials using model adsorbents and DFT calculations. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9181-9188.	1.3	46

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46	Electrospinning and Electrospun Nanofibers: Methods, Materials, and Applications. <i>Chemical Reviews</i> , 2019, 119, 5298-5415.	23.0	2,814
47	Improving new particle formation simulation by coupling a volatility-basis set (VBS) organic aerosol module in NAQPMS+APM. <i>Atmospheric Environment</i> , 2019, 204, 1-11.	1.9	28
48	Characterization of urban amine-containing particles in southwestern China: seasonal variation, source, and processing. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 3245-3255.	1.9	45
49	In Plasma Catalytic Oxidation of Toluene Using Monolith CuO Foam as a Catalyst in a Wedged High Voltage Electrode Dielectric Barrier Discharge Reactor: Influence of Reaction Parameters and Byproduct Control. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 711.	1.2	19
50	Atmospheric new particle formation in China. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 115-138.	1.9	118
51	A proxy for atmospheric daytime gaseous sulfuric acid concentration in urban Beijing. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 1971-1983.	1.9	46
52	Understanding Hygroscopic Nucleation of Sulfate Aerosols: Combination of Molecular Dynamics Simulation with Classical Nucleation Theory. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1126-1132.	2.1	13
54	Observations of highly oxidized molecules and particle nucleation in the atmosphere of Beijing. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 14933-14947.	1.9	26
55	Review of Chinese atmospheric science research over the past 70 years: Atmospheric physics and atmospheric environment. <i>Science China Earth Sciences</i> , 2019, 62, 1903-1945.	2.3	18
56	Unexpected quenching effect on new particle formation from the atmospheric reaction of methanol with SO <sub>3</sub> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 24966-24971.	3.3	32
57	Comparison of chemical composition and airborne bacterial community structure in PM <sub>2.5</sub> during haze and non-haze days in the winter in Guilin, China. <i>Science of the Total Environment</i> , 2019, 655, 202-210.	3.9	60
58	Can formaldehyde contribute to atmospheric new particle formation from sulfuric acid and water?. <i>Atmospheric Environment</i> , 2019, 201, 323-333.	1.9	12
59	An exploration into potassium (K) containing MoS <sub>2</sub> active phases and its transformation process over MoS <sub>2</sub> based materials for producing methanethiol. <i>Catalysis Today</i> , 2020, 339, 93-104.	2.2	31
60	Atmospheric Reactive Nitrogen in China. , 2020, , .		2
61	Integration of field observation and air quality modeling to characterize Beijing aerosol in different seasons. <i>Chemosphere</i> , 2020, 242, 125195.	4.2	10
62	Enhanced SO <sub>2</sub> fluidized adsorption dynamic by hierarchically porous activated coke. <i>Journal of the Energy Institute</i> , 2020, 93, 802-810.	2.7	16
63	Comparison of arsenic fractions and health risks in PM <sub>2.5</sub> before and after coal-gas replacement. <i>Environmental Pollution</i> , 2020, 259, 113881.	3.7	19
64	Theoretical study of the hydration effects on alkylamine and alkanolamine clusters and the atmospheric implication. <i>Chemosphere</i> , 2020, 243, 125323.	4.2	15

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65	Triplexed Tracking Labile Sulfur-Containing Species on a Single-Molecule "Nezha" Sensor. <i>Analytical Chemistry</i> , 2020, 92, 2672-2679.	3.2	1
66	Atmospheric Sulfuric Acid-Dimethylamine Nucleation Enhanced by Trifluoroacetic Acid. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085627.	1.5	33
67	Spatio-temporal distribution and chemical composition of PM <sub>2.5</sub> in Changsha, China. <i>Journal of Atmospheric Chemistry</i> , 2020, 77, 1-16.	1.4	5
68	Influence of atmospheric conditions on sulfuric acid-dimethylamine-ammonia-based new particle formation. <i>Chemosphere</i> , 2020, 245, 125554.	4.2	30
69	Single-Particle Analysis for Structure and Iron Chemistry of Atmospheric Particulate Matter. <i>Analytical Chemistry</i> , 2020, 92, 975-982.	3.2	24
70	Characterization of particulate and gaseous pollutants from a French dairy and sheep farm. <i>Science of the Total Environment</i> , 2020, 712, 135598.	3.9	11
71	Characteristics and potential source areas of aliphatic amines in PM <sub>2.5</sub> in Yangzhou, China. <i>Atmospheric Pollution Research</i> , 2020, 11, 296-302.	1.8	16
72	Understanding sources of fine particulate matter in China. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190325.	1.6	16
73	Rapid and highly sensitive measurement of trimethylamine in seawater using dynamic purge-release and dopant-assisted atmospheric pressure photoionization mass spectrometry. <i>Analytica Chimica Acta</i> , 2020, 1137, 56-63.	2.6	16
74	Impacts of pollution abatement projects on happiness: An exploratory study in China. <i>Journal of Cleaner Production</i> , 2020, 274, 122869.	4.6	13
75	Evaluation of a New Chemical Mechanism for 2-Amino-2-methyl-1-propanol in a Reactive Environment from CSIRO Smog Chamber Experiments. <i>Environmental Science &amp; Technology</i> , 2020, 54, 9844-9853.	4.6	5
76	Particle formation and surface processes on atmospheric aerosols: A review of applied quantum chemical calculations. <i>International Journal of Quantum Chemistry</i> , 2020, 120, e26350.	1.0	30
77	Determinant Factor for Thermodynamic Stability of Sulfuric Acid-Amine Complexes. <i>Journal of Physical Chemistry A</i> , 2020, 124, 10246-10257.	1.1	8
78	Structures, energetics, and infrared spectra of the cationic monomethylamine-water clusters. <i>Chinese Journal of Chemical Physics</i> , 2020, 33, 31-36.	0.6	3
79	Unprecedented Ambient Sulfur Trioxide (SO <sub>3</sub> ) Detection: Possible Formation Mechanism and Atmospheric Implications. <i>Environmental Science and Technology Letters</i> , 2020, 7, 809-818.	3.9	34
80	Continuous and comprehensive atmospheric observations in Beijing: a station to understand the complex urban atmospheric environment. <i>Big Earth Data</i> , 2020, 4, 295-321.	2.0	54
81	Structural Effects of Amines in Enhancing Methanesulfonic Acid-Driven New Particle Formation. <i>Environmental Science &amp; Technology</i> , 2020, 54, 13498-13508.	4.6	36
82	Characteristics and Formation Mechanisms of Winter Particulate Pollution in Lanzhou, Northwest China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033369.	1.2	21

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83	Open questions on atmospheric nanoparticle growth. <i>Communications Chemistry</i> , 2020, 3, .	2.0	13
84	Concentrations and Emissions of Ammonia from Different Laying Hen Production Systems of Conventional Cage, Aviary and Natural Mating Colony Cage in North China Plain. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6820.	1.3	1
85	Detection of gaseous dimethylamine using vocus proton-transfer-reaction time-of-flight mass spectrometry. <i>Atmospheric Environment</i> , 2020, 243, 117875.	1.9	18
86	On the connotation, challenge and significance of China's "energy independence" strategy. <i>Petroleum Exploration and Development</i> , 2020, 47, 449-462.	3.0	58
87	Efficient Method of Moments for Simulating Atmospheric Aerosol Growth: Model Description, Verification, and Application. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD032172.	1.2	2
88	Rapid growth of new atmospheric particles by nitric acid and ammonia condensation. <i>Nature</i> , 2020, 581, 184-189.	13.7	169
89	Highly sensitive colorimetric detection of atmospheric sulfate formation-involved substances using plasmonic molybdenum trioxide nanosheets. <i>Sensors and Actuators B: Chemical</i> , 2020, 320, 128368.	4.0	7
91	PM2.5 and O3 pollution during 2015–2019 over 367 Chinese cities: Spatiotemporal variations, meteorological and topographical impacts. <i>Environmental Pollution</i> , 2020, 264, 114694.	3.7	124
92	Simultaneous determination of nine atmospheric amines and six inorganic ions by non-suppressed ion chromatography using acetonitrile and 18-crown-6 as eluent additive. <i>Journal of Chromatography A</i> , 2020, 1624, 461234.	1.8	11
93	Determination of atmospheric amines at Seoul, South Korea via gas chromatography/tandem mass spectrometry. <i>Chemosphere</i> , 2020, 258, 127367.	4.2	19
94	Overview of measurements and current instrumentation for 1–10 <sup>4</sup> nm aerosol particle number size distributions. <i>Journal of Aerosol Science</i> , 2020, 148, 105584.	1.8	58
95	Seasonal variation characteristics of hydroxyl radical pollution and its potential formation mechanism during the daytime in Lanzhou. <i>Journal of Environmental Sciences</i> , 2020, 95, 58-64.	3.2	42
96	Puzzling Haze Events in China During the Coronavirus (COVID-19) Shutdown. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088533.	1.5	165
97	Exploring Effective Chemical Indicators for Petrochemical Emissions with Network Measurements Coupled with Model Simulations. <i>Atmosphere</i> , 2020, 11, 439.	1.0	1
98	Effects of Sources and Meteorology on Ambient Particulate Matter in Austin, Texas. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 602-613.	1.2	9
99	New mechanistic pathways for the formation of organosulfates catalyzed by ammonia and carbinolamine formation catalyzed by sulfuric acid in the atmosphere. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 8800-8807.	1.3	29
100	Enhanced uptake of glyoxal at the acidic nanoparticle interface: implications for secondary organic aerosol formation. <i>Environmental Science: Nano</i> , 2020, 7, 1126-1135.	2.2	16
101	A possible unaccounted source of atmospheric sulfate formation: amine-promoted hydrolysis and non-radical oxidation of sulfur dioxide. <i>Chemical Science</i> , 2020, 11, 2093-2102.	3.7	11

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102	Evolution of Condensable Fine Particle Size Distribution in Simulated Flue Gas by External Regulation for Growth Enhancement. <i>Environmental Science &amp; Technology</i> , 2020, 54, 3840-3848.	4.6	34
104	Producing elemental sulfur from SO <sub>2</sub> by calcium loaded activated coke: Enhanced activity and selectivity. <i>Chemical Engineering Journal</i> , 2020, 401, 126022.	6.6	27
105	Seasonal Characteristics of New Particle Formation and Growth in Urban Beijing. <i>Environmental Science &amp; Technology</i> , 2020, 54, 8547-8557.	4.6	78
106	Enhanced growth rate of atmospheric particles from sulfuric acid. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7359-7372.	1.9	58
107	Investigating the effectiveness of condensation sink based on heterogeneous nucleation theory. <i>Journal of Aerosol Science</i> , 2020, 149, 105613.	1.8	14
108	Remarkable nucleation and growth of ultrafine particles from vehicular exhaust. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 3427-3432.	3.3	122
109	Qualitative Detection Toward Military and Improvised Explosive Vapors by a Facile TiO <sub>2</sub> Nanosheet-Based Chemiresistive Sensor Array. <i>Frontiers in Chemistry</i> , 2020, 8, 29.	1.8	13
110	Variation of size-segregated particle number concentrations in wintertime Beijing. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 1201-1216.	1.9	52
111	Fast Evolution of Sulfuric Acid Aerosol Activated by External Fields for Enhanced Emission Control. <i>Environmental Science &amp; Technology</i> , 2020, 54, 3022-3031.	4.6	23
112	Enhancing Potential of Trimethylamine Oxide on Atmospheric Particle Formation. <i>Atmosphere</i> , 2020, 11, 35.	1.0	15
113	Characterization of Urban New Particle Formation in Ammanâ€”Jordan. <i>Atmosphere</i> , 2020, 11, 79.	1.0	14
114	PM <sub>2.5</sub> source apportionment during severe haze episodes in a Chinese megacity based on a 5-month period by using hourly species measurements: Explore how to better conduct PMF during haze episodes. <i>Atmospheric Environment</i> , 2020, 224, 117364.	1.9	41
115	The adsorption and oxidation of SO <sub>2</sub> on MgO surface: experimental and DFT calculation studies. <i>Environmental Science: Nano</i> , 2020, 7, 1092-1101.	2.2	18
116	Traffic-originated nanocluster emission exceeds H <sub>2</sub> O <sub>2</sub> /SO <sub>2</sub> -driven photochemical new particle formation in an urban area. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 1-13.	1.9	36
117	A Colorimetric Artificial Olfactory System for Airborne Improvised Explosive Identification. <i>Advanced Materials</i> , 2020, 32, e1907043.	11.1	47
118	Integrated experimental and theoretical approach to probe the synergistic effect of ammonia in methanesulfonic acid reactions with small alkylamines. <i>Environmental Sciences: Processes and Impacts</i> , 2020, 22, 305-328.	1.7	18
119	Chemical characterization of submicron aerosol in summertime Beijing: A case study in southern suburbs in 2018. <i>Chemosphere</i> , 2020, 247, 125918.	4.2	17
120	Formation of atmospheric molecular clusters of methanesulfonic acidâ€”Diethylamine complex and its atmospheric significance. <i>Atmospheric Environment</i> , 2020, 226, 117404.	1.9	16

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121	Review of aircraft measurements over China: aerosol, atmospheric photochemistry, and cloud. <i>Atmospheric Research</i> , 2020, 243, 104972.	1.8	8
123	Enhanced New Particle Formation Above the Marine Boundary Layer Over the Yellow Sea: Potential Impacts on Cloud Condensation Nuclei. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2019JD031448.	1.2	12
124	The impact of the atmospheric turbulence-development tendency on new particle formation: a common finding on three continents. <i>National Science Review</i> , 2021, 8, nwaal57.	4.6	16
125	Formation and growth of sub-3Ånm particles in megacities: impact of background aerosols. <i>Faraday Discussions</i> , 2021, 226, 348-363.	1.6	34
126	New particle formation (NPF) events in China urban clusters given by sever composite pollution background. <i>Chemosphere</i> , 2021, 262, 127842.	4.2	13
127	Regeneration of alkali poisoned TiO <sub>2</sub> -based catalyst by various acids in NO selective catalytic reduction with NH <sub>3</sub> . <i>Fuel</i> , 2021, 285, 119069.	3.4	17
128	Understanding vapor nucleation on the molecular level: A review. <i>Journal of Aerosol Science</i> , 2021, 153, 105676.	1.8	24
129	Secondary aerosol formation in winter haze over the Beijing-Tianjin-Hebei Region, China. <i>Frontiers of Environmental Science and Engineering</i> , 2021, 15, 1.	3.3	55
130	Long-term variability of inorganic ions in TSP at a remote background site in Japan (Wajima) from 2005 to 2015. <i>Chemosphere</i> , 2021, 264, 128427.	4.2	17
131	Atmospheric clusters to nanoparticles: Recent progress and challenges in closing the gap in chemical composition. <i>Journal of Aerosol Science</i> , 2021, 153, 105733.	1.8	35
132	Is reducing new particle formation a plausible solution to mitigate particulate air pollution in Beijing and other Chinese megacities?. <i>Faraday Discussions</i> , 2021, 226, 334-347.	1.6	74
133	A 3D study on the amplification of regional haze and particle growth by local emissions. <i>Npj Climate and Atmospheric Science</i> , 2021, 4, .	2.6	23
134	Microscopic Evidence for Phase Separation of Organic Species and Inorganic Salts in Fine Ambient Aerosol Particles. <i>Environmental Science &amp; Technology</i> , 2021, 55, 2234-2242.	4.6	25
135	Different characteristics and source contributions to aerosol aminiums over a coastal city and adjacent marginal seas. <i>Environmental Chemistry</i> , 2021, 18, 274-284.	0.7	5
136	Condensation sink of atmospheric vapors: the effect of vapor properties and the resulting uncertainties. <i>Environmental Science Atmospheres</i> , 2021, 1, 543-557.	0.9	7
137	How volatile components catalyze vapor nucleation. <i>Science Advances</i> , 2021, 7, .	4.7	7
138	Using highly time-resolved online mass spectrometry to examine biogenic and anthropogenic contributions to organic aerosol in Beijing. <i>Faraday Discussions</i> , 2021, 226, 382-408.	1.6	13
139	Introductory lecture: air quality in megacities. <i>Faraday Discussions</i> , 2021, 226, 9-52.	1.6	34



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140	Increased new particle yields with largely decreased probability of survival to CCN size at the summit of Mt. Tai under reduced SO <sub>2</sub> emissions. Atmospheric Chemistry and Physics, 2021, 21, 1305-1323.	1.9	8
141	Particle growth with photochemical age from new particle formation to haze in the winter of Beijing, China. Science of the Total Environment, 2021, 753, 142207.	3.9	21
142	Vibrational Signature of Dynamic Coupling of a Strong Hydrogen Bond. Journal of Physical Chemistry Letters, 2021, 12, 2259-2265.	2.1	12
143	Explosive Secondary Aerosol Formation during Severe Haze in the North China Plain. Environmental Science & Technology, 2021, 55, 2189-2207.	4.6	96
144	NO <sub>3</sub> -Initiated Gas-Phase Formation of Nitrated Phenolic Compounds in Polluted Atmosphere. Environmental Science & Technology, 2021, 55, 2899-2907.	4.6	10
145	Sulfuric acid-amine nucleation in urban Beijing. Atmospheric Chemistry and Physics, 2021, 21, 2457-2468.	1.9	70
146	Impacts of coagulation on the appearance time method for new particle growth rate evaluation and their corrections. Atmospheric Chemistry and Physics, 2021, 21, 2287-2304.	1.9	9
147	Influence of vegetation on occurrence and time distributions of regional new aerosol particle formation and growth. Atmospheric Chemistry and Physics, 2021, 21, 2861-2880.	1.9	6
148	Dominant synoptic patterns associated with the decay process of PM <sub>2.5</sub> pollution episodes around Beijing. Atmospheric Chemistry and Physics, 2021, 21, 2491-2508.	1.9	16
149	The effect of meteorological conditions and atmospheric composition in the occurrence and development of new particle formation (NPF) events in Europe. Atmospheric Chemistry and Physics, 2021, 21, 3345-3370.	1.9	21
150	Orbitool: a software tool for analyzing online Orbitrap mass spectrometry data. Atmospheric Measurement Techniques, 2021, 14, 2377-2387.	1.2	6
151	Barrierless HONO and HOS(O)2-NO2 Formation via NH3-Promoted Oxidation of SO2 by NO2. Journal of Physical Chemistry A, 2021, 125, 2666-2672.	1.1	4
152	Revealing the sulfur dioxide emission reductions in China by assimilating surface observations in WRF-Chem. Atmospheric Chemistry and Physics, 2021, 21, 4357-4379.	1.9	15
153	Impact of Urban Pollution on Organic-Mediated New-Particle Formation and Particle Number Concentration in the Amazon Rainforest. Environmental Science & Technology, 2021, 55, 4357-4367.	4.6	12
154	The Synergistic Role of Sulfuric Acid, Bases, and Oxidized Organics Governing New-Particle Formation in Beijing. Geophysical Research Letters, 2021, 48, e2020GL091944.	1.5	53
155	New Particle Formation and Growth to Climate-Relevant Aerosols at a Background Remote Site in the Western Himalaya. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033267.	1.2	15
156	Characteristics of Chemical Speciation in PM1 in Six Representative Regions in China. Advances in Atmospheric Sciences, 2021, 38, 1101-1114.	1.9	4
157	More Significant Impacts From New Particle Formation on Haze Formation During COVID-19 Lockdown. Geophysical Research Letters, 2021, 48, e2020GL091591.	1.5	22

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158	Influence of atmospheric conditions on the role of trifluoroacetic acid in atmospheric sulfuric acid–dimethylamine nucleation. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 6221-6230.	1.9	11
159	Trans-Regional Transport of Haze Particles From the North China Plain to Yangtze River Delta During Winter. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033778.	1.2	22
160	Formation of nighttime sulfuric acid from the ozonolysis of alkenes in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 5499-5511.	1.9	17
161	An indicator for sulfuric acid–amine nucleation in atmospheric environments. <i>Aerosol Science and Technology</i> , 2021, 55, 1059-1069.	1.5	19
162	Performance comparison of SMPSs with soft X-ray and Kr-85 neutralizers in a humid atmosphere. <i>Journal of Aerosol Science</i> , 2021, 154, 105756.	1.8	3
163	Toward Building a Physical Proxy for Gas-Phase Sulfuric Acid Concentration Based on Its Budget Analysis in Polluted Yangtze River Delta, East China. <i>Environmental Science &amp; Technology</i> , 2021, 55, 6665-6676.	4.6	20
164	Open ocean and coastal new particle formation from sulfuric acid and amines around the Antarctic Peninsula. <i>Nature Geoscience</i> , 2021, 14, 383-388.	5.4	54
165	Application of smog chambers in atmospheric process studies. <i>National Science Review</i> , 2022, 9, nwab103.	4.6	21
166	Cluster Analysis of Submicron Particle Number Size Distributions at the SORPES Station in the Yangtze River Delta of East China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034004.	1.2	13
167	Multicomponent nucleation of malonic acid involved in the sulfuric acid - dimethylamine system and its atmospheric implications. <i>Atmospheric Environment</i> , 2021, 267, 118558.	1.9	8
168	Chemistry of new particle formation and growth events during wintertime in suburban area of Beijing: Insights from highly polluted atmosphere. <i>Atmospheric Research</i> , 2021, 255, 105553.	1.8	16
169	Towards understanding the characteristics of new particle formation in the Eastern Mediterranean. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9223-9251.	1.9	19
170	Global–regional nested simulation of particle number concentration by combining microphysical processes with an evolving organic aerosol module. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9343-9366.	1.9	16
171	Discovery of a Potent Source of Gaseous Amines in Urban China. <i>Environmental Science and Technology Letters</i> , 2021, 8, 725-731.	3.9	17
172	Valine involved sulfuric acid-dimethylamine ternary homogeneous nucleation and its atmospheric implications. <i>Atmospheric Environment</i> , 2021, 254, 118373.	1.9	4
173	New particle formation and its CCN enhancement in the Yangtze River Delta under the control of continental and marine air masses. <i>Atmospheric Environment</i> , 2021, 254, 118400.	1.9	5
174	Kinetics and Products of the Aqueous Phase Oxidation of Triethylamine by OH. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1889-1895.	1.2	8
175	Source apportionment of PM <sub>2.5</sub> during different haze episodes by PMF and random forest method based on hourly measured atmospheric pollutant. <i>Environmental Science and Pollution Research</i> , 2021, 28, 66978-66989.	2.7	5

#	ARTICLE	IF	CITATIONS
176	Atmospheric and ecosystem big data providing key contributions in reaching United Nationsâ€™ Sustainable Development Goals. <i>Big Earth Data</i> , 2021, 5, 277-305.	2.0	6
177	Contribution of New Particle Formation to Cloud Condensation Nuclei Activity and its Controlling Factors in a Mountain Region of Inland China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034302.	1.2	6
178	Measurement report: The influence of traffic and new particle formation on the size distribution of 1â€“800â€‰nm particles in Helsinki â€“ a street canyon and an urban background station comparison. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9931-9953.	1.9	13
179	Atmospheric gaseous hydrochloric and hydrobromic acid in urban Beijing, China: detection, source identification and potential atmospheric impacts. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 11437-11452.	1.9	12
180	Insights into the chemistry of aerosol growth in Beijing: Implication of fine particle episode formation during wintertime. <i>Chemosphere</i> , 2021, 274, 129776.	4.2	11
181	Acidâ€“Base Clusters during Atmospheric New Particle Formation in Urban Beijing. <i>Environmental Science &amp; Technology</i> , 2021, 55, 10994-11005.	4.6	34
183	Simultaneous Determination of Aerosol Inorganic and Organic Nitrogen by Thermal Evolution and Chemiluminescence Detection. <i>Environmental Science &amp; Technology</i> , 2021, 55, 11579-11589.	4.6	9
184	Hierarchical pore configuration in activated coke boosting direct desorption of desulfurization product H <sub>2</sub> SO <sub>4</sub> : A combined experimental and computational investigation. <i>Fuel</i> , 2021, 298, 120697.	3.4	5
185	Aerosol number concentrations and new particle formation events over a polluted megacity during the COVID-19 lockdown. <i>Atmospheric Environment</i> , 2021, 259, 118526.	1.9	12
186	The nano-scanning electrical mobility spectrometer (nSEMS) and its application to size distribution measurements of 1.5â€“25â€‰nm particles. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 5429-5445.	1.2	5
187	A phenomenology of new particle formation (NPF) at 13 European sites. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 11905-11925.	1.9	13
188	Rapid sulfuric acidâ€“dimethylamine nucleation enhanced by nitric acid in polluted regions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	22
189	Adsorption and dissociation behavior of water on pristine and defected calcite {1 0 4} surfaces: A DFT study. <i>Applied Surface Science</i> , 2021, 556, 149777.	3.1	22
190	A tutorial guide on new particle formation experiments using a laminar flow reactor. <i>Journal of Aerosol Science</i> , 2021, 157, 105808.	1.8	7
191	Sensitivity analysis of isoprene and aerosol emission in a suburban plantation using long short-term memory model. <i>Urban Forestry and Urban Greening</i> , 2021, 64, 127303.	2.3	1
192	Role of Criegee intermediates in the formation of sulfuric acid at a Mediterranean (Cape Corsica) site under influence of biogenic emissions. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 13333-13351.	1.9	6
193	Highly efficient purification of emerging pollutants and bacteria in natural water by g-C <sub>3</sub> N <sub>4</sub> -sheltered fibers containing TiO <sub>2</sub> . <i>Applied Surface Science</i> , 2021, 559, 149839.	3.1	20
194	Investigation of Particle Number Concentrations and New Particle Formation With Largely Reduced Air Pollutant Emissions at a Coastal Semiâ€“Urban Site in Northern China. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035419.	1.2	11

#	ARTICLE	IF	CITATIONS
195	The driving factors of new particle formation and growth in the polluted boundary layer. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 14275-14291.	1.9	38
196	Contrasting aerosol growth potential in the northern and central-southern regions of the North China Plain: Implications for combating regional pollution. <i>Atmospheric Environment</i> , 2021, , 118723.	1.9	2
197	A core-shell box model for simulating viscosity dependent secondary organic aerosol (CSVA) and its application. <i>Science of the Total Environment</i> , 2021, 789, 147954.	3.9	8
198	Optimizing the activation efficiency of sub-3 nm particles in a laminar flow condensation particle counter: Model simulation. <i>Journal of Aerosol Science</i> , 2021, 158, 105841.	1.8	3
199	Characteristics and sources of amine-containing particles in the urban atmosphere of Liao Cheng, a seriously polluted city in North China during the COVID-19 outbreak. <i>Environmental Pollution</i> , 2021, 289, 117887.	3.7	10
200	A method for estimating the ratio of aerosol mass concentration to the imaginary part of the atmospheric complex refractive index and its application. <i>Atmospheric Research</i> , 2021, 264, 105848.	1.8	0
201	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. <i>Atmospheric Research</i> , 2021, 264, 105857.	1.8	4
202	Exploring the impact of new particle formation events on PM <sub>2.5</sub> pollution during winter in the Yangtze River Delta, China. <i>Journal of Environmental Sciences</i> , 2022, 111, 75-83.	3.2	11
203	Towards a concentration closure of sub-6 nm aerosol particles and sub-3 nm atmospheric clusters. <i>Journal of Aerosol Science</i> , 2022, 159, 105878.	1.8	9
204	The potential mechanism of atmospheric new particle formation involving amino acids with multiple functional groups. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10184-10195.	1.3	9
205	Direct measurement of curvature-dependent surface tension of an alcohol nanomeniscus. <i>Nanoscale</i> , 2021, 13, 6991-6996.	2.8	3
206	Simultaneous measurement of methylamine in size-segregated aerosols and the gas phase. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 73, 1875585.	0.8	2
207	Observational Evidence for the Involvement of Dicarboxylic Acids in Particle Nucleation. <i>Environmental Science and Technology Letters</i> , 2020, 7, 388-394.	3.9	30
208	Mechanism for Rapid Conversion of Amines to Ammonium Salts at the Air-Particle Interface. <i>Journal of the American Chemical Society</i> , 2021, 143, 1171-1178.	6.6	19
209	Airborne particles might grow fast in cities. <i>Nature</i> , 2020, 581, 145-146.	13.7	5
210	Regional New Particle Formation over the Eastern Mediterranean and Middle East. <i>Atmosphere</i> , 2021, 12, 13.	1.0	8
211	Seasonal Characteristics of Sulfate and Nitrate in Size-segregated Particles in Ammonia-poor and -rich Atmospheres in Chengdu, Southwest China. <i>Aerosol and Air Quality Research</i> , 2019, 9, 2697-2706.	0.9	7
212	Molecular insights into new particle formation in Barcelona, Spain. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10029-10045.	1.9	27

#	ARTICLE	IF	CITATIONS
213	Elucidating the pollution characteristics of nitrate, sulfate and ammonium in PM <sub>2.5</sub> in Chengdu, southwest China, based on 3-year measurements. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 11181-11199.	1.9	32
214	Sources and sinks driving sulfuric acid concentrations in contrasting environments: implications on proxy calculations. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 11747-11766.	1.9	42
215	New particle formation at urban and high-altitude remote sites in the south-eastern Iberian Peninsula. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 14253-14271.	1.9	22
216	New particle formation and sub-10 nm size distribution measurements during the A-LIFE field experiment in Paphos, Cyprus. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 5645-5656.	1.9	12
217	Particle number concentrations and size distribution in a polluted megacity: the Delhi Aerosol Supersite study. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 8533-8549.	1.9	30
220	Tomographic reconstruction of stack plume based on sparse optimization. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 164205.	0.2	0
221	Contribution of Atmospheric Reactive Nitrogen to Haze Pollution in China. , 2020, , 113-134.		0
222	Characterization and sources of trace elements in PM <sub>1</sub> during autumn and winter in Qingdao, Northern China. <i>Science of the Total Environment</i> , 2022, 811, 151319.	3.9	5
223	The synergistic effects of methanesulfonic acid (MSA) and methanesulfinic acid (MSIA) on marine new particle formation. <i>Atmospheric Environment</i> , 2022, 269, 118826.	1.9	8
224	Effects of relative humidity on heterogeneous reaction of SO <sub>2</sub> with CaCO <sub>3</sub> particles and formation of CaSO <sub>4</sub> ·2H <sub>2</sub> O crystal as secondary aerosol. <i>Atmospheric Environment</i> , 2022, 268, 118776.	1.9	11
225	Impact of sub-grid particle formation in sulfur-rich plumes on particle mass and number concentrations over China. <i>Atmospheric Environment</i> , 2022, 268, 118711.	1.9	1
226	The standard operating procedure for Airmodus Particle Size Magnifier and nano-Condensation Nucleus Counter. <i>Journal of Aerosol Science</i> , 2022, 159, 105896.	1.8	11
227	Barrierless HNO <sub>3</sub> formation from the hydrolysis reaction of NO <sub>2</sub> with Cl atom in the atmosphere. <i>Atmospheric Environment</i> , 2022, 270, 118871.	1.9	3
228	Mapping gaseous dimethylamine, trimethylamine, ammonia, and their particulate counterparts in marine atmospheres of China's marginal seas – Part 1: Differentiating marine emission from continental transport. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 16413-16425.	1.9	14
229	Formation of cluster mode particles (1–3 nm) in preschools. <i>Science of the Total Environment</i> , 2021, , 151756.	3.9	1
230	Molecular Composition of Oxygenated Organic Molecules and Their Contributions to Organic Aerosol in Beijing. <i>Environmental Science &amp; Technology</i> , 2022, 56, 770-778.	4.6	16
231	Effect of Humidity on the Reactive Uptake of Ammonia and Dimethylamine by Nitrogen-Containing Secondary Organic Aerosol. <i>Atmosphere</i> , 2021, 12, 1502.	1.0	3
232	Wintertime subarctic new particle formation from Kola Peninsula sulfur emissions. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 17559-17576.	1.9	9

#	ARTICLE	IF	CITATIONS
233	Online measurement of aerosol inorganic and organic nitrogen based on thermal evolution and chemiluminescent detection. <i>Atmospheric Environment</i> , 2022, 271, 118905.	1.9	4
234	Sensitivities of simulated global aerosol optical depth and aerosol-radiation interactions to different horizontal resolutions in CAS-FGOALS-f3. <i>Atmospheric Environment</i> , 2022, 271, 118920.	1.9	0
235	PM2.5 drives bacterial functions for carbon, nitrogen, and sulfur cycles in the atmosphere. <i>Environmental Pollution</i> , 2022, 295, 118715.	3.7	8
236	Review on occurrence, speciation, transition and fate of sulfur in typical ultra-low emission coal-fired power plants. <i>Journal of the Energy Institute</i> , 2022, 100, 259-276.	2.7	15
237	Atmospheric particle number size distribution and size-dependent formation rate and growth rate of neutral and charged new particles at a coastal site of eastern China. <i>Atmospheric Environment</i> , 2022, 270, 118899.	1.9	1
238	Observation and simulation of HOx radicals in an urban area in Shanghai, China. <i>Science of the Total Environment</i> , 2022, 810, 152275.	3.9	9
239	Observed coupling between air mass history, secondary growth of nucleation mode particles and aerosol pollution levels in Beijing. <i>Environmental Science Atmospheres</i> , 2022, 2, 146-164.	0.9	6
240	Biogenic Diamines and Their Amide Derivatives Are Present in the Forest Atmosphere and May Play a Role in Particle Formation. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 421-430.	1.2	5
241	A study on the fragmentation of sulfuric acid and dimethylamine clusters inside an atmospheric pressure interface time-of-flight mass spectrometer. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 11-19.	1.2	7
242	Mapping gaseous dimethylamine, trimethylamine, ammonia, and their particulate counterparts in marine atmospheres of China's marginal seas Part 2: Spatiotemporal heterogeneity, causes, and hypothesis. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 1515-1528.	1.9	10
243	N-nitration of secondary aliphatic amines in the particle phase. <i>Chemosphere</i> , 2022, 293, 133639.	4.2	6
244	Contribution of reaction of atmospheric amine with sulfuric acid to mixing particle formation from clay mineral. <i>Science of the Total Environment</i> , 2022, 821, 153336.	3.9	2
245	Survival of newly formed particles in haze conditions. <i>Environmental Science Atmospheres</i> , 2022, 2, 491-499.	0.9	8
247	The contribution of new particle formation and subsequent growth to haze formation. <i>Environmental Science Atmospheres</i> , 2022, 2, 352-361.	0.9	17
249	The role of organic acids in new particle formation from methanesulfonic acid and methylamine. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2639-2650.	1.9	20
250	Chemical composition of different size ultrafine particulate matter measured by nanoparticle chemical ionization mass spectrometer. <i>Journal of Environmental Sciences</i> , 2022, 114, 434-443.	3.2	4
251	Measurement of atmospheric nanoparticles: Bridging the gap between gas-phase molecules and larger particles. <i>Journal of Environmental Sciences</i> , 2023, 123, 183-202.	3.2	7
252	Estimation of sulfuric acid concentration using ambient ion composition and concentration data obtained with atmospheric pressure interface time-of-flight ion mass spectrometer. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 1957-1965.	1.2	8

#	ARTICLE	IF	CITATIONS
253	Unraveling the Promotion Effects of Dynamically Constructed CuO <sub>x</sub> -OH Interfacial Sites in the Selective Catalytic Oxidation of Ammonia. ACS Catalysis, 2022, 12, 3955-3964.	5.5	28
254	Perspective on the Recent Measurements of Reduced Nitrogen Compounds in the Atmosphere. Frontiers in Environmental Science, 2022, 10, .	1.5	3
256	Chemical composition and sources of amines in PM <sub>2.5</sub> in an urban site of PRD, China. Environmental Research, 2022, 212, 113261.	3.7	3
257	Overview: Recent advances in the understanding of the northern Eurasian environments and of the urban air quality in China – a Pan-Eurasian Experiment (PEEX) programme perspective. Atmospheric Chemistry and Physics, 2022, 22, 4413-4469.	1.9	9
258	Particle number size distribution and new particle formation in Xiamen, the coastal city of Southeast China in wintertime. Science of the Total Environment, 2022, 826, 154208.	3.9	8
259	Variations in source contributions of particle number concentration under long-term emission control in winter of urban Beijing. Environmental Pollution, 2022, 304, 119072.	3.7	10
260	The striking effect of vertical mixing in the planetary boundary layer on new particle formation in the Yangtze River Delta. Science of the Total Environment, 2022, 829, 154607.	3.9	11
261	Influence of meteorological parameters and oxidizing capacity on characteristics of airborne particulate amines in an urban area of the Pearl River Delta, China. Environmental Research, 2022, 212, 113212.	3.7	3
262	Effects of Cobalt-Doped Modification on the Catalytic Reduction of SO <sub>2</sub> with CO over an Iron/BFS Catalyst. Energy & Fuels, 2021, 35, 20250-20271.	2.5	4
263	Measurement report: New particle formation characteristics at an urban and a mountain station in northern China. Atmospheric Chemistry and Physics, 2021, 21, 17885-17906.	1.9	7
264	Impact of Formation Pathways on Secondary Inorganic Aerosol During Haze Pollution in Beijing: Quantitative Evidence From High-Resolution Observation and Modeling. Geophysical Research Letters, 2021, 48, .	1.5	9
265	Influence of Aerosol Chemical Composition on Condensation Sink Efficiency and New Particle Formation in Beijing. Environmental Science and Technology Letters, 2022, 9, 375-382.	3.9	6
266	Competitive Uptake of Dimethylamine and Trimethylamine against Ammonia on Acidic Particles in Marine Atmospheres. Environmental Science & Technology, 2022, 56, 5430-5439.	4.6	10
267	Emissions of Ammonia and Other Nitrogen-Containing Volatile Organic Compounds from Motor Vehicles under Low-Speed Driving Conditions. Environmental Science & Technology, 2022, 56, 5440-5447.	4.6	19
269	Iodous acid – a more efficient nucleation precursor than iodic acid. Physical Chemistry Chemical Physics, 2022, 24, 13651-13660.	1.3	11
270	Nonagricultural Emissions Dominate Urban Atmospheric Amines as Revealed by Mobile Measurements. Geophysical Research Letters, 2022, 49, .	1.5	7
271	SO <sub>2</sub> adsorption and conversion on pristine and defected calcite {1 0 4} surface: A density functional theory study. Applied Surface Science, 2022, 596, 153575.	3.1	11
272	Reaction of SO <sub>3</sub> with HONO <sub>2</sub> and Implications for Sulfur Partitioning in the Atmosphere. Journal of the American Chemical Society, 2022, 144, 9172-9177.	6.6	8

#	ARTICLE	IF	CITATIONS
273	An evaluation of new particle formation events in Helsinki during a Baltic Sea cyanobacterial summer bloom. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 6365-6391.	1.9	6
274	Chemical identification and quantification of volatile organic compounds emitted by sewage sludge. <i>Science of the Total Environment</i> , 2022, 838, 155948.	3.9	4
275	Amine-Enhanced Methanesulfonic Acid-Driven Nucleation: Predictive Model and Cluster Formation Mechanism. <i>Environmental Science &amp; Technology</i> , 2022, 56, 7751-7760.	4.6	13
276	Constraints on the Role of Laplace Pressure in Multiphase Reactions and Viscosity of Organic Aerosols. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	7
277	Atmospheric Sulfuric Acid Dimer Formation in a Polluted Environment. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 6848.	1.2	0
278	Large contributions of anthropogenic sources to amines in fine particles at a coastal area in northern China in winter. <i>Science of the Total Environment</i> , 2022, 839, 156281.	3.9	13
279	Role of gas-liquid molecular cluster aerosol dynamics in atmospheric new-particle formation. <i>Scientific Reports</i> , 2022, 12, .	1.6	2
280	Insufficient Condensable Organic Vapors Lead to Slow Growth of New Particles in an Urban Environment. <i>Environmental Science &amp; Technology</i> , 2022, 56, 9936-9946.	4.6	19
281	Measurement report: Atmospheric new particle formation in a coastal agricultural site explained with binPMF analysis of nitrate CI-API-TOF spectra. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 8097-8115.	1.9	8
282	Changes in the new particle formation and shrinkage events of the atmospheric ions during the COVID-19 lockdown. <i>Urban Climate</i> , 2022, 44, 101214.	2.4	2
283	Aerosol mass spectrometry of neutral species based on a tunable vacuum ultraviolet free electron laser. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 16484-16492.	1.3	5
284	A sulfuric acid nucleation potential model for the atmosphere. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 8287-8297.	1.9	3
285	Insights into the different mixing states and formation processes of amine-containing single particles in Guangzhou, China. <i>Science of the Total Environment</i> , 2022, 846, 157440.	3.9	4
286	Potential enhancement in atmospheric new particle formation by amine-assisted nitric acid condensation at room temperature. <i>Atmospheric Environment</i> , 2022, 287, 119252.	1.9	2
287	The missing base molecules in atmospheric acid-base nucleation. <i>National Science Review</i> , 2022, 9, .	4.6	18
288	Factors that govern sub-30 nm particle measurements in an Airmodus PSM and a TSI DEGMPS. <i>Aerosol Science and Technology</i> , 2022, 56, 883-892.	1.5	2
289	Particle number size distributions and formation and growth rates of different new particle formation types of a megacity in China. <i>Journal of Environmental Sciences</i> , 2023, 131, 11-25.	3.2	0
290	Reverse Conversion Treatment of Gaseous Sulfur Trioxide Using Metastable Sulfides from Sulfur-Rich Flue Gas. <i>Environmental Science &amp; Technology</i> , 2022, 56, 10935-10944.	4.6	3



#	ARTICLE	IF	CITATIONS
291	Computational chemistry of cluster: Understanding the mechanism of atmospheric new particle formation at the molecular level. <i>Chemosphere</i> , 2022, 308, 136109.	4.2	7
292	Sulfuric acid in the Amazon basin: measurements and evaluation of existing sulfuric acid proxies. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 10061-10076.	1.9	0
293	Hydration effect of selected atmospheric gases with finite water clusters: A quantum chemical investigation towards atmospheric implications. <i>Chemosphere</i> , 2022, 307, 135947.	4.2	0
294	Preventing re-emission of malodorous dimethylamine via tunable nonradical oxidation catalyzed by waste mask-derived carbocatalyst. <i>Chemical Engineering Journal</i> , 2022, 450, 138510.	6.6	3
295	Chemical characterization of the water-soluble organic nitrogen in the maritime aerosol. <i>Journal of Aerosol Science</i> , 2023, 167, 106069.	1.8	3
296	The driving effects of common atmospheric molecules for formation of prenucleation clusters: the case of sulfuric acid, formic acid, nitric acid, ammonia, and dimethyl amine. <i>Environmental Science Atmospheres</i> , 2022, 2, 1469-1486.	0.9	5
297	Sulfuric acid–dimethylamine particle formation enhanced by functional organic acids: an integrated experimental and theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 23540-23550.	1.3	2
298	Measurement report: A multi-year study on the impacts of Chinese New Year celebrations on air quality in Beijing, China. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 11089-11104.	1.9	4
299	Review of online measurement techniques for chemical composition of atmospheric clusters and sub-20 nm particles. <i>Frontiers in Environmental Science</i> , 0, 10, .	1.5	2
300	The effectiveness of the coagulation sink of 3–10 nm atmospheric particles. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 11529-11541.	1.9	3
301	Resolving the amine-promoted hydrolysis mechanism of N <sub>2</sub> O <sub>5</sub> under tropospheric conditions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	2
302	Critical Role of Iodous Acid in Neutral Iodine Oxoacid Nucleation. <i>Environmental Science &amp; Technology</i> , 2022, 56, 14166-14177.	4.6	12
303	The effect of COVID-19 restrictions on atmospheric new particle formation in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 12207-12220.	1.9	13
304	Diesel soot photooxidation enhances the heterogeneous formation of H <sub>2</sub> SO <sub>4</sub> . <i>Nature Communications</i> , 2022, 13, .	5.8	15
305	Amine Volatilization from Herbicide Salts: Implications for Herbicide Formulations and Atmospheric Chemistry. <i>Environmental Science &amp; Technology</i> , 2022, 56, 13644-13653.	4.6	4
306	Dimethylamine in cloud water: a case study over the northwest Atlantic Ocean. <i>Environmental Science Atmospheres</i> , 2022, 2, 1534-1550.	0.9	4
307	Experiment–theory hybrid method for studying the formation mechanism of atmospheric new particle formation. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 27908-27914.	1.3	2
308	Towards fully ab initio simulation of atmospheric aerosol nucleation. <i>Nature Communications</i> , 2022, 13, .	5.8	6

#	ARTICLE	IF	CITATIONS
309	Measurement report: Size distributions of urban aerosols down to 1 µm from long-term measurements. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 13569-13580.	1.9	3
310	Unexpectedly significant stabilizing mechanism of iodous acid on iodic acid nucleation under different atmospheric conditions. <i>Science of the Total Environment</i> , 2023, 859, 159832.	3.9	10
311	Impacts of the COVID-19 lockdown in China on new particle formation and particle number size distribution in three regional background sites in Asian continental outflow. <i>Science of the Total Environment</i> , 2023, 858, 159904.	3.9	1
312	Seasonal variations of low molecular alkyl amines in PM2.5 in a North China Plain industrial city: Importance of secondary formation and combustion emissions. <i>Science of the Total Environment</i> , 2023, 857, 159371.	3.9	3
313	The dependence of new particle formation rates on the interaction between cluster growth, evaporation, and condensation sink. <i>Environmental Science Atmospheres</i> , 2023, 3, 168-181.	0.9	1
314	Vigorous New Particle Formation Above Polluted Boundary Layer in the North China Plain. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	4
315	The critical role of dimethylamine in the rapid formation of iodic acid particles in marine areas. <i>Npj Climate and Atmospheric Science</i> , 2022, 5, .	2.6	12
316	Dust emission reduction enhanced gas-to-particle conversion of ammonia in the North China Plain. <i>Nature Communications</i> , 2022, 13, .	5.8	10
317	Formation Process of Particles and Cloud Condensation Nuclei Over the Amazon Rainforest: The Role of Local and Remote New Particle Formation. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	0
318	Study on the characteristics of sulfate ion in condensable particulate matter from ultra-low emission coal-fired power plants. <i>Journal of Cleaner Production</i> , 2023, 383, 135392.	4.6	5
319	Hygroscopicity of ultrafine particles containing ammonium/alkylammonium sulfates: A Köhler model investigation with correction of surface tension. <i>Atmospheric Environment</i> , 2023, 294, 119500.	1.9	4
320	Spatiotemporal differences on the real-time physicochemical characteristics of PM2.5 particles in four Northeast Asian countries during Winter and Summer 2020–2021. <i>Atmospheric Research</i> , 2023, 283, 106581.	1.8	4
321	Theoretical study on atmospheric gaseous reactions of glyoxal with sulfuric acid and ammonia. <i>Computational and Theoretical Chemistry</i> , 2023, 1219, 113950.	1.1	1
322	Observation and Source Apportionment of Atmospheric Alkaline Gases in Urban Beijing. <i>Environmental Science &amp; Technology</i> , 2022, 56, 17545-17555.	4.6	8
323	Ocean Emission Pathway and Secondary Formation Mechanism of Aminiums Over the Chinese Marginal Sea. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	2
324	Survival probabilities of atmospheric particles: comparison based on theory, cluster population simulations, and observations in Beijing. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 15071-15091.	1.9	4
325	Future of Networked Information Society: A Deeply Interconnected “Primitive Society”. <i>International Journal of Crowd Science</i> , 2022, 6, 178-183.	1.1	1
326	Titanium Dioxide Promotes New Particle Formation: A Smog Chamber Study. <i>Environmental Science &amp; Technology</i> , 2023, 57, 920-928.	4.6	4

#	ARTICLE	IF	CITATIONS
327	Measurement report: Atmospheric new particle formation at a peri-urban site in Lille, northern France. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 183-201.	1.9	2
328	Phenomenology of ultrafine particle concentrations and size distribution across urban Europe. <i>Environment International</i> , 2023, 172, 107744.	4.8	13
329	New particle formation and growth during summer in an urban environment: a dual chamber study. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 85-97.	1.9	2
330	SO <sub>2</sub> enhances aerosol formation from anthropogenic volatile organic compound ozonolysis by producing sulfur-containing compounds. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 417-430.	1.9	3
331	Benchmarking general neural network potential ANI on aerosol nucleation molecular clusters. <i>International Journal of Quantum Chemistry</i> , 2023, 123, .	1.0	3
332	Significant effects of transport on nanoparticles during new particle formation events in the atmosphere of Beijing. <i>Particuology</i> , 2023, 80, 1-10.	2.0	4
333	An unexpected feasible route for the formation of organosulfates by the gas phase reaction of sulfuric acid with acetaldehyde catalyzed by dimethylamine in the atmosphere. <i>Environmental Science Atmospheres</i> , 2023, 3, 672-682.	0.9	2
334	A new advance in the pollution profile, transformation process, and contribution to aerosol formation and aging of atmospheric amines. <i>Environmental Science Atmospheres</i> , 2023, 3, 444-473.	0.9	4
335	High frequency of new particle formation events driven by summer monsoon in the central Tibetan Plateau, China. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 4343-4359.	1.9	2
336	Machine Learning Reveals the Parameters Affecting the Gaseous Sulfuric Acid Distribution in a Coastal City: Model Construction and Interpretation. <i>Environmental Science and Technology Letters</i> , 2023, 10, 1045-1051.	3.9	1
337	Chemical precursors of new particle formation in coastal New Zealand. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 3955-3983.	1.9	1
338	Variation of nitrate and nitrite in condensable particulate matter from coal-fired power plants under the simulated rapid condensing conditions. <i>Chemosphere</i> , 2023, 318, 137934.	4.2	1
339	First-principles insights into sulfur oxides (SO <sub>2</sub> and SO <sub>3</sub> ) adsorption and dissociation on layered iron sulfide (FeS) catalyst. <i>Materials Today Communications</i> , 2023, 34, 105452.	0.9	0
340	Reducing chemical complexity in representation of new-particle formation: evaluation of simplification approaches. <i>Environmental Science Atmospheres</i> , 2023, 3, 552-567.	0.9	1
341	Atmospheric Particle Number Concentrations and New Particle Formation over the Southern Ocean and Antarctica: A Critical Review. <i>Atmosphere</i> , 2023, 14, 402.	1.0	0
342	Non-volatile marine and non-refractory continental sources of particle-phase amine during the North Atlantic Aerosols and Marine Ecosystems Study (NAAMES). <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 2765-2787.	1.9	2
343	Characterization of offline analysis of particulate matter with FIGAERO-CIMS. <i>Atmospheric Measurement Techniques</i> , 2023, 16, 1147-1165.	1.2	3
344	Rapid night-time nanoparticle growth in Delhi driven by biomass-burning emissions. <i>Nature Geoscience</i> , 2023, 16, 224-230.	5.4	11

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345	Unambiguous identification of N-containing oxygenated organic molecules using a chemical-ionization Orbitrap (CI-Orbitrap) in an eastern Chinese megacity. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 3233-3245.	1.9	4
346	Sulfur Dioxide Transported From the Residual Layer Drives Atmospheric Nucleation During Haze Periods in Beijing. <i>Geophysical Research Letters</i> , 2023, 50, .	1.5	9
347	Estimates of Future New Particle Formation under Different Emission Scenarios in Beijing. <i>Environmental Science &amp; Technology</i> , 2023, 57, 4741-4750.	4.6	0
348	Autoxidation Mechanism and Kinetics of Methacrolein in the Atmosphere. <i>Journal of Physical Chemistry A</i> , 2023, 127, 2819-2829.	1.1	1
349	Self-Assembly Preparation of Al <sub>2</sub> O <sub>3</sub> /MoS <sub>2</sub> Bifunctional Catalyst for Highly Efficient Reduction of SO <sub>2</sub> to Elemental Sulfur. <i>Industrial &amp; Engineering Chemistry Research</i> , 2023, 62, 5668-5676.	1.8	2
351	Analysis of new particle formation events and comparisons to simulations of particle number concentrations based on GEOS-Chem's advanced particle microphysics in Beijing, China. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 4091-4104.	1.9	1
352	New Particle Formation Occurrence in the Urban Atmosphere of Beijing During 2013–2020. <i>Journal of Geophysical Research D: Atmospheres</i> , 2023, 128, .	1.2	2
353	Enhancement of Atmospheric Nucleation Precursors on Iodic Acid-Induced Nucleation: Predictive Model and Mechanism. <i>Environmental Science &amp; Technology</i> , 2023, 57, 6944-6954.	4.6	6
384	Atmospheric new particle formation from the CERN CLOUD experiment. <i>Nature Geoscience</i> , 2023, 16, 948-957.	5.4	2