John M C Plane

List of Publications by Year
in descending order

403 papers	18,232 citations	18465 62 h-index	27389 106 g-index
509 all docs	509 docs citations	509 times ranked	9283 citing authors

#	Article	IF	Citations
1	Halogens and their role in polar boundary-layer ozone depletion. Atmospheric Chemistry and Physics, 2007, 7, 4375-4418.	1.9	593
2	An overview of snow photochemistry: evidence, mechanisms and impacts. Atmospheric Chemistry and Physics, 2007, 7, 4329-4373.	1.9	554
3	Atmospheric Chemistry of Iodine. Chemical Reviews, 2012, 112, 1773-1804.	23.0	482
4	Extensive halogen-mediated ozone destruction over the tropical Atlantic Ocean. Nature, 2008, 453, 1232-1235.	13.7	432
5	Atmospheric Chemistry of Meteoric Metals. Chemical Reviews, 2003, 103, 4963-4984.	23.0	315
6	Photochemical formation of hydrogen peroxide in natural waters exposed to sunlight. Environmental Science & Technology, 1988, 22, 1156-1160.	4.6	295
7	A Theoretical Study of the Oxidation of Hg0to HgBr2in the Troposphere. Environmental Science & Technology, 2004, 38, 1772-1776.	4.6	285
8	Boundary Layer Halogens in Coastal Antarctica. Science, 2007, 317, 348-351.	6.0	276
9	Stratospheric aerosol-Observations, processes, and impact on climate. Reviews of Geophysics, 2016, 54, 278-335.	9.0	265
10	Atmospheric iodine levels influenced by sea surface emissions of inorganic iodine. Nature Geoscience, 2013, 6, 108-111.	5.4	256
11	A modeling study of iodine chemistry in the marine boundary layer. Journal of Geophysical Research, 2000, 105, 14371-14385.	3.3	252
12	Direct evidence for coastal iodine particles from Laminaria macroalgae â€“ linkage to emissions of molecular iodine. Atmospheric Chemistry and Physics, 2004, 4, 701-713.	1.9	252
13	Cosmic dust in the earth's atmosphere. Chemical Society Reviews, 2012, 41, 6507.	18.7	227
14	The Mesosphere and Metals: Chemistry and Changes. Chemical Reviews, 2015, 115, 4497-4541.	23.0	216
15	The chemistry of meteoric metals in the Earth's upper atmosphere. International Reviews in Physical Chemistry, 1991, 10, 55-106.	0.9	201
16	A chemical model of meteoric ablation. Atmospheric Chemistry and Physics, 2008, 8, 7015-7031.	1.9	199
17	On the photochemical production of new particles in the coastal boundary layer. Geophysical Research Letters, 1999, 26, 1707-1710.	1.5	197
18	Novel iodine chemistry in the marine boundary layer. Geophysical Research Letters, 2004, 31, .	1.5	196

#	ARTICLE	IF	CITATIONS
19	Measurement and modelling of tropospheric reactive halogen species over the tropical Atlantic Ocean. Atmospheric Chemistry and Physics, 2010, 10, 4611-4624.	1.9	161
20	Observations of iodine monoxide in the remote marine boundary layer. Journal of Geophysical Research, 2000, 105, 14363-14369.	3.3	160
21	Estimating the climate significance of halogen-driven ozone loss in the tropical marine troposphere. Atmospheric Chemistry and Physics, 2012, 12, 3939-3949.	1.9	157
22	The chemistry of OH and HO₂ radicals in the boundary layer over the tropical Atlantic Ocean. Atmospheric Chemistry and Physics, 2010, 10, 1555-1576.	1.9	156
23	On the vertical distribution of boundary layer halogens over coastal Antarctica: implications for O₃, HO_x, NO_x and the Hg lifetime. Atmospheric Chemistry and Physics, 2008, 8, 887-900.	1.9	153
24	A time-resolved model of the mesospheric Na layer: constraints on the meteor input function. Atmospheric Chemistry and Physics, 2004, 4, 627-638.	1.9	150
25	An ion-molecule mechanism for the formation of neutral sporadic Na layers. Journal of Geophysical Research, 1998, 103, 6349-6359.	3.3	146
26	Dust formation in the oxygen-rich AGB star IK Tauri. Astronomy and Astrophysics, 2016, 585, A6.	2.1	141
27	Modelling molecular iodine emissions in a coastal marine environment: the link to new particle formation. Atmospheric Chemistry and Physics, 2006, 6, 883-895.	1.9	138
28	Sources of cosmic dust in the Earth's atmosphere. Geophysical Research Letters, 2016, 43, 11979-11986.	1.5	138
29	Meteoric smoke fallout over the Holocene epoch revealed by iridium and platinum in Greenland ice. Nature, 2004, 432, 1011-1014.	13.7	132
30	Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools. Atmospheric Chemistry and Physics, 2010, 10, 169-199.	1.9	130
31	Iodine-mediated coastal particle formation: an overview of the Reactive Halogens in the Marine Boundary Layer (RHaMBLe) Roscoff coastal study. Atmospheric Chemistry and Physics, 2010, 10, 2975-2999.	1.9	125
32	Observations of the Nitrate Radical in the Marine Boundary Layer. Journal of Atmospheric Chemistry, 1999, 33, 129-154.	1.4	113
33	Impact of halogen monoxide chemistry upon boundary layer OH and HO2concentrations at a coastal site. Geophysical Research Letters, 2005, 32, .	1.5	113
34	Measurements and modelling of I₂, IO, OIO, BrO and NO₃ in the mid-latitude marine boundary layer. Atmospheric Chemistry and Physics, 2006, 6, 1513-1528.	1.9	113
35	A laboratory characterisation of inorganic iodine emissions from the sea surface: dependence on oceanic variables and parameterisation for global modelling. Atmospheric Chemistry and Physics, 2014, 14, 5841-5852.	1.9	111
36	Absolute absorption cross-section and photolysis rate of I₂. Atmospheric Chemistry and Physics, 2004, 4, 1443-1450.	1.9	107

#	Article	IF	Citations
37	Formation Pathways and Composition of Iodine Oxide Ultra-Fine Particles. Environmental Chemistry, 2005, 2, 299.	0.7	107
38	Photoreduction of gaseous oxidized mercury changes global atmospheric mercury speciation, transport and deposition. Nature Communications, 2018, 9, 4796.	5.8	107
39	The mass balance of mercury in the springtime arctic environment. Geophysical Research Letters, 2006, 33, .	1.5	106
40	A global atmospheric model of meteoric iron. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9456-9474.	1.2	105
41	Morphology of sporadic <i>E</i> layer retrieved from COSMIC GPS radio occultation measurements: Wind shear theory examination. Journal of Geophysical Research: Space Physics, 2014, 119, 2117-2136.	0.8	102
42	Simultaneous observations of nitrate and peroxy radicals in the marine boundary layer. Journal of Geophysical Research, 1997, 102, 18917-18933.	3.3	98
43	Seasonal characteristics of tropical marine boundary layer air measured at the Cape Verde Atmospheric Observatory. Journal of Atmospheric Chemistry, 2010, 67, 87-140.	1.4	97
44	Mesospheric Na layer at 40Â°N: Modeling and observations. Journal of Geophysical Research, 1999, 104, 3773-3788.	3.3	96
45	The nitrate radical in the remote marine boundary layer. Journal of Geophysical Research, 2000, 105, 24191-24204.	3.3	95
46	Bromine oxide in the mid-latitude marine boundary layer. Geophysical Research Letters, 2004, 31, .	1.5	87
47	DMS and MSA measurements in the Antarctic Boundary Layer: impact of BrO on MSA production. Atmospheric Chemistry and Physics, 2008, 8, 2985-2997.	1.9	87
48	WACCMâ€Dâ€”Whole Atmosphere Community Climate Model with Dâ€region ion chemistry. Journal of Advances in Modeling Earth Systems, 2016, 8, 954-975.	1.3	86
49	A global model of meteoric sodium. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,442.	1.2	84
50	Observations of OIO in the remote marine boundary layer. Geophysical Research Letters, 2001, 28, 1945-1948.	1.5	83
51	OH and HO₂ chemistry during NAMBLEX: roles of oxygenates, halogen oxides and heterogeneous uptake. Atmospheric Chemistry and Physics, 2006, 6, 1135-1153.	1.9	82
52	Nighttime radical chemistry in the San Joaquin Valley. Atmospheric Environment, 1995, 29, 2887-2897.	1.9	79
53	Quantum chemical calculations on a selection of iodine-containing species (IO, OIO, INO3, (IO)2, I2O3,) Tj ETQq1 1 0.784314 rgBT /Ov	1.3	79
54	Evidence of reactive iodine chemistry in the Arctic boundary layer. Journal of Geophysical Research, 2010, 115, .	3.3	76

#	Article	IF	Citations
55	Atmospheric Ca and Ca+layers: Midlatitude observations and modeling. Journal of Geophysical Research, 2000, 105, 27131-27146.	3.3	75
56	The reactions of FeO with O3, H2, H2O, O2 and CO2. Physical Chemistry Chemical Physics, 2000, 2, 2335-2343.	1.3	73
57	A study of the role of ionâ€œmolecule chemistry in the formation of sporadic sodium layers. Journal of Atmospheric and Solar-Terrestrial Physics, 2002, 64, 845-860.	0.6	73
58	Chemistry of the Antarctic Boundary Layer and the Interface with Snow: an overview of the CHABLIS campaign. Atmospheric Chemistry and Physics, 2008, 8, 3789-3803.	1.9	73
59	First observation of micrometeoroid differential ablation in the atmosphere. Geophysical Research Letters, 2009, 36, .	1.5	73
60	Reactive iodine species in a semiâ€polluted environment. Geophysical Research Letters, 2009, 36, .	1.5	73
61	Differential optical absorption spectrometer for measuring atmospheric trace gases. Review of Scientific Instruments, 1992, 63, 1867-1876.	0.6	72
62	A laboratory study of meteor smoke analogues: Composition, optical properties and growth kinetics. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 2182-2202.	0.6	72
63	Peroxy radical chemistry and the control of ozone photochemistry at Mace Head, Ireland during the summer of 2002. Atmospheric Chemistry and Physics, 2006, 6, 2193-2214.	1.9	70
64	Seasonal variations of the Na and Fe layers at the South Pole and their implications for the chemistry and general circulation of the polar mesosphere. Journal of Geophysical Research, 2005, 110, .	3.3	69
65	Latitudinal distribution of reactive iodine in the Eastern Pacific and its link to open ocean sources. Atmospheric Chemistry and Physics, 2012, 12, 11609-11617.	1.9	68
66	Low Temperature Kinetics of the CH₃OH + OH Reaction. Journal of Physical Chemistry A, 2014, 118, 2693-2701.	1.1	68
67	A model of meteoric iron in the upper atmosphere. Journal of Geophysical Research, 1998, 103, 10913-10925.	3.3	67
68	Metallic layers in the mesopause and lower thermosphere region. Advances in Space Research, 1999, 24, 1559-1570.	1.2	67
69	Removal of Meteoric Iron on Polar Mesospheric Clouds. Science, 2004, 304, 426-428.	6.0	67
70	Reactive Halogens in the Marine Boundary Layer (RHaMBLe): the tropical North Atlantic experiments. Atmospheric Chemistry and Physics, 2010, 10, 1031-1055.	1.9	66
71	The North Atlantic Marine Boundary Layer Experiment(NAMBLEX). Overview of the campaign held at Mace Head, Ireland, in summer 2002. Atmospheric Chemistry and Physics, 2006, 6, 2241-2272.	1.9	65
72	Glass formation and unusual hygroscopic growth of iodic acid solution droplets with relevance for iodine mediated particle formation in the marine boundary layer. Atmospheric Chemistry and Physics, 2012, 12, 8575-8587.	1.9	64

#	Article	IF	Citations
73	Active chlorine release from marine aerosols: Roles for reactive iodine and nitrogen species. Journal of Geophysical Research, 2002, 107, ACH 10-1.	3.3	63
74	On the size and velocity distribution of cosmic dust particles entering the atmosphere. Geophysical Research Letters, 2015, 42, 6518-6525.	1.5	63
75	Atmospheric depletion of mercury over Antarctica during glacial periods. Nature Geoscience, 2009, 2, 505-508.	5.4	61
76	Intercomparison of Formaldehyde Measurements in Clean and Polluted Atmospheres. Journal of Atmospheric Chemistry, 2000, 37, 53-80.	1.4	59
77	An Experimental and Theoretical Study of the Reactions OIO + NO and OIO + OH. Journal of Physical Chemistry A, 2006, 110, 93-100.	1.1	59
78	Kinetic investigation of the reaction between Na + O2+ M by time-resolved atomic resonance absorption spectroscopy. Journal of the Chemical Society, Faraday Transactions 2, 1982, 78, 163.	1.1	58
79	(Sub)stellar companions shape the winds of evolved stars. Science, 2020, 369, 1497-1500.	6.0	57
80	A study of the reaction NaO₂+ O â†' NaO+ O₂: Implications for the chemistry of sodium in the upper atmosphere. Journal of Geophysical Research, 1993, 98, 23207-23222.	3.3	56
81	Coupling of HO_x, NO_x and halogen chemistry in the antarctic boundary layer. Atmospheric Chemistry and Physics, 2010, 10, 10187-10209.	1.9	56
82	Studies of the Formation and Growth of Aerosol from Molecular Iodine Precursor. Zeitschrift Fur Physikalische Chemie, 2010, 224, 1095-1117.	1.4	56
83	MAVEN IUVS observations of the aftermath of the Comet Siding Spring meteor shower on Mars. Geophysical Research Letters, 2015, 42, 4755-4761.	1.5	56
84	A kinetic study of the reactions of iron oxides and hydroxides relevant to the chemistry of iron in the upper mesosphere. Physical Chemistry Chemical Physics, 2003, 5, 1407-1418.	1.3	55
85	Ice nucleation by combustion ash particles at conditions relevant to mixed-phase clouds. Atmospheric Chemistry and Physics, 2015, 15, 5195-5210.	1.9	55
86	Kinetic investigation of the reactions of OH(X2Î) with the hydrogen halides, HCl, DCl, HBr and DBr by time-resolved resonance fluorescence (A2â^ˆ+â€"X2Î). Journal of the Chemical Society, Faraday Transactions 2, 1981, 77, 1949-1962.	1.1	54
87	Experimental and theoretical study of the reaction Fe + O2+ N2? FeO2+ N2. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 395.	1.7	53
88	Cosmic dust fluxes in the atmospheres of Earth, Mars, and Venus. Icarus, 2020, 335, 113395.	1.1	53
89	On the mechanism of iodine oxide particle formation. Physical Chemistry Chemical Physics, 2013, 15, 15612.	1.3	52
90	Detection of a persistent meteoric metal layer in the Martian atmosphere. Nature Geoscience, 2017, 10, 401-404.	5.4	52

#	Article	IF	Citations
91	The role of sodium bicarbonate in the nucleation of noctilucent clouds. Annales Geophysicae, 2000, 18, 807-814.	0.6	51
92	Meteoric ion layers in the Martian atmosphere. Faraday Discussions, 2010, 147, 349.	1.6	51
93	Determination of the absolute rate constant for the reaction O + NaO â†' Na + O2by time-resolved atomic chemiluminescence at Î»= 589 nm [Na(32PJ)â†' Na(32S1/2)+hÎ½]. Journal of the Chemical Society, Faraday Transactions 2, 1986, 82, 2047-2052.	1.1	50
94	Photochemistry of oxidized Hg(I) and Hg(II) species suggests missing mercury oxidation in the troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30949-30956.	3.3	50
95	DOAS measurements of formaldehyde and glyoxal above a south-east Asian tropical rainforest. Atmospheric Chemistry and Physics, 2012, 12, 5949-5962.	1.9	49
96	Determination of the atmospheric lifetime and global warming potential of sulfur hexafluoride using a three-dimensional model. Atmospheric Chemistry and Physics, 2017, 17, 883-898.	1.9	49
97	Polar cap Sporadic-E: part 2, modeling. Journal of Atmospheric and Solar-Terrestrial Physics, 2000, 62, 1169-1176.	0.6	48
98	Satellite measurements of the global mesospheric sodium layer. Atmospheric Chemistry and Physics, 2007, 7, 4107-4115.	1.9	48
99	Halogen species record Antarctic sea ice extent over glacialâ€"interglacial periods. Atmospheric Chemistry and Physics, 2013, 13, 6623-6635.	1.9	47
100	Antarctic mesospheric clouds formed from space shuttle exhaust. Geophysical Research Letters, 2005, 32, .	1.5	46
101	Iodine chemistry in the eastern Pacific marine boundary layer. Journal of Geophysical Research D: Atmospheres, 2013, 118, 887-904.	1.2	46
102	Mesospheric Na layer at extreme high latitudes in summer. Journal of Geophysical Research, 1998, 103, 6381-6389.	3.3	45
103	The terrestrial potassium layer (75-110 km) between 71Â°S and 54Â°N: Observations and modeling. Journal of Geophysical Research, 1999, 104, 17173-17186.	3.3	45
104	Absolute photolysis cross-sections for NaHCO3â€‰, NaOH, NaO, NaO2and NaO3â€‰: implications for sodium chemistry in the upper mesosphere. Physical Chemistry Chemical Physics, 2002, 4, 16-23.	1.3	45
105	Modelling the impact of noctilucent cloud formation on atomic oxygen and other minor constituents of the summer mesosphere. Atmospheric Chemistry and Physics, 2005, 5, 1027-1038.	1.9	45
106	Interactions of meteoric smoke particles with sulphuric acid in the Earth's stratosphere. Atmospheric Chemistry and Physics, 2012, 12, 4387-4398.	1.9	45
107	Insights into the Photochemical Transformation of Iodine in Aqueous Systems: Humic Acid Photosensitized Reduction of Iodate. Environmental Science & Technology, 2012, 46, 11854-11861.	4.6	45
108	Inferring the global cosmic dust influx to the Earth's atmosphere from lidar observations of the vertical flux of mesospheric Na. Journal of Geophysical Research: Space Physics, 2014, 119, 7870-7879.	0.8	45

#	Article	IF	Citations
109	Metallic ions in the upper atmosphere of Mars from the passage of comet C/2013 A1 (Siding Spring). Geophysical Research Letters, 2015, 42, 4670-4675.	1.5	45
110	CO2 ice structure and density under Martian atmospheric conditions. Icarus, 2017, 294, 201-208.	1.1	45
111	Laboratory study of the reactions Mg + O3 and MgO + O3. Implications for the chemistry of magnesium in the upper atmosphere. Faraday Discussions, 1995, 100, 411.	1.6	44
112	ACE-2 HILLCLOUD. An overview of the ACE-2 ground-based cloud experiment. Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 750-778.	0.8	44
113	High resolution spectroscopy of the OIO radical: Implications for the ozone-depleting potential of iodine. Geophysical Research Letters, 2002, 29, 95-1-95-4.	1.5	44
114	Interaction between nitrogen and sulfur cycles in the polluted marine boundary layer. Journal of Geophysical Research, 1996, 101, 1379-1386.	3.3	43
115	Resolving the strange behavior of extraterrestrial potassium in the upper atmosphere. Geophysical Research Letters, 2014, 41, 4753-4760.	1.5	43
116	Impacts of Cosmic Dust on Planetary Atmospheres and Surfaces. Space Science Reviews, 2018, 214, 1.	3.7	43
117	Observations of the nitrate radical in the free troposphere at IzaÃ±a de Tenerife. Journal of Geophysical Research, 1997, 102, 10613-10622.	3.3	42
118	The Photolysis of Dihalomethanes in Surface Seawater. Environmental Science & Technology, 2005, 39, 7097-7101.	4.6	42
119	SOLUBILITY OF ROCK IN STEAM ATMOSPHERES OF PLANETS. Astrophysical Journal, 2016, 824, 103.	1.6	42
120	Fractal growth modelling of nanoparticles. Journal of Aerosol Science, 2006, 37, 1737-1749.	1.8	41
121	Concurrent observations of atomic iodine, molecular iodine and ultrafine particles in a coastal environment. Atmospheric Chemistry and Physics, 2011, 11, 2545-2555.	1.9	40
122	Experimental evidence for photochemical control of the atmospheric sodium layer. Journal of Geophysical Research, 1995, 100, 18909.	3.3	39
123	Dynamical and chemical aspects of the mesospheric Na â€œwallâ€•event on October 9,1993 during the Airborne Lidar and Observations of Hawaiian Airglow (ALOHA) campaign. Journal of Geophysical Research, 1998, 103, 6361-6380.	3.3	39
124	A photo-chemical method for the production of olivine nanoparticles as cosmic dust analogues. Icarus, 2011, 212, 373-382.	1.1	39
125	In situ observations of meteor smoke particles (MSP) during the Geminids 2010: constraints on MSP size, work function and composition. Annales Geophysicae, 2012, 30, 1661-1673.	0.6	39
126	A gas-to-particle conversion mechanism helps to explain atmospheric particle formation through clustering of iodine oxides. Nature Communications, 2020, 11, 4521.	5.8	39

#	Article	IF	Citations
127	Light-induced alteration of the photophysical properties of dissolved organic matter in seawater. Journal of Sea Research, 1990, 27, 33-41.	1.0	38
128	A chemical-dynamical model of wave-driven sodium fluctuations. Geophysical Research Letters, 1995, 22, 2861-2864.	1.5	38
129	An experimental and theoretical study of the clustering reactions between Na+ ions and N2, O2 and CO2. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 2619-2629.	1.7	38
130	An aerosol chamber investigation of the heterogeneous ice nucleating potential of refractory nanoparticles. Atmospheric Chemistry and Physics, 2010, 10, 1227-1247.	1.9	38
131	Glyoxal observations in the global marine boundary layer. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6160-6169.	1.2	38
132	Missing SO₂ oxidant in the coastal atmosphere? â€“ observations from high-resolution measurements of OH and atmospheric sulfur compounds. Atmospheric Chemistry and Physics, 2014, 14, 12209-12223.	1.9	38
133	The micrometeorite flux at Dome C (Antarctica), monitoring the accretion of extraterrestrial dust on Earth. Earth and Planetary Science Letters, 2021, 560, 116794.	1.8	38
134	Kinetic study of the reaction between Fe and O3 under mesospheric conditions. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 31.	1.7	37
135	Under what conditions does (SiO)_N nucleation occur? A bottom-up kinetic modelling evaluation. Physical Chemistry Chemical Physics, 2016, 18, 26913-26922.	1.3	37
136	Uptake of Fe, Na and K atoms on low-temperature ice: implications for metal atom scavenging in the vicinity of polar mesospheric clouds. Physical Chemistry Chemical Physics, 2005, 7, 3970.	1.3	36
137	A kinetic study of the reactions FeO++ O, Fe+Â·N2+ O, Fe+Â·O2+ O and FeO++ CO: implications for sporadic E layers in the upper atmosphere. Physical Chemistry Chemical Physics, 2006, 8, 1812-1821.	1.3	36
138	Summertime NO_x measurements during the CHABLIS campaign: can source and sink estimates unravel observed diurnal cycles?. Atmospheric Chemistry and Physics, 2012, 12, 989-1002.	1.9	36
139	Global investigation of the Mg atom and ion layers using SCIAMACHY/Envisat observations between 70 and 150 km altitude and WACCM-Mg model results. Atmospheric Chemistry and Physics, 2015, 15, 273-295.	1.9	36
140	Radical-mediated direct Câ€“H amination of arenes with secondary amines. Chemical Science, 2018, 9, 6647-6652.	3.7	36
141	A kinetic investigation of the reactions sodium + ozone and sodium monoxide + ozone over the temperature range 207-377 K. The Journal of Physical Chemistry, 1993, 97, 4459-4467.	2.9	35
142	A study of the reaction between NaHCO3and H: Apparent closure on the chemistry of mesospheric Na. Journal of Geophysical Research, 2001, 106, 1733-1739.	3.3	34
143	Measurements and modelling of molecular iodine emissions, transport and photodestruction in the coastal region around Roscoff. Atmospheric Chemistry and Physics, 2010, 10, 11823-11838.	1.9	34
144	A kinetic study of Mg+ and Mg-containing ions reacting with O3, O2, N2, CO2, N2O and H2O: implications for magnesium ion chemistry in the upper atmosphere. Physical Chemistry Chemical Physics, 2011, 13, 6352.	1.3	34

#	Article	IF	Citations
145	Refractory metal nuggets in different types of cosmic spherules. Geochimica Et Cosmochimica Acta, 2014, 131, 247-266.	1.6	34
146	Polar cap Sporadic-E: Part 1, Observations. Journal of Atmospheric and Solar-Terrestrial Physics, 2000, 62, 1155-1167.	0.6	33
147	A Study of the Recombination of IO with NO2and the Stability of INO3:Â Implications for the Atmospheric Chemistry of Iodine. Journal of Physical Chemistry A, 2002, 106, 8634-8641.	1.1	33
148	Physical properties of iodate solutions and the deliquescence of crystalline I₂O₅ and HIO₃. Atmospheric Chemistry and Physics, 2010, 10, 12251-12260.	1.9	33
149	RADAR DETECTABILITY STUDIES OF SLOW AND SMALL ZODIACAL DUST CLOUD PARTICLES. I. THE CASE OF ARECIBO 430 MHz METEOR HEAD ECHO OBSERVATIONS. Astrophysical Journal, 2014, 796, 41.	1.6	33
150	Radar Detectability Studies of Slow and Small Zodiacal Dust Cloud Particles. III. The Role of Sodium and the Head Echo Size on the Probability of Detection. Astrophysical Journal, 2017, 843, 1.	1.6	33
151	Kinetic study of the reactions sodium + oxygen + nitrogen and sodium + nitrous oxide over an extended temperature range. The Journal of Physical Chemistry, 1989, 93, 3135-3140.	2.9	32
152	A kinetic study of the reactions of Fe(a5D) and Fe+(a6D) with N2O over the temperature range 294â€“850 K. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 4371-4376.	1.7	32
153	A climatic control on the accretion of meteoric and super-chondritic iridiumâ€“platinum to the Antarctic ice cap. Earth and Planetary Science Letters, 2006, 250, 459-469.	1.8	32
154	A kinetic study of the reactions of Ca+ ions with O3, O2, N2, CO2 and H2O. Physical Chemistry Chemical Physics, 2007, 9, 4357.	1.3	32
155	A New Model for Magnesium Chemistry in the Upper Atmosphere. Journal of Physical Chemistry A, 2012, 116, 6240-6252.	1.1	32
156	WACCMâ€Đâ€"Improved modeling of nitric acid and active chlorine during energetic particle precipitation. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,328.	1.2	32
157	Intercomparison of instruments for tropospheric measurements using differential optical absorption spectroscopy. Journal of Atmospheric Chemistry, 1996, 23, 51-80.	1.4	31
158	A study of the reactions of Fe+ with O3, O2 and N2. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 3067-3075.	1.7	31
159	Variability of the mesospheric nightglow sodium D2/D1ratio. Journal of Geophysical Research, 2005, 110, .	3.3	31
160	Photochemistry of OIO: Laboratory study and atmospheric implications. Geophysical Research Letters, 2009, 36, .	1.5	31
161	Fractionation and fragmentation of glass cosmic spherules during atmospheric entry. Geochimica Et Cosmochimica Acta, 2012, 99, 110-127.	1.6	31
162	Measurements of the vertical fluxes of atomic Fe and Na at the mesopause: Implications for the velocity of cosmic dust entering the atmosphere. Geophysical Research Letters, 2015, 42, 169-175.	1.5	31

#	Article	IF	Citations
163	Nighttime atmospheric chemistry of iodine. Atmospheric Chemistry and Physics, 2016, 16, 15593-15604.	1.9	31
164	Novel Experimental Simulations of the Atmospheric Injection of Meteoric Metals. Astrophysical Journal, 2017, 836, 212.	1.6	31
165	Kinetic studies of the reactions of OH(X2Î) with hydrogen chloride and deuterium chloride at elevated temperatures by time-resolved resonance fluorescence (A2â˜+â€"X2Î). Journal of the Chemical Society, Faraday Transactions 2, 1984, 80, 713-728.	1.1	30
166	A kinetic study of the reaction lithium + nitrous oxide: non-Arrhenius behavior over the temperature range 363-900 K. The Journal of Physical Chemistry, 1987, 91, 6552-6557.	2.9	30
167	A modelling investigation of sudden sodium layers. Geophysical Research Letters, 1993, 20, 2841-2844.	1.5	30
168	A study of the reactions of Fe and FeO with NO2, and the structure and bond energy of FeO2. Physical Chemistry Chemical Physics, 1999, 1, 1843-1849.	1.3	30
169	The uptake of atomic oxygen on ice films: Implications for noctilucent clouds. Physical Chemistry Chemical Physics, 2003, 5, 4129.	1.3	30
170	Retrieval of global mesospheric sodium densities from the Odin satellite. Geophysical Research Letters, 2007, 34, .	1.5	30
171	High bromine oxide concentrations in the semi-polluted boundary layer. Atmospheric Environment, 2009, 43, 3811-3818.	1.9	30
172	On the nucleation of dust in oxygen-rich stellar outflows. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120335.	1.6	30
173	Unique, nonâ€Earthlike, meteoritic ion behavior in upper atmosphere of Mars. Geophysical Research Letters, 2017, 44, 3066-3072.	1.5	30
174	Observations of NO3 concentration profiles in the troposphere. Journal of Geophysical Research, 2002, 107, ACH 11-1-ACH 11-14.	3.3	29
175	A kinetic study of the reactions of Fe+with N2O, N2, O2, CO2and H2O, and the ligand-switching reactions Fe+Â·X + Y â†' Fe+Â·Y + X (X = N2, O2, CO2; Y = O2, H2O). Physical Chemistry Chemical Physics, 2006, 8, 503-512.	1.3	29
176	Plutoniumâ€238 observations as a test of modeled transport and surface deposition of meteoric smoke particles. Geophysical Research Letters, 2013, 40, 4454-4458.	1.5	29
177	Gas-Phase Atmospheric Oxidation of Biogenic Sulfur Compounds. ACS Symposium Series, 1989, , 404-423.	0.5	28
178	Night-time radical chemistry during the NAMBLEX campaign. Atmospheric Chemistry and Physics, 2007, 7, 587-598.	1.9	28
179	A combined rocket-borne and ground-based study of the sodium layer and charged dust in the upper mesosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 151-160.	0.6	28
180	Meteoric Metal Chemistry in the Martian Atmosphere. Journal of Geophysical Research E: Planets, 2018, 123, 695-707.	1.5	28

#	Article	IF	Citations
181	Theoretical and experimental determination of the lithium and sodium superoxide bond dissociation energies. The Journal of Physical Chemistry, 1989, 93, 3141-3145.	2.9	27
182	Unusual kinetic behavior of the reactions magnesium + oxygen + M and calcium + oxygen + M (M = N2,) Tj ETQq0 0 0 rgBT /Overlock 10	2.9	27
183	A kinetic study of the reactions of MgO with H2O, CO2 and O2: implications for magnesium chemistry in the mesosphere. Physical Chemistry Chemical Physics, 2001, 3, 4733-4740.	1.3	27
184	Laboratory studies and modelling of mesospheric iron chemistry. Advances in Space Research, 2003, 32, 699-708.	1.2	27
185	Kinetic studies of atmospherically relevant silicon chemistry. Part II: Silicon monoxide reactions. Physical Chemistry Chemical Physics, 2009, 11, 10945.	1.3	27
186	Sea ice dynamics influence halogen deposition to Svalbard. Cryosphere, 2013, 7, 1645-1658.	1.5	27
187	Seasonality of halogen deposition in polar snow and ice. Atmospheric Chemistry and Physics, 2014, 14, 9613-9622.	1.9	27
188	Silicon chemistry in the mesosphere and lower thermosphere. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3718-3728.	1.2	27
189	Origin of the Extended Mars Radar Blackout of September 2017. Journal of Geophysical Research: Space Physics, 2019, 124, 4556-4568.	0.8	27
190	Temperature dependence of the absolute third-order rate constant for the reaction between Na + O2+ N2over the range 571â€“1016 K studied by time-resolved atomic resonance absorption spectroscopy. Journal of the Chemical Society, Faraday Transactions 2, 1985, 81, 301-318.	1.1	26
191	A kinetic investigation of the calcium/calcium oxide system: non-Arrhenius behavior of the reaction calcium(1S) + nitrous oxide over the temperature range 250-898 K and a study of the reaction calcium oxide + oxygen atoms. The Journal of Physical Chemistry, 1990, 94, 5255-5261.	2.9	26
192	The Weybourne Atmospheric Observatory. Journal of Atmospheric Chemistry, 1999, 33, 107-110.	1.4	26
193	On the global distribution of sporadic sodium layers. Geophysical Research Letters, 2007, 34, .	1.5	26
194	Kinetic studies of atmospherically relevant silicon chemistry : Part I: Silicon atom reactions. Physical Chemistry Chemical Physics, 2009, 11, 671-678.	1.3	26
195	Largeâ€Amplitude Mountain Waves in the Mesosphere Accompanying Weak Crossâ€Mountain Flow During DEEPWAVE Research Flight RF22. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9992.	1.2	26
196	Observations of persistent Leonid meteor trails: 2. Photometry and numerical modeling. Journal of Geophysical Research, 2001, 106, 21525-21541.	3.3	25
197	Siderophile metal fallout to Greenland from the 1991 winter eruption of Hekla (Iceland) and during the global atmospheric perturbation of Pinatubo. Chemical Geology, 2008, 255, 78-86.	1.4	25
198	Seasonal variations of the mesospheric Fe layer at Rothera, Antarctica (67.5Â°S, 68.0Â°W). Journal of Geophysical Research, 2011, 116, .	3.3	25

#	Article	IF	Citations
199	Bite-outs and other depletions of mesospheric electrons. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2201-2211.	0.6	25
200	EVALUATING CHANGES IN THE ELEMENTAL COMPOSITION OF MICROMETEORITES DURING ENTRY INTO THE EARTHâ€™S ATMOSPHERE. Astrophysical Journal, 2015, 814, 78.	1.6	25
201	Kinetic study of the reaction potassium + oxygen + M (M = nitrogen, helium) from 250 to 1103 K. The Journal of Physical Chemistry, 1990, 94, 4161-4167.	2.9	24
202	The absorption cross-section and photochemistry of OIO. Journal of Photochemistry and Photobiology A: Chemistry, 2005, 176, 68-77.	2.0	24
203	A kinetic study of Ca-containing ions reacting with O, O2, CO2 and H2O: implications for calcium ion chemistry in the upper atmosphere. Physical Chemistry Chemical Physics, 2008, 10, 5287.	1.3	24
204	Lidar Soundings of the Mesospheric Nickel Layer Using Ni(³F) and Ni(³D) Transitions. Geophysical Research Letters, 2019, 46, 408-415.	1.5	24
205	Interhemispheric transport of metallic ions within ionospheric sporadic <i>E</i> layers by the lower thermospheric meridional circulation. Atmospheric Chemistry and Physics, 2021, 21, 4219-4230.	1.9	24
206	An <i>ab initio</i> study of dissociative electron attachment to NaHCO₃ and NaCO₃, and the role of these reactions in the formation of sudden sodium layers. Geophysical Research Letters, 1993, 20, 21-24.	1.5	22
207	Laboratory studies of the chemistry of meteoric metals. , 1994, , 313-367.		22
208	A theoretical study of the ligand-exchange reactions of Na+Â·X complexes (X=O,O2,N2,CO2 and H2O): implications for the upper atmosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2002, 64, 863-870.	0.6	22
209	A novel instrument to measure differential ablation of meteorite samples and proxies: The Meteoric Ablation Simulator (MASI). Review of Scientific Instruments, 2016, 87, 094504.	0.6	22
210	Laboratory measurements of heterogeneous CO₂ ice nucleation on nanoparticles under conditions relevant to the Martian mesosphere. Journal of Geophysical Research E: Planets, 2016, 121, 753-769.	1.5	22
211	Observations and Modeling of Increased Nitric Oxide in the Antarctic Polar Middle Atmosphere Associated With Geomagnetic Stormâ€Driven Energetic Electron Precipitation. Journal of Geophysical Research: Space Physics, 2018, 123, 6009-6025.	0.8	22
212	Bottom-up dust nucleation theory in oxygen-rich evolved stars. Astronomy and Astrophysics, 2022, 658, A167.	2.1	22
213	Kinetic investigation of the third-order rate processes between K + O2+ M by time-resolved atomic resonance absorption spectroscopy. Journal of the Chemical Society, Faraday Transactions 2, 1982, 78, 1175.	1.1	21
214	Wavelength-dependence of the photolysis of diiodomethane in seawater. Geophysical Research Letters, 2006, 33, .	1.5	21
215	Can molecular diffusion explain Space Shuttle plume spreading?. Geophysical Research Letters, 2010, 37, .	1.5	21
216	On the role of metal silicate molecules as ice nuclei. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 2192-2200.	0.6	21

#	Article	IF	Citations
217	Speciation analysis of iodine and bromine at picogram-per-gram levels in polar ice. Analytical and Bioanalytical Chemistry, 2013, 405, 647-654.	1.9	21
218	Dissociative Recombination of FeO⁺ with Electrons: Implications for Plasma Layers in the Ionosphere. Journal of Physical Chemistry A, 2016, 120, 1369-1376.	1.1	21
219	The Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA). Bulletin of the American Meteorological Society, 2020, 101, E1743-E1760.	1.7	21
220	Negligible long-term temperature trend in the upper atmosphere at 23Â°S. Journal of Geophysical Research, 2004, 109, .	3.3	20
221	Constraints on Metal Oxide and Metal Hydroxide Abundances in the Winds of AGB Stars: Potential Detection of FeO in R Dor. Astrophysical Journal, 2018, 855, 113.	1.6	20
222	A study of the reactions between Ba(1S) and N2O, O2, and CO2. Journal of Chemical Physics, 1991, 94, 7193-7203.	1.2	19
223	Kinetic Study of the Reactions of CaO with H2O, CO2, O2, and O3:â€‰ Implications for Calcium Chemistry in the Mesosphere. Journal of Physical Chemistry A, 2001, 105, 7047-7056.	1.1	19
224	Effect of ice particles on the mesospheric potassium layer at Spitsbergen (78Â°N). Journal of Geophysical Research, 2007, 112, .	3.3	19
225	Measurements of iodine monoxide at a semi polluted coastal location. Atmospheric Chemistry and Physics, 2010, 10, 3645-3663.	1.9	19
226	FeO emission in the mesosphere: Detectability, diurnal behavior, and modeling. Journal of Geophysical Research, 2011, 116, .	3.3	19
227	On the sodium D line emission in the terrestrial nightglow. Journal of Atmospheric and Solar-Terrestrial Physics, 2012, 74, 181-188.	0.6	19
228	A new model of meteoric calcium in the mesosphere and lower thermosphere. Atmospheric Chemistry and Physics, 2018, 18, 14799-14811.	1.9	19
229	Experimental Study of the Removal of Ground- and Excited-State Phosphorus Atoms by Atmospherically Relevant Species. Journal of Physical Chemistry A, 2019, 123, 9469-9478.	1.1	19
230	Localized Ionization Hypothesis for Transient Ionospheric Layers. Journal of Geophysical Research: Space Physics, 2019, 124, 4870-4880.	0.8	19
231	Water Photolysis and Its Contributions to the Hydroxyl Dayglow Emissions in the Atmospheres of Earth and Mars. Journal of Physical Chemistry Letters, 2020, 11, 9086-9092.	2.1	19
232	First Simultaneous Lidar Observations of Thermosphereâ€Ionosphere Fe and Na (TIFe and TINa) Layers at McMurdo (77.84Â°S, 166.67Â°E), Antarctica With Concurrent Measurements of Aurora Activity, Enhanced Ionization Layers, and Converging Electric Field. Geophysical Research Letters, 2020, 47, e2020GL090181.	1.5	19
233	A study of the reaction Li+HCl by the technique of timeâ€resolved laserâ€induced fluorescence spectroscopy of Li (2â€‰2PJâ€“2â€‰2S1/2, Î»=670.7 nm) between 700 and 1000 K. Journal of Chemical Physics, 1987, 87, 4606-4611.	1.2	18
234	FeO "Orange Arc" Emission Detected in Optical Spectrum of Leonid Persistent Train. Earth, Moon and Planets, 1998, 82/83, 429-438.	0.3	18

#	Article	IF	Citations
235	A Theoretical Study of the Ionâ[^]'Molecule Chemistry of K+Â·X Complexes (X = O, O2, N2, CO2, H2O):â€‰ Implications for the Upper Atmosphere. Journal of Physical Chemistry A, 2006, 110, 3093-3100.	1.1	18
236	Theoretical Study of Mg⁺â^'X and [Xâ^'Mgâ^'Y]⁺Complexes Important in the Chemistry of Ionospheric Magnesium (X, Y = H₂O, CO_{2}, N₂,) Tj ETQq0 0 0 rgBT /Overloc	1.1	18
237	Radar, lidar, and optical observations in the polar summer mesosphere shortly after a space shuttle launch. Journal of Geophysical Research, 2010, 115, .	3.3	18
238	The uptake of HNO3 on meteoric smoke analogues. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 150-160.	0.6	18
239	Mesospheric Removal of Very Long-Lived Greenhouse Gases SF₆ and CFC-115 by Metal Reactions, Lyman-Î± Photolysis, and Electron Attachment. Journal of Physical Chemistry A, 2015, 119, 2016-2025.	1.1	18
240	Reaction Kinetics of Meteoric Sodium Reservoirs in the Upper Atmosphere. Journal of Physical Chemistry A, 2016, 120, 1330-1346.	1.1	18
241	Nucleation of nitric acid hydrates in polar stratospheric clouds by meteoric material. Atmospheric Chemistry and Physics, 2018, 18, 4519-4531.	1.9	18
242	An experimental and theoretical study of the reactions Na+HCl and Na+DCl. Journal of Chemical Physics, 1989, 91, 6177-6186.	1.2	17
243	Atomic oxygen depletion in the vicinity of noctilucent clouds. Advances in Space Research, 2003, 31, 2075-2084.	1.2	17
244	On the photochemistry of IONO2â€‰:â€‰ absorption cross section (240â€"370 nm) and photolysis product yields at 248 nm. Physical Chemistry Chemical Physics, 2007, 9, 5599.	1.3	17
245	DOAS observations of formaldehyde and its impact on the HOx balance in the tropical Atlantic marine boundary layer. Journal of Atmospheric Chemistry, 2010, 66, 167-178.	1.4	17
246	First global observations of the mesospheric potassium layer. Geophysical Research Letters, 2014, 41, 5653-5661.	1.5	17
247	The photolysis of FeOH and its effect on the bottomside of the mesospheric Fe layer. Geophysical Research Letters, 2016, 43, 1373-1381.	1.5	17
248	Injection of meteoric phosphorus into planetary atmospheres. Planetary and Space Science, 2020, 187, 104926.	0.9	17
249	Short-Lived Trace Gases in the Surface Ocean and the Atmosphere. Springer Earth System Sciences, 2014, , 1-54.	0.1	17
250	ATOMIUM: A high-resolution view on the highly asymmetric wind of the AGB star<i>Ï€</i>¹Gruis. Astronomy and Astrophysics, 2020, 644, A61.	2.1	17
251	A kinetic investigation of the reaction magnesium (1S) + nitrous oxide over the temperature range 382-893 K. The Journal of Physical Chemistry, 1992, 96, 1296-1301.	2.9	16
252	Bright polar mesospheric clouds formed by main engine exhaust from the space shuttle's final launch. Journal of Geophysical Research, 2012, 117, .	3.3	16

#	Article	IF	Citations
253	<i>D</i>-region ionâ€“neutral coupled chemistry (SodankylÃ Ion Chemistry,) Tj ETQq1 1 0.784314 rgBT WACCM-rSIC. Geoscientific Model Development, 2016, 9, 3123-3136.	1.3	16
254	Atmospheric lifetimes, infrared absorption spectra, radiative forcings and global warming potentials of NF₃ and CF₃CF₂ClÂ(CFC-115). Atmospheric Chemistry and Physics, 2016, 16, 11451-11463.	1.9	16
255	Impacts of a sudden stratospheric warming on the mesospheric metal layers. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 162-171.	0.6	16
256	Meteoric Smoke Deposition in the Polar Regions: A Comparison of Measurements With Global Atmospheric Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,112.	1.2	16
257	A kinetic investigation of the reaction Ca + O3over the temperature range 213â€“383 K. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 763-769.	1.7	15
258	Influence of submonolayer sodium adsorption on the photoemission of the Cu(111)/water ice surface. Journal of Chemical Physics, 2006, 125, 224702.	1.2	15
259	Seasonal and diurnal variation of electron and iron concentrations at the meteor heights above Arecibo. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 49-60.	0.6	15
260	A kinetic study of reactions of calcium-containing molecules with O and H atoms: implications for calcium chemistry in the upper atmosphere. Physical Chemistry Chemical Physics, 2010, 12, 9094.	1.3	15
261	A study of space shuttle plumes in the lower thermosphere. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	15
262	O2(a1Î”g) + Mg, Fe, and Ca: Experimental kinetics and formulation of a weak collision, multiwell master equation with spin-hopping. Journal of Chemical Physics, 2012, 137, 014310.	1.2	15
263	The nearâ€global mesospheric potassium layer: Observations and modeling. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7975-7987.	1.2	15
264	RADAR DETECTABILITY STUDIES OF SLOW AND SMALL ZODIACAL DUST CLOUD PARTICLES. II. A STUDY OF THREE RADARS WITH DIFFERENT SENSITIVITY. Astrophysical Journal, 2015, 807, 13.	1.6	15
265	Solar cycle response and longâ€term trends in the mesospheric metal layers. Journal of Geophysical Research: Space Physics, 2016, 121, 7153-7165.	0.8	15
266	Constraints on Meteoric Smoke Composition and Meteoric Influx Using SOFIE Observations With Models. Journal of Geophysical Research D: Atmospheres, 2017, 122, 13,495.	1.2	15
267	Momentum Flux Spectra of a Mountain Wave Event Over New Zealand. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9980-9991.	1.2	15
268	Photochemical Modeling Applied to Natural Waters. ACS Symposium Series, 1987, , 250-267.	0.5	14
269	Photoemission from Sodium on Ice:Â A Mechanism for Positive and Negative Charge Coexistence in the Mesosphere. Journal of Physical Chemistry B, 2006, 110, 3860-3863.	1.2	14
270	Determination of the Oâ€“IO bond dissociation energy by photofragment excitation spectroscopy. Chemical Physics Letters, 2009, 474, 79-83.	1.2	14

#	Article	IF	Citations
271	Kinetic studies of atmospherically relevant silicon chemistry. Part III: Reactions of Si⁺and SiO⁺with O₃, and Si⁺with O₂. Physical Chemistry Chemical Physics, 2011, 13, 3764-3774.	1.3	14
272	Uptake of acetylene on cosmic dust and production of benzene in Titan's atmosphere. Icarus, 2016, 278, 88-99.	1.1	14
273	The Reaction between Sodium Hydroxide and Atomic Hydrogen in Atmospheric and Flame Chemistry. Journal of Physical Chemistry A, 2017, 121, 7667-7674.	1.1	14
274	The Impact of Comet Siding Spring's Meteors on the Martian Atmosphere and Ionosphere. Journal of Geophysical Research E: Planets, 2018, 123, 2613-2627.	1.5	14
275	Kinetic Study of Ni and NiO Reactions Pertinent to the Earthâ€™s Upper Atmosphere. Journal of Physical Chemistry A, 2019, 123, 601-610.	1.1	14
276	Determination of the absorption cross sections of higher-order iodine oxides at 355Âand 532â€‰nm. Atmospheric Chemistry and Physics, 2020, 20, 10865-10887.	1.9	14
277	ATOMIUM: ALMA tracing the origins of molecules in dust forming oxygen rich M-type stars. Astronomy and Astrophysics, 2022, 660, A94.	2.1	14
278	Insights into the Chemistry of Iodine New Particle Formation: The Role of Iodine Oxides and the Source of Iodic Acid. Journal of the American Chemical Society, 2022, 144, 9240-9253.	6.6	14
279	Absolute third-order rate constant for the reaction between Rb + OH + He determined by time-resolved molecular resonance-fluorescence spectroscopy, OH (A2Î£+â€“X2Î), coupled with steady atomic resonance-fluorescence measurements, Rb(62PJâ€“52S1/2). Journal of the Chemical Society, Faraday Transactions 2, 1985, 81, 561-573.	1.1	13
280	A study of the reaction Li + O2 + M (M = N2, He) over the temperature range 267-1100 K by time-resolved laser-induced fluorescence of Li(22PJ-22S1/2). The Journal of Physical Chemistry, 1988, 92, 3884-3890.	2.9	13
281	Experimental and theoretical study of the reaction K+HCl. Journal of Chemical Physics, 1993, 99, 7696-7702.	1.2	13
282	An experimental and theoretical study of the reactions NaO+H2O(D2O)â†’NaOH(D)+OH(OD). Physical Chemistry Chemical Physics, 1999, 1, 4713-4720.	1.3	13
283	Quasi-Lagrangian investigation into dimethyl sulfide oxidation in maritime air using a combination of measurements and model. Journal of Geophysical Research, 2000, 105, 26379-26392.	3.3	13
284	Retrieval of vertical profiles of NO3 from zenith sky measurements using an optimal estimation method. Journal of Geophysical Research, 2002, 107, ACH 10-1-ACH 10-14.	3.3	13
285	The Faraday filter-based spectrometer for observing sodium nightglow and studying atomic and molecular oxygen associated with the sodium chemistry in the mesopause region. Journal of Atmospheric and Solar-Terrestrial Physics, 2010, 72, 1260-1269.	0.6	13
286	Mesospheric temperatures and sodium properties measured with the ALOMAR Na lidar compared with WACCM. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 111-119.	0.6	13
287	Measuring FeO variation using astronomical spectroscopic observations. Atmospheric Chemistry and Physics, 2017, 17, 4177-4187.	1.9	13
288	ATOMIUM: halide molecules around the S-type AGB star W Aquilae. Astronomy and Astrophysics, 2021, 655, A80.	2.1	13

#	Article	IF	Citations
289	Determination of the absolute photolysis cross section of sodium superoxide at 230 K: evidence for the formation of sodium tetroxide in the gas phase. The Journal of Physical Chemistry, 1989, 93, 7399-7404.	2.9	12
290	Kinetic Study of the Reaction Ca++ N2O from 188 to 1207 K. Journal of Physical Chemistry A, 2006, 110, 7874-7881.	1.1	12
291	The formation and growth of Fe2O3 nanoparticles from the photo-oxidation of iron pentacarbonyl. Journal of Aerosol Science, 2010, 41, 475-489.	1.8	12
292	Experimental setup for the laboratory investigation of micrometeoroid ablation using a dust accelerator. Review of Scientific Instruments, 2017, 88, 034501.	0.6	12
293	Comparison of global datasets of sodium densities in the mesosphere and lower thermosphere from GOMOS, SCIAMACHY and OSIRIS measurements and WACCM model simulations from 2008 to 2012. Atmospheric Measurement Techniques, 2017, 10, 2989-3006.	1.2	12
294	Low temperature studies of the removal reactions of 1CH2 with particular relevance to the atmosphere of Titan. Icarus, 2018, 303, 10-21.	1.1	12
295	Climatology of mesopause region nocturnal temperature, zonal wind and sodium density observed by sodium lidar over Hefei, China (32Â°â€‰N, 117Â°â€‰E). Atmospheric Chemistry and Physics, 2018, 18, 11683-11695.	1.9	12
296	Ablation of Ni from micrometeoroids in the upper atmosphere: Experimental and computer simulations and implications for Fe ablation. Planetary and Space Science, 2019, 179, 104725.	0.9	12
297	A direct kinetic study of the reaction K + OH + He â†' KOH + He by time-resolved molecular resonance-fluorescence spectroscopy, OH(A2â^+â€"X2Î), coupled with steady atomic fluorescence spectroscopy, K(52PJâ€"42S1/2). Journal of the Chemical Society, Faraday Transactions 2, 1984, 80, 1465-1483.	1.1	11
298	Determination of the absolute third-order rate constant for the reaction between Na + OH + He by time-resolved molecular resonance-fluorescence spectroscopy, OH(A2â^+â€"X2Î), coupled with steady atomic fluorescence spectroscopy, Na(32PJâ€" 32S1/2). Journal of the Chemical Society, Faraday Transactions 2, 1984, 80, 1619-1631.	1.1	11
299	Measurement of the absolute third-order rate constant for the reaction between Cs + OH + He determined by time-resolved molecular resonance-fluorescence spectroscopy, OH(A2Î£+â€"X2Î), coupled with steady atomic resonance fluorescence, Cs(72PJâ€"62S1/2). Journal of the Chemical Society, Faraday Transactions 2, 1985, 81, 769-782.	1.1	11
300	Absolute third-order rate constants for the recombination reactions between alkali-metal and iodine atoms and the measurement for Rb + I + He. Journal of the Chemical Society, Faraday Transactions 2, 1986, 82, 897.	1.1	11
301	A Comparison between the Oxidation Reactions of the Alkali and Alkaline Earth Atoms. , 1992, , 29-56.		11
302	The Dynamical Evolution of a Tubular Leonid Persistent Train. Earth, Moon and Planets, 1998, 82/83, 471-488.	0.3	11
303	Potential climatic effects of meteoric smoke in the Earth's paleoâ€atmosphere. Geophysical Research Letters, 2007, 34, .	1.5	11
304	Hydrogen oxide photochemistry in the northern Canadian spring time boundary layer. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	11
305	Decay times of transitionally dense specularly reflecting meteor trails and potential chemical impact on trail lifetimes. Annales Geophysicae, 2016, 34, 1119-1144.	0.6	11
306	ABLATION AND CHEMICAL ALTERATION OF COSMIC DUST PARTICLES DURING ENTRY INTO THE EARTHâ€™S ATMOSPHERE. Astrophysical Journal, Supplement Series, 2016, 227, 15.	3.0	11

#	Article	IF	Citations
307	RELICT OLIVINES IN MICROMETEORITES: PRECURSORS AND INTERACTIONS IN THE EARTHâ€™S ATMOSPHERE. Astrophysical Journal, 2016, 831, 197.	1.6	11
308	Absorption cross sections and kinetics of formation of AlO at 298 K. Chemical Physics Letters, 2017, 675, 56-62.	1.2	11
309	Observations of Dramatic Enhancements to the Mesospheric K Layer. Geophysical Research Letters, 2017, 44, 12,536.	1.5	11
310	Self-consistent global transport of metallic ions with WACCM-X. Atmospheric Chemistry and Physics, 2021, 21, 15619-15630.	1.9	11
311	Study of the reaction Li + H2O over the temperature range 850â€“1000 K by time-resolved laser-induced fluorescence of Li(22PJâ€“22S1/2). Journal of the Chemical Society, Faraday Transactions 2, 1988, 84, 273-285.	1.1	10
312	Kinetic Study of the Gas-Phase Reaction of Ca(1S0) with O2from 296 to 623 K. Journal of Physical Chemistry A, 2001, 105, 3515-3520.	1.1	10
313	Theoretical Study of Ca⁺âˆ’X and Yâˆ’Ca⁺âˆ’X Complexes Important in the Chemistry of Ionospheric Calcium (X, Y = H₂O, CO₂, N₂,) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.1	10
314	Diurnal variation of the potassium layer in the upper atmosphere. Geophysical Research Letters, 2015, 42, 3619-3626.	1.5	10
315	The uptake of HO₂ on meteoric smoke analogues. Journal of Geophysical Research D: Atmospheres, 2017, 122, 554-565.	1.2	10
316	Impacts of meteoric sulfur in the Earth's atmosphere. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7678-7701.	1.2	10
317	Discovery of Suprathermal Ionospheric Origin Fe⁺ in and Near Earth's Magnetosphere. Journal of Geophysical Research: Space Physics, 2017, 122, 11,175.	0.8	10
318	Comment on â€œMethanol dimer formation drastically enhances hydrogen abstraction from methanol by OH at low temperatureâ€• by W. Siebrand, Z. Smedarchina, E. MartÃnez-NÃºÃ±ez and A. FernÃ¡ndez-Ramos, <i>Phys. Chem. Chem. Phys</i>., 2016, 18, 22712. Physical Chemistry Chemical Physics, 2018, 20, 8349-8354.	1.3	10
319	Kinetic Study of the Reactions PO + O₂ and PO₂ + O₃ and Spectroscopy of the PO Radical. Journal of Physical Chemistry A, 2020, 124, 7911-7926.	1.1	10
320	Rate constant for the reaction Na + O2 + N2 â†’ NaO2 + N2 under mesospheric conditions. Journal of Photochemistry and Photobiology, 1986, 32, 1-7.	0.6	9
321	Dynamics of Mg⁺ + H₂O + He: Capture, Collisional Stabilization and Collision-Induced Dissociation. Journal of Physical Chemistry A, 2010, 114, 6472-6479.	1.1	9
322	The MAGIC meteoric smoke particle sampler. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 118, 127-144.	0.6	9
323	Discovery of suprathermal Fe⁺ in Saturn's magnetosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 2720-2738.	0.8	9
324	Selective Disparity of Ordinary Chondritic Precursors in Micrometeorite Flux. Astrophysical Journal, 2018, 853, 38.	1.6	9

#	Article	IF	Citations
325	Observations and Modeling of Potassium Emission in the Terrestrial Nightglow. Journal of Geophysical Research D: Atmospheres, 2019, 124, 6612-6629.	1.2	9
326	Kinetic Study of the Reactions of AlO with H₂O and H₂; Precursors to Stellar Dust Formation. ACS Earth and Space Chemistry, 2021, 5, 3385-3395.	1.2	9
327	Measurement of the average emission lifetimes of the A1â^+â€“X1â^+and the orange Arc bands of CaO. Journal of the Chemical Society, Faraday Transactions, 1991, 87, 677-680.	1.7	8
328	Variability of the mesospheric nightglow during the 2002 Leonid storms. Advances in Space Research, 2007, 39, 562-566.	1.2	8
329	Summer time Fe depletion in the Antarctic mesopause region. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 97-102.	0.6	8
330	Modeling the Altitude Distribution of Meteor Head Echoes Observed with HPLA Radars: Implications for the Radar Detectability of Meteoroid Populations. Astronomical Journal, 2019, 157, 179.	1.9	8
331	Photochemistry on the bottom side of the mesospheric Na layer. Atmospheric Chemistry and Physics, 2019, 19, 3769-3777.	1.9	8
332	Low temperature studies of the rate coefficients and branching ratios of reactive loss vs quenching for the reactions of 1CH2 with C2H6, C2H4, C2H2. Icarus, 2019, 321, 752-766.	1.1	8
333	The Meteoric Ni Layer in the Upper Atmosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028083.	0.8	8
334	Lidar observations of the upper atmospheric nickel layer at Beijing (40â~N,116â~E). Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 260, 107468.	1.1	8
335	Meteorâ€Ablated Aluminum in the Mesosphereâ€Lower Thermosphere. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028792.	0.8	8
336	The reaction between HgBr and O₃: kinetic study and atmospheric implications. Physical Chemistry Chemical Physics, 2022, , .	1.3	8
337	Reaction of SO₃ with HONO₂ and Implications for Sulfur Partitioning in the Atmosphere. Journal of the American Chemical Society, 2022, 144, 9172-9177.	6.6	8
338	Report Group 3 â€" Photochemistry in the sea-surface microlayer. , 1997, , 71-92.		7
339	CO oxidation and O2 removal on meteoric material in Venusâ€™ atmosphere. Icarus, 2017, 296, 150-162.	1.1	7
340	Synthesis and characterisation of analogues for interplanetary dust and meteoric smoke particles. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 178-191.	0.6	7
341	A study of the reactions of Al⁺ions with O₃, N₂, O₂, CO₂and H₂O: influence on Al⁺chemistry in planetary ionospheres. Physical Chemistry Chemical Physics, 2019, 21, 14080-14089.	1.3	7
342	Suprathermal Magnetospheric Atomic and Molecular Heavy Ions at and Near Earth, Jupiter, and Saturn: Observations and Identification. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027271.	0.8	7

#	Article	IF	Citations
343	The Phase of Water Ice Which Forms in Cold Clouds in the Mesospheres of Mars, Venus, and Earth. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006796.	1.5	7
344	FeO â€œOrange Arcâ€•Emission Detected in Optical Spectrum of Leonid Persistent Train. , 2000, , 429-438.		7
345	Measurement of the absolute third-order rate constant for the reaction between potassium + atomic iodine + helium by time-resolved atomic resonance fluorescence monitoring of iodine atoms in the vacuum ultraviolet (I(5p46s(2P3/2))-I(5p5(2P03/2))) coupled with steady atomic resonance fluorescence on atomic potassium (K(52PJ)-K(42S1/2)). The Journal of Physical Chemistry, 1986, 90, 501-507.	2.9	6
346	Study of nighttime NO 3 chemistry by differential optical absorption spectroscopy. , 1991, 1433, 8.		6
347	Kinetic Study of the Recombination Reaction of Gas Phase Pd(aS0) with O2 from 294 to 523 K. Journal of Physical Chemistry A, 2003, 107, 3747-3751.	1.1	6
348	Strong <i>E</i> region ionization caused by the 1767 trail during the 2002 Leonids. Journal of Geophysical Research: Space Physics, 2014, 119, 7880-7888.	0.8	6
349	Experimental Study of the Mesospheric Removal of NF3 by Neutral Meteoric Metals and Lyman-Î± Radiation. Journal of Physical Chemistry A, 2014, 118, 4120-4129.	1.1	6
350	The TromsÃ¸ programme of in situ and sample return studies of mesospheric nanoparticles. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 129-136.	0.6	6
351	A study of the dissociative recombination of CaO + with electrons: Implications for Ca chemistry in the upper atmosphere. Geophysical Research Letters, 2016, 43, 12333-12339.	1.5	6
352	Reaction Kinetics of CaOH with H and O₂ and O₂CaOH with O: Implications for the Atmospheric Chemistry of Meteoric Calcium. ACS Earth and Space Chemistry, 2017, 1, 431-441.	1.2	6
353	Characterization of the Extraterrestrial Magnesium Source in the Atmosphere Using a Meteoric Ablation Simulator. Geophysical Research Letters, 2018, 45, 7765-7771.	1.5	6
354	The 27â€Day Solar Rotational Cycle Response in the Mesospheric Metal Layers at Low Latitudes. Geophysical Research Letters, 2019, 46, 7199-7206.	1.5	6
355	A study of the reactions of Ni⁺and NiO⁺ions relevant to planetary upper atmospheres. Physical Chemistry Chemical Physics, 2020, 22, 8940-8951.	1.3	6
356	Phosphorus Chemistry in the Earth's Upper Atmosphere. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029881.	0.8	6
357	Recent applications of Differential Optical Absorption Spectroscopy: Halogen chemistry in the lower troposphere. European Physical Journal Special Topics, 2004, 121, 223-238.	0.2	6
358	Experimental study of the removal of excited state phosphorus atoms by H2O and H2: implications for the formation of PO in stellar winds. Monthly Notices of the Royal Astronomical Society, 2022, 515, 99-109.	1.6	6
359	Measurement of the absolute third-order rate constant for the reaction between Cs + I + He by time-resolved atomic resonance fluorescence monitoring of iodine atoms in the vacuum ultraviolet region {I[6s(2PJ)]â€“I[5p5(2P3/2)]} coupled with steady atomic resonance fluorescence on atomic caesium [Cs(72PJ)â€“ Cs(62S1/2)] in the visible region. Journal of the Chemical Society, Faraday Transactions 2, 1985, 81, 1675-1692.	1.1	5
360	Determination of the absolute second-order rate constant for the reaction Na + O3? NaO + O2. Journal of the Chemical Society Chemical Communications, 1985, , 1216.	2.0	5

#	Article	IF	Citations
361	Corrigendum to "Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools" published in Atmos. Chem. Phys., 10, 169â€“199, 2010. Atmospheric Chemistry and Physics, 2010, 10, 563-563.	1.9	5
362	Mesospheric implications for the reaction of Si⁺ with O₂(<i>a</i>¹Î”_g). Geophysical Research Letters, 2010, 37, .	1.5	5
363	An Explanation for the Nitrous Oxide Layer Observed in the Mesopause Region. Geophysical Research Letters, 2018, 45, 7818-7827.	1.5	5
364	Kinetic Study of the Reactions of AlO and OAlO Relevant to Planetary Mesospheres. ACS Earth and Space Chemistry, 2020, 4, 2007-2017.	1.2	5
365	New Global Meteoric Smoke Observations From SOFIE: Insight Regarding Chemical Composition, Meteoric Influx, and Hemispheric Asymmetry. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035007.	1.2	5
366	Differential Ablation of Organic Coatings From Micrometeoroids Simulated in the Laboratory. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	5
367	Meteor trail characteristics observed by high time resolution lidar. Annales Geophysicae, 2014, 32, 1321-1332.	0.6	4
368	Fe embedded in ice: The impacts of sublimation and energetic particle bombardment. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 103-110.	0.6	4
369	The fate of meteoric metals in ice particles: Effects of sublimation and energetic particle bombardment. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 161, 143-149.	0.6	4
370	Comment on â€œA cometary origin for atmospheric martian methaneâ€• by Fries et al., 2016. Geochemical Perspectives Letters, 0, , .	1.0	4
371	A Comparison of the Midlatitude Nickel and Sodium Layers in the Mesosphere: Observations and Modeling. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	4
372	Master equation modelling of non-equilibrium chemistry in stellar outflows. Faraday Discussions, 0, 238, 461-474.	1.6	4
373	Ablation Rates of Organic Compounds in Cosmic Dust and Resulting Changes in Mechanical Properties During Atmospheric Entry. Earth and Space Science, 2022, 9, .	1.1	4
374	The Chemistry of Mercury in the Stratosphere. Geophysical Research Letters, 2022, 49, .	1.5	4
375	Photoelectric emission from the alkali metal doped vacuum-ice interface. Journal of Chemical Physics, 2009, 130, 054702.	1.2	3
376	Meteoric calcium. Nature Chemistry, 2011, 3, 900-900.	6.6	3
377	The impact of solar radiation on polar mesospheric ice particle formation. Atmospheric Chemistry and Physics, 2019, 19, 4311-4322.	1.9	3
378	Optical properties of meteoric smoke analogues. Atmospheric Chemistry and Physics, 2019, 19, 12767-12777.	1.9	3

#	Article	IF	Citations
379	MESOSPHERE | Metal Layers. , 2003, , 1265-1271.		3
380	Theoretical study of the NO₃radical reaction with CH₂ClBr, CH₂ICl, CH₂BrI, CHCl₂Br, and CHClBr₂. Physical Chemistry Chemical Physics, 2022, 24, 14365-14374.	1.3	3
381	The collisional cross sections for quenching of OH(A 2Î£+) by HCl and DCl determined by time-resolved resonance fluorescence OH(A 2Î£+â^'X2Î). Journal of Photochemistry and Photobiology, 1984, 26, 1-8.	0.6	2
382	Theoretical and experimental determination of the lithium and sodium superoxide bond dissociation energies [Erratum to document cited in CA110(18):161238p]. The Journal of Physical Chemistry, 1990, 94, 1010-1010.	2.9	2
383	LOCUS: Low cost upper atmosphere sounder. Proceedings of SPIE, 2013, , .	0.8	2
384	CO2 trapping in amorphous H2O ice: Relevance to polar mesospheric cloud particles. Journal of Atmospheric and Solar-Terrestrial Physics, 2015, 127, 92-96.	0.6	2
385	Astrochemical Significance of the P + SO Reaction: Spectroscopic Characterization of SPO, PSO, and SOP Isomers. Astrophysical Journal, 2021, 909, 122.	1.6	2
386	The Dynamical Evolution of a Tubular Leonid Persistent Train. , 2000, , 471-488.		2
387	Unusual kinetic behavior of the reactions magnesium + oxygen + M and calcium + oxygen + M (M = N2,) Tj ETQq1 1 0.784314 rgBT /Ov Physical Chemistry, 1993, 97, 12422-12422.	2.9	1
388	A new material for combustion exhaust aftertreatment at low temperature. Chemical Engineering Journal, 2022, 427, 131814.	6.6	1
389	Heavy Metals in Antarctic and Greenland Snow and Ice Cores: Man Induced Changes During the Last Millennia and Natural Variations During the Last Climatic Cycles. , 2011, , 19-46.		1
390	Inorganic aerosol formation and growth in the Earth's lower and upper atmosphere. European Physical Journal Special Topics, 2006, 139, 239-256.	0.2	1
391	Cosmic and Atmospheric Nanosilicates. Series in Materials Science and Engineering, 2016, , 369-412.	0.1	1
392	Yuk L. Yung and William B. DeMore: Photochemistry of Planetary Atmospheres. Journal of Atmospheric Chemistry, 2001, 39, 215-216.	1.4	0
393	The D 2 /D 1 sodium nightglow intensity ratio as a mesospheric probe. , 2005, 5979, 289.		0
394	Kinetic study of the reactions of the sodium dimer (Na2) with a range of atmospheric species. Physical Chemistry Chemical Physics, 2006, 8, 3104.	1.3	0
395	E region ionization enhancement over northern Scandinavia during the 2002 Leonids. , 2014, , .		0
396	MESOSPHERE | Metal Layers. , 2015, , 430-435.		0

#	Article	IF	Citations
397	Preliminary observations and simulation of nocturnal variations of airglow temperature and emission rates at Pune (18.5Â°N), India. Journal of Atmospheric and Solar-Terrestrial Physics, 2016, 149, 59-68.	0.6	0
398	Heterogeneous chemistry on nano dust in the terrestrial and planetary atmospheres (including Titan). Proceedings of the International Astronomical Union, 2018, 14, 388-388.	0.0	0
399	The role of alumina in triggering stellar outflows. Proceedings of the International Astronomical Union, 2018, 14, 406-407.	0.0	0
400	On the onset of dust formation in AGB stars. Proceedings of the International Astronomical Union, 2018, 14, 119-128.	0.0	0
401	From molecules to dust grains: The role of alumina cluster seeds. Proceedings of the International Astronomical Union, 2019, 15, 245-248.	0.0	0
402	Individual Reports from TOPAS Contributors. , 1997, , 347-386.		0
403	Observations of the Nickel Layer in the Mesopause Region at Mid-Latitudes. EPJ Web of Conferences, 2020, 237, 04004.	0.1	0