Andrew K Heidinger

List of Publications by Year
in descending order

136	6,227	57758	76900
papers	citations	44 h-index	74 g-index

137	137	137	5908
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Assessment of Global Cloud Datasets from Satellites: Project and Database Initiated by the GEWEX Radiation Panel. Bulletin of the American Meteorological Society, 2013, 94, 1031-1049.	3.3	437
2	Illuminating the Capabilities of the Suomi National Polar-Orbiting Partnership (NPP) Visible Infrared Imaging Radiometer Suite (VIIRS) Day/Night Band. Remote Sensing, 2013, 5, 6717-6766.	4.0	260
3	New evidence for a relationship between Atlantic tropical cyclone activity and African dust outbreaks. Geophysical Research Letters, 2006, 33, .	4.0	206
4	MODIS Cloud-Top Property Refinements for Collection 6. Journal of Applied Meteorology and Climatology, 2012, 51, 1145-1163.	1.5	192
5	The Pathfinder Atmospheresâ€“Extended AVHRR Climate Dataset. Bulletin of the American Meteorological Society, 2014, 95, 909-922.	3.3	192
6	Arguments against a physical long-term trend in global ISCCP cloud amounts. Geophysical Research Letters, 2007, 34, .	4.0	187
7	The Role of Aerosols in the Evolution of Tropical North Atlantic Ocean Temperature Anomalies. Science, 2009, 324, 778-781.	12.6	170
8	A Naive Bayesian Cloud-Detection Scheme Derived from CALIPSO and Applied within PATMOS-x. Journal of Applied Meteorology and Climatology, 2012, 51, 1129-1144.	1.5	158
9	Gazing at Cirrus Clouds for 25 Years through a Split Window. Part I: Methodology. Journal of Applied Meteorology and Climatology, 2009, 48, 1100-1116.	1.5	132
10	State of the Climate in 2016. Bulletin of the American Meteorological Society, 2017, 98, Si-S280.	3.3	132
11	A Daytime Complement to the Reverse Absorption Technique for Improved Automated Detection of Volcanic Ash. Journal of Atmospheric and Oceanic Technology, 2006, 23, 1422-1444.	1.3	128
12	Using Moderate Resolution Imaging Spectrometer (MODIS) to calibrate advanced very high resolution radiometer reflectance channels. Journal of Geophysical Research, 2002, 107, AAC 11-1-AAC 11-10.	3.3	127
13	Deriving an inter-sensor consistent calibration for the AVHRR solar reflectance data record. International Journal of Remote Sensing, 2010, 31, 6493-6517.	2.9	126
14	State of the Climate in 2011. Bulletin of the American Meteorological Society, 2012, 93, S1-S282.	3.3	121
15	Comparison of AIRS, MODIS, CloudSat and CALIPSO cloud top height retrievals. Geophysical Research Letters, 2007, 34, .	4.0	116
16	Daytime Global Cloud Typing from AVHRR and VIIRS: Algorithm Description, Validation, and Comparisons. Journal of Applied Meteorology and Climatology, 2005, 44, 804-826.	1.7	112
17	Study of longâ€term trend in aerosol optical thickness observed from operational AVHRR satellite instrument. Journal of Geophysical Research, 2008, 113, .	3.3	109
18	Daytime Cloud Overlap Detection from AVHRR and VIIRS. Journal of Applied Meteorology and Climatology, 2004, 43, 762-778.	1.7	104

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19	Automated retrievals of volcanic ash and dust cloud properties from upwelling infrared measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1436-1458.	3.3	104
20	Short-term solar irradiance forecasting via satellite/model coupling. Solar Energy, 2018, 168, 102-117.	6.1	95
21	Molecular Line Absorption in a Scattering Atmosphere. Part II: Application to Remote Sensing in the O2A band. Journals of the Atmospheric Sciences, 2000, 57, 1615-1634.	1.7	91
22	The Successive-Order-of-Interaction Radiative Transfer Model. Part I: Model Development. Journal of Applied Meteorology and Climatology, 2006, 45, 1388-1402.	1.5	91
23	Implementation of the Daytime Cloud Optical and Microphysical Properties Algorithm (DCOMP) in PATMOS-x. Journal of Applied Meteorology and Climatology, 2012, 51, 1371-1390.	1.5	91
24	The VIIRS Cloud Mask: Progress in the first year of Sâ€NPP toward a common cloud detection scheme. Journal of Geophysical Research D: Atmospheres, 2014, 119, 2441-2456.	3.3	81
25	Multilayer Cloud Detection with the MODIS Near-Infrared Water Vapor Absorption Band. Journal of Applied Meteorology and Climatology, 2010, 49, 2315-2333.	1.5	75
26	State of the Climate in 2008. Bulletin of the American Meteorological Society, 2009, 90, S1-S196.	3.3	74
27	Resolving ice cloud optical thickness biases between CALIOP and MODIS using infrared retrievals. Atmospheric Chemistry and Physics, 2016, 16, 5075-5090.	4.9	73
28	Nowcasting Convective Storm Initiation Using Satellite-Based Box-Averaged Cloud-Top Cooling and Cloud-Type Trends. Journal of Applied Meteorology and Climatology, 2011, 50, 110-126.	1.5	71
29	PATMOS-x: Results from a Diurnally Corrected 30-yr Satellite Cloud Climatology. Journal of Climate, 2013, 26, 414-425.	3.2	67
30	The Advanced Very High Resolution Radiometer Pathfinder Atmosphere (PATMOS) Climate Dataset: A Resource for Climate Research. Bulletin of the American Meteorological Society, 2003, 84, 785-794.	3.3	65
31	Automated cloud detection and classification of data collected by the Visible Infrared Imager Radiometer Suite (VIIRS). International Journal of Remote Sensing, 2005, 26, 4681-4706.	2.9	63
32	Global Climate. Bulletin of the American Meteorological Society, 2020, 101, S9-S128.	3.3	61
33	Bulk Scattering Properties for the Remote Sensing of Ice Clouds. Part III: High-Resolution Spectral Models from 100 to 3250 cmâ˜'1. Journal of Applied Meteorology and Climatology, 2007, 46, 423-434.	1.5	59
34	Molecular Line Absorption in a Scattering Atmosphere. Part I: Theory. Journals of the Atmospheric Sciences, 2000, 57, 1599-1614.	1.7	58
35	Development of a new overâ€water Advanced Very High Resolution Radiometer dust detection algorithm. International Journal of Remote Sensing, 2006, 27, 3903-3924.	2.9	58
36	Central American biomass burning smoke can increase tornado severity in the U.S.. Geophysical Research Letters, 2015, 42, 956-965.	4.0	55

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37	Remote sensing of cloud top pressure/height from SEVIRI: analysis of ten current retrieval algorithms. Atmospheric Measurement Techniques, 2014, 7, 2839-2867.	3.1	54
38	Retrieving aerosol in a cloudy environment: aerosol product availability as a function of spatial resolution. Atmospheric Measurement Techniques, 2012, 5, 1823-1840.	3.1	53
39	Inter-comparison of the longwave infrared channels of MODIS and AVHRR/NOAA-16 using simultaneous nadir observations at orbit intersections. , 2002, , .		52
40	Ocean temperature forcing by aerosols across the Atlantic tropical cyclone development region. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	51
41	Operational calibration of the Advanced Very High Resolution Radiometer (AVHRR) visible and near-infrared channels. Canadian Journal of Remote Sensing, 2010, 36, 602-616.	2.4	50
42	Comparison of NOAA's Operational AVHRR-Derived Cloud Amount to Other Satellite-Derived Cloud Climatologies. Journal of Climate, 2004, 17, 4805-4822.	3.2	49
43	Analysis of winter dust activity off the coast of West Africa using a new 24-year over-water advanced very high resolution radiometer satellite dust climatology. Journal of Geophysical Research, 2006, 111, .	3.3	49
44	Consistency of global satelliteâ€derived aerosol and cloud data sets with recent brightening observations. Geophysical Research Letters, 2010, 37, .	4.0	49
45	Effects of ice particle size vertical inhomogeneity on the passive remote sensing of ice clouds. Journal of Geophysical Research, 2010, 115, .	3.3	49
46	Retrieval of Ice Cloud Optical Thickness and Effective Particle Size Using a Fast Infrared Radiative Transfer Model. Journal of Applied Meteorology and Climatology, 2011, 50, 2283-2297.	1.5	48
47	Using CALIPSO to explore the sensitivity to cirrus height in the infrared observations from NPOESS/VIIRS and GOESâ€R/ABI. Journal of Geophysical Research, 2010, 115, .	3.3	47
48	Spectral signature of ice clouds in the far-infrared region: Single-scattering calculations and radiative sensitivity study. Journal of Geophysical Research, 2003, 108, .	3.3	46
49	Clear-Sky Mask for the Advanced Clear-Sky Processor for Oceans. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1609-1623.	1.3	46
50	A multisensor diagnostic satellite cloud property retrieval scheme. Journal of Geophysical Research, 2000, 105, 19955-19971.	3.3	45
51	Using MODIS to Estimate Cloud Contamination of the AVHRR Data Record. Journal of Atmospheric and Oceanic Technology, 2002, 19, 586-601.	1.3	45
52	A global survey of the effect of cloud contamination on the aerosol optical thickness and its longâ€term trend derived from operational AVHRR satellite observations. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2849-2857.	3.3	44
53	Pollution from China increases cloud droplet number, suppresses rain over the East China Sea. Geophysical Research Letters, 2011, 38, .	4.0	42
54	Evolution of Severe and Nonsevere Convection Inferred from GOES-Derived Cloud Properties. Journal of Applied Meteorology and Climatology, 2013, 52, 2009-2023.	1.5	39

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55	Applying the Dark Target aerosol algorithm with Advanced Himawari Imager observations during the KORUS-AQ field campaign. Atmospheric Measurement Techniques, 2019, 12, 6557-6577.	3.1	39
56	Cloud-Base Height Estimation from VIIRS. Part II: A Statistical Algorithm Based on A-Train Satellite Data. Journal of Atmospheric and Oceanic Technology, 2017, 34, 585-598.	1.3	37
57	Calibrations for AVHRR channels 1 and 2: review and path towards consensus. International Journal of Remote Sensing, 2010, 31, 6519-6540.	2.9	34
58	The Successive-Order-of-Interaction Radiative Transfer Model. Part II: Model Performance and Applications. Journal of Applied Meteorology and Climatology, 2006, 45, 1403-1413.	1.5	31
59	Retrieval of Cirrus Cloud Optical Depth under Day and Night Conditions from MODIS Collection 6 Cloud Property Data. Remote Sensing, 2015, 7, 7257-7271.	4.0	31
60	Variability and Trends in U.S. Cloud Cover: ISCCP, PATMOS-x, and CLARA-A1 Compared to Homogeneity-Adjusted Weather Observations. Journal of Climate, 2015, 28, 4373-4389.	3.2	31
61	Global Daytime Distribution of Overlapping Cirrus Cloud from NOAAâ€™s Advanced Very High Resolution Radiometer. Journal of Climate, 2005, 18, 4772-4784.	3.2	30
62	Rapid Refresh Information of Significant Events: Preparing Users for the Next Generation of Geostationary Operational Satellites. Bulletin of the American Meteorological Society, 2015, 96, 561-576.	3.3	30
63	Satellite Regional Cloud Climatology over the Great Lakes. Remote Sensing, 2013, 5, 6223-6240.	4.0	29
64	Retrieval of Ice Cloud Properties from AIRS and MODIS Observations Based on a Fast High-Spectral-Resolution Radiative Transfer Model. Journal of Applied Meteorology and Climatology, 2013, 52, 710-726.	1.5	28
65	The expected performance of cloud optical and microphysical properties derived from Suomi NPP VIIRS day/night band lunar reflectance. Journal of Geophysical Research D: Atmospheres, 2013, 118, 13,230.	3.3	27
66	Using SURFRAD to Verify the NOAA Single-Channel Land Surface Temperature Algorithm. Journal of Atmospheric and Oceanic Technology, 2013, 30, 2868-2884.	1.3	26
67	Liquid-top mixed-phase cloud detection from shortwave-infrared satellite radiometer observations: A physical basis. Journal of Geophysical Research D: Atmospheres, 2014, 119, 8245-8267.	3.3	26
68	Comparison of MISR and MODIS cloud-top heights in the presence of cloud overlap. Remote Sensing of Environment, 2007, 107, 200-210.	11.0	25
69	High spectral resolution atmospheric radiative transfer: Application of the equivalence theorem. Journal of Geophysical Research, 2000, 105, 2163-2177.	3.3	23
70	Using MetOp-A AVHRR Clear-Sky Measurements to Cloud-Clear MetOp-A IASI Column Radiances. Journal of Atmospheric and Oceanic Technology, 2011, 28, 1104-1116.	1.3	23
71	Calibration of visible and near-infrared channels of the NOAA-12 AVHRR using time series of observations over deserts. International Journal of Remote Sensing, 2003, 24, 3635-3649.	2.9	22
72	Molecular Line Absorption in a Scattering Atmosphere. Part III: Pathlength Characteristics and Effects of Spatially Heterogeneous Clouds. Journals of the Atmospheric Sciences, 2002, 59, 1641-1654.	1.7	20

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73	Fast Computation of Microwave Radiances for Data Assimilation Using the â€œSuccessive Order of Scatteringâ€•Method. Journal of Applied Meteorology and Climatology, 2005, 44, 960-966.	1.7	20
74	Cloud-Base Height Estimation from VIIRS. Part I: Operational Algorithm Validation against CloudSat. Journal of Atmospheric and Oceanic Technology, 2017, 34, 567-583.	1.3	20
75	Rapid Daytime Estimation of Cloud Properties over a Large Area from Radiance Distributions. Journal of Atmospheric and Oceanic Technology, 2003, 20, 1237-1250.	1.3	19
76	Retrieval and Validation of Atmospheric Aerosol Optical Depth From AVHRR Over China. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 6280-6291.	6.3	19
77	Cloud and Sunâ€glint statistics derived from GOES and MODIS observations over the Intraâ€Americas Sea for GEOâ€CAPE mission planning. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1725-1745.	3.3	19
78	The HIRS outgoing longwave radiation product from hybrid polar and geosynchronous satellite observations. Advances in Space Research, 2004, 33, 1120-1124.	2.6	18
79	A fast radiative transfer model for visible through shortwave infrared spectral reflectances in clear and cloudy atmospheres. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 116, 122-131.	2.3	17
80	Relative merits of the 1.6 and 3.75 Î¼m channels of the AVHRR/3 for cloud detection. Canadian Journal of Remote Sensing, 2004, 30, 182-194.	2.4	16
81	Using the NASA EOS A-Train to Probe the Performance of the NOAA PATMOS-x Cloud Fraction CDR. Remote Sensing, 2016, 8, 511.	4.0	16
82	Satelliteâ€Based Detection of Daytime Supercooled Liquidâ€Topped Mixedâ€Phase Clouds Over the Southern Ocean Using the Advanced Himawari Imager. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2677-2701.	3.3	16
83	Regional assessment of microphysical properties of marine boundary layer cloud using the PATMOSâ€x dataset. Journal of Geophysical Research, 2010, 115, .	3.3	15
84	A Multispectral Technique for Detecting Low-Level Cloudiness near Sunrise. Journal of Atmospheric and Oceanic Technology, 2007, 24, 1800-1810.	1.3	14
85	The recent state of the climate: Driving components of cloud-type variability. Journal of Geophysical Research, 2011, 116, .	3.3	14
86	Comparisons between VIIRS cloud mask performance results from manually generated cloud masks of VIIRS imagery and CALIOP-VIIRS match-ups. International Journal of Remote Sensing, 2014, 35, 4905-4922.	2.9	14
87	ABI Cloud Products from the GOES-R Series. , 2020, , 43-62.		14
88	Climatology Analysis of Aerosol Effect on Marine Water Cloud from Long-Term Satellite Climate Data Records. Remote Sensing, 2016, 8, 300.	4.0	13
89	The spectral signature of cloud spatial structure in shortwave irradiance. Atmospheric Chemistry and Physics, 2016, 16, 13791-13806.	4.9	13
90	Finite-Cloud Effects in Longwave Radiative Transfer. Journals of the Atmospheric Sciences, 1996, 53, 953-963.	1.7	12

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91	Detecting opaque and nonopaque tropical upper tropospheric ice clouds: A trispectral technique based on the MODIS 8â€“12 Î¼m window bands. Journal of Geophysical Research, 2010, 115, .	3.3	12
92	CalNex cloud properties retrieved from a shipâ€based spectrometer and comparisons with satellite and aircraft retrieved cloud properties. Journal of Geophysical Research, 2012, 117, .	3.3	12
93	Evaluating and Improving Cloud Parameter Retrievals. Bulletin of the American Meteorological Society, 2013, 94, ES41-ES44.	3.3	12
94	Using Longâ€Term Satellite Observations to Identify Sensitive Regimes and Active Regions of Aerosol Indirect Effects for Liquid Clouds Over Global Oceans. Journal of Geophysical Research D: Atmospheres, 2018, 123, 457-472.	3.3	12
95	Using Sounder Data to Improve Cirrus Cloud Height Estimation from Satellite Imagers. Journal of Atmospheric and Oceanic Technology, 2019, 36, 1331-1342.	1.3	11
96	A new AVHRR cloud climatology. , 2005, , .		9
97	Entering the Era of +30-Year Satellite Cloud Climatologies: A North American Case Study. Journal of Climate, 2014, 27, 6687-6697.	3.2	9
98	A Long-Term Historical Aerosol Optical Depth Data Record (1982â€“2011) Over China From AVHRR. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 2467-2480.	6.3	9
99	Tropical stratospheric cloud climatology from the PATMOS-x dataset: An assessment of convective contributions to stratospheric water. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	8
100	Longâ€term trends of zonally averaged aerosol optical thickness observed from operational satellite AVHRR instrument. Meteorological Applications, 2011, 18, 440-445.	2.1	8
101	A Uniform Spaceâ€“Time Gridding Algorithm for Comparison of Satellite Data Products: Characterization and Sensitivity Study. Journal of Applied Meteorology and Climatology, 2013, 52, 255-268.	1.5	8
102	Evaluation of single fieldâ€ofâ€view cloud top height retrievals from hyperspectral infrared sounder radiances with CloudSat and CALIPSO measurements. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9182-9190.	3.3	8
103	Physically Based Satellite Methods. , 2013, , 49-79.		8
104	Toward Global Harmonization of Derived Cloud Products. Bulletin of the American Meteorological Society, 2017, 98, ES49-ES52.	3.3	8
105	The Observed Influence of Tropical Convection on the Saharan Dust Layer. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10896-10912.	3.3	8
106	GEWEX cloud assessment: A review. AIP Conference Proceedings, 2013, , .	0.4	7
107	CO2 Retrieval over Clouds from the OCO Mission: Model Simulations and Error Analysis. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1090-1104.	1.3	6
108	Validating an operational physical method to compute surface radiation from geostationary satellites. Proceedings of SPIE, 2010, , .	0.8	6

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109	Evaluation of Visible Infrared Imaging Radiometer Suite (VIIRS) neural network cloud detection against current operational cloud masks. Atmospheric Measurement Techniques, 2021, 14, 3371-3394.	3.1	6
110	Statistical estimation of a 13.3ÂÎ¼m Visible Infrared Imaging Radiometer Suite channel using multisensor data fusion. Journal of Applied Remote Sensing, 2013, 7, 073473.	1.3	5
111	Summary of the Fourth Cloud Retrieval Evaluation Workshop. Bulletin of the American Meteorological Society, 2015, 96, ES71-ES74.	3.3	5
112	PATMOS-x Cloud Climate Record Trend Sensitivity to Reanalysis Products. Remote Sensing, 2016, 8, 424.	4.0	5
113	A Long-Term Fine-Resolution Record of AVHRR Surface Temperatures for the Laurentian Great Lakes. Remote Sensing, 2018, 10, 1210.	4.0	5
114	An Improved Beta Method for Ice Cloud Property Retrievals: Theory. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031863.	3.3	5
115	Improvement in cloud retrievals from VIIRS through the use of infrared absorption channels constructed from VIIRS+CrIS data fusion. Atmospheric Measurement Techniques, 2020, 13, 4035-4049.	3.1	5
116	Low Cloud Detection in Multilayer Scenes Using Satellite Imagery with Machine Learning Methods. Journal of Atmospheric and Oceanic Technology, 2022, 39, 319-334.	1.3	4
117	Correction to â€œUsing CALIPSO to explore the sensitivity to cirrus height in the infrared observations from NPOESS/VIIRS and GOES-R/ABIâ€• Journal of Geophysical Research, 2010, 115, .	3.3	3
118	Estimation of Liquid Cloud Properties that Conserve Total-Scene Reflectance Using Satellite Measurements. Journal of Applied Meteorology and Climatology, 2011, 50, 96-109.	1.5	3
119	Outcome of the third cloud retrieval evaluation workshop. , 2013, , .		3
120	Subpixel Characterization of HIRS Spectral Radiances Using Cloud Properties from AVHRR. Journal of Atmospheric and Oceanic Technology, 2016, 33, 1519-1538.	1.3	3
121	Satellite Observations of North American Climate Change. Regional Climate Studies, 2014, , 95-165.	1.2	3
122	Advancements in identifying cirrus and multilayered cloud systems from operational satellite imagers at night. , 2005, 5658, 225.		2
123	Development of a GOES-R Advanced Baseline Imager Solar Channel Radiance Simulator for Ice Clouds. Journal of Applied Meteorology and Climatology, 2013, 52, 872-888.	1.5	2
124	Monitoring Snow Using Geostationary Satellite Retrievals During the SAAWSO Project. Pure and Applied Geophysics, 2016, 173, 3085-3102.	1.9	2
125	Cloud optical property retrievals from layered-cloud radiances derived from AVHRR data. , 1998, 3495, 12.		1
126	<title>Fast passive microwave radiative transfer in precipitating clouds: toward direct radiance assimilation</title>. , 2004, , .		1

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127	Preliminary global cloud comparisons from the AVHRR, MODIS, and GLAS: cloud amount and cloud overlap. , 2005, , .		1
128	Intercalibration of Polar-Orbiting Spectral Radiometers Without Simultaneous Observations. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1507-1519.	6.3	1
129	Monitoring a Sentinel Species from Satellites: Detecting Emiliania huxleyi in 25 Years of AVHRR Imagery. , 2013, , 277-288.		1
130	Validation of CLAVR-x cloud detection over ocean using AVHRR GAC sea surface temperature. , 2005, , .		0
131	Rapid forward and adjoint calculations of thermal hyperspectral radiances in cloudy atmospheres. , 2005, 5890, 310.		0
132	Analsis of historical AVHRR PATMOS aerosol data in support of the long-term trend study. , 2007, , .		0
133	Tackling the hydra, validation of the imagery environmental data record (EDR) and Cloud Mask. , 2012, , .		0
134	Climatology Perspective of Sensitive Regimes and Active Regions of Aerosol Indirect Effect for Cirrus Clouds over the Global Oceans. Remote Sensing, 2020, 12, 823.	4.0	0
135	Compact midwave imaging system (CMIS) for weather satellite applications. , 2018, , .		0
136	A Physical Basis for the Overstatement of Low Clouds at Night by Conventional Satellite Infraredâ€Based Imaging Radiometer Biâ€Spectral Techniques. Earth and Space Science, 2022, 9, .	2.6	0