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	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
2	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
3	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
4	ABI Cloud Products from the GOES-R Series. , 2020, , 43-62.		14
5	An Improved Beta Method for Ice Cloud Property Retrievals: Theory. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031863.	3.3	5
6	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
7	Global Climate. Bulletin of the American Meteorological Society, 2020, 101, S9-S128.	3.3	61
8	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
9	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
10	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
11	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
12	The Observed Influence of Tropical Convection on the Saharan Dust Layer. Journal of Geophysical Research D: Atmospheres, 2019, 124, 10896-10912.	3.3	8
13	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
14	Intercalibration of Polar-Orbiting Spectral Radiometers Without Simultaneous Observations. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1507-1519.	6.3	1
15	Short-term solar irradiance forecasting via satellite/model coupling. Solar Energy, 2018, 168, 102-117.	6.1	95
16	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
17	A Long-Term Fine-Resolution Record of AVHRR Surface Temperatures for the Laurentian Great Lakes. Remote Sensing, 2018, 10, 1210.	4.0	5
18	Compact midwave imaging system (CMIS) for weather satellite applications. , 2018, , .		0

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19	Toward Global Harmonization of Derived Cloud Products. Bulletin of the American Meteorological Society, 2017, 98, ES49-ES52.	3.3	8
20	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
21	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
22	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
23	State of the Climate in 2016. Bulletin of the American Meteorological Society, 2017, 98, Si-S280.	3.3	132
24	Subpixel Characterization of HIRS Spectral Radiances Using Cloud Properties from AVHRR. Journal of Atmospheric and Oceanic Technology, 2016, 33, 1519-1538.	1.3	3
25	Climatology Analysis of Aerosol Effect on Marine Water Cloud from Long-Term Satellite Climate Data Records. Remote Sensing, 2016, 8, 300.	4.0	13
26	PATMOS-x Cloud Climate Record Trend Sensitivity to Reanalysis Products. Remote Sensing, 2016, 8, 424.	4.0	5
27	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
28	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
29	The spectral signature of cloud spatial structure in shortwave irradiance. Atmospheric Chemistry and Physics, 2016, 16, 13791-13806.	4.9	13
30	Resolving ice cloud optical thickness biases between CALIOP and MODIS using infrared retrievals. Atmospheric Chemistry and Physics, 2016, 16, 5075-5090.	4.9	73
31	Monitoring Snow Using Geostationary Satellite Retrievals During the SAAWSO Project. Pure and Applied Geophysics, 2016, 173, 3085-3102.	1.9	2
32	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
33	Summary of the Fourth Cloud Retrieval Evaluation Workshop. Bulletin of the American Meteorological Society, 2015, 96, ES71-ES74.	3.3	5
34	Central American biomass burning smoke can increase tornado severity in the U.S.. Geophysical Research Letters, 2015, 42, 956-965.	4.0	55
35	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
36	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

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37	Entering the Era of +30-Year Satellite Cloud Climatologies: A North American Case Study. Journal of Climate, 2014, 27, 6687-6697.	3.2	9
38	The Pathfinder Atmospheresâ€“Extended AVHRR Climate Dataset. Bulletin of the American Meteorological Society, 2014, 95, 909-922.	3.3	192
39	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
40	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
41	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
42	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
43	Satellite Observations of North American Climate Change. Regional Climate Studies, 2014, , 95-165.	1.2	3
44	Evaluating and Improving Cloud Parameter Retrievals. Bulletin of the American Meteorological Society, 2013, 94, ES41-ES44.	3.3	12
45	PATMOS-x: Results from a Diurnally Corrected 30-yr Satellite Cloud Climatology. Journal of Climate, 2013, 26, 414-425.	3.2	67
46	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
47	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
48	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
49	GEWEX cloud assessment: A review. AIP Conference Proceedings, 2013, , .	0.4	7
50	Outcome of the third cloud retrieval evaluation workshop. , 2013, , .		3
51	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
52	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
53	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
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	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
56	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
57	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
58	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
59	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
60	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
61	Physically Based Satellite Methods. , 2013, , 49-79.		8
62	Satellite Regional Cloud Climatology over the Great Lakes. Remote Sensing, 2013, 5, 6223-6240.	4.0	29
63	Monitoring a Sentinel Species from Satellites: Detecting Emiliania huxleyi in 25 Years of AVHRR Imagery. , 2013, , 277-288.		1
64	MODIS Cloud-Top Property Refinements for Collection 6. Journal of Applied Meteorology and Climatology, 2012, 51, 1145-1163.	1.5	192
65	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
66	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
67	State of the Climate in 2011. Bulletin of the American Meteorological Society, 2012, 93, S1-S282.	3.3	121
68	Tackling the hydra, validation of the imagery environmental data record (EDR) and Cloud Mask. , 2012, , .		0
69	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
70	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
71	The recent state of the climate: Driving components of cloud-type variability. Journal of Geophysical Research, 2011, 116, .	3.3	14
72	Pollution from China increases cloud droplet number, suppresses rain over the East China Sea. Geophysical Research Letters, 2011, 38, .	4.0	42

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73	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
74	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
75	Longâ€term trends of zonally averaged aerosol optical thickness observed from operational satellite AVHRR instrument. Meteorological Applications, 2011, 18, 440-445.	2.1	8
76	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
77	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
78	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
79	Validating an operational physical method to compute surface radiation from geostationary satellites. Proceedings of SPIE, 2010, , .	0.8	6
80	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
81	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
82	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
83	Clear-Sky Mask for the Advanced Clear-Sky Processor for Oceans. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1609-1623.	1.3	46
84	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
85	Consistency of global satelliteâ€derived aerosol and cloud data sets with recent brightening observations. Geophysical Research Letters, 2010, 37, .	4.0	49
86	Effects of ice particle size vertical inhomogeneity on the passive remote sensing of ice clouds. Journal of Geophysical Research, 2010, 115, .	3.3	49
87	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
88	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
89	Regional assessment of microphysical properties of marine boundary layer cloud using the PATMOSâ€x dataset. Journal of Geophysical Research, 2010, 115, .	3.3	15
90	Calibrations for AVHRR channels 1 and 2: review and path towards consensus. International Journal of Remote Sensing, 2010, 31, 6519-6540.	2.9	34

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91	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
92	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
93	The Role of Aerosols in the Evolution of Tropical North Atlantic Ocean Temperature Anomalies. Science, 2009, 324, 778-781.	12.6	170
94	State of the Climate in 2008. Bulletin of the American Meteorological Society, 2009, 90, S1-S196.	3.3	74
95	Ocean temperature forcing by aerosols across the Atlantic tropical cyclone development region. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	51
96	Study of longâ€term trend in aerosol optical thickness observed from operational AVHRR satellite instrument. Journal of Geophysical Research, 2008, 113, .	3.3	109
97	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
98	A Multispectral Technique for Detecting Low-Level Cloudiness near Sunrise. Journal of Atmospheric and Oceanic Technology, 2007, 24, 1800-1810.	1.3	14
99	Analsis of historical AVHRR PATMOS aerosol data in support of the long-term trend study. , 2007, , .		0
100	Arguments against a physical long-term trend in global ISCCP cloud amounts. Geophysical Research Letters, 2007, 34, .	4.0	187
101	Comparison of AIRS, MODIS, CloudSat and CALIPSO cloud top height retrievals. Geophysical Research Letters, 2007, 34, .	4.0	116
102	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
103	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
104	New evidence for a relationship between Atlantic tropical cyclone activity and African dust outbreaks. Geophysical Research Letters, 2006, 33, .	4.0	206
105	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
106	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
107	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
108	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

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109	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
110	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
111	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
112	Preliminary global cloud comparisons from the AVHRR, MODIS, and GLAS: cloud amount and cloud overlap. , 2005, , .		1
113	Advancements in identifying cirrus and multilayered cloud systems from operational satellite imagers at night. , 2005, 5658, 225.		2
114	A new AVHRR cloud climatology. , 2005, , .		9
115	Validation of CLAVR-x cloud detection over ocean using AVHRR GAC sea surface temperature. , 2005, , .		0
116	Rapid forward and adjoint calculations of thermal hyperspectral radiances in cloudy atmospheres. , 2005, 5890, 310.		0
117	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
118	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
119	The HIRS outgoing longwave radiation product from hybrid polar and geosynchronous satellite observations. Advances in Space Research, 2004, 33, 1120-1124.	2.6	18
120	Daytime Cloud Overlap Detection from AVHRR and VIIRS. Journal of Applied Meteorology and Climatology, 2004, 43, 762-778.	1.7	104
121	<title>Fast passive microwave radiative transfer in precipitating clouds: toward direct radiance assimilation</title>. , 2004, , .		1
122	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
123	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
124	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
125	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
126	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

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127	Inter-comparison of the longwave infrared channels of MODIS and AVHRR/NOAA-16 using simultaneous nadir observations at orbit intersections. , 2002, , .		52
128	Using MODIS to Estimate Cloud Contamination of the AVHRR Data Record. Journal of Atmospheric and Oceanic Technology, 2002, 19, 586-601.	1.3	45
129	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
130	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
131	Molecular Line Absorption in a Scattering Atmosphere. Part I: Theory. Journals of the Atmospheric Sciences, 2000, 57, 1599-1614.	1.7	58
132	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
133	A multisensor diagnostic satellite cloud property retrieval scheme. Journal of Geophysical Research, 2000, 105, 19955-19971.	3.3	45
134	High spectral resolution atmospheric radiative transfer: Application of the equivalence theorem. Journal of Geophysical Research, 2000, 105, 2163-2177.	3.3	23
135	Cloud optical property retrievals from layered-cloud radiances derived from AVHRR data. , 1998, 3495, 12.		1
136	Finite-Cloud Effects in Longwave Radiative Transfer. Journals of the Atmospheric Sciences, 1996, 53, 953-963.	1.7	12