Richard E Orville

List of Publications by Year
in descending order

111 papers	5,783 citations	53660 45 h-index	85405 71 g-index
113 all docs	113 docs citations	113 times ranked	2070 citing authors

#	Article	IF	Citations
1	Seasonal and global NO_x production by lightning estimated from the Optical Transient Detector (OTD). Tellus, Series B: Chemical and Physical Meteorology, 2022, 52, 1206.	0.8	45
2	On the Triggering Mechanisms of Upward Lightning. Scientific Reports, 2019, 9, 9576.	1.6	24
3	Length estimations of presumed upward connecting leaders in lightning flashes to flat water and flat ground. Atmospheric Research, 2018, 211, 85-94.	1.8	2
4	Luminosity with intracloudâ€type lightning initial breakdown pulses and terrestrial gammaâ€ray flash candidates. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,919.	1.2	15
5	Observations of bidirectional lightning leader initiation and development near positive leader channels. Journal of Geophysical Research D: Atmospheres, 2016, 121, 9251-9260.	1.2	21
6	Upward lightning flashes characteristics from highâ€speed videos. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8493-8505.	1.2	44
7	Modeling stepped leaders using a timeâ€dependent multidipole model and highâ€speed video data. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2419-2436.	1.2	5
8	Transient luminosity along negative stepped leaders in lightning. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3408-3435.	1.2	18
9	High-speed video and electric field observation of a negative upward leader connecting a downward positive leader in a positive cloud-to-ground flash. Electric Power Systems Research, 2015, 118, 89-92.	2.1	22
10	High-speed video observations of natural cloud-to-ground lightning leaders â€“ A statistical analysis. Atmospheric Research, 2014, 135-136, 285-305.	1.8	77
11	Leader observations during the initial breakdown stage of a lightning flash. Journal of Geophysical Research D: Atmospheres, 2014, 119, 12,198.	1.2	38
12	Branched dart leaders preceding lightning return strokes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4228-4252.	1.2	13
13	Recoil leader formation and development. Journal of Electrostatics, 2013, 71, 763-768.	1.0	48
14	Locating initial breakdown pulses using electric field change network. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7129-7141.	1.2	76
15	Competing and cutoff leaders before â€œupward illuminationâ€â€type lightning ground strokes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7182-7198.	1.2	14
16	UPLIGHTS: Upward Lightning Triggering Study. Bulletin of the American Meteorological Society, 2013, 94, 631-635.	1.7	22
17	Bipolar cloudâ€toâ€ground lightning flash observations. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,098.	1.2	29
18	Steppedâ€toâ€dart leaders preceding lightning return strokes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9845-9869.	1.2	16

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19	Strokes of upward illumination occurring within a few milliseconds after typical lightning return strokes. Journal of Geophysical Research, 2012, 117, .	3.3	20
20	Upward lightning observations from towers in Rapid City, South Dakota and comparison with National Lightning Detection Network data, 2004â€“2010. Journal of Geophysical Research, 2012, 117, .	3.3	101
21	Radar Nowcasting of Total Lightning over the Kennedy Space Center. Weather and Forecasting, 2012, 27, 189-204.	0.5	29
22	Spectral (600â€“1050 nm) time exposures (99.6Î¼s) of a lightning stepped leader. Journal of Geophysical Research, 2011, 116, .	3.3	33
23	The North American Lightning Detection Network (NALDN)â€”Analysis of Flash Data: 2001â€“09. Monthly Weather Review, 2011, 139, 1305-1322.	0.5	111
24	Radar Nowcasting of Cloud-to-Ground Lightning over Houston, Texas. Weather and Forecasting, 2011, 26, 199-212.	0.5	56
25	Highâ€speed video observations of positive lightning flashes to ground. Journal of Geophysical Research, 2010, 115, .	3.3	88
26	Lake-Effect Thunderstorms in the Lower Great Lakes. Journal of Applied Meteorology and Climatology, 2009, 48, 889-902.	0.6	31
27	Evolution of the total lightning structure in a leadingâ€line, trailingâ€stratiform mesoscale convective system over Houston, Texas. Journal of Geophysical Research, 2008, 113, .	3.3	57
28	Evolution of radar reflectivity and total lightning characteristics of the 21 April 2006 mesoscale convective system over Texas. Atmospheric Research, 2008, 89, 113-137.	1.8	25
29	Development of the National Lightning Detection Network. Bulletin of the American Meteorological Society, 2008, 89, 180-190.	1.7	96
30	Total Lightning Signatures of Thunderstorm Intensity over North Texas. Part I: Supercells. Monthly Weather Review, 2007, 135, 3281-3302.	0.5	54
31	Total Lightning Signatures of Thunderstorm Intensity over North Texas. Part II: Mesoscale Convective Systems. Monthly Weather Review, 2007, 135, 3303-3324.	0.5	23
32	Dissecting the anomaly: A closer look at the documented urban enhancement in summer season ground flash densities in and around the Houston area. Geophysical Research Letters, 2005, 32, .	1.5	7
33	High percentage of positive lightning along the USA west coast. Geophysical Research Letters, 2005, 32, .	1.5	2
34	Cloud-to-ground lightning enhancement over Southern Louisiana. Geophysical Research Letters, 2003, 30, .	1.5	75
35	The North American Lightning Detection Network (NALDN)â€”First Results: 1998â€“2000. Monthly Weather Review, 2002, 130, 2098-2109.	0.5	168
36	Cloud-to-ground lightning characteristics over Houston, Texas: 1989-2000. Journal of Geophysical Research, 2002, 107, ACL 2-1-ACL 2-12.	3.3	104

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37	The importance of NOx production by lightning in the tropics. Atmospheric Environment, 2002, 36, 1509-1519.	1.9	136
38	Cloud-to-Ground Lightning in the United States: NLDN Results in the First Decade, 1989â€“98. Monthly Weather Review, 2001, 129, 1179-1193.	0.5	252
39	NOxproduction by lightning over the continental United States. Journal of Geophysical Research, 2001, 106, 27701-27710.	3.3	52
40	Enhancement of cloud-to-ground lightning over Houston, Texas. Geophysical Research Letters, 2001, 28, 2597-2600.	1.5	223
41	Seasonal and global NOx production by lightning estimated from the Optical Transient Detector (OTD). Tellus, Series B: Chemical and Physical Meteorology, 2000, 52, 1206-1215.	0.8	51
42	Enhanced NOxby lightning in the upper troposphere and lower stratosphere inferred from the UARS Global NO2measurements. Geophysical Research Letters, 2000, 27, 685-688.	1.5	30
43	Effect of pollution from Central American fires on cloud-to-ground lightning in May 1998. Geophysical Research Letters, 2000, 27, 2249-2252.	1.5	66
44	Thunderstorm Characteristics of Cloud-to-Ground Lightning at the Kennedy Space Center, Florida: A Study of Lightning Initiation Signatures as Indicated by the WSR-88D. Weather and Forecasting, 1999, 14, 640-649.	0.5	61
45	Lightning Ground Flash Density and Thunderstorm Duration in the Continental United States: 1989â€“96. Journal of Applied Meteorology and Climatology, 1999, 38, 1013-1019.	1.7	77
46	Changes in measured lightning flash count and return stroke peak current after the 1994 U.S. National Lightning Detection Network upgrade: 2. Theory. Journal of Geophysical Research, 1999, 104, 2159-2162.	3.3	45
47	Changes in measured lightning flash count and return stroke peak current after the 1994 U.S. National Lightning Detection Network upgrade: 1. Observations. Journal of Geophysical Research, 1999, 104, 2151-2157.	3.3	73
48	Lightning Ground Flash Measurements over the Contiguous United States: 1995â€“97. Monthly Weather Review, 1999, 127, 2693-2703.	0.5	78
49	Comments on â€œLarge Peak Current Cloud-to-Ground Lightning Flashes during the Summer Months in the Contiguous United Statesâ€• Monthly Weather Review, 1999, 127, 1937-1938.	0.5	16
50	Global lightning: Total, cloud and ground flash estimates. Journal of Geophysical Research, 1998, 103, 19791-19809.	3.3	90
51	Characteristics of Cloud-to-Ground Lightning Associated with Violent Tornadoes. Weather and Forecasting, 1997, 12, 428-437.	0.5	50
52	A 10-yr Monthly Lightning Climatology of Florida: 1986â€“95. Weather and Forecasting, 1997, 12, 439-448.	0.5	59
53	Warm Season Cloud-to-Ground Lightningâ€“Precipitation Relationships in the South-Central United States. Weather and Forecasting, 1997, 12, 449-458.	0.5	44
54	Lighting Ground Flash Density in the Contiguous United States: 1992â€“95. Monthly Weather Review, 1997, 125, 631-638.	0.5	112

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55	A Comparison of WSR-88D Reflectivities, SSM/I Brightness Temperatures, and Lightning for Mesoseale Convective Systems in Texas. Part II. SSM/I Brightness Temperatures and Lightning. Journal of Applied Meteorology and Climatology, 1996, 35, 919-931.	1.7	28
56	A Comparison Of WSR-88D Reflectivities, SSM/I Brightness Temperatures, and Lightning for Mesoscale Convective Systems in Texas. Part I: Radar Reflectivity and Lightning. Journal of Applied Meteorology and Climatology, 1996, 35, 902-918.	1.7	32
57	A Climatology, Synoptic Assessment, and Thermodynamic Evaluation for Cloud-to-Ground Lightning in Georgia: A study for the 1996 Summer Olympics. Bulletin of the American Meteorological Society, 1996, 77, 1483-1495.	1.7	29
58	TOGA COARE: Oceanic Lightning. Monthly Weather Review, 1996, 124, 2077-2082.	0.5	9
59	Cloud-to-Ground Lightning Observations from TOGA COARE: Selected Results and Lightning Location Algorithms. Monthly Weather Review, 1996, 124, 602-620.	0.5	146
60	Luminosity characteristics of lightning M components. Journal of Geophysical Research, 1995, 100, 25695.	3.3	37
61	Cloud-to-Ground Lightning in Tropical Cyclones: A Study of Hurricanes Hugo (1989) and Jerry (1989). Monthly Weather Review, 1994, 122, 1887-1896.	0.5	48
62	Cloud-to-ground lightning flash characteristics in the contiguous United States: 1989â€“1991. Journal of Geophysical Research, 1994, 99, 10833.	3.3	109
63	Cloudâ€toâ€ground lightning in the blizzard of â€²93. Geophysical Research Letters, 1993, 20, 1367-1370.	1.5	8
64	On the spatial relationship between lightning discharges and propagation paths of perturbed subionospheric VLF/LF signals. Journal of Geophysical Research, 1991, 96, 249-258.	3.3	18
65	Calibration of a magnetic direction finding network using measured triggered lightning return stroke peak currents. Journal of Geophysical Research, 1991, 96, 17135-17142.	3.3	77
66	Lightning Ground Flash Density in the Contiguous United States-1989. Monthly Weather Review, 1991, 119, 573-577.	0.5	65
67	The Relationships between Network Lightning Surface and Hourly Observations of Thunderstorms. Monthly Weather Review, 1990, 118, 94-108.	0.5	31
68	Delimiting â€œThunderstorm Watchâ€•Periods by Real-Time Lightning Location for a Power Utility Company. Weather and Forecasting, 1990, 5, 139-147.	0.5	6
69	Lightning Characteristics in Lake-Effect Thunderstorms. Monthly Weather Review, 1990, 118, 1767-1782.	0.5	21
70	Peak-current variations of lightning return strokes as a function of latitude. Nature, 1990, 343, 149-151.	13.7	46
71	Winter lightning along the East Coast. Geophysical Research Letters, 1990, 17, 713-715.	1.5	22
72	Bipole patterns revealed by lightning locations in mesoscale storm systems. Geophysical Research Letters, 1988, 15, 129-132.	1.5	44

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73	Channel tortuosity variation in Florida triggered lightning. Geophysical Research Letters, 1988, 15, 645-648.	1.5	32
74	The East Coast Lightning Detection Network. IEEE Transactions on Power Delivery, 1987, 2, 899-907.	2.9	26
75	The propagation speed of a positive lightning return stroke. Geophysical Research Letters, 1987, 14, 1150-1153.	1.5	22
76	Cloudâ€toâ€ground lightning flash characteristics from June 1984 through May 1985. Journal of Geophysical Research, 1987, 92, 5640-5644.	3.3	100
77	An analytical solution to obtain the optimum source location using multiple direction finders on a spherical surface. Journal of Geophysical Research, 1987, 92, 10877-10886.	3.3	31
78	Meteorological applications of lightning data. Reviews of Geophysics, 1987, 25, 411-414.	9.0	1
79	Global Distribution of Midnight Lightning: September 1977 to August 1978. Monthly Weather Review, 1986, 114, 2640-2653.	0.5	184
80	The East Coast Lightning Detection Network. IEEE Transactions on Power Systems, 1986, 1, 243-246.	4.6	16
81	Preface [to special section on Proceedings of the VIIth International Atmospheric Electricity Conference]. Journal of Geophysical Research, 1985, 90, 5875-5875.	3.3	0
82	Correlated peak relative light intensity and peak current in triggered lightning subsequent return strokes. Journal of Geophysical Research, 1985, 90, 6159-6164.	3.3	72
83	Correlated observations of three triggered lightning flashes. Journal of Geophysical Research, 1984, 89, 1385-1394.	3.3	100
84	Three unusual strokes in a triggered lightning flash. Journal of Geophysical Research, 1984, 89, 7311-7316.	3.3	16
85	Absolute Spectral Irradiance Measurements of Lightning from 375 to 880 nm. Journals of the Atmospheric Sciences, 1984, 41, 3180-3187.	0.6	72
86	Ground Truth: A Positive Cloud-to-Ground Lightning Flash. Journal of Climate and Applied Meteorology, 1984, 23, 1148-1151.	1.0	11
87	An East Coast Lightning Detection Network. Bulletin of the American Meteorological Society, 1983, 64, 1029-1037.	1.7	87
88	Some Scientific Objectives of a Satellite-Borne Lightning Mapper. Bulletin of the American Meteorological Society, 1983, 64, 114-119.	1.7	13
89	Lightning return stroke velocities in the thunderstorm research international program (TRIP). Journal of Geophysical Research, 1982, 87, 4903-4916.	3.3	180
90	Production of nitric oxide by lightning on Venus. Geophysical Research Letters, 1982, 9, 893-896.	1.5	56

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91	Lightning leader characteristics in the Thunderstorm Research International Program (TRIP). Journal of Geophysical Research, 1982, 87, 11177-11192.	3.3	108
92	Global Distribution of Midnight Lightingâ€"September to November 1977. Monthly Weather Review, 1981, 109, 391-395.	0.5	34
93	Daylight Spectra of Individual Lightning Flashes in the 370â€"690 nm Region. Journal of Applied Meteorology, 1980, 19, 470-473.	1.1	17
94	Global Lightning Flash Frequency. Monthly Weather Review, 1979, 107, 934-943.	0.5	111
95	Wind profile in the sub-cloud layer of a thunderstorm. Journal of Geophysical Research, 1977, 82, 3453-3456.	3.3	2
96	Return stroke velocity measurements in multistroke lightning flashes. Journal of Geophysical Research, 1976, 81, 4461-4466.	3.3	41
97	Spectrum of the Lightning Dart Leader. Journals of the Atmospheric Sciences, 1975, 32, 1829-1837.	0.6	29
98	Pseudo Color Densitometer Analysisâ€"the Apollo 17/Saturn V Exhaust Plume. Applied Optics, 1974, 13, 2197.	2.1	0
99	Quantitative analysis of a lightning return stroke for diameter and luminosity changes as a function of space and time. Journal of Geophysical Research, 1974, 79, 4059-4067.	3.3	32
100	Comments on "Precipitation Processes Revealed by Cosmogenic Radionuclide Scavenging". Journals of the Atmospheric Sciences, 1972, 29, 787-787.	0.6	0
101	Spectrum of the lightning stepped leader. Journal of Geophysical Research, 1968, 73, 6999-7008.	3.3	64
102	A High-Speed Time-Resolved Spectroscopic Study of the Lightning Return Stroke: Part I. A Qualitative Analysis. Journals of the Atmospheric Sciences, 1968, 25, 827-838.	0.6	89
103	A High-Speed Time-Resolved Spectroscopic Study of the Lightning Return Stroke. Part III. A Time-Dependent Model. Journals of the Atmospheric Sciences, 1968, 25, 852-856.	0.6	54
104	A High-Speed Time-Resolved Spectroscopic Study of the Lightning Return Stroke: Part II. A Quantitative Analysis. Journals of the Atmospheric Sciences, 1968, 25, 839-851.	0.6	84
105	Ozone production during thunderstorms, measured by the absorption of ultraviolet radiation from lightning. Journal of Geophysical Research, 1967, 72, 3557-3561.	3.3	31
106	High-Speed, Time-Resolved Spectrum of a Lightning Stroke. Science, 1966, 151, 451-452.	6.0	21
107	The optical continuum of lightning. Journal of Geophysical Research, 1965, 70, 279-282.	3.3	9
108	The opacity of lightning. Journal of Geophysical Research, 1965, 70, 5491-5497.	3.3	57

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109	The Density, Pressure, and Particle Distribution in a Lightning Stroke near Peak Temperature. Journals of the Atmospheric Sciences, 1964, 21, 306-310.	0.6	32
110	Electron density measurement in lightning from stark-broadening of HÎ±. Journal of Geophysical Research, 1964, 69, 5151-5154.	3.3	33
111	The mass density, pressure, and electron density in three lightning strokes near peak temperature. Journal of Geophysical Research, 1964, 69, 5423-5424.	3.3	15