

Thomas C Marshall

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

2,935
citations

147566
31
h-index

168136
53
g-index

72
all docs

72
docs citations

72
times ranked

981
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric field magnitudes and lightning initiation in thunderstorms. Journal of Geophysical Research, 1995, 100, 7097-7103.	3.3	216
2	Electrical structure in thunderstorm convective regions: 3. Synthesis. Journal of Geophysical Research, 1998, 103, 14097-14108.	3.3	178
3	Electrical structure in thunderstorm convective regions: 1. Mesoscale convective systems. Journal of Geophysical Research, 1998, 103, 14059-14078.	3.3	154
4	Effects of charge and electrostatic potential on lightning propagation. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	152
5	Electric field soundings through thunderstorms. Journal of Geophysical Research, 1991, 96, 22297-22306.	3.3	142
6	Measurements of charged precipitation in a New Mexico thunderstorm: lower positive charge centers. Journal of Geophysical Research, 1982, 87, 7141-7157.	3.3	122
7	Observed electric fields associated with lightning initiation. Geophysical Research Letters, 2005, 32, .	1.5	105
8	Electrical structure in thunderstorm convective regions: 2. Isolated storms. Journal of Geophysical Research, 1998, 103, 14079-14096.	3.3	102
9	Electric field values observed near lightning flash initiations. Geophysical Research Letters, 2007, 34, .	1.5	86
10	Luminosity of initial breakdown in lightning. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2918-2937.	1.2	82
11	Electric Fields and Charges near 0°C in Stratiform Clouds. Monthly Weather Review, 1996, 124, 919-938.	0.5	80
12	Charge Structure and Dynamics in Thunderstorms. Space Science Reviews, 2008, 137, 355-372.	3.7	80
13	Electrical structure and updraft speeds in thunderstorms over the southern Great Plains. Journal of Geophysical Research, 1995, 100, 1001-1015.	3.3	79
14	Locating initial breakdown pulses using electric field change network. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7129-7141.	1.2	76
15	Electrical structure in two thunderstorm anvil clouds. Journal of Geophysical Research, 1989, 94, 2171-2181.	3.3	63
16	Initial breakdown pulses in intracloud lightning flashes and their relation to terrestrial gamma ray flashes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,907.	1.2	61
17	Rocket and balloon observations of electric field in two thunderstorms. Journal of Geophysical Research, 1995, 100, 20815.	3.3	59
18	Voltages inside and just above thunderstorms. Journal of Geophysical Research, 2001, 106, 4757-4768.	3.3	50

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19	On the percentage of lightning flashes that begin with initial breakdown pulses. Journal of Geophysical Research D: Atmospheres, 2014, 119, 445-460.	1.2	47
20	Estimations of charge transferred and energy released by lightning flashes. Journal of Geophysical Research, 2009, 114, .	3.3	46
21	Current propagation model for a narrow bipolar pulse. Geophysical Research Letters, 2007, 34, .	1.5	45
22	Horizontal lightning propagation, preliminary breakdown, and electric potential in New Mexico thunderstorms. Journal of Geophysical Research, 2008, 113, .	3.3	45
23	Electrical evolution during the decay stage of New Mexico thunderstorms. Journal of Geophysical Research, 2009, 114, .	3.3	41
24	On the calculation of electric fields and currents of mesoscale convective systems. Journal of Geophysical Research, 2004, 109, .	3.3	38
25	Leader observations during the initial breakdown stage of a lightning flash. Journal of Geophysical Research D: Atmospheres, 2014, 119, 12,198.	1.2	38
26	Testing models of thunderstorm charge distributions with Coulomb's law. Journal of Geophysical Research, 1994, 99, 25921.	3.3	37
27	A study of lightning flash initiation prior to the first initial breakdown pulse. Atmospheric Research, 2019, 217, 10-23.	1.8	37
28	Electrical energy constraints on lightning. Journal of Geophysical Research, 2002, 107, ACL 1-1.	3.3	34
29	Estimates of cloud charge densities in thunderstorms. Journal of Geophysical Research, 1998, 103, 19769-19775.	3.3	33
30	Lightning-Initiation Locations as a Remote Sensing Tool of Large Thunderstorm Electric Field Vectors. Journal of Atmospheric and Oceanic Technology, 2005, 22, 1059-1068.	0.5	33
31	On the role of transient currents in the global electric circuit. Geophysical Research Letters, 2008, 35, .	1.5	33
32	Charged precipitation and electric field in two thunderstorms. Journal of Geophysical Research, 1998, 103, 19777-19790.	3.3	31
33	Detection of in-cloud lightning with VLF/LF and VHF networks for studies of the initial discharge phase. Geophysical Research Letters, 2008, 35, .	1.5	31
34	Electricity in dying thunderstorms. Journal of Geophysical Research, 1992, 97, 9913-9918.	3.3	28
35	Two simultaneous charge structures in thunderstorm convection. Journal of Geophysical Research, 2002, 107, ACL 5-1.	3.3	28
36	Modeling initial breakdown pulses of CG lightning flashes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9003-9019.	1.2	25

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37	Observations of positive narrow bipolar pulses. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7128-7143.	1.2	25
38	Initial electrification to the first lightning flash in New Mexico thunderstorms. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,253.	1.2	24
39	The Mechanism of the Origin and Development of Lightning From Initiating Event to Initial Breakdown Pulses (v.2). Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033191.	1.2	24
40	Initiation locations of lightning flashes relative to radar reflectivity in four small Florida thunderstorms. Journal of Geophysical Research D: Atmospheres, 2017, 122, 6565-6591.	1.2	23
41	Strokes of upward illumination occurring within a few milliseconds after typical lightning return strokes. Journal of Geophysical Research, 2012, 117, .	3.3	20
42	Initial electric field changes of lightning flashes in two thunderstorms. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3718-3732.	1.2	20
43	Transient luminosity along negative stepped leaders in lightning. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3408-3435.	1.2	18
44	Electrostatic field changes and durations of narrow bipolar events. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,161.	1.2	18
45	Serial profiles of electrostatic potential in five New Mexico thunderstorms. Journal of Geophysical Research, 2008, 113, .	3.3	17
46	Steppedâ€œdart leaders preceding lightning return strokes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9845-9869.	1.2	16
47	Luminosity with intracloudâ€œtype lightning initial breakdown pulses and terrestrial gammaâ€œray flash candidates. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,919.	1.2	15
48	Characterizing three types of negative narrow bipolar events in thunderstorms. Atmospheric Research, 2019, 227, 263-279.	1.8	15
49	Initial Breakdown Pulses Accompanied by VHF Pulses During Negative Cloudâ€œGround Lightning Flashes. Geophysical Research Letters, 2019, 46, 5592-5600.	1.5	15
50	Competing and cutoff leaders before â€œupward illuminationâ€œtype lightning ground strokes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7182-7198.	1.2	14
51	Branched dart leaders preceding lightning return strokes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4228-4252.	1.2	13
52	Duration and extent of large electric fields in a thunderstorm anvil cloud after the last lightning. Journal of Geophysical Research, 2010, 115, .	3.3	12
53	Initial Breakdown Pulse Parameters in Intracloud and Cloudâ€œGround Lightning Flashes. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2129-2140.	1.2	12
54	Electric field change and VHF waveforms of Positive Narrow Bipolar Events in Mississippi thunderstorms. Atmospheric Research, 2020, 243, 105000.	1.8	11

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55	On the Transition From Initial Leader to Stepped Leader in Negative Cloud-to-Ground Lightning. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031765.	1.2	11
56	Electric Field and Charge Structure in Lightning-Producing Clouds. , 2009, , 57-82.		9
57	An <i>M</i> component with a concurrent dart leader traveling along different paths during a lightning flash. Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,267.	1.2	9
58	Narrow bipolar pulse locations compared to thunderstorm radar echo structure. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,690.	1.2	8
59	Studying Sequences of Initial Breakdown Pulses in Cloud-to-Ground Lightning Flashes. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032104.	1.2	7
60	Charge Structure and Dynamics in Thunderstorms. Space Sciences Series of ISSI, 2008, , 355-372.	0.0	6
61	Groups of narrow bipolar events within thunderstorms. Atmospheric Research, 2021, 252, 105450.	1.8	6
62	Modeling stepped leaders using a time-dependent multidipole model and high-speed video data. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2419-2436.	1.2	5
63	Ultra-high speed video observations of intracloud lightning flash initiation. Meteorology and Atmospheric Physics, 2021, 133, 1177-1202.	0.9	5
64	Electric field change measurements of a terrestrial gamma ray flash. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5259-5266.	1.2	4
65	Modeling Initial Breakdown Pulses of Lightning Flashes Using a Matrix Inversion Method. Radio Science, 2019, 54, 268-280.	0.8	4
66	Inception of subsequent stepped leaders in negative cloud-to-ground lightning. Meteorology and Atmospheric Physics, 2020, 132, 489-514.	0.9	4
67	Transient currents in the global electric circuit due to cloud-to-ground and intracloud lightning. Atmospheric Research, 2009, 91, 178-183.	1.8	3
68	Luminosity with large amplitude pulses after the initial breakdown stage in intracloud lightning flashes. Atmospheric Research, 2022, 267, 105982.	1.8	2
69	Modeling initial breakdown pulses of intracloud lightning flashes. Atmospheric Research, 2021, 261, 105734.	1.8	1