Thomas C Marshall

List of Publications by Year
in descending order

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	Luminosity with large amplitude pulses after the initial breakdown stage in intracloud lightning flashes. Atmospheric Research, 2022, 267, 105982.	1.8	2
2	Groups of narrow bipolar events within thunderstorms. Atmospheric Research, 2021, 252, 105450.	1.8	6
3	Ultra-high speed video observations of intracloud lightning flash initiation. Meteorology and Atmospheric Physics, 2021, 133, 1177-1202.	0.9	5
4	Modeling initial breakdown pulses of intracloud lightning flashes. Atmospheric Research, 2021, 261, 105734.	1.8	1
5	Inception of subsequent stepped leaders in negative cloud-to-ground lightning. Meteorology and Atmospheric Physics, 2020, 132, 489-514.	0.9	4
6	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
7	Electric field change and VHF waveforms of Positive Narrow Bipolar Events in Mississippi thunderstorms. Atmospheric Research, 2020, 243, 105000.	1.8	11
8	Studying Sequences of Initial Breakdown Pulses in Cloudâ€toâ€Ground Lightning Flashes. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032104.	1.2	7
9	On the Transition From Initial Leader to Stepped Leader in Negative Cloudâ€toâ€Ground Lightning. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031765.	1.2	11
10	Characterizing three types of negative narrow bipolar events in thunderstorms. Atmospheric Research, 2019, 227, 263-279.	1.8	15
11	Initial Breakdown Pulses Accompanied by VHF Pulses During Negative Cloudâ€toâ€Ground Lightning Flashes. Geophysical Research Letters, 2019, 46, 5592-5600.	1.5	15
12	Modeling Initial Breakdown Pulses of Lightning Flashes Using a Matrix Inversion Method. Radio Science, 2019, 54, 268-280.	0.8	4
13	A study of lightning flash initiation prior to the first initial breakdown pulse. Atmospheric Research, 2019, 217, 10-23.	1.8	37
14	Initial Breakdown Pulse Parameters in Intracloud and Cloudâ€toâ€Ground Lightning Flashes. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2129-2140.	1.2	12
15	Electric field change measurements of a terrestrial gamma ray flash. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5259-5266.	1.2	4
16	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
17	Initial electric field changes of lightning flashes in two thunderstorms. Journal of Geophysical Research D: Atmospheres, 2017, 122, 3718-3732.	1.2	20
18	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

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19	Electrostatic field changes and durations of narrow bipolar events. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,161.	1.2	18
20	Observations of positive narrow bipolar pulses. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7128-7143.	1.2	25
21	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
22	Narrow bipolar pulse locations compared to thunderstorm radar echo structure. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,690.	1.2	8
23	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
24	Transient luminosity along negative stepped leaders in lightning. Journal of Geophysical Research D: Atmospheres, 2015, 120, 3408-3435.	1.2	18
25	Initial electrification to the first lightning flash in New Mexico thunderstorms. Journal of Geophysical Research D: Atmospheres, 2015, 120, 11,253.	1.2	24
26	Modeling initial breakdown pulses of CG lightning flashes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 9003-9019.	1.2	25
27	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
28	Leader observations during the initial breakdown stage of a lightning flash. Journal of Geophysical Research D: Atmospheres, 2014, 119, 12,198.	1.2	38
29	Branched dart leaders preceding lightning return strokes. Journal of Geophysical Research D: Atmospheres, 2014, 119, 4228-4252.	1.2	13
30	Luminosity of initial breakdown in lightning. Journal of Geophysical Research D: Atmospheres, 2013, 118, 2918-2937.	1.2	82
31	Locating initial breakdown pulses using electric field change network. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7129-7141.	1.2	76
32	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
33	Steppedâ€toâ€dart leaders preceding lightning return strokes. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9845-9869.	1.2	16
34	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
35	Strokes of upward illumination occurring within a few milliseconds after typical lightning return strokes. Journal of Geophysical Research, 2012, 117, .	3.3	20
36	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

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37	Electric Field and Charge Structure in Lightning-Producing Clouds. , 2009, , 57-82.		9
38	Transient currents in the global electric circuit due to cloud-to-ground and intracloud lightning. Atmospheric Research, 2009, 91, 178-183.	1.8	3
39	Electrical evolution during the decay stage of New Mexico thunderstorms. Journal of Geophysical Research, 2009, 114, .	3.3	41
40	Estimations of charge transferred and energy released by lightning flashes. Journal of Geophysical Research, 2009, 114, .	3.3	46
41	Charge Structure and Dynamics in Thunderstorms. Space Science Reviews, 2008, 137, 355-372.	3.7	80
42	Horizontal lightning propagation, preliminary breakdown, and electric potential in New Mexico thunderstorms. Journal of Geophysical Research, 2008, 113, .	3.3	45
43	Serial profiles of electrostatic potential in five New Mexico thunderstorms. Journal of Geophysical Research, 2008, 113, .	3.3	17
44	Charge Structure and Dynamics in Thunderstorms. Space Sciences Series of ISSI, 2008, , 355-372.	0.0	6
45	On the role of transient currents in the global electric circuit. Geophysical Research Letters, 2008, 35, .	1.5	33
46	Detection of inâ€cloud lightning with VLF/LF and VHF networks for studies of the initial discharge phase. Geophysical Research Letters, 2008, 35, .	1.5	31
47	Current propagation model for a narrow bipolar pulse. Geophysical Research Letters, 2007, 34, .	1.5	45
48	Electric field values observed near lightning flash initiations. Geophysical Research Letters, 2007, 34, .	1.5	86
49	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
50	Observed electric fields associated with lightning initiation. Geophysical Research Letters, 2005, 32, .	1.5	105
51	On the calculation of electric fields and currents of mesoscale convective systems. Journal of Geophysical Research, 2004, 109, .	3.3	38
52	Effects of charge and electrostatic potential on lightning propagation. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	152
53	Two simultaneous charge structures in thunderstorm convection. Journal of Geophysical Research, 2002, 107, ACL 5-1.	3.3	28
54	Electrical energy constraints on lightning. Journal of Geophysical Research, 2002, 107, ACL 1-1.	3.3	34

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55	Voltages inside and just above thunderstorms. Journal of Geophysical Research, 2001, 106, 4757-4768.	3.3	50
56	Electrical structure in thunderstorm convective regions: 3. Synthesis. Journal of Geophysical Research, 1998, 103, 14097-14108.	3.3	178
57	Electrical structure in thunderstorm convective regions: 1. Mesoscale convective systems. Journal of Geophysical Research, 1998, 103, 14059-14078.	3.3	154
58	Electrical structure in thunderstorm convective regions: 2. Isolated storms. Journal of Geophysical Research, 1998, 103, 14079-14096.	3.3	102
59	Estimates of cloud charge densities in thunderstorms. Journal of Geophysical Research, 1998, 103, 19769-19775.	3.3	33
60	Charged precipitation and electric field in two thunderstorms. Journal of Geophysical Research, 1998, 103, 19777-19790.	3.3	31
61	Electric Fields and Charges near 0Â°C in Stratiform Clouds. Monthly Weather Review, 1996, 124, 919-938.	0.5	80
62	Electrical structure and updraft speeds in thunderstorms over the southern Great Plains. Journal of Geophysical Research, 1995, 100, 1001-1015.	3.3	79
63	Electric field magnitudes and lightning initiation in thunderstorms. Journal of Geophysical Research, 1995, 100, 7097-7103.	3.3	216
64	Rocket and balloon observations of electric field in two thunderstorms. Journal of Geophysical Research, 1995, 100, 20815.	3.3	59
65	Testing models of thunderstorm charge distributions with Coulomb's law. Journal of Geophysical Research, 1994, 99, 25921.	3.3	37
66	Electricity in dying thunderstorms. Journal of Geophysical Research, 1992, 97, 9913-9918.	3.3	28
67	Electric field soundings through thunderstorms. Journal of Geophysical Research, 1991, 96, 22297-22306.	3.3	142
68	Electrical structure in two thunderstorm anvil clouds. Journal of Geophysical Research, 1989, 94, 2171-2181.	3.3	63
69	Measurements of charged precipitation in a New Mexico thunderstorm: lower positive charge centers. Journal of Geophysical Research, 1982, 87, 7141-7157.	3.3	122