

Brett A Mcguire

List of Publications by Year in descending order

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79
papers

3,268
citations

172457

29
h-index

161849

54
g-index

86
all docs

86
docs citations

86
times ranked

1974
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection of the aromatic molecule benzonitrile ($\text{C}_6\text{H}_5\text{CN}$) in the interstellar medium. <i>Science</i> , 2018, 359, 202-205.	12.6	370
2	2018 Census of Interstellar, Circumstellar, Extragalactic, Protoplanetary Disk, and Exoplanetary Molecules. <i>Astrophysical Journal, Supplement Series</i> , 2018, 239, 17.	7.7	335
3	Detection of two interstellar polycyclic aromatic hydrocarbons via spectral matched filtering. <i>Science</i> , 2021, 371, 1265-1269.	12.6	236
4	Discovery of the interstellar chiral molecule propylene oxide ($\text{C}_3\text{H}_6\text{O}$) in the interstellar medium. <i>Nature</i> , 2021, 591, 235-238.	12.6	235
5	2021 Census of Interstellar, Circumstellar, Extragalactic, Protoplanetary Disk, and Exoplanetary Molecules. <i>Astrophysical Journal, Supplement Series</i> , 2022, 259, 30.	7.7	163
6	HERSCHEL OBSERVATIONS OF EXTRAORDINARY SOURCES: ANALYSIS OF THE HIFI 1.2 THz WIDE SPECTRAL SURVEY TOWARD ORION KL. I. METHODS. <i>Astrophysical Journal</i> , 2014, 787, 112.	4.5	106
7	Interstellar detection of the highly polar five-membered ring cyanocyclopentadiene. <i>Nature Astronomy</i> , 2021, 5, 176-180.	10.1	96
8	Discovery of the Pure Polycyclic Aromatic Hydrocarbon Indene (C_9H_8) with GOTHAM Observations of TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 913, L18.	8.3	96
9	HERSCHEL OBSERVATIONS OF EXTRAORDINARY SOURCES: ANALYSIS OF THE FULL HERSCHEL/HIFI MOLECULAR LINE SURVEY OF SAGITTARIUS B2(N). <i>Astrophysical Journal</i> , 2014, 789, 8.	4.5	82
10	ALMA Detection of Interstellar Methoxymethanol ($\text{C}_2\text{H}_5\text{OCH}_2\text{OH}$). <i>Astrophysical Journal Letters</i> , 2017, 851, L46.	8.3	66
11	Early Science from GOTHAM: Project Overview, Methods, and the Detection of Interstellar Propargyl Cyanide (HCCCH_2CN) in TMC-1. <i>Astrophysical Journal Letters</i> , 2020, 900, L10.	8.3	60
12	OBSERVATIONAL RESULTS OF A MULTI-TELESCOPE CAMPAIGN IN SEARCH OF INTERSTELLAR UREA [NH_2CONH_2]. <i>Astrophysical Journal</i> , 2014, 783, 77.	4.5	55
13	Aromatics and Cyclic Molecules in Molecular Clouds: A New Dimension of Interstellar Organic Chemistry. <i>Journal of Physical Chemistry A</i> , 2021, 125, 3231-3243.	2.5	50
14	A SEARCH FOR HYDROXYLAMINE (NH_2OH) TOWARD SELECT ASTRONOMICAL SOURCES. <i>Astrophysical Journal</i> , 2012, 751, 1.	4.5	49
15	INVESTIGATING THE MINIMUM ENERGY PRINCIPLE IN SEARCHES FOR NEW MOLECULAR SPECIES: THE CASE OF C_2CO ISOMERS. <i>Astrophysical Journal</i> , 2015, 799, 34.	4.5	49
16	An investigation of spectral line stacking techniques and application to the detection of HC11N. <i>Nature Astronomy</i> , 2021, 5, 188-196.	10.1	49
17	Ubiquitous aromatic carbon chemistry at the earliest stages of star formation. <i>Nature Astronomy</i> , 2021, 5, 181-187.	10.1	49
18	Automated microwave double resonance spectroscopy: A tool to identify and characterize chemical compounds. <i>Journal of Chemical Physics</i> , 2016, 144, 124202.	3.0	39

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19	Non-detection of HC ₁₁ N towards TMC-1: constraining the chemistry of large carbon-chain molecules. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 463, 4175-4183.	4.4	38
20	INTERSTELLAR CARBODIIMIDE (HNCNH): A NEW ASTRONOMICAL DETECTION FROM THE GBT PRIMOS SURVEY VIA MASER EMISSION FEATURES. <i>Astrophysical Journal Letters</i> , 2012, 758, L33.	8.3	37
21	Gas-phase synthetic pathways to benzene and benzonitrile: a combined microwave and thermochemical investigation. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 2946-2956.	2.8	37
22	Detection of Interstellar HC ₅ O in TMC-1 with the Green Bank Telescope. <i>Astrophysical Journal Letters</i> , 2017, 843, L28.	8.3	36
23	A SEARCH FOR <i>l</i> -C ₃ H ⁺ AND <i>l</i> -C ₃ H IN Sgr B2(N), Sgr B2(OH), AND THE DARK CLOUD TMC-1. <i>Astrophysical Journal</i> , 2013, 774, 56.	4.5	35
24	Methylamine and other simple N-bearing species in the hot cores NGC 6334I MM1 ³ . <i>Astronomy and Astrophysics</i> , 2019, 624, A82.	5.1	34
25	The Family of Amide Molecules toward NGC 6334I. <i>Astrophysical Journal</i> , 2020, 901, 37.	4.5	34
26	Nuclear spin dependence of the reaction of H_3^+ with H ₂ . II. Experimental measurements. <i>Journal of Chemical Physics</i> , 2011, 134, 194311.	3.0	33
27	Interstellar Detection of 2-cyanocyclopentadiene, C ₅ H ₅ CN, a Second Five-membered Ring toward TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 910, L2.	8.3	33
28	Deep K-band Observations of TMC-1 with the Green Bank Telescope: Detection of HC ₇ O, Nondetection of HC ₁₁ N, and a Search for New Organic Molecules. <i>Astrophysical Journal</i> , 2017, 850, 187.	4.5	32
29	Detection of Interstellar HC ₄ NC and an Investigation of Isocyanopolyne Chemistry under TMC-1 Conditions. <i>Astrophysical Journal Letters</i> , 2020, 900, L9.	8.3	32
30	THz and mid-IR spectroscopy of interstellar ice analogs: methyl and carboxylic acid groups. <i>Faraday Discussions</i> , 2014, 168, 461-484.	3.2	29
31	Deep, Broadband Spectral Line Surveys of Molecule-rich Interstellar Clouds. <i>Astrophysical Journal, Supplement Series</i> , 2017, 232, 3.	7.7	29
32	Low levels of methanol deuteration in the high-mass star-forming region NGC 6334I. <i>Astronomy and Astrophysics</i> , 2018, 615, A88.	5.1	29
33	First Results of an ALMA Band 10 Spectral Line Survey of NGC 6334I: Detections of Glycolaldehyde (HC(O)CH ₂ OH) and a New Compact Bipolar Outflow in HDO and CS. <i>Astrophysical Journal Letters</i> , 2018, 863, L35.	8.3	29
34	CSO AND CARMA OBSERVATIONS OF L1157. I. A DEEP SEARCH FOR HYDROXYLAMINE (NH ₂ OH). <i>Astrophysical Journal</i> , 2015, 812, 76.	4.5	28
35	Orion Src TM s Disk Is Salty. <i>Astrophysical Journal</i> , 2019, 872, 54.	4.5	28
36	PDRs4All: A JWST Early Release Science Program on Radiative Feedback from Massive Stars. <i>Publications of the Astronomical Society of the Pacific</i> , 2022, 134, 054301.	3.1	26

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37	The structure and dynamics of carbon dioxide and water containing ices investigated via THz and mid-IR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 3442.	2.8	25
38	A Search for Heterocycles in GOTHAM Observations of TMC-1. <i>Journal of Physical Chemistry A</i> , 2022, 126, 2716-2728.	2.5	25
39	Detection of HC5N and HC7N Isotopologues in TMC-1 with the Green Bank Telescope. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 474, 5068-5075.	4.4	24
40	Modeling C-shock Chemistry in Isolated Molecular Outflows. <i>Astrophysical Journal</i> , 2019, 881, 32.	4.5	24
41	Interstellar Glycolaldehyde, Methyl Formate, and Acetic Acid. I. A Bimodal Abundance Pattern in Star-forming Regions. <i>Astrophysical Journal</i> , 2019, 883, 129.	4.5	24
42	Laboratory spectroscopy techniques to enable observations of interstellar ion chemistry. <i>Nature Reviews Physics</i> , 2020, 2, 402-410.	26.6	22
43	Isotopic studies of <i>trans</i> - and <i>cis</i> -HOCO using rotational spectroscopy: Formation, chemical bonding, and molecular structures. <i>Journal of Chemical Physics</i> , 2016, 144, 124304.	3.0	21
44	The pure rotational spectrum of glycolaldehyde isotopologues observed in natural abundance. <i>Journal of Molecular Spectroscopy</i> , 2013, 284-285, 21-28.	1.2	20
45	CSO AND CARMA OBSERVATIONS OF L1157. II. CHEMICAL COMPLEXITY IN THE SHOCKED OUTFLOW. <i>Astrophysical Journal</i> , 2016, 827, 21.	4.5	20
46	AN OBSERVATIONAL INVESTIGATION OF THE IDENTITY OF B11244 (<i>l</i> -C ₃ H ⁺ /C ₃ H ⁺). <i>Astrophysical Journal</i> , 2014, 783, 36.	4.5	19
47	Astronomical Search of Vinyl Alcohol Assisted by Submillimeter Spectroscopy. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 1189-1195.	2.7	19
48	Molecular polymorphism: microwave spectra, equilibrium structures, and an astronomical investigation of the HNCS isomeric family. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 22693-22705.	2.8	17
49	Vibrational satellites of C ₂ S, C ₃ S, and C ₄ S: microwave spectral taxonomy as a stepping stone to the millimeter-wave band. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 13870-13889.	2.8	17
50	Organic compounds in the C ₃ H ₆ O ₃ family: Microwave spectrum of <i>cis</i> -dimethyl carbonate. <i>Journal of Molecular Spectroscopy</i> , 2010, 264, 10-18.	1.2	16
51	VLA Survey of Dense Gas in Extended Green Objects: Prevalence of 25 GHz Methanol Masers. <i>Astrophysical Journal, Supplement Series</i> , 2017, 230, 22.	7.7	16
52	Do H ₅ ⁺ and Its Isotopologues Have Rotational Spectra?. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1405-1407.	4.6	14
53	The Submillimeter Rotational Spectrum of Ethylene Glycol up to 890 GHz and Application to ALMA Band 10 Spectral Line Data of NGC 6334I. <i>Journal of Physical Chemistry A</i> , 2020, 124, 240-246.	2.5	14
54	Searches for Interstellar HCCSH and H ₂ CCS. <i>Astrophysical Journal</i> , 2019, 883, 201.	4.5	13

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55	Discovery of Interstellar trans-cyanovinylacetylene ($\text{HC}\equiv\text{CCH}=\text{CHC}\equiv\text{N}$) and vinylcyanoacetylene ($\text{H}_2\text{C}=\text{CHC}\equiv\text{N}$) in GOTHAM Observations of TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 908, L11.	8.3	13
56	A CSO search for $\text{I-C}_3\text{H}^+$: detection in the Orion Bar PDR. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 442, 2901-2908.	4.4	12
57	THz time-domain spectroscopy of mixed $\text{CO}\rightleftharpoons\text{CH}_3\text{OH}$ interstellar ice analogs. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20199-20207.	2.8	12
58	Machine Learning of Interstellar Chemical Inventories. <i>Astrophysical Journal Letters</i> , 2021, 917, L6.	8.3	11
59	Chirped-Pulse Fourier Transform Millimeter-Wave Spectroscopy of Furan, Isotopologues, and Vibrational Excited States. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 2986-2994.	2.7	11
60	Gas phase detection and rotational spectroscopy of ethynethiol, HCCSH . <i>Molecular Physics</i> , 2019, 117, 1381-1391.	1.7	10
61	THE SEARCH FOR A COMPLEX MOLECULE IN A SELECTED HOT CORE REGION: A RIGOROUS ATTEMPT TO CONFIRM TRANS-ETHYL METHYL ETHER TOWARD W51 e1/e2. <i>Astrophysical Journal</i> , 2015, 799, 15.	4.5	9
62	Observations of the Orion Source I Disk and Outflow Interface. <i>Astrophysical Journal</i> , 2020, 889, 155.	4.5	9
63	CH_3 -Terminated Carbon Chains in the GOTHAM Survey of TMC-1: Evidence of Interstellar $\text{CH}_3\text{C}_7\text{N}$. <i>Astrophysical Journal</i> , 2022, 924, 21.	4.5	9
64	A LABORATORY STUDY OF C_3H^+ AND THE C_3H RADICAL IN THREE NEW VIBRATIONALLY EXCITED ν_2 STATES USING A PIN-HOLE NOZZLE DISCHARGE SOURCE. <i>Astrophysical Journal, Supplement Series</i> , 2015, 217, 10.	7.7	8
65	The Laboratory Millimeter and Submillimeter Rotational Spectrum of Lactaldehyde and an Astronomical Search in Sgr B2(N), Orion-KL, and NGC 6334I. <i>Astrophysical Journal</i> , 2019, 883, 18.	4.5	8
66	ALMA Detection of Vibrationally Excited ($\nu_{\text{t}} = 1, 2$) Acetic Acid toward NGC 6334I. <i>Astrophysical Journal</i> , 2019, 882, 118.	4.5	7
67	Structure of the Source I Disk in Orion-KL. <i>Astrophysical Journal</i> , 2022, 924, 107.	4.5	7
68	Methoxymethanol formation starting from CO hydrogenation. <i>Astronomy and Astrophysics</i> , 2022, 659, A65.	5.1	7
69	Hunting the relatives of benzonitrile: Rotational spectroscopy of dicyanobenzenes. <i>Astronomy and Astrophysics</i> , 2021, 652, A163.	5.1	6
70	Electron Donor-Acceptor Nature of the Ethanol CO_2 Dimer. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6283-6287.	2.5	5
71	Astrochemistry With the Orbiting Astronomical Satellite for Investigating Stellar Systems. <i>Frontiers in Astronomy and Space Sciences</i> , 2022, 8, .	2.8	5
72	Mirror asymmetry in life and in space. <i>Physics Today</i> , 2016, 69, 86-87.	0.3	3

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73	A Search for Light Hydrides in the Envelopes of Evolved Stars. <i>Astrophysical Journal</i> , 2020, 901, 22.	4.5	2
74	Ignition of Thermite Using the Potassium Chlorate "Rocket" Reaction: A Systematic Demonstration of Reaction Chemistry. <i>Journal of Chemical Education</i> , 2015, 92, 1117-1120.	2.3	0
75	Propylene Oxide (CH ₃ CHCH ₂ O). , 2021, , 1-2.		0
76	Molecular Line Survey. , 2014, , 1-6.		0
77	Molecular Line Survey. , 2015, , 1608-1612.		0
78	SgrB2. , 2015, , 2255-2257.		0
79	The Final Integrations of the Caltech Submillimeter Observatory. <i>Research Notes of the AAS</i> , 2017, 1, 4.	0.7	0