

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
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86
all docs

86
docs citations

86
times ranked

1974
citing authors

#	ARTICLE	IF	CITATIONS
1	CH ₃ -Terminated Carbon Chains in the GOTHAM Survey of TMC-1: Evidence of Interstellar CH ₃ C ₇ N. <i>Astrophysical Journal</i> , 2022, 924, 21.	4.5	9
2	Structure of the Source I Disk in Orion-KL. <i>Astrophysical Journal</i> , 2022, 924, 107.	4.5	7
3	Astrochemistry With the Orbiting Astronomical Satellite for Investigating Stellar Systems. <i>Frontiers in Astronomy and Space Sciences</i> , 2022, 8, .	2.8	5
4	Methoxymethanol formation starting from CO hydrogenation. <i>Astronomy and Astrophysics</i> , 2022, 659, A65.	5.1	7
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	A Search for Heterocycles in GOTHAM Observations of TMC-1. <i>Journal of Physical Chemistry A</i> , 2022, 126, 2716-2728.	2.5	25
7	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
8	Interstellar detection of the highly polar five-membered ring cyanocyclopentadiene. <i>Nature Astronomy</i> , 2021, 5, 176-180.	10.1	96
9	Propylene Oxide (CH ₃ CH ₂ O)., 2021, , 1-2.		0
10	An investigation of spectral line stacking techniques and application to the detection of HC ₁₁ N. <i>Nature Astronomy</i> , 2021, 5, 188-196.	10.1	49
11	Ubiquitous aromatic carbon chemistry at the earliest stages of star formation. <i>Nature Astronomy</i> , 2021, 5, 181-187.	10.1	49
12	Discovery of Interstellar trans-cyanovinylacetylene (HC≡CCH=CHC≡N) and vinylcyanoacetylene (H ₂ C=CHC≡N) in GOTHAM Observations of TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 908, L11.	8.3	13
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	Detection of two interstellar polycyclic aromatic hydrocarbons via spectral matched filtering. <i>Science</i> , 2021, 371, 1265-1269.	12.6	236
15	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
16	Discovery of the Pure Polycyclic Aromatic Hydrocarbon Indene (c-C ₉ H ₈) with GOTHAM Observations of TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 913, L18.	8.3	96
17	Machine Learning of Interstellar Chemical Inventories. <i>Astrophysical Journal Letters</i> , 2021, 917, L6.	8.3	11
18	Hunting the relatives of benzonitrile: Rotational spectroscopy of dicyanobenzenes. <i>Astronomy and Astrophysics</i> , 2021, 652, A163.	5.1	6

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19	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
20	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
21	Laboratory spectroscopy techniques to enable observations of interstellar ion chemistry. <i>Nature Reviews Physics</i> , 2020, 2, 402-410.	26.6	22
22	Observations of the Orion Source I Disk and Outflow Interface. <i>Astrophysical Journal</i> , 2020, 889, 155.	4.5	9
23	The Family of Amide Molecules toward NGC 6334I. <i>Astrophysical Journal</i> , 2020, 901, 37.	4.5	34
24	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
25	Early Science from GOTHAM: Project Overview, Methods, and the Detection of Interstellar Propargyl Cyanide (HCCCH ₂ CN) in TMC-1. <i>Astrophysical Journal Letters</i> , 2020, 900, L10.	8.3	60
26	A Search for Light Hydrides in the Envelopes of Evolved Stars. <i>Astrophysical Journal</i> , 2020, 901, 22.	4.5	2
27	Searches for Interstellar HCCSH and H ₂ CCS. <i>Astrophysical Journal</i> , 2019, 883, 201.	4.5	13
28	Modeling C-shock Chemistry in Isolated Molecular Outflows. <i>Astrophysical Journal</i> , 2019, 881, 32.	4.5	24
29	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
30	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
31	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
32	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
33	Astronomical Search of Vinyl Alcohol Assisted by Submillimeter Spectroscopy. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 1189-1195.	2.7	19
34	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
35	Orion Src's Disk Is Salty. <i>Astrophysical Journal</i> , 2019, 872, 54.	4.5	28
36	Gas phase detection and rotational spectroscopy of ethynethiol, HCCSH. <i>Molecular Physics</i> , 2019, 117, 1381-1391.	1.7	10

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37	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
38	Detection of HC ₅ N and HC ₇ N 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
39	Detection of the aromatic molecule benzonitrile (<i>c₆h₅cn</i>) in the interstellar medium. <i>Science</i> , 2018, 359, 202-205.	12.6	370
40	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
41	2018 Census of Interstellar, Circumstellar, Extragalactic, Protoplanetary Disk, and Exoplanetary Molecules. <i>Astrophysical Journal, Supplement Series</i> , 2018, 239, 17.	7.7	335
42	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
43	Deep, Broadband Spectral Line Surveys of Molecule-rich Interstellar Clouds. <i>Astrophysical Journal, Supplement Series</i> , 2017, 232, 3.	7.7	29
44	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
45	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
46	Electron Donor–Acceptor Nature of the Ethanol–CO ₂ Dimer. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6283-6287.	2.5	5
47	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
48	ALMA Detection of Interstellar Methoxymethanol (CH ₃ OCH ₂ OH). <i>Astrophysical Journal Letters</i> , 2017, 851, L46.	8.3	66
49	The Final Integrations of the Caltech Submillimeter Observatory. <i>Research Notes of the AAS</i> , 2017, 1, 4.	0.7	0
50	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
51	CSO AND CARMA OBSERVATIONS OF L1157. II. CHEMICAL COMPLEXITY IN THE SHOCKED OUTFLOW. <i>Astrophysical Journal</i> , 2016, 827, 21.	4.5	20
52	Mirror asymmetry in life and in space. <i>Physics Today</i> , 2016, 69, 86-87.	0.3	3
53	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
54	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

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55	THz time-domain spectroscopy of mixed CO ¹³ CH ₃ OH interstellar ice analogs. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20199-20207.	2.8	12
56	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
57	Discovery of the interstellar chiral molecule propylene oxide (CH ₃ CHCH ₂) <i>Tj ETQq1 1 0,784314 rgBT /Over</i>	12.6	235
58	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
59	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
60	INVESTIGATING THE MINIMUM ENERGY PRINCIPLE IN SEARCHES FOR NEW MOLECULAR SPECIES—THE CASE OF H ₂ C ₃ O ISOMERS. <i>Astrophysical Journal</i> , 2015, 799, 34.	4.5	49
61	A LABORATORY STUDY OF C ₃ H ⁺ AND THE C ₃ H RADICAL IN THREE NEW VIBRATIONALLY EXCITED ² Σ STATES USING A PIN-HOLE NOZZLE DISCHARGE SOURCE. <i>Astrophysical Journal, Supplement Series</i> , 2015, 217, 10.	7.7	8
62	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
63	Molecular Line Survey. , 2015, , 1608-1612.		0
64	SgrB2. , 2015, , 2255-2257.		0
65	A CSO search for I-C ₃ H ⁺ : detection in the Orion Bar PDR. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 442, 2901-2908.	4.4	12
66	OBSERVATIONAL RESULTS OF A MULTI-TELESCOPE CAMPAIGN IN SEARCH OF INTERSTELLAR UREA [(NH ₂) ₂ CO]. <i>Astrophysical Journal</i> , 2014, 783, 77.	4.5	55
67	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
68	<i>HERSCHEL</i> 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
69	<i>HERSCHEL</i> OBSERVATIONS OF EXTRAORDINARY SOURCES: ANALYSIS OF THE FULL <i>HERSCHEL</i> /HIFI MOLECULAR LINE SURVEY OF SAGITTARIUS B2(N). <i>Astrophysical Journal</i> , 2014, 789, 8.	4.5	82
70	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
71	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
72	Molecular Line Survey. , 2014, , 1-6.		0

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73	A SEARCH FOR C_3H^+ AND C_3H IN Sgr B2(N), Sgr B2(OH), AND THE DARK CLOUD TMC-1. <i>Astrophysical Journal</i> , 2013, 774, 56.	4.5	35
74	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
75	A SEARCH FOR HYDROXYLAMINE (NH_2OH) TOWARD SELECT ASTRONOMICAL SOURCES. <i>Astrophysical Journal</i> , 2012, 751, 1.	4.5	49
76	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
77	Do H_5^+ and Its Isotopologues Have Rotational Spectra?. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 1405-1407.	4.6	14
78	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
79	Organic compounds in the $\text{C}_3\text{H}_6\text{O}_3$ family: Microwave spectrum of cis-cis dimethyl carbonate. <i>Journal of Molecular Spectroscopy</i> , 2010, 264, 10-18.	1.2	16