

# Ryan A Loomis

## List of Publications by Year in descending order

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66  
papers

3,830  
citations

94433

37  
h-index

128289

60  
g-index

68  
all docs

68  
docs citations

68  
times ranked

2073  
citing authors

#	ARTICLE	IF	CITATIONS
1	CH <sub>3</sub> -Terminated Carbon Chains in the GOTHAM Survey of TMC-1: Evidence of Interstellar CH <sub>3</sub> C <sub>7</sub> N. <i>Astrophysical Journal</i> , 2022, 924, 21.	4.5	9
2	A Search for Heterocycles in GOTHAM Observations of TMC-1. <i>Journal of Physical Chemistry A</i> , 2022, 126, 2716-2728.	2.5	25
3	CO Line Emission Surfaces and Vertical Structure in Midinclination Protoplanetary Disks. <i>Astrophysical Journal</i> , 2022, 932, 114.	4.5	21
4	Interstellar detection of the highly polar five-membered ring cyanocyclopentadiene. <i>Nature Astronomy</i> , 2021, 5, 176-180.	10.1	96
5	The TW Hya Rosetta Stone Project. II. Spatially Resolved Emission of Formaldehyde Hints at Low-temperature Gas-phase Formation. <i>Astrophysical Journal</i> , 2021, 906, 111.	4.5	19
6	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
7	Ubiquitous aromatic carbon chemistry at the earliest stages of star formation. <i>Nature Astronomy</i> , 2021, 5, 181-187.	10.1	49
8	The TW Hya Rosetta Stone Project. III. Resolving the Gaseous Thermal Profile of the Disk. <i>Astrophysical Journal</i> , 2021, 908, 8.	4.5	35
9	Discovery of Interstellar trans-cyanovinylacetylene (HC≡CCH=CHC≡N) and vinylcyanoacetylene (H <sub>2</sub> C=CHC≡N) in GOTHAM Observations of TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 908, L11.	8.3	13
10	Detection of two interstellar polycyclic aromatic hydrocarbons via spectral matched filtering. <i>Science</i> , 2021, 371, 1265-1269.	12.6	236
11	Interstellar Detection of 2-cyanocyclopentadiene, C <sub>5</sub> H <sub>5</sub> CN, a Second Five-membered Ring toward TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 910, L2.	8.3	33
12	The TW Hya Rosetta Stone Project IV: A Hydrocarbon-rich Disk Atmosphere. <i>Astrophysical Journal</i> , 2021, 911, 29.	4.5	10
13	Discovery of the Pure Polycyclic Aromatic Hydrocarbon Indene (c-C <sub>9</sub> H <sub>8</sub> ) with GOTHAM Observations of TMC-1. <i>Astrophysical Journal Letters</i> , 2021, 913, L18.	8.3	96
14	The TW Hya Rosetta Stone Project. I. Radial and Vertical Distributions of DCN and DCO <sup>+</sup> . <i>Astronomical Journal</i> , 2021, 161, 38.	4.7	16
15	Molecules with ALMA at Planet-forming Scales (MAPS). VII. Substellar O/H and C/H and Superstellar C/O in Planet-feeding Gas. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 7.	7.7	40
16	Molecules with ALMA at Planet-forming Scales (MAPS). X. Studying Deuteration at High Angular Resolution toward Protoplanetary Disks. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 10.	7.7	15
17	Molecules with ALMA at Planet-forming Scales (MAPS). XVIII. Kinematic Substructures in the Disks of HD 163296 and MWC 480. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 18.	7.7	51
18	Molecules with ALMA at Planet-forming Scales (MAPS). IX. Distribution and Properties of the Large Organic Molecules HC <sub>3</sub> N, CH <sub>3</sub> CN, and c-C <sub>3</sub> H <sub>2</sub> . <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 9.	7.7	30

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19	Molecules with ALMA at Planet-forming Scales (MAPS). XIX. Spiral Arms, a Tail, and Diffuse Structures Traced by CO around the GM Aur Disk. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 19.	7.7	33
20	Molecules with ALMA at Planet-forming Scales (MAPS). IV. Emission Surfaces and Vertical Distribution of Molecules. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 4.	7.7	58
21	Molecules with ALMA at Planet-forming Scales (MAPS). XII. Inferring the C/O and S/H Ratios in Protoplanetary Disks with Sulfur Molecules. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 12.	7.7	30
22	Molecules with ALMA at Planet-forming Scales (MAPS). XVII. Determining the 2D Thermal Structure of the HD 163296 Disk. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 17.	7.7	19
23	Molecules with ALMA at Planet-forming Scales (MAPS). I. Program Overview and Highlights. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 1.	7.7	117
24	Molecules with ALMA at Planet-forming Scales (MAPS). VI. Distribution of the Small Organics HCN, C <sub>2</sub> H, and H <sub>2</sub> CO. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 6.	7.7	37
25	Molecules with ALMA at Planet-forming Scales (MAPS). XVI. Characterizing the Impact of the Molecular Wind on the Evolution of the HD 163296 System. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 16.	7.7	20
26	Molecules with ALMA at Planet-forming Scales (MAPS). V. CO Gas Distributions. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 5.	7.7	87
27	Molecules with ALMA at Planet-forming Scales (MAPS). III. Characteristics of Radial Chemical Substructures. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 3.	7.7	57
28	Molecules with ALMA at Planet-forming Scales (MAPS). XV. Tracing Protoplanetary Disk Structure within 20 au. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 15.	7.7	21
29	Molecules with ALMA at Planet-forming Scales (MAPS). VIII. CO Gap in AS 209 – Gas Depletion or Chemical Processing?. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 8.	7.7	22
30	Molecules with ALMA at Planet-forming Scales (MAPS). XIII. HCO <sup>+</sup> and Disk Ionization Structure. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 13.	7.7	24
31	Molecules with ALMA at Planet-forming Scales (MAPS). XIV. Revealing Disk Substructures in Multiwavelength Continuum Emission. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 14.	7.7	56
32	Molecules with ALMA at Planet-forming Scales. XX. The Massive Disk around GM Aurigae. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 20.	7.7	26
33	Molecules with ALMA at Planet-forming Scales (MAPS). II. CLEAN Strategies for Synthesizing Images of Molecular Line Emission in Protoplanetary Disks. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 2.	7.7	58
34	Molecules with ALMA at Planet-forming Scales (MAPS). XI. CN and HCN as Tracers of Photochemistry in Disks. <i>Astrophysical Journal, Supplement Series</i> , 2021, 257, 11.	7.7	25
35	An Unbiased ALMA Spectral Survey of the LkCa 15 and MWC 480 Protoplanetary Disks. <i>Astrophysical Journal</i> , 2020, 893, 101.	4.5	38
36	An ALMA Survey of H <sub>2</sub> CO in Protoplanetary Disks. <i>Astrophysical Journal</i> , 2020, 890, 142.	4.5	47

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37	The Excitation Conditions of CN in TW Hya. <i>Astrophysical Journal</i> , 2020, 899, 157.	4.5	22
38	Detection of Interstellar HC <sub>4</sub> NC and an Investigation of Isocyanopolyne Chemistry under TMC-1 Conditions. <i>Astrophysical Journal Letters</i> , 2020, 900, L9.	8.3	32
39	Early Science from GOTHAM: Project Overview, Methods, and the Detection of Interstellar Propargyl Cyanide (HCCCH <sub>2</sub> CN) in TMC-1. <i>Astrophysical Journal Letters</i> , 2020, 900, L10.	8.3	60
40	Sulfur Chemistry in Protoplanetary Disks: CS and H <sub>2</sub> CS. <i>Astrophysical Journal</i> , 2019, 876, 72.	4.5	62
41	A Survey of C <sub>2</sub> H, HCN, and C <sup>18</sup> O in Protoplanetary Disks. <i>Astrophysical Journal</i> , 2019, 876, 25.	4.5	66
42	A Survey of CH <sub>3</sub> CN and HC <sub>3</sub> N in Protoplanetary Disks. <i>Astrophysical Journal</i> , 2018, 857, 69.	4.5	82
43	Detecting Weak Spectral Lines in Interferometric Data through Matched Filtering. <i>Astronomical Journal</i> , 2018, 155, 182.	4.7	56
44	The Distribution and Excitation of CH <sub>3</sub> CN in a Solar Nebula Analog. <i>Astrophysical Journal</i> , 2018, 859, 131.	4.5	65
45	Sulphur monoxide exposes a potential molecular disk wind from the planet-hosting disk around HD 100546. <i>Astronomy and Astrophysics</i> , 2018, 611, A16.	5.1	34
46	Multiple Stellar Flybys Sculpting the Circumstellar Architecture in RW Aurigae. <i>Astrophysical Journal</i> , 2018, 859, 150.	4.5	57
47	Constraining Gas-phase Carbon, Oxygen, and Nitrogen in the IM Lup Protoplanetary Disk. <i>Astrophysical Journal</i> , 2018, 865, 155.	4.5	69
48	H <sub>2</sub> CO Distribution and Formation in the TW HYA Disk. <i>Astrophysical Journal</i> , 2017, 839, 43.	4.5	38
49	A Multi-ringed, Modestly Inclined Protoplanetary Disk around AA Tau. <i>Astrophysical Journal</i> , 2017, 840, 23.	4.5	112
50	An ALMA Survey of DCN/H <sup>13</sup> CN and DCO <sup>+</sup> /H <sup>13</sup> CO <sup>+</sup> in Protoplanetary Disks. <i>Astrophysical Journal</i> , 2017, 835, 231.	4.5	87
51	Variable H <sup>13</sup> CO <sup>+</sup> Emission in the IM Lup Disk: X-Ray Driven Time-dependent Chemistry?. <i>Astrophysical Journal Letters</i> , 2017, 843, L3.	8.3	44
52	THE COUPLED PHYSICAL STRUCTURE OF GAS AND DUST IN THE IM Lup PROTOPLANETARY DISK. <i>Astrophysical Journal</i> , 2016, 832, 110.	4.5	130
53	CSO AND CARMA OBSERVATIONS OF L1157. II. CHEMICAL COMPLEXITY IN THE SHOCKED OUTFLOW. <i>Astrophysical Journal</i> , 2016, 827, 21.	4.5	20
54	Non-detection of HC <sub>11</sub> 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

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55	FIRST DETECTION OF GAS-PHASE METHANOL IN A PROTOPLANETARY DISK. <i>Astrophysical Journal Letters</i> , 2016, 823, L10.	8.3	166
56	Discovery of the interstellar chiral molecule propylene oxide ( $\text{CH}_3\text{CHCH}_2$ ). <i>Astrophysical Journal Letters</i> , 2015, 809, L25.	12.6	235
57	$\text{N}_2$ AND CO DESORPTION ENERGIES FROM WATER ICE. <i>Astrophysical Journal Letters</i> , 2016, 816, L28.	8.3	76
58	DOUBLE DCO <sup>+</sup> RINGS REVEAL CO ICE DESORPTION IN THE OUTER DISK AROUND IM LUP. <i>Astrophysical Journal</i> , 2015, 810, 112.	4.5	83
59	CSO AND CARMA OBSERVATIONS OF L1157. I. A DEEP SEARCH FOR HYDROXYLAMINE ( $\text{NH}_2\text{OH}$ ). <i>Astrophysical Journal</i> , 2015, 812, 76.	4.5	28
60	INVESTIGATING THE MINIMUM ENERGY PRINCIPLE IN SEARCHES FOR NEW MOLECULAR SPECIES—THE CASE OF $\text{H}_2\text{C}_3\text{O}$ ISOMERS. <i>Astrophysical Journal</i> , 2015, 799, 34.	4.5	49
61	The comet-like composition of a protoplanetary disk as revealed by complex cyanides. <i>Nature</i> , 2015, 520, 198-201.	27.8	192
62	THE DISTRIBUTION AND CHEMISTRY OF $\text{H}_2\text{CO}$ IN THE DM TAU PROTOPLANETARY DISK. <i>Astrophysical Journal Letters</i> , 2015, 809, L25.	8.3	48
63	A SEARCH FOR $\text{C}_3\text{H}^+$ AND $\text{C}_3\text{H}$ IN Sgr B2(N), Sgr B2(OH), AND THE DARK CLOUD TMC-1. <i>Astrophysical Journal</i> , 2013, 774, 56.	4.5	35
64	DETECTION OF E-CYANOMETHANIMINE TOWARD SAGITTARIUS B2(N) IN THE GREEN BANK TELESCOPE PRIMOS SURVEY. <i>Astrophysical Journal Letters</i> , 2013, 765, L10.	8.3	99
65	THE DETECTION OF INTERSTELLAR ETHANIMINE ( $\text{CH}_3\text{CHNH}$ ) FROM OBSERVATIONS TAKEN DURING THE GBT PRIMOS SURVEY. <i>Astrophysical Journal Letters</i> , 2013, 765, L9.	8.3	88
66	INTERSTELLAR CARBODIIMIDE ( $\text{HNCNH}$ ): A NEW ASTRONOMICAL DETECTION FROM THE GBT PRIMOS SURVEY VIA MASER EMISSION FEATURES. <i>Astrophysical Journal Letters</i> , 2012, 758, L33.	8.3	37