

Tomoya Hirota

List of Publications by Year in descending order

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papers

3,173
citations

172457

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docs citations

94
times ranked

2152
citing authors

#	ARTICLE	IF	CITATIONS
1	Astrometry of H ₂ O Masers in Nearby Star-Forming Regions with VERA II SVS 13 in NGC 1333. Publication of the Astronomical Society of Japan, 2008, 60, 37-44.	2.5	208
2	Change in the chemical composition of infalling gas forming a disk around a protostar. Nature, 2014, 507, 78-80.	27.8	196
3	Abundant Carbon-Chain Molecules toward the Low-Mass Protostar IRAS 04368+2557 in L1527. Astrophysical Journal, 2008, 672, 371-381.	4.5	165
4	Distance to Orion KL Measured with VERA. Publication of the Astronomical Society of Japan, 2007, 59, 897-903.	2.5	161
5	SiO Maser Observations toward Orion-KL with VERA. Publication of the Astronomical Society of Japan, 2008, 60, 991-999.	2.5	146
6	Disk-driven rotating bipolar outflow in Orion Source I. Nature Astronomy, 2017, 1, .	10.1	101
7	DISCOVERY OF THE SECOND WARM CARBON-CHAIN-CHEMISTRY SOURCE, IRAS15398 " 3359 IN LUPUS. Astrophysical Journal, 2009, 697, 769-786.	4.5	94
8	Astrometry of H ₂ O Masers in Nearby Star-Forming Regions with VERA. IV. L 1448 C. Publication of the Astronomical Society of Japan, 2011, 63, 1-8.	2.5	80
9	DISCOVERY OF A HOT CORINO IN THE BOK GLOBULE B335. Astrophysical Journal Letters, 2016, 830, L37.	8.3	80
10	L483: Warm Carbon-chain Chemistry Source Harboring Hot Corino Activity. Astrophysical Journal, 2017, 837, 174.	4.5	78
11	A SEARCH FOR CARBON-CHAIN-RICH CORES IN DARK CLOUDS. Astrophysical Journal, 2009, 699, 585-602.	4.5	71
12	The Perseus ALMA Chemistry Survey (PEACHES). I. The Complex Organic Molecules in Perseus Embedded Protostars. Astrophysical Journal, 2021, 910, 20.	4.5	66
13	The First VERA Astrometry Catalog. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	65
14	Dual-Beam Delay Calibration for VERA. Publication of the Astronomical Society of Japan, 2008, 60, 935-950.	2.5	62
15	CLUSTER FORMATION TRIGGERED BY FILAMENT COLLISIONS IN SERPENS SOUTH. Astrophysical Journal Letters, 2014, 791, L23.	8.3	61
16	A SUBSTELLAR-MASS PROTOSTAR AND ITS OUTFLOW OF IRAS 15398"3359 REVEALED BY SUBARCSECOND-RESOLUTION OBSERVATIONS OF H ₂ CO AND CCH. Astrophysical Journal, 2014, 795, 152.	4.5	61
17	CANDIDATE WATER VAPOR LINES TO LOCATE THE H ₂ O SNOWLINE THROUGH HIGH-DISPERSION SPECTROSCOPIC OBSERVATIONS. I. THE CASE OF A T TAURI STAR. Astrophysical Journal, 2016, 827, 113.	4.5	58
18	DEUTERATED MOLECULES IN WARM CARBON CHAIN CHEMISTRY: THE L1527 CASE. Astrophysical Journal, 2009, 702, 1025-1035.	4.5	57

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19	DISTRIBUTIONS OF CARBON-CHAIN MOLECULES IN L1527. <i>Astrophysical Journal</i> , 2010, 722, 1633-1643.	4.5	55
20	SUBARCSECOND ANALYSIS OF THE "INFALLING" ROTATING ENVELOPE AROUND THE CLASS I PROTOSTAR IRAS 04365+2535. <i>Astrophysical Journal Letters</i> , 2016, 820, L34.	8.3	52
21	SURVEY OBSERVATIONS OF A POSSIBLE GLYCINE PRECURSOR, METHANIMINE (CH ₂ NH). <i>Astrophysical Journal</i> , 2016, 825, 79.	4.5	49
22	Formation and Evolution of Disks Around Young Stellar Objects. <i>Space Science Reviews</i> , 2020, 216, 43.	8.1	49
23	ATOMS: ALMA Three-millimeter Observations of Massive Star-forming regions " I. Survey description and a first look at G9.62+0.19. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 496, 2790-2820.	4.4	45
24	A HOT MOLECULAR CIRCUMSTELLAR DISK AROUND THE MASSIVE PROTOSTAR ORION SOURCE I. <i>Astrophysical Journal Letters</i> , 2014, 782, L28.	8.3	41
25	Astrochemical Properties of Planck Cold Clumps. <i>Astrophysical Journal, Supplement Series</i> , 2017, 228, 12.	7.7	41
26	ALMA Reveals Sequential High-mass Star Formation in the G9.62+0.19 Complex. <i>Astrophysical Journal</i> , 2017, 849, 25.	4.5	41
27	Chemical Survey toward Young Stellar Objects in the Perseus Molecular Cloud Complex. <i>Astrophysical Journal, Supplement Series</i> , 2018, 236, 52.	7.7	38
28	Candidate Water Vapor Lines to Locate the H ₂ O Snowline Through High-dispersion Spectroscopic Observations. II. The Case of a Herbig Ae Star. <i>Astrophysical Journal</i> , 2017, 836, 118.	4.5	34
29	The Hitachi and Takahagi 32 m radio telescopes: Upgrade of the antennas from satellite communication to radio astronomy. <i>Publication of the Astronomical Society of Japan</i> , 2016, 68, .	2.5	32
30	¹³ CH ₃ OH Masers Associated With a Transient Phenomenon in a High-mass Young Stellar Object. <i>Astrophysical Journal Letters</i> , 2020, 890, L22.	8.3	31
31	Detection of a new methylamine (CH ₃ NH ₂) source: Candidate for future glycine surveys. <i>Publication of the Astronomical Society of Japan</i> , 2019, 71, .	2.5	29
32	Dust Continuum Emission and the Upper Limit Fluxes of Submillimeter Water Lines of the Protoplanetary Disk around HD 163296 Observed by ALMA. <i>Astrophysical Journal</i> , 2019, 875, 96.	4.5	28
33	Observations of 6.7%GHz methanol masers with East-Asian VLBI Network. I. VLBI images of the first epoch of observations. <i>Publication of the Astronomical Society of Japan</i> , 2014, 66, .	2.5	27
34	The First Bird's-eye View of a Gravitationally Unstable Accretion Disk in High-mass Star Formation. <i>Astrophysical Journal Letters</i> , 2019, 877, L25.	8.3	26
35	Salt, Hot Water, and Silicon Compounds Tracing Massive Twin Disks. <i>Astrophysical Journal Letters</i> , 2020, 900, L2.	8.3	26
36	ANNUAL PARALLAX DETERMINATION TOWARD A NEW X-RAY-EMITTING CLASS 0 CANDIDATE WITH THE WATER MASER IN THE NGC 2264 STAR-FORMING REGION. <i>Astrophysical Journal, Supplement Series</i> , 2014, 211, 18.	7.7	25

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37	ALMA IMAGING OF MILLIMETER/SUBMILLIMETER CONTINUUM EMISSION IN ORION KL. <i>Astrophysical Journal</i> , 2015, 801, 82.	4.5	25
38	Sulfur-bearing Species Tracing the Disk/Envelope System in the Class I Protostellar Source Elias 29. <i>Astrophysical Journal</i> , 2019, 881, 112.	4.5	25
39	New maser species tracing spiral-arm accretion flows in a high-mass young stellar object. <i>Nature Astronomy</i> , 2020, 4, 1170-1176.	10.1	25
40	THE FIRST DETECTION OF THE 232 GHz VIBRATIONALLY EXCITED H ₂ O MASER IN ORION KL WITH ALMA. <i>Astrophysical Journal Letters</i> , 2012, 757, L1.	8.3	24
41	SPECTRAL LINE SURVEY TOWARD THE YOUNG MASSIVE PROTOSTAR NGC 2264 CMM3 IN THE 4 mm, 3 mm, AND 0.8 mm BANDS. <i>Astrophysical Journal</i> , 2015, 809, 162.	4.5	24
42	The Difference in Abundance between N-bearing and O-bearing Species in High-mass Star-forming Regions. <i>Astrophysical Journal, Supplement Series</i> , 2018, 237, 3.	7.7	23
43	Gravitationally Unstable Condensations Revealed by ALMA in the TUKH122 Prestellar Core in the Orion A Cloud. <i>Astrophysical Journal</i> , 2018, 856, 147.	4.5	22
44	An Expanded Gas-grain Model for Interstellar Glycine. <i>Astrophysical Journal</i> , 2018, 863, 51.	4.5	21
45	ALMA OBSERVATIONS OF THE IRDC CLUMP G34.43+00.24 MM3: 278 GHz CLASS I METHANOL MASERS. <i>Astrophysical Journal Letters</i> , 2014, 794, L10.	8.3	20
46	ATOMS: ALMA three-millimeter observations of massive star-forming regions II. Compact objects in ACA observations and star formation scaling relations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 496, 2821-2835.	4.4	20
47	VERA and ALMA observations of the H ₂ O supermaser burst in Orion KL. <i>Publication of the Astronomical Society of Japan</i> , 2014, 66, .	2.5	19
48	ALMA Observations of the IRDC Clump G34.43+00.24 MM3: Complex Organic and Deuterated Molecules. <i>Astrophysical Journal</i> , 2018, 857, 35.	4.5	19
49	FAUST. II. Discovery of a Secondary Outflow in IRAS 15398-3359: Variability in Outflow Direction during the Earliest Stage of Star Formation?. <i>Astrophysical Journal</i> , 2021, 910, 11.	4.5	19
50	IDENTIFICATION OF BURSTING WATER MASER FEATURES IN ORION KL. <i>Astrophysical Journal Letters</i> , 2011, 739, L59.	8.3	18
51	A Statistical Study of Massive Cluster-forming Clumps. <i>Astrophysical Journal</i> , 2018, 855, 45.	4.5	18
52	Candidate Water Vapor Lines to Locate the H ₂ O Snowline through High-dispersion Spectroscopic Observations. III. Submillimeter H ₂ O and H ₂ ¹⁸ O Lines. <i>Astrophysical Journal</i> , 2018, 855, 62.	4.5	18
53	Chemical Diversity in Three Massive Young Stellar Objects Associated with 6.7 GHz CH ₃ OH Masers. <i>Astrophysical Journal</i> , 2018, 866, 150.	4.5	18
54	Chemical variation in molecular cloud cores in the Orion A cloud. II.. <i>Publication of the Astronomical Society of Japan</i> , 2014, 66, .	2.5	15

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55	Accelerating a water maser face-on jet from a high mass young stellar object. Publication of the Astronomical Society of Japan, 2016, 68, .	2.5	15
56	ALMA Observations of the Archetypal "Hot Core" That Is Not: Orion-KL. Astrophysical Journal, 2017, 847, 66.	4.5	15
57	Molecular Cloud Cores with a High Deuterium Fraction: Nobeyama Single-pointing Survey. Astrophysical Journal, Supplement Series, 2020, 249, 33.	7.7	15
58	Chemical variation in molecular cloud cores in the Orion A Cloud. III. Publication of the Astronomical Society of Japan, 2014, 66, .	2.5	14
59	ALMA OBSERVATIONS OF THE IRDC CLUMP G34.43+00.24 MM3: DNC/HNC RATIO. Astrophysical Journal, 2015, 803, 70.	4.5	13
60	ALMA ACA and Nobeyama Observations of Two Orion Cores in Deuterated Molecular Lines. Astrophysical Journal, 2020, 895, 119.	4.5	13
61	The Intrinsic Structure of Sagittarius A* at 1.3 cm and 7 mm. Astrophysical Journal, 2022, 926, 108.	4.5	13
62	MOLECULAR LINE OBSERVATIONS OF MCLD 123.5+24.9 IN THE POLARIS CIRRUS. Astrophysical Journal, 2012, 745, 195.	4.5	12
63	Observations of Cyanopolyynes toward Four High-mass Star-forming Regions Containing Hot Cores. Astrophysical Journal, 2017, 844, 68.	4.5	12
64	East Asian VLBI Network observations of active galactic nuclei jets: imaging with KaVA+Tianma+Nanshan. Research in Astronomy and Astrophysics, 2021, 21, 205.	1.7	12
65	The ALMA Survey of 70 1/4m Dark High-mass Clumps in Early Stages (ASHES). V. Deuterated Molecules in the 70 1/4m Dark IRDC G14.492-00.139. Astrophysical Journal, 2022, 925, 144.	4.5	12
66	THERMAL STARLESS AMMONIA CORE SURROUNDED BY CCS IN THE ORION A CLOUD. Astrophysical Journal, 2014, 789, 83.	4.5	11
67	ALMA BAND 8 CONTINUUM EMISSION FROM ORION SOURCE I. Astrophysical Journal, 2016, 833, 238.	4.5	11
68	SiO MASERS AROUND WX PSC MAPPED WITH THE KVN AND VERA ARRAY (KaVA). Astrophysical Journal, 2016, 822, 3.	4.5	11
69	Water maser variability in a high-mass YSO outburst. Astronomy and Astrophysics, 2021, 647, A23.	5.1	11
70	ALMA OBSERVATION OF THE 658 GHz VIBRATIONALLY EXCITED H ₂ O MASER IN ORION KL SOURCE I. Astrophysical Journal, 2016, 817, 168.	4.5	10
71	Discovery of Striking Difference of Molecular-emission-line Richness in the Potential Proto-binary System NGC 2264 CMM3. Astrophysical Journal, 2017, 847, 108.	4.5	10
72	Spatial Distribution of AIO in a High-mass Protostar Candidate Orion Source I. Astrophysical Journal Letters, 2019, 875, L29.	8.3	10

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73	Magnetic Field Structure of Orion Source I. <i>Astrophysical Journal</i> , 2020, 896, 157.	4.5	10
74	A Face-on Accretion System in High-mass Star Formation: Possible Dusty Infall Streams within 100 AU. <i>Astrophysical Journal</i> , 2017, 849, 23.	4.5	9
75	Compressed Magnetic Field in the Magnetically Regulated Global Collapsing Clump of G9.62+0.19. <i>Astrophysical Journal Letters</i> , 2018, 869, L5.	8.3	9
76	Observations of the Orion Source I Disk and Outflow Interface. <i>Astrophysical Journal</i> , 2020, 889, 155.	4.5	9
77	Chemical evolution of the HC3N and N2H+ molecules in dense cores of the Vela C giant molecular cloud complex. <i>Publication of the Astronomical Society of Japan</i> , 2016, 68, .	2.5	8
78	Extremely High Excitation SiO Lines in Disk-outflow Systems in Orion Source I. <i>Astrophysical Journal</i> , 2019, 872, 64.	4.5	8
79	The Extraordinary Outburst in the Massive Protostellar System NGC 6334 I-MM1: Spatiokinematics of Water Masers during a Contemporaneous Flare Event. <i>Astrophysical Journal</i> , 2021, 908, 175.	4.5	7
80	Structure of the Source I Disk in Orion-KL. <i>Astrophysical Journal</i> , 2022, 924, 107.	4.5	7
81	Misaligned Rotations of the Envelope, Outflow, and Disks in the Multiple Protostellar System of VLA 1623-2417: FAUST. III. <i>Astrophysical Journal</i> , 2022, 927, 54.	4.5	7
82	Multi-frequency radio observations of the radio-loud magnetar XTE J1810-197. <i>Publication of the Astronomical Society of Japan</i> , 2021, 73, 1563-1574.	2.5	6
83	Molecular Cloud Cores with High Deuterium Fractions: Nobeyama Mapping Survey. <i>Astrophysical Journal, Supplement Series</i> , 2021, 256, 25.	7.7	5
84	Detection of a turbulent gas component associated with a starless core with subthermal turbulence in the Orion A cloud. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 4130-4135.	4.4	4
85	Multiple Outflows in the High-mass Cluster-forming Region G25.82-0.17. <i>Astrophysical Journal</i> , 2020, 896, 127.	4.5	4
86	The C18O core mass function toward Orion A: Single-dish observations. <i>Publication of the Astronomical Society of Japan</i> , 2021, 73, 487-503.	2.5	3
87	Cluster Formation in GGD 12-15: Infall Motion with Rotation of the Natal Clump. <i>Astrophysical Journal</i> , 2022, 928, 76.	4.5	1
88	Possibility to locate the position of the H ₂ O snowline in protoplanetary disks through spectroscopic observations. <i>Proceedings of the International Astronomical Union</i> , 2017, 13, 113-120.	0.0	0
89	A Face-on Accretion System in High Mass Star-Formation: Possible Dusty Infall Streams within 100 Astronomical Unit. <i>Proceedings of the International Astronomical Union</i> , 2017, 13, 267-270.	0.0	0
90	Possibility to locate the position of the H ₂ O snowline in protoplanetary disks through spectroscopic observations. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 393-395.	0.0	0

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91	Exploring the 100 au Scale Structure of the Protobinary System NGC 2264 CMM3 with ALMA. Astrophysical Journal, 2021, 918, 32.	4.5	0