

Shigehisa Takakuwa

List of Publications by Year in descending order

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83
papers

4,162
citations

136950

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2378
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#	ARTICLE	IF	CITATIONS
1	Vibrationally Excited Lines of HC ₃ N Associated with the Molecular Disk around the G24.78+0.08 A1 Hypercompact H II Region. <i>Astrophysical Journal</i> , 2022, 931, 99.	4.5	3
2	Misaligned Twin Molecular Outflows from the Class 0 Protostellar Binary System VLA 1623A Unveiled by ALMA. <i>Astrophysical Journal</i> , 2021, 912, 34.	4.5	15
3	Carbon-chain Chemistry versus Complex-organic-molecule Chemistry in Envelopes around Three Low-mass Young Stellar Objects in the Perseus Region. <i>Astrophysical Journal</i> , 2021, 910, 141.	4.5	6
4	Misaligned Circumstellar Disks and Orbital Motion of the Young Binary XZ Tau. <i>Astrophysical Journal</i> , 2021, 919, 55.	4.5	6
5	Chemical Compositions in the Vicinity of Protostars in Ophiuchus. <i>Astrophysical Journal</i> , 2021, 922, 152.	4.5	4
6	Deeply cooled core of the Phoenix galaxy cluster imaged by ALMA with the Sunyaev-Zeldovich effect. <i>Publication of the Astronomical Society of Japan</i> , 2020, 72, .	2.5	11
7	Disk Structure around the Class I Protostar L1489 IRS Revealed by ALMA: A Warped-disk System. <i>Astrophysical Journal</i> , 2020, 893, 51.	4.5	24
8	Transition from Ordered Pinched to Warped Magnetic Field on a 100 au Scale in the Class 0 Protostar B335. <i>Astrophysical Journal</i> , 2020, 893, 54.	4.5	7
9	Circumbinary Disks of the Protostellar Binary Systems in the L1551 Region. <i>Astrophysical Journal</i> , 2020, 898, 10.	4.5	10
10	HL Tau Disk in HCO ⁺ (3-2) and (1-0) with ALMA: Gas Density, Temperature, Gap, and One-arm Spiral. <i>Astrophysical Journal</i> , 2019, 880, 69.	4.5	45
11	JCMT POL-2 and ALMA Polarimetric Observations of 6000-100 au Scales in the Protostar B335: Linking Magnetic Field and Gas Kinematics in Observations and MHD Simulations. <i>Astrophysical Journal</i> , 2019, 871, 243.	4.5	14
12	ALMA Observations of the ρ -Ophiuchus B2 Region. I. Molecular Outflows and Their Driving Sources. <i>Astrophysical Journal</i> , 2019, 871, 86.	4.5	6
13	ALMA Observations of Layered Structures due to CO Selective Dissociation in the ρ -Ophiuchi A Plane-parallel PDR. <i>Astrophysical Journal</i> , 2019, 875, 62.	4.5	3
14	Implications of a Hot Atmosphere/Corino from ALMA Observations toward NGC 1333 IRAS 4A1. <i>Astrophysical Journal</i> , 2019, 872, 196.	4.5	29
15	Structure of a Protobinary System: An Asymmetric Circumbinary Disk and Spiral Arms. <i>Astrophysical Journal</i> , 2019, 871, 36.	4.5	21
16	Protostellar Evolution in Serpens Main: Possible Origin of Disk-size Diversity. <i>Astrophysical Journal</i> , 2019, 887, 209.	4.5	12
17	Signs of outflow feedback from a nearby young stellar object on the protostellar envelope around HL Tauri. <i>Astronomy and Astrophysics</i> , 2019, 623, A96.	5.1	6
18	The Infall Motion in the Low-mass Protostellar Binary NGC 1333 IRAS 4A1/4A2. <i>Astrophysical Journal</i> , 2019, 885, 98.	4.5	8

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19	Polarization Properties and Magnetic Field Structures in the High-mass Star-forming Region W51 Observed with ALMA. <i>Astrophysical Journal</i> , 2018, 855, 39.	4.5	34
20	Possible Counterrotation between the Disk and Protostellar Envelope around the Class I Protostar IRAS 04169+2702. <i>Astrophysical Journal</i> , 2018, 865, 51.	4.5	13
21	Extremely Dense Cores Associated with Chandra Sources in Ophiuchus A: Forming Brown Dwarfs Unveiled?. <i>Astrophysical Journal</i> , 2018, 866, 141.	4.5	14
22	Physical and Chemical Conditions of the Protostellar Envelope and the Protoplanetary Disk in HL Tau. <i>Astrophysical Journal</i> , 2018, 869, 59.	4.5	12
23	Constraint on ion-neutral drift velocity in the Class 0 protostar B335 from ALMA observations. <i>Astronomy and Astrophysics</i> , 2018, 615, A58.	5.1	14
24	A Cool Core Disturbed: Observational Evidence for the Coexistence of Subsonic Slushing Gas and Stripped Shock-heated Gas around the Core of RX J1347.5-1145. <i>Astrophysical Journal</i> , 2018, 866, 48.	4.5	20
25	The Distinct Evolutionary Nature of Two Class 0 Protostars in Serpens Main SMM4. <i>Astrophysical Journal</i> , 2018, 863, 19.	4.5	9
26	SIGNS OF EARLY-STAGE DISK GROWTH REVEALED WITH ALMA. <i>Astrophysical Journal</i> , 2017, 834, 178.	4.5	112
27	Theoretical Models of Protostellar Binary and Multiple Systems with AMR Simulations. <i>Journal of Physics: Conference Series</i> , 2017, 837, 012009.	0.4	1
28	Spiral Arms, Infall, and Misalignment of the Circumbinary Disk from the Circumstellar Disks in the Protostellar Binary System L1551 NE. <i>Astrophysical Journal</i> , 2017, 837, 86.	4.5	52
29	ALMA Observations of the Protostar L1527 IRS: Probing Details of the Disk and the Envelope Structures. <i>Astrophysical Journal</i> , 2017, 849, 56.	4.5	52
30	How Do Stars Gain Their Mass? A JCMT/SCUBA-2 Transient Survey of Protostars in Nearby Star-forming Regions. <i>Astrophysical Journal</i> , 2017, 849, 43.	4.5	42
31	ALMA Observations of SMM11 Reveal an Extremely Young Protostar in Serpens Main Cluster. <i>Astrophysical Journal Letters</i> , 2017, 850, L2.	8.3	10
32	1000 au exterior arcs connected to the protoplanetary disk around HL Tauri. <i>Astronomy and Astrophysics</i> , 2017, 608, A134.	5.1	25
33	TRACING INFALL AND ROTATION ALONG THE OUTFLOW CAVITY WALLS OF THE L483 PROTOSTELLAR ENVELOPE. <i>Astrophysical Journal</i> , 2016, 833, 55.	4.5	7
34	The Sunyaev-Zel'dovich effect at 5 σ : RX J1347.5-1145 imaged by ALMA. <i>Publication of the Astronomical Society of Japan</i> , 2016, 68, .	2.5	32
35	ROTATIONALLY DRIVEN FRAGMENTATION IN THE FORMATION OF THE BINARY PROTOSTELLAR SYSTEM L1551 IRS 5. <i>Astrophysical Journal</i> , 2016, 826, 153.	4.5	17
36	FORMATION OF THE UNEQUAL-MASS BINARY PROTOSTARS IN L1551NE BY ROTATIONALLY DRIVEN FRAGMENTATION. <i>Astrophysical Journal</i> , 2016, 831, 90.	4.5	11

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37	GAS GAPS IN THE PROTOPLANETARY DISK AROUND THE YOUNG PROTOSTAR HL TAU. <i>Astrophysical Journal Letters</i> , 2016, 820, L25.	8.3	44
38	STACKING SPECTRA IN PROTOPLANETARY DISKS: DETECTING INTENSITY PROFILES FROM HIDDEN MOLECULAR LINES IN HD 163296. <i>Astrophysical Journal</i> , 2016, 832, 204.	4.5	47
39	ALMA OBSERVATIONS OF THE TRANSITION FROM INFALL MOTION TO KEPLERIAN ROTATION AROUND THE LATE-PHASE PROTOSTAR TMC-1A. <i>Astrophysical Journal</i> , 2015, 812, 27.	4.5	87
40	DISPERSING ENVELOPE AROUND THE KEPLERIAN CIRCUMBINARY DISK IN L1551 NE AND ITS IMPLICATIONS FOR BINARY GROWTH. <i>Astrophysical Journal</i> , 2015, 814, 160.	4.5	7
41	Nature of highly extended CS(J=7-6) emission around low-mass protostar L483. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, .	0.0	0
42	NO KEPLERIAN DISK >10 AU AROUND THE PROTOSTAR B335: MAGNETIC BRAKING OR YOUNG AGE?. <i>Astrophysical Journal</i> , 2015, 812, 129.	4.5	57
43	SMA and ALMA studies of protoplanetary disk formation around low-mass protostars. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 126-129.	0.0	0
44	THE 2014 ALMA LONG BASELINE CAMPAIGN: FIRST RESULTS FROM HIGH ANGULAR RESOLUTION OBSERVATIONS TOWARD THE HL TAU REGION. <i>Astrophysical Journal Letters</i> , 2015, 808, L3.	8.3	877
45	OBSERVATIONS OF INFALLING AND ROTATIONAL MOTIONS ON A 1000 AU SCALE AROUND 17 CLASS 0 AND 0/I PROTOSTARS: HINTS OF DISK GROWTH AND MAGNETIC BRAKING?. <i>Astrophysical Journal</i> , 2015, 799, 193.	4.5	72
46	IRAS 16547-4247: A NEW CANDIDATE OF A PROTOCLUSTER UNVEILED WITH ALMA. <i>Astrophysical Journal Letters</i> , 2015, 798, L33.	8.3	10
47	A CHEMICAL VIEW OF PROTOSTELLAR-DISK FORMATION IN L1527. <i>Astrophysical Journal Letters</i> , 2014, 791, L38.	8.3	93
48	PHYSICAL AND CHEMICAL CHARACTERISTICS OF L1689-SMM16, AN OSCILLATING PRESTELLAR CORE IN OPHIUCHUS. <i>Astrophysical Journal</i> , 2014, 790, 129.	4.5	12
49	FORMATION OF A KEPLERIAN DISK IN THE INFALLING ENVELOPE AROUND L1527 IRS: TRANSFORMATION FROM INFALLING MOTIONS TO KEPLER MOTIONS. <i>Astrophysical Journal</i> , 2014, 796, 131.	4.5	166
50	COLD WATER VAPOR IN THE BARNARD 5 MOLECULAR CLOUD. <i>Astrophysical Journal Letters</i> , 2014, 788, L32.	8.3	10
51	TRANSITION FROM THE INFALLING ENVELOPE TO THE KEPLERIAN DISK AROUND L1551 IRS 5. <i>Astrophysical Journal</i> , 2014, 796, 70.	4.5	59
52	ALMA OBSERVATIONS OF INFALLING FLOWS TOWARD THE KEPLERIAN DISK AROUND THE CLASS I PROTOSTAR L1489 IRS. <i>Astrophysical Journal</i> , 2014, 793, 1.	4.5	99
53	THE DISAPPEARING ENVELOPE AROUND THE TRANSITIONAL CLASS I OBJECT L43. <i>Astrophysical Journal</i> , 2014, 789, 95.	4.5	3
54	Change in the chemical composition of infalling gas forming a disk around a protostar. <i>Nature</i> , 2014, 507, 78-80.	27.8	196

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55	ANGULAR MOMENTUM EXCHANGE BY GRAVITATIONAL TORQUES AND INFALL IN THE CIRCUMBINARY DISK OF THE PROTOSTELLAR SYSTEM L1551 NE. <i>Astrophysical Journal</i> , 2014, 796, 1.	4.5	37
56	EVIDENCE FOR INFALLING GAS OF LOW ANGULAR MOMENTUM TOWARD THE L1551 NE KEPLERIAN CIRCUMBINARY DISK. <i>Astrophysical Journal</i> , 2013, 776, 51.	4.5	21
57	UNVEILING THE EVOLUTIONARY SEQUENCE FROM INFALLING ENVELOPES TO KEPLERIAN DISKS AROUND LOW-MASS PROTOSTARS. <i>Astrophysical Journal</i> , 2013, 772, 22.	4.5	80
58	SUBSTELLAR-MASS CONDENSATIONS IN PRESTELLAR CORES. <i>Astrophysical Journal Letters</i> , 2012, 758, L25.	8.3	21
59	A KEPLERIAN CIRCUMBINARY DISK AROUND THE PROTOSTELLAR SYSTEM L1551 NE. <i>Astrophysical Journal</i> , 2012, 754, 52.	4.5	75
60	CARBON-CHAIN AND ORGANIC MOLECULES AROUND VERY LOW LUMINOSITY PROTOSTELLAR OBJECTS OF L1521F-IRS AND IRAM 04191+1522. <i>Astrophysical Journal</i> , 2011, 728, 101.	4.5	6
61	KINEMATICS AND PHYSICAL CONDITIONS OF THE INNERMOST ENVELOPE IN B335. <i>Astrophysical Journal</i> , 2011, 742, 57.	4.5	40
62	Skewed Distributions and Opposite Velocity Gradients of Submillimeter Molecular Lines in Low-Mass Protostellar Envelopes. <i>Publication of the Astronomical Society of Japan</i> , 2011, 63, 921-939.	2.5	12
63	Early Results of the 3 mm Spectral Line Survey toward the Lynds 1157 B1 Shocked Region. <i>Publication of the Astronomical Society of Japan</i> , 2011, 63, 459-472.	2.5	32
64	Arcsecond resolution images of the chemical structure of the low-mass protostar IRAS 16293-2422. <i>Astronomy and Astrophysics</i> , 2011, 534, A100.	5.1	85
65	HIGH-VELOCITY JETS AND SLOWLY ROTATING ENVELOPE IN B335. <i>Astrophysical Journal</i> , 2010, 710, 1786-1799.	4.5	42
66	THE INITIAL CONDITIONS OF CLUSTERED STAR FORMATION. II. N_2 OBSERVATIONS OF THE OPHIUCHUS B CORE. <i>Astrophysical Journal</i> , 2010, 708, 1002-1024.	4.5	42
67	MULTIPLE BIPOLAR MOLECULAR OUTFLOWS FROM THE L1551 IRS5 PROTOSTELLAR SYSTEM. <i>Astrophysical Journal</i> , 2009, 698, 184-197.	4.5	26
68	Millimeter and Submillimeter Wave Observations of the OMC 2/3 Region. III. An Extensive Survey for Molecular Outflows. <i>Astrophysical Journal</i> , 2008, 688, 344-361.	4.5	65
69	ASTE Observations of Warm Gas in Low-Mass Protostellar Envelopes: Different Kinematics between Submillimeter and Millimeter Lines. <i>Publication of the Astronomical Society of Japan</i> , 2007, 59, 1-13.	2.5	62
70	PROSAC: A Submillimeter Array Survey of Low-Mass Protostars. I. Overview of Program: Envelopes, Disks, Outflows, and Hot Cores. <i>Astrophysical Journal</i> , 2007, 659, 479-498.	4.5	221
71	Arcsecond Resolution Submillimeter HCN Imaging of the Binary Protostar IRAS 16293-2422. <i>Astrophysical Journal</i> , 2007, 662, 431-442.	4.5	46
72	Observations of chemical differentiation in clumpy molecular clouds. <i>Faraday Discussions</i> , 2006, 133, 63-82.	3.2	11

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73	Millimeter- and Submillimeter-Wave Observations of the OMC-2/3 Region. I. Dispersing and Rotating Core around the Intermediate-Mass Protostar MMS 7. <i>Astrophysical Journal</i> , 2006, 651, 933-944.	4.5	30
74	Properties and Formation of the Multiple Protostellar System L1551 IRS 5. <i>Astrophysical Journal</i> , 2006, 653, 425-436.	4.5	38
75	Organic Molecules in Low-Mass Protostellar Hot Cores: Submillimeter Imaging of IRAS 16293-2422. <i>Astrophysical Journal</i> , 2004, 616, L27-L30.	4.5	118
76	Imaging the Disk around TW Hydrae with the Submillimeter Array. <i>Astrophysical Journal</i> , 2004, 616, L11-L14.	4.5	166
77	Submillimeter Array Observations of L1551 IRS 5 in CS J = 7-6. <i>Astrophysical Journal</i> , 2004, 616, L15-L18.	4.5	29
78	H ₁₃ CO ⁺ and CH ₃ OH Line Observations of Prestellar Dense Cores in the TMC-1C Region. II. Internal Structure. <i>Astrophysical Journal</i> , 2003, 584, 818-831.	4.5	27
79	Interaction between the Outflow and the Core in IRAM 04191+1522. <i>Astrophysical Journal</i> , 2003, 590, 932-943.	4.5	19
80	Molecular Evolution in Collapsing Prestellar Cores. <i>Astrophysical Journal</i> , 2001, 552, 639-653.	4.5	193
81	The Ortho-to-Para Ratio and the Chemical Properties of C ₃ H ₂ in Dark Cloud Cores. <i>Publication of the Astronomical Society of Japan</i> , 2001, 53, 251-257.	2.5	19
82	A Comparison of the Spatial Distribution of H ₁₃ CO ⁺ , CH ₃ OH, and C ₃ S Emission and Its Implication in Heiles Cloud 2. <i>Astrophysical Journal</i> , 2000, 542, 367-379.	4.5	29
83	H ₁₃ CO ⁺ and CH ₃ OH Line Observations of Prestellar Dense Cores in the TMC-1C Region. <i>Astrophysical Journal</i> , 1998, 501, 723-730.	4.5	24