Shigehisa Takakuwa

List of Publications by Year
in descending order

83 papers	4,162 citations	136950 32 h-index	114465 63 g-index
84 all docs	84 docs citations	84 times ranked	2378 citing authors

#	Article	IF	Citations
1	THE 2014 ALMA LONG BASELINE CAMPAIGN: FIRST RESULTS FROM HIGH ANGULAR RESOLUTION OBSERVATIONS TOWARD THE HL TAU REGION. Astrophysical Journal Letters, 2015, 808, L3.	8.3	877
2	PROSAC: A Submillimeter Array Survey of Lowâ€Mass Protostars. I. Overview of Program: Envelopes, Disks, Outflows, and Hot Cores. Astrophysical Journal, 2007, 659, 479-498.	4.5	221
3	Change in the chemical composition of infalling gas forming a disk around a protostar. Nature, 2014, 507, 78-80.	27.8	196
4	Molecular Evolution in Collapsing Prestellar Cores. Astrophysical Journal, 2001, 552, 639-653.	4.5	193
5	Imaging the Disk around TW Hydrae with the Submillimeter Array. Astrophysical Journal, 2004, 616, L11-L14.	4.5	166
6	FORMATION OF A KEPLERIAN DISK IN THE INFALLING ENVELOPE AROUND L1527 IRS: TRANSFORMATION FROM INFALLING MOTIONS TO KEPLER MOTIONS. Astrophysical Journal, 2014, 796, 131.	4.5	166
7	Organic Molecules in Low-Mass Protostellar Hot Cores: Submillimeter Imaging of IRAS 16293-2422. Astrophysical Journal, 2004, 616, L27-L30.	4.5	118
8	SIGNS OF EARLY-STAGE DISK GROWTH REVEALED WITH ALMA. Astrophysical Journal, 2017, 834, 178.	4.5	112
9	ALMA OBSERVATIONS OF INFALLING FLOWS TOWARD THE KEPLERIAN DISK AROUND THE CLASS I PROTOSTAR L1489 IRS. Astrophysical Journal, 2014, 793, 1.	4.5	99
10	A CHEMICAL VIEW OF PROTOSTELLAR-DISK FORMATION IN L1527. Astrophysical Journal Letters, 2014, 791, L38.	8.3	93
11	ALMA OBSERVATIONS OF THE TRANSITION FROM INFALL MOTION TO KEPLERIAN ROTATION AROUND THE LATE-PHASE PROTOSTAR TMC-1A. Astrophysical Journal, 2015, 812, 27.	4.5	87
12	Arcsecond resolution images of the chemical structure ofÂtheÂlow-mass protostar IRASÂ16293-2422. Astronomy and Astrophysics, 2011, 534, A100.	5.1	85
13	UNVEILING THE EVOLUTIONARY SEQUENCE FROM INFALLING ENVELOPES TO KEPLERIAN DISKS AROUND LOW-MASS PROTOSTARS. Astrophysical Journal, 2013, 772, 22.	4.5	80
14	A KEPLERIAN CIRCUMBINARY DISK AROUND THE PROTOSTELLAR SYSTEM L1551 NE. Astrophysical Journal, 2012, 754, 52.	4.5	75
15	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?. Astrophysical Journal, 2015, 799, 193.	4.5	72
16	Millimeterâ€and Submillimeterâ€Wave Observations of the OMCâ€2/3 Region. III. An Extensive Survey for Molecular Outflows. Astrophysical Journal, 2008, 688, 344-361.	4.5	65
17	ASTE Observations of Warm Gas in Low-Mass Protostellar Envelopes: Different Kinematics between Submillimeter and Millimeter Lines. Publication of the Astronomical Society of Japan, 2007, 59, 1-13.	2.5	62
18	TRANSITION FROM THE INFALLING ENVELOPE TO THE KEPLERIAN DISK AROUND L1551 IRS 5. Astrophysical Journal, 2014, 796, 70.	4.5	59

#	Article	IF	Citations
19	NO KEPLERIAN DISK >10 AU AROUND THE PROTOSTAR B335: MAGNETIC BRAKING OR YOUNG AGE?. Astrophysical Journal, 2015, 812, 129.	4.5	57
20	Spiral Arms, Infall, and Misalignment of the Circumbinary Disk from the Circumstellar Disks in the Protostellar Binary System L1551 NE. Astrophysical Journal, 2017, 837, 86.	4.5	52
21	ALMA Observations of the Protostar L1527 IRS: Probing Details of the Disk and the Envelope Structures. Astrophysical Journal, 2017, 849, 56.	4.5	52
22	STACKING SPECTRA IN PROTOPLANETARY DISKS: DETECTING INTENSITY PROFILES FROM HIDDEN MOLECULAR LINES IN HD 163296. Astrophysical Journal, 2016, 832, 204.	4.5	47
23	Arcsecondâ€Resolution Submillimeter HCN Imaging of the Binary Protostar IRAS 16293â˜2422. Astrophysical Journal, 2007, 662, 431-442.	4.5	46
24	HL Tau Disk in HCO⁺ (3â€“2) and (1â€“0) with ALMA: Gas Density, Temperature, Gap, and One-arm Spiral. Astrophysical Journal, 2019, 880, 69.	4.5	45
25	GAS GAPS IN THE PROTOPLANETARY DISK AROUND THE YOUNG PROTOSTAR HL TAU. Astrophysical Journal Letters, 2016, 820, L25.	8.3	44
26	HIGH-VELOCITY JETS AND SLOWLY ROTATING ENVELOPE IN B335. Astrophysical Journal, 2010, 710, 1786-1799.	4.5	42
27	THE INITIAL CONDITIONS OF CLUSTERED STAR FORMATION. II. N₂H⁺OBSERVATIONS OF THE OPHIUCHUS B CORE. Astrophysical Journal, 2010, 708, 1002-1024.	4.5	42
28	How Do Stars Gain Their Mass? A JCMT/SCUBA-2 Transient Survey of Protostars in Nearby Star-forming Regions. Astrophysical Journal, 2017, 849, 43.	4.5	42
29	KINEMATICS AND PHYSICAL CONDITIONS OF THE INNERMOST ENVELOPE IN B335. Astrophysical Journal, 2011, 742, 57.	4.5	40
30	Properties and Formation of the Multiple Protostellar System L1551 IRS 5. Astrophysical Journal, 2006, 653, 425-436.	4.5	38
31	ANGULAR MOMENTUM EXCHANGE BY GRAVITATIONAL TORQUES AND INFALL IN THE CIRCUMBINARY DISK OF THE PROTOSTELLAR SYSTEM L1551 NE. Astrophysical Journal, 2014, 796, 1.	4.5	37
32	Polarization Properties and Magnetic Field Structures in the High-mass Star-forming Region W51 Observed with ALMA. Astrophysical Journal, 2018, 855, 39.	4.5	34
33	Early Results of the 3 mm Spectral Line Survey toward the Lynds 1157 B1 Shocked Region. Publication of the Astronomical Society of Japan, 2011, 63, 459-472.	2.5	32
34	The Sunyaevâ€“Zel'dovich effect at 5â€³: RX J1347.5â˜1145 imaged by ALMA. Publication of the Astronomical Society of Japan, 2016, 68, .	2.5	32
35	Millimeterâ€•and Submillimeterâ€Wave Observations of the OMCâ€2/3 Region. I. Dispersing and Rotating Core around the Intermediateâ€Mass Protostar MMS 7. Astrophysical Journal, 2006, 651, 933-944.	4.5	30
36	Submillimeter Array Observations of L1551 IRS 5 in CS J = 7-6. Astrophysical Journal, 2004, 616, L15-L18.	4.5	29

#	Article	IF	Citations
37	Implications of a Hot Atmosphere/Corino from ALMA Observations toward NGC 1333 IRAS 4A1. Astrophysical Journal, 2019, 872, 196.	4.5	29
38	A Comparison of the Spatial Distribution of H13CO+, CH3OH, and C34S Emission and Its Implication in Heiles Cloud 2. Astrophysical Journal, 2000, 542, 367-379.	4.5	29
39	H13CO+and CH3OH Line Observations of Prestellar Dense Cores in the TMCâ€1C Region. II. Internal Structure. Astrophysical Journal, 2003, 584, 818-831.	4.5	27
40	MULTIPLE BIPOLAR MOLECULAR OUTFLOWS FROM THE L1551 IRS5 PROTOSTELLAR SYSTEM. Astrophysical Journal, 2009, 698, 184-197.	4.5	26
41	1000 au exterior arcs connected to the protoplanetary disk around HL Tauri. Astronomy and Astrophysics, 2017, 608, A134.	5.1	25
42	Disk Structure around the Class I Protostar L1489 IRS Revealed by ALMA: A Warped-disk System. Astrophysical Journal, 2020, 893, 51.	4.5	24
43	H13CO+and CH3OH Line Observations of Prestellar Dense Cores in the TMCâ€1C Region. Astrophysical Journal, 1998, 501, 723-730.	4.5	24
44	SUBSTELLAR-MASS CONDENSATIONS IN PRESTELLAR CORES. Astrophysical Journal Letters, 2012, 758, L25.	8.3	21
45	EVIDENCE FOR INFALLING GAS OF LOW ANGULAR MOMENTUM TOWARD THE L1551 NE KEPLERIAN CIRCUMBINARY DISK. Astrophysical Journal, 2013, 776, 51.	4.5	21
46	Structure of a Protobinary System: An Asymmetric Circumbinary Disk and Spiral Arms. Astrophysical Journal, 2019, 871, 36.	4.5	21
47	A Cool Core Disturbed: Observational Evidence for the Coexistence of Subsonic Sloshing Gas and Stripped Shock-heated Gas around the Core of RX J1347.5â€“1145. Astrophysical Journal, 2018, 866, 48.	4.5	20
48	The Ortho-to-Para Ratio and the Chemical Properties of C3 H2 in Dark Cloud Cores. Publication of the Astronomical Society of Japan, 2001, 53, 251-257.	2.5	19
49	Interaction between the Outflow and the Core in IRAM 04191+1522. Astrophysical Journal, 2003, 590, 932-943.	4.5	19
50	ROTATIONALLY DRIVEN FRAGMENTATION IN THE FORMATION OF THE BINARY PROTOSTELLAR SYSTEM L1551 IRS 5. Astrophysical Journal, 2016, 826, 153.	4.5	17
51	Misaligned Twin Molecular Outflows from the Class 0 Protostellar Binary System VLA 1623A Unveiled by ALMA. Astrophysical Journal, 2021, 912, 34.	4.5	15
52	Extremely Dense Cores Associated with Chandra Sources in Ophiuchus A: Forming Brown Dwarfs Unveiled?. Astrophysical Journal, 2018, 866, 141.	4.5	14
53	Constraint on ionâ€“neutral drift velocity in the Class 0 protostar B335 from ALMA observations. Astronomy and Astrophysics, 2018, 615, A58.	5.1	14
54	JCMT POL-2 and ALMA Polarimetric Observations of 6000â€“100 au Scales in the Protostar B335: Linking Magnetic Field and Gas Kinematics in Observations and MHD Simulations. Astrophysical Journal, 2019, 871, 243.	4.5	14

#	Article	IF	Citations
55	Possible Counterrotation between the Disk and Protostellar Envelope around the Class I Protostar IRAS 04169+2702. Astrophysical Journal, 2018, 865, 51.	4.5	13
56	Skewed Distributions and Opposite Velocity Gradients of Submillimeter Molecular Lines in Low-Mass Protostellar Envelopes. Publication of the Astronomical Society of Japan, 2011, 63, 921-939.	2.5	12
57	PHYSICAL AND CHEMICAL CHARACTERISTICS OF L1689-SMM16, AN OSCILLATING PRESTELLAR CORE IN OPHIUCHUS. Astrophysical Journal, 2014, 790, 129.	4.5	12
58	Physical and Chemical Conditions of the Protostellar Envelope and the Protoplanetary Disk in HL Tau. Astrophysical Journal, 2018, 869, 59.	4.5	12
59	Protostellar Evolution in Serpens Main: Possible Origin of Disk-size Diversity. Astrophysical Journal, 2019, 887, 209.	4.5	12
60	Observations of chemical differentiation in clumpy molecular clouds. Faraday Discussions, 2006, 133, 63-82.	3.2	11
61	FORMATION OF THE UNEQUAL-MASS BINARY PROTOSTARS IN L1551NE BY ROTATIONALLY DRIVEN FRAGMENTATION. Astrophysical Journal, 2016, 831, 90.	4.5	11
62	Deeply cooled core of the Phoenix galaxy cluster imaged by ALMA with the Sunyaevâ€“Zelâ€™dovich effect. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	11
63	COLD WATER VAPOR IN THE BARNARD 5 MOLECULAR CLOUD. Astrophysical Journal Letters, 2014, 788, L32.	8.3	10
64	IRAS 16547â€“4247: A NEW CANDIDATE OF A PROTOCLUSTER UNVEILED WITH ALMA. Astrophysical Journal Letters, 2015, 798, L33.	8.3	10
65	ALMA Observations of SMM11 Reveal an Extremely Young Protostar in Serpens Main Cluster. Astrophysical Journal Letters, 2017, 850, L2.	8.3	10
66	Circumbinary Disks of the Protostellar Binary Systems in the L1551 Region. Astrophysical Journal, 2020, 898, 10.	4.5	10
67	The Distinct Evolutionary Nature of Two Class 0 Protostars in Serpens Main SMM4. Astrophysical Journal, 2018, 863, 19.	4.5	9
68	The Infall Motion in the Low-mass Protostellar Binary NGC 1333 IRAS 4A1/4A2. Astrophysical Journal, 2019, 885, 98.	4.5	8
69	DISPERSING ENVELOPE AROUND THE KEPLERIAN CIRCUMBINARY DISK IN L1551 NE AND ITS IMPLICATIONS FOR BINARY GROWTH. Astrophysical Journal, 2015, 814, 160.	4.5	7
70	TRACING INFALL AND ROTATION ALONG THE OUTFLOW CAVITY WALLS OF THE L483 PROTOSTELLAR ENVELOPE. Astrophysical Journal, 2016, 833, 55.	4.5	7
71	Transition from Ordered Pinched to Warped Magnetic Field on a 100 au Scale in the Class 0 Protostar B335. Astrophysical Journal, 2020, 893, 54.	4.5	7
72	CARBON-CHAIN AND ORGANIC MOLECULES AROUND VERY LOW LUMINOSITY PROTOSTELLAR OBJECTS OF L1521F-IRS AND IRAM 04191+1522. Astrophysical Journal, 2011, 728, 101.	4.5	6

#	Article	IF	Citations
73	ALMA Observations of the Ï•Ophiuchus B2 Region. I. Molecular Outflows and Their Driving Sources. Astrophysical Journal, 2019, 871, 86.	4.5	6
74	Signs of outflow feedback from a nearby young stellar object on the protostellar envelope around HL Tauri. Astronomy and Astrophysics, 2019, 623, A96.	5.1	6
75	Carbon-chain Chemistry versus Complex-organic-molecule Chemistry in Envelopes around Three Low-mass Young Stellar Objects in the Perseus Region. Astrophysical Journal, 2021, 910, 141.	4.5	6
76	Misaligned Circumstellar Disks and Orbital Motion of the Young Binary XZ Tau. Astrophysical Journal, 2021, 919, 55.	4.5	6
77	Chemical Compositions in the Vicinity of Protostars in Ophiuchus. Astrophysical Journal, 2021, 922, 152.	4.5	4
78	THE DISAPPEARING ENVELOPE AROUND THE TRANSITIONAL CLASS I OBJECT L43. Astrophysical Journal, 2014, 789, 95.	4.5	3
79	ALMA Observations of Layered Structures due to CO Selective Dissociation in the Ï•Ophiuchi A Plane-parallel PDR. Astrophysical Journal, 2019, 875, 62.	4.5	3
80	Vibrationally Excited Lines of HC₃N Associated with the Molecular Disk around the G24.78+0.08 A1 Hypercompact H ii Region. Astrophysical Journal, 2022, 931, 99.	4.5	3
81	Theoretical Models of Protostellar Binary and Multiple Systems with AMR Simulations. Journal of Physics: Conference Series, 2017, 837, 012009.	0.4	1
82	Nature of highly extended CS(J=7-6) emission around low-mass protostar L483. Proceedings of the International Astronomical Union, 2015, 11, .	0.0	0
83	SMA and ALMA studies of protoplanetary disk formation around low-mass protostars. Proceedings of the International Astronomical Union, 2015, 11, 126-129.	0.0	0