YAN GONG

Address: No.10 Yuanhua Road, Qixia District, Nanjing 210023, China
E-mail: ygong@pmo.ac.cn, ygong@mpifr-bonn.mpg.de, gongyan2444@gmail.com
Homepage: https://gongyan2444.github.io
ORCID: https://orcid.org/0000-0002-3866-414X

I am an astronomer working at Purple Mountain Observatory and Max-Planck-Institut für Radioastronomie.

Updated on September 22, 2025

RESEARCH INTERESTS

- **Molecular clouds and star formation**
- **Astrochemistry**
- **Circumstellar envelopes of late-type stars**
- **Astronomical masers**

EDUCATION

- **Purple Mountain Observatory** **2009.09–2016.07**
  Ph.D in Astrophysics
  Thesis: *A search for triggered star formation and a 1.3 cm spectral line survey*
  Advisors: Prof. Dr. Rui-qing Mao & Dr. Christian Henkel
- **Central China Normal University** **2005.09–2009.07**
  B.Sc. in physics

EMPLOYMENT

- **Purple Mountain Observatory** **2024.12–present**
  Research Associate
- **Purple Mountain Observatory** **2024.01–2024.12**
  Guest scientist
- **Max-Planck-Institut für Radioastronomie** **2024.01–present**
  Guest scientist
- **Max-Planck-Institut für Radioastronomie** **2021.09–2023.12**
  Scientific Staff
- **Max-Planck-Institut für Radioastronomie** **2017.09–2021.09**
  Postdoc
- **Purple Mountain Observatory** **2016.06–2017.08**
  Research assistant

HONOR AND AWARDS

- 2017 Excellent Doctoral Dissertation of Chinese Academy of Sciences
- 2016 The Zhu-Li Yuehua outstanding doctoral award of Chinese Academy of Sciences
- 2012–2015 MPG-CAS Joint Doctoral Promotion Program
- 2011–2012 Merit Student, University of Chinese Academy of Sciences

REFEREEING DUTIES

PASJ, MNRAS, RAA, ALMA, FAST, JCMT

SKILLS OF NOTE

Software/Language	GILDAS, python, IDL, CASA, MIRIAD (basic), html/css (basic), markdown, NOD3, DS9, LATEX, KARMA, MONTAGE, vi, emacs
Operating systems	Linux, Mac OS, Windows
Observing experience	IRAM-30 m (>1000 hours,on site+remote; PI: 262 hours); PMO-13.7 m (>800 hours, on site/service); Effelsberg-100 m (>2000 hours, on site+remote; PI: >100 hours);

	APEX (>300 hours, four weeks, on site+remote; PI: 398 hours); Onsala-20 m (a week, onsite); SMT-10 m (a week, remote), ALMA (17.2 hours), ACA (∼240 hours), VLA (>100 hours; PI: 15 hours), SMA (>50 hours; PI: 27 hours)
Speaking language	Chinese (mother tongue), English (fluent), and German (A1)

PROFESSIONAL REFERENCES

Prof. Dr. Rui-qing Mao (Purple Mountain Observatory)
Deputy director of Purple Mountain Observatory
E-mail: rqmao@pmo.ac.cn

Prof. Dr. Jing Li (Purple Mountain Observatory)
Head of Millimeter and Submillimeter Astronomy group
E-mail: lijing@pmo.ac.cn

Prof. Dr. Arshia M. Jacob (Universität zu Köln)
Head of Galactic Ecosystems group
E-mail: ajacob@ph1.uni-koeln.de

Dr. Christian Henkel (Max-Planck-Institut für Radioastronomie)
Staff of Dept. Millimeter and Submillimeter Astronomy
E-mail: chenkel@mpifr-bonn.mpg.de

Dr. Arnaud Belloche (Max-Planck-Institut für Radioastronomie)
Staff of Dept. Millimeter and Submillimeter Astronomy
E-mail: belloche@mpifr-bonn.mpg.de

Dr. Wolfgang Reich (Max-Planck-Institut für Radioastronomie)
Former station manager of the Effelsberg 100m telescope
E-mail: wreich@mpifr-bonn.mpg.de

PRESENTATIONS

- 2025.09 [Contributed talk] Xiangshan Forum, Symposium on Submm-wave/THz Astronomy Frontier Sciences and key Technologies, Delingha, China, "Astrochemistry and the origin of life"
- 2025.08 [Contributed talk] Special Colloquium, Max Planck Institute for Radio Astronomy, Bonn, Germany, "China's Roadmap for Submillimeter Astronomy"
- 2025.08 [Contributed talk] WE-Heraeus Seminar titled, "Charting the Cosmos: From Cosmic Stellar Nurseries to Evolved Stars using High Powered Telescopes", Wasem Kloster Engelthal, Ingelheim, Germany, "Molecules in the Magellanic Clouds"
- 2025.08 [Contributed talk] The 2025 Symposium on Molecular Clouds and Star Formation, Southwest Jiaotong University, Emeishan, China, "Effelsberg Continuum Results from the GLOSTAR survey"
- 2025.07 [Invited talk] XAO, Urumqi, China, "Molecules in the Magellanic Clouds"
- 2025.03 [Contributed talk] Gaochun, Nanjing, China, "[CII] line intensity mapping the epoch of reionization"
- 2024.12 [Contributed talk] 25th East Asia Submillimeter-wave Receiver Technology Workshop, Daejeon, Korea, "Tracing Molecular Clouds from Pristine to Extreme: Insights from $HCNH^+$ observations"
- 2024.11 [Invited talk] KIAA Colloquium, Beijing, China, "Exploring the Cycle of the Interstellar Medium: Insights from the GLOSTAR Survey, Molecular Chemistry, and Maser Studies"
- 2024.10 [Invited talk] International Symposium on Polar Sciences – The 40th anniversary of CHINARE, Shanghai, China, "Unveiling the Mystery of Stellar Physics with THz HCN Lasers: Resolving Stellar Atmpspheres from Dome A"
- 2024.10 [Contributed talk] The Eleventh Interstellar Physics and Chemistry workshop, Lishui, China, "Tracing Molecular Clouds from Pristine to Extreme: Insights from $HCNH^+$ observations"
- 2024.08 [invited talk] QTT workshop, XAO, Urumqi, China, "*Studying ISM with QTT*"
- 2024.04 [invited talk] Martes talk #42, Nanjing University, Nanjing, China, "*Decoding interstellar and circumstellar environments with molecular tools*"
- 2023.08 [invited talk], Shanghai Astronomical Observatory, Shanghai, China, "*Recent progress on the GLOSTAR survey*"
- 2023.07 [invited talk], Zhejiang lab, Hangzhou, China, "*Decoding interstellar and circumstellar environments*

with molecular tools"
- 2023.07 [invited talk], Anhui Normal University, Wuhu, China, "*Recent progress on the GLOSTAR survey*"
- 2023.07 [invited talk], PMO Youth Forum, Purple Mountain Observatory, Nanjing, China, "*Recent progress on the GLOSTAR survey*"
- 2021.06 [e-poster], EAS2021, "*Physical and chemical structure of the Serpens filament: fast formation and gravity-driven accretion*"
- 2020.11 [invited-talk (on-line)] Guangzhou University, China, "*The Serpens filament as a key to the initial conditions of filament evolution*"
- 2020.02 [contributed talk] APEX2020, Schloss Ringberg, Germany, "*The Serpens filament as a key to the initial conditions of filament evolution*"
- 2019.06 [invited talk] the CASSACA & Calan star formation joint meeting, CASSACA, Santiago, Chile, "*L1188: a tangoing molecule cloud complex*"
- 2018.06 [invited talk] Star and Planet Formation Seminar, ESO, Garching, Germany, "*The Serpens filament: at the onset of slightly supercritical collapse*"
- 2016.11 [contributed talk] The Chinese Annual Astronomy/Astrophysics Meeting, Wuhan, China, "*Star formation triggered by a collision of molecular clouds in L1188*"
- 2016.04 [contributed talk] JCMT PI Science, Mitaka, Japan, "*Studying the thermal state of dense gas with JCMT*"
- 2015.08 [contributed talk] Zhangheng academic seminar, Delingha, China, "*Molecular clouds and star formation toward the Galactic plane within* $216.25^\circ \leq l \leq 218.75^\circ$ *and* $0.75^\circ \leq b \leq 1.25^\circ$"
- 2015.07 [invited talk] Scientific talk at XAO, Urumqi, China, "*A 1.3 cm line survey toward Orion KL*"
- 2015.07 [contributed talk] MPIFR group meeting, Bonn, Germany, "*A 1.3 cm line survey toward IRC +10216*"
- 2013.07 [poster] Protostars & Planets VI,, Heidelberg, Germnay, "*Triggered Star Formation at the End of the Galactic Bar?*"
- 2012.08 [poster] The 28th IAU, Beijing, China, "*Molecular gas around infrared dust bubbles*"

REFEREED PUBLICATIONS

A full list via ADS

14 first-author paper, 6 second-author paper, 4 third-author paper

71. Scientific Objectives of the Xue-shan-mu-chang 15-meter Submillimeter Telescope
XSMT Project Collaboration Group; Ao, Yiping; Chang, Jin; Chen, Zhiwei; Cui, Xiangqun; Du, Kaiyi; Du, Fujun; **Gong, Yan**; Han, Zhanwen; Herczeg, Gregory; Ho, Luis C.; Hu, Jie; Jing, Yipeng; Jiao, Sihan; Ju, Binggang; Li, Jing; Li, Xiaohu; Li, Xiangdong; Lin, Lingrui; Lin, Zhenhui; Liu, Daizhong; Liu, Dong; Liu, Guoxi; Lou, Zheng; Lu, Dengrong; Mao, Ruiqing; Miao, Wei; Qian, Yuan; Qiu, Keping; Shen, Zhiqiang; Shi, Yong; Shi, Shengcai; Shu, Chenggang; Sun, Jixian; Sun, Xiaohui; Sun, Yichen; Wang, Junzhi; Wang, Ke; Wang, Na; Wang, Ran; Wang, Tao; Wu, Jingwen; Wu, Xiangping; Wu, Xuefeng; Xiao, Di; Yao, Qijun; Yao, Yong; Zhang, Wen; Zhang, Xuguo; Zhang, Zhiyu; Zheng, Yuanpeng, 2025, Science China Physics, Mechanics & Astronomy, accepted

70. Ammonia in the hot core W51-IRS2: Maser line profiles, variability and saturation
Alkhuja, E. ; Henkel, C. ; Yan, Y. T. ; Winkel, B. ; **Gong, Y.** ; Wu, G. ; Wilson, T. L. ; Wootten, A. ; Malawi, A., 2025, A&A, 700, A192

69. Network of velocity-coherent filaments formed by supersonic turbulence in a very-high-velocity HI cloud phys.org
Liu, Xunchuan ; Liu, Tie ; Li, Pak-Shing ; Mai, Xiaofeng ; Henkel, Christian ; Goldsmith, Paul F. ; Qin, Sheng-Li ; **Gong, Yan** ; Lu, Xing ; Xu, Fengwei ; Luo, Qiuyi ; Liu, Hong-Li ; Zhang, Tianwei ; Cheng, Yu ; Di, Yihuan ; Wu, Yuefang ; Gu, Qilao ; Tang, Ningyu ; Yang, Aiyuan ; Shen, Zhiqiang, 2025, Nature Astronomy, accepted

68. Molecular Clouds at the Edge of the Galaxy I. Variation of CO J=2-1/1-0 Line Ratio phys.org
Luo, C. S. ; Tang, X. D. ; Henkel, C. ; Menten, K. M. ; Sun, Y. ; **Gong, Y.** ; Zheng, X. W. ; Li, D. L. ; He, Y. X. ; Lu, X. ; Ao, Y. P. ; Chen, X. P. ; Liu, T. ; Wang, K. ; Wu, J. W. ; Esimbek, J. ; Zhou, J. J. ; Qiu, J. J. ; Zhao, X. ; Li, J. S. ; Zhao, Q. ; Liu, L. D., 2025, A&A, 698, 54

67. New submillimetre HCN lasers in carbon-rich evolved stars
Yang, W. ; Wong, K. T. ; Wiesemeyer, H. ; Menten, K. M. ; **Gong, Y.** ; Cernicharo, J. ; De Beck, E. ; Klein, B. ; Durán, C. A., 2025, A&A, 696, A60

66. Shock-induced $HCNH^+$ abundance enhancement in the heart of the starburst galaxy NGC 253 unveiled by ALCHEMI
Gong, Y. ; Henkel, C. ; Bop, C. T. ; Mangum, J. G. ; Behrens, E. ; Du, F. J. ; Zhang, S. B. ; Martin, S. ; Menten, K. M. ; Harada, N. ; Bouvier, M. ; Tang, X. D. ; Tanaka, K. ; Viti, S. ; Yan, Y. T. ; Yang, W. ; Mao, R. Q. ; Quan, D. H., 2025, A&A, 696, A31

65. Molecular inventory of a young eruptive star's environment – Case study of the classical FU Orionis star V1057 Cyg
Szabó, Zs. M. ; Belloche, A. ; Menten, K. M. ; **Gong, Y.** ; Kóspál, Á. ; Ábrahám, P. ; Yang, W. ; Cyganowski, C. J. ; Wyrowski, F., 2025, A&A, 694, A329

64. Inadequate turbulent support in low-metallicity molecular clouds
Lin, Lingrui ; Zhang, Zhi-Yu ; Wang, Junzhi ; Papadopoulos, Padelis P. ; Shi, Yong ; **Gong, Yan** ; Sun, Yan ; Sun, Yichen ; Bisbas, Thomas G. ; Romano, Donatella ; Li, Di ; Liu, Hauyu Baobab ; Qiu, Keping ; Liu, Lijie ; Luo, Gan ; Tsai, Chao-Wei ; Wu, Jingwen ; Feng, Siyi ; Zhang, Bo 2025, NatAs, 9, 406

63. Dynamic Massive Star Formation: Radio Flux Variability in Regions
Yang, A. Y. ; Thompson, M. A. ; Urquhart, J. S. ; Brunthaler, A. ; Menten, K. M. ; **Gong, Yan** ; Tsai, Chao-Wei ; Patel, A. L. ; Li, D. ; Cotton, W. D. 2025, A&A, 694, A26

62. Nitrogen Abundance Distribution in the inner Milky Way
Pineda, Jorge L. ; Horiuchi, Shinji ; Anderson, L. D. ; Luisi, Matteo ; Langer, William D. ; Goldsmith, Paul F. ; Kuiper, Thomas B. H. ; Fischer, Christian ; **Gong, Yan**; Brunthaler, Andreas ; Rugel, Michael ; Menten, Karl M. , 2024, ApJ, 932, 89

61. A global view on star formation: The GLOSTAR Galactic plane survey. XI. Radio source catalog IV: $2^\circ < l < 28^\circ$, $36^\circ < l < 60^\circ$ and $|b| < 1^\circ$ A&A cover page
Medina, S. -N. X. ; Dzib, S. A. ; Urquhart, J. S. ; Yang, A. Y. ; Brunthaler, A. ; Menten, K. M. ; Wyrowski, F. ; Cotton, W. D. ; Cheema, A. ; Dokara, R. ; **Gong, Y.** ; Khan, S. ; Nguyen, H. ; Ortiz-Leon, G. N. ; Rugel, M. R. ; Veena, V. S. ; Beuther, H. ; Csengeri, T. ; Pandian, J. D. ; Roy, N., 2024, A&A, 689, A196

60. Hyperfine structure of the methanol molecule as traced by Class I methanol masers
Agafonova, I. I. ; Bayandina, O. S.; **Gong, Y.** ; Henkel, C. ; Kim, Kee-Tae ; Kozlov, M. G. ; Lankhaar, B. ; Levshakov, S. A. ; Menten, K. M. ; Ubachs, W. ; Val'tts, I. E. ; Yang, W., 2024, MNRAS, 533, 1714

59. A global view on star formation: The GLOSTAR Galactic plane survey X. Galactic HII region catalog using radio recombination lines
Khan, S. ; Rugel, M. R. ; Brunthaler, A. ; Menten, K. M. ; Wyrowski, F. ; Urquhart, J. S. ; **Gong, Y.** ; Yang, A. Y.; Nguyen, H. ; Dokara, R. ; Dzib, S. A. ; Medina, S. -N. X. ; Ortiz-León, G. N. ; Pandian, J. D. ; Beuther, H. ; Veena, V. S. ; Neupane, S. ; Cheema, A. ; Reich, W. ; Roy, N., 2024, A&A, 689, A81

58. Spatial Distribution of C_4H and c-C_2H_2 in Cold Molecular Cores
Liu, Yijia; Wang, Junzhi; Liu, Shu; Tang, Ningyu; **Gong, Yan**; Li, Yuqiang; Li, Juan; Luo, Rui; Xu, Yani, 2024, ApJ, 969, 33

57. Kinetic temperature of massive star-forming molecular clumps measured with formaldehyde V. The massive filament DR21
Zhao, X. ; Tang, X. D. ; Henkel, C. ; **Gong, Y.** ; Lin, Y. ; Li, D. L. ; He, Y. X. ; Ao, Y. P. ; Lu, X. ; Liu, T. ; Sun, Y. ; Wang, K. ; Chen, X. P. ; Esimbek, J. ; Zhou, J. J. ; Wu, J. W. ; Qiu, J. J. ; Zheng, X. W. ; Li, J. S. ; Luo, C. S. ; Zhao, Q. 2024, A&A, 687, A207

56. First detection of CF^+ in the Large Magellanic Cloud
Gong, Yan, Menten Karl M., Jacob Arshia M., Christian Henkel, Chen C.-H. Rosie, 2024, A&A, 687, A29

55. Discovery of widespread non-metastable ammonia masers in the Milky Way
Yan, Y. T. ; Henkel, C. ; Menten, K. M. ; Wilson, T. L. ; Wootten, A. ; **Gong, Y.** ; Wyrowski, F. ; Yang, W. ; Brunthaler, A. ; Kraus, A. ; Winkel, B., 2024, A&A, 686, A205

54. Magnetically Aligned Striations in the L914 Filamentary Cloud
Sun, Li ; Chen, Xuepeng ; Fang, Min ; Zhang, Shaobo ; **Gong, Yan** ; Feng, Jiancheng ; Li, Xuefu ; Yan, Qing-Zeng ; Yang, Ji, 2024, AJ, 167, 176

53. Massive clumps in W43-main: Structure formation in an extensively shocked molecular cloud
Lin, Yuxin ; Wyrowski, Friedrich ; Liu, Hauyu Baobab ; **Gong, Yan**; Sipilä, Olli ; Izquierdo, Andrés F. ; Csengeri, Timea ; Ginsburg, Adam ; Li, Guang-Xing ; Spezzano, Silvia ; Pineda, Jaime E. ; Leurini, Silvia ; Caselli, Paola ; Menten, Karl M., 2024, A&A, 685, 101

52. The first Ka-band (26.1-35 GHz) blind line survey towards Orion KL
Liu, Xunchuan ; Liu, Tie ; Shen, Zhiqiang ; Qin, Sheng-Li ; Luo, Qiuyi ; **Gong, Yan** ; Cheng, Yu ; Henkel, Christian ; Gu, Qilao ; Zhu, Fengyao ; Zhang, Tianwei ; Zhao, Rongbing ; Wu, Yajun ; Li, Bin ; Li, Juan ; Zhao, Zhang ; Wang, Jinqing ; Zhong, Weiye ; Liu, Qinghui ; Xia, Bo ; Fu, Li ; Yan, Zhen ; Zhang, Chao ; Wang, Lingling ; Ye, Qian ; Yang, Aiyuan ; Xu, Fengwei ; Zhang, Chao ; Dutta, Somnath ; Li, Shanghuo ; Liu, Meizhu ; Yang, Dongting ; Li, Chuanshou ; Chen, Li 2024, ApJS, 271, 3

51. Maser Investigation toward Off-Plane Stars (MIOPS): detection of SiO masers in the Galactic thick disk and halo
Yang, Wenjin ; Wu, Yuanwei ; **Gong, Yan** ; Mauron, Nicolas ; Zhang, Bo ; Menten, Karl M. ; Mai, Xiaofeng ; Liu, Dejian ; Li, Juan ; Li, Jingjing, 2024, ApJ, 961, 190

50. A global view on star formation: The GLOSTAR Galactic plane survey. IX. Radio Source Catalog III: $2^\circ < l < 28^\circ$, $36^\circ < l < 40^\circ$, $56^\circ < l < 60^\circ$ and $|b| < 1^\circ$, VLA B-configuration
Yang, A. Y. ; Dzib, S. A. ; Urquhart, J. S. ; Brunthaler, A. ; Medina, S. -N. X. ; Menten, K. M. ; Wyrowski, F. ; Ortiz-León, G. N. ; Cotton, W. D. ; **Gong, Y.** ; Dokara, R. ; Rugel, M. R. ; Beuther, H. ; Pandian, J. D. ; Csengeri, T. ; Veena, V. S. ; Roy, N. ; Nguyen, H. ; Winkel, B. ; Ott, J. ; Carrasco-Gonzalez, C. ; Khan, S. ; Cheema, A., 2023, A&A, 680, A92

49. Sulfur Isotope Ratios in the Large Magellanic Cloud
Gong, Y. ; Henkel, C. ; Menten, K. M. ; R. Chen, C. -H. ; Zhang, Z. Y. ; Yan, Y. T. ; Weiss, A. ; Langer, N. ; Wang, J. Z. ; Mao, R. Q. ; Tang, X. D. ; Yang, W. ; Ao, Y. P. ; Wang, M., 2023, A&A, 679, L6

48. Protonated hydrogen cyanide as a tracer of pristine molecular gas
Gong, Y. ; Du, F. J. ; Henkel, C. ; Jacob, A. M. ; Belloche, A. ; Wang, J. Z. ; Menten, K. M. ; Yang, W. ; Quan, D. H. ; Bop, C. T. ; Ortiz-León, G. N. ; Tang, X. D. ; Rugel, M. R. ; Liu, S., 2023, A&A, 679, A39

47. A global view on star formation: The GLOSTAR Galactic plane survey VIII. Formaldehyde absorption in Cygnus X
Gong, Y. ; Ortiz-León, G. N. ; Rugel, M. R. ; Menten, K. M. ; Brunthaler, A. ; Wyrowski, F. ; Henkel, C. ; Beuther, H. ; Dzib, S. A. ; Urquhart, J. S. ; Yang, A. Y. ; Pandian, J. D. ; Dokara, R. ; Veena, V. S. ; Nguyen, H. ; Medina, S. -N. X. ; Cotton, W. D. ; Reich, W. ; Winkel, B. ; Müller, P. ; Skretas, I. ; Csengeri, T. ; Khan, S. ; Cheema, A., 2023, A&A, 678, A130

46. High-resolution APEX/LAsMA ^{12}CO and ^{13}CO (3-2) observation of the G333 giant molecular cloud complex : I. Evidence for gravitational acceleration in hub-filament systems
Zhou, J. W. ; Wyrowski, F. ; Neupane, S. ; Urquhart, J. S. ; Evans, N. J., II ; Vázquez-Semadeni, E. ; Menten, K. M. ; **Gong, Y.** ; Liu, T.; 2023, A&A, 676, A69

45. ATLASGAL: 3-mm class I methanol masers in high-mass star formation regions
Yang, W. ; **Gong, Y.**; Menten, K. M. ; Urquhart, J. S. ; Henkel, C. ; Wyrowski, F. ; Csengeri, T. ; Ellingsen, S. P. ; Bemis, A. R. ; Jang, J.; 2023, A&A, 675, A112

44. The Effelsberg survey of FU Orionis and EX Lupi objects II. H_2O maser observations
Szabó, Zs. M.; **Gong, Y.**; Yang, W.; Menten, K. M.; Bayandina, O. S.; Cyganowski, C. J.; Kóspál, Á.; Ábrahám, P.; Belloche, A.; Wyrowski., F.; 2023, A&A, 674, A202

43. The distance to the Serpens South Cluster from H_2O masers
Ortiz-León, Gisela N.; Dzib, Sergio A.; Loinard, Laurent; **Gong Yan**; Pillai Thushara; Plunkett Adele; 2023, A&A, 673, L1

42. The Effelsberg survey of FU Orionis and EX Lupi objects I. Host environments of FUors/EXors traced by NH_3
Szabó, Zs. M.; **Gong, Y.**; Menten, K. M.; Yang, W.; Cyganowski, C. J.; Kóspál, Á.; Ábrahám, P.; Belloche, A.; Wyrowski., F.; 2023, A&A, 672, A158

41. Direct measurements of carbon and sulfur isotope ratios in the Milky Way
Yan, Y. T. ; Henkel, C. ; Kobayashi, C. ; Menten, K. M. ; **Gong, Y.** ; Zhang, J. S. ; Yu, H. Z. ; Yang, K. ; Xie, J. J. ; Wang, Y. X.; 2022, A&A, 670, A98

40. A global view on star formation: The GLOSTAR Galactic plane survey. VII. Supernova remnants in the Galactic longitude range $28^\circ < l < 36^\circ$
Dokara, R. ; **Gong, Y.**; Reich, W. ; Rugel, M. ; Brunthaler, A. ; Menten, K. ; Cotton, W. ; Dzib, S. ; Khan, S. ; Medina, S. ; Nguyen, H. ; Ortiz-León, G. ; Urquhart, J. ; Wyrowski, F. ; Yang, A. ; Anderson, L. D. ; Beuther, H. ; Csengeri, T. ; Müller, P. ; Ott, J. ; Pandian, J. D. ; Roy, N.; 2022, A&A, 671, A145

39. A global view on star formation: The GLOSTAR Galactic plane survey. VI. Radio Source Catalog II: $28^\circ < l < 36^\circ$ and $|b| < 1^\circ$, VLA B-configuration
Dzib, S. A. ; Yang, A. Y. ; Urquhart, J. S. ; Medina, S. -N. X. ; Brunthaler, A. ; Menten, K. M. ; Wyrowski, F. ; Cotton, W. D. ; Dokara, R. ; Ortiz-León, G. N. ; Rugel, M. R. ; Nguyen, H. ; **Gong, Y.**; Chakraborty, A. ; Beuther, H. ; Billington, S. J. ; Carrasco-Gonzalez, C. ; Csengeri, T. ; Hofner, P. ; Ott, J. ; Pandian, J. D. ; Roy, N. ; Yanza, V.; 2022, A&A, 670, A9

38. Discovery of non-metastable ammonia masers in Sagittarius B2
Yan, Y. T. ; Henkel, C. ; Menten, K. M. ; **Gong, Y.**; Nguyen, H. ; Ott, J. ; Ginsburg, A. ; Wilson, T. L. ; Brunthaler, A. ; Belloche, A. ; Zhang, J. S. ; Budaiev, N. ; Jeff, D.; 2022, A&A, 666, L15

37. A Global View on Star Formation: The GLOSTAR Galactic Plane Survey V. 6.7 GHz Methanol Maser Catalogue
Nguyen, H. ; Rugel, M. R. ; Murugeshan, C. ; Menten, K. M. ; Brunthaler, A. ; Urquhart, J. S. ; Dokara, R. ; Dzib, S. A. ; **Gong, Y.**; Khan, S. ; Medina, S-N. X. ; Ortiz-León, G. N. ; Reich, W. ; Wyrowski, F. ; Yang, A. Y. ; Beuther, H. ; Cotton, W. D. ; Pandian, J. D.; 2022, A&A, 666, A59

36. Water Masers as an Early Tracer of Star Formation
Ladeyschikov, Dmitry A.; **Gong, Yan**; Sobolev, Andrey M.; Menten, Karl M.; Urquhart, James S.; Breen, Shari L.; Shakhvorostova, Nadezhda N.; Bayandina, Olga S.; Tsivilev, Alexander P.; 2022, ApJS, 261, 14

35. And then they were two: detection of non-thermal radio emission from the bow shocks of two runaway stars
Moutzouri, M. ; Mackey, J. ; Carrasco González, C. ; **Gong, Y.** ; Brose, R. ; Zargaryan, D. ; Toalá, J. A. ; Menten, K. M. ; Gvaramadze, V. V. ; Rugel, M. R.; 2022, A&A, 663, A80

34. Vibrationally excited HCN transitions in circumstellar envelopes of carbon-rich AGB stars
Jeste, M.; **Gong, Y.**; Wong, K. T.; Menten, K. M.; Kamiński, T.; Wyrowski, F.; 2022, A&A, 666, A69

33. Widespread subsonic turbulence in Ophiuchus North 1
Gong, Y.; Liu, S.; Wang, J. Z.; Zhu, W. S.; Li, G. X.; Yang, W. J.; Sun, J. X.; 2022, A&A, 663, A82

32. Redshifted methanol absorption tracing infall motions of high-mass star formation regions
Yang, W. J. ; Menten, K. M. ; Yang, A. Y.; Wyrowski, F. ; **Gong, Y.** ; Ellingsen, S. P. ; Henkel, C. ; Chen, X. ; Xu, Y.; 2022, A&A, 658, A192

31. Discovery of ammonia (9,6) masers in two high-mass star-forming regions
Yan, Y. T. ; Henkel, C. ; Menten, K. M. ; **Gong, Y.** ; Ott, J. ; Wilson, T. L. ; Wootten, A. ; Brunthaler, A. ; Zhang, J. S. ; Chen, J. L. ; Yang, K.; 2022, A&A, 659, A5

30. The Nearby Evolved Stars Survey II: Constructing a volume-limited sample and first results from the James Clerk Maxwell Telescope
Scicluna, P. + 90 authors including (**Gong, Y.**); 2022, MNRAS, 512, 1091

29. HI-H_2 transition: Exploring the role of the magnetic field. A case study toward the Ursa Major cirrus
Skalidis, R.; Tassis, K. ; Panopoulou, G. V. ; Pineda, J. L. ; **Gong, Y.** ; Mandarakas, N. ; Blinov, D. ; Kiehlmann, S. ; Kypriotakis, J. A.; 2022, A&A, 665, A77

28. Kinetic temperature of massive star-forming molecular clumps measured with formaldehyde IV. The ALMA view of N113 and N159W in the LMC
Tang, X. D. ; Henkel, C. ; Menten, K. M. ; **Gong, Y.** ; Chen, C. -H. R. ; Li, D. L. ; Lee, M. -Y. ; Mangum, J. G. ; Ao, Y. P. ; Mühle, S. ; Aalto, S. ; García-Burillo, S. ; Martín, S. ; Viti, S. ; Muller, S. ; Costagliola, F. ; Asiri, H. ; Levshakov,

S. A. ; Spaans, M. ; Ott, J. Impellizzeri, C. M. V. ; Fukui, Y. ; He, Y. X. ; Esimbek, J. ; Zhou, J. J. ; Zheng, X. W. ; Zhao, X. ; Li, J. S.; 2021, A&A, 665, A12

27. A global view on star formation: The GLOSTAR Galactic Plane Survey. I. Overview and first results for the Galactic longitude range $28^\circ < l < 36^\circ$ A&A/MPIFR/NRAO press release
Brunthaler, A.; Menten, K. M.; Dzib, S. A.; Cotton, W. D.; Wyrowski, F.; Dokara, R.; **Gong, Y.**; Medina, S-N. X.; Müller, P.; Nguyen, H.; Ortiz-León, G. N.; Reich, W.; Rugel, M. R.; Urquhart, J. S.; Winkel, B.; Yang, A. Y.; Beuther, H.; Billington, S.; Carrasco-Gonzales, C.; Csengeri, T. Murugeshan, C.; Pandian, J. D.; Roy, N.; 2021, A&A, 651, A85

26. Discovery of 22 GHz Water Masers in the Serpens South Region
Ortiz-León, Gisela N.; Plunkett, Adele; Loinard, Laurent; Dzib, Sergio A.; Rodríguez-Garza, Carolina B.; Pillai, Thushara; **Gong, Yan**; Brunthaler, Andreas; 2021, AJ, 162, 68

25. A Global View on Star Formation: The GLOSTAR Galactic Plane Survey III. 6.7 GHz Methanol maser survey in Cygnus X A&A/MPIFR/NRAO press release
Ortiz-León, Gisela N.; Menten, Karl M.; Brunthaler, Andreas; Csengeri, Timea; Urquhart, James S.; Wyrowski, Friedrich; **Gong, Yan**; Rugel, Michael R.; Dzib, Sergio A.; Yang, Aiyuan; Nguyen, Hans; Cotton, William D.; Medina, Sac Nicte X.; Dokara, Rohit; Koenig, Carsten; Beuther, Henrik; Pandian, Jagadheep D.; Reich, Wolfgang; Roy, Nirupam; 2021, A&A, 651, A87

24. A global view on star formation: The GLOSTAR Galactic plane survey IV. Radio continuum detections of young stellar objects in the Galactic Centre region A&A/MPIFR/NRAO press release
Nguyen, H.; Rugel, M. R.; Menten, K. M.; Brunthaler, A.; Dzib, S. A.; Yang, A. Y.; Kauffmann, J.; Pillai, T.; Nandakumar, G.; Schultheis, M.; Urquhart, J. S.; Dokara, R.; **Gong, Y.**; Medina, S-N. X.; Ortiz-León, G. N.; Reich, W.; Wyrowski, F.; Beuther, H.; Cotton, W. D.; Csengeri, T. Pandian, J. D.; Roy, N.; 2021, A&A, 651, A88

23. A global view on star formation: The GLOSTAR Galactic plane survey. II. Supernova Remnants in the first quadrant of the Milky Way A&A/MPIFR/NRAO press release
Dokara, Rohit; Brunthaler, A.; Menten, K. M.; Dzib, S. A.; Reich, W.; Cotton, W. D.; Anderson, L. D.; Chen, C. -H. R.; **Gong, Y.**; Medina, S. -N. X.; Ortiz-León, G. N.; Rugel, M.; Urquhart, J. S.; Wyrowski, F.; Yang, A. Y.; Beuther, H.; Billington, S. J.; Csengeri, T.; Carrasco-González, C.; Roy, N.; 2021, A&A, 651, A86

22. Dense gas in local galaxies revealed by multiple tracers
Li, Fei; Wang, Junzhi; Gao, Feng; Liu, Shu; Zhang, Zhi-Yu; Li, Shanghuo; **Gong, Yan**; Li, Juan; Shi, Yong; 2021, MNRAS, 503, 4508

21. Hunting for the elusive methylene radical A&A highlight
Jacob, A. M.; Menten, K. M.; **Gong, Y.**; Bergman, P.; Tiwari, M.; Bruenken, S.; Olofsson, A.O.H.; 2021, A&A, 647, A42

20. Physical and chemical structure of the Serpens filament: fast formation and gravity-driven accretion
Gong, Y.; Belloche, A.; Du, F. J.; Menten, K. M.; Henkel, C.; Li, G. X.; Wyrowski, F.; Mao, R. Q.; 2021, A&A, 646, A170

19. Evidence for dense gas heated by the explosion in Orion KL
Li, Dalei; Tang, Xindi; Henkel, Christian; Menten, Karl M.; Wyrowski, Friedrich; **Gong, Yan**; Wu, Gang; He, Yuxin; Esimbek, Jarken; Zhou, Jianjun, 2020, ApJ, 901, 62

18. New maser species tracing spiral-arm accretion flows in a high-mass young stellar object
Chen, Xi; Sobolev, Andrej M.; Ren, Zhi-Yuan; Parfenov, Sergey; Breen, Shari L.; Ellingsen, Simon P.; Shen, Zhi-Qiang; Li, Bin; MacLeod, Gordon C.; Baan, Willem; Brogan, Crystal; Hirota, Tomoya; Hunter, Todd R.; Linz, Hendrik; Menten, Karl; Sugiyama, Koichiro; Stecklum, Bringfried; **Gong, Yan**; Zheng, Xingwu; 2020, NatAs, 4, 1170

17. Interstellar glycolamide: A comprehensive rotational study and an astronomical search in Sgr B2(N)
Sanz-Novo, M.; Belloche, A.; Alonso, J. L.; Kolesniková, L.; Garrod, R. T.; Mata, S.; Müller, H. S. P.; Menten, K. M., **Gong, Y.**; 2020, A&A, 639, A135

16. Local molecular gas toward the Aquila Rift region
Su, Y.; Yang, J.; Yan, Q. Z., **Gong, Y.**; Chen, Z. W.; Zhang, S. B., Sun, Y., Zhang, M. M., Chen, X. P., Zhou, X., Wang, M., Wang, H. C., Xu, Y., Jiang, Z. B., 2020, ApJ, 893, 91

15. 36 GHz methanol lines from nearby galaxies: maser or quasi-thermal emission?
Humire, P.; Henkel, C.; **Gong, Y.**; Leurini, S.; Mauersberger, R.; Levshakov, S. A.; Winkel, B.; Tarchi, A.; Castangia, P.; Malawi, A.; Asiri, H.; Ellingsen, S. P.; McCarthy, T. P.; Chen, X.; Tang, X., 2020, A&A, 633, A106

14. Search for further evidence for cloud-cloud collisions in L1188
Gong, Y.; Tang, X.D.; Henkel, C.; Menten, K.M.; Mao, R.Q.; Wang, Y.; Lee, M.-Y.; Zhu, W.S.;, Lin, Y.; Zhang, S.B.; Chen, X.P.; Yang, W.J., 2019, A&A, 632, A115

13. ALMA view of the 12C/13C isotopic ratio in starburst galaxies
Tang, X. D.; Henkel, C.; Menten, K. M.; **Gong, Y.**; Martin, S.; Muhle, S.; Aalto, S.; Muller, S.; Garcia-Burillo, S.; Levshakov, S.; Aladro, R.; Spaans, M.; Viti, S.; Asiri, H. M.; Ao, Y. P.; Zhang, J. S.; Zheng, X. W.; Esimbek, J.; Zhou, J. J., 2019, A&A, 629, A6

12. GLOSTAR: Radio Source Catalog I. $28^\circ < l < 36^\circ$ and $|b| < 1^\circ$
Medina, S. N. X.; Urquhart, J. S.; Dzib, S. A.; Brunthaler, A.; Cotton, B.; Menten, K. M.; Wyrowski, F.; Beuther, H.; Billington, S. J.; Carrasco-Gonzalez, C.; Csengeri, T.; **Gong, Y.**; Hofner, P.; Nguyen, H.; Ortiz-León, G. N.; Ott, J.; Pandian, J. D.; Roy, N.; Sarkar, E.; Wang, Y. Winkel, B., 2019, A&A, 627, A175

11. The Milky Way Imaging Scroll Painting (MWISP): Project Details and Initial Results from the Galactic Longitudes of 25.8–49.7
Su, Yang; Yang, Ji; Zhang, Shaobo; **Gong, Yan**; Wang, Hongchi; Zhou, Xin; Wang, Min; Chen, Zhiwei; Sun, Yan; Chen, Xuepeng; Xu, Ye; Jiang, Zhibo, 2019, ApJS, 240, 9

10. The Serpens filament at the onset of slightly supercritical collapse
Gong, Y.; Li, G. X.; Mao, R. Q.; Henkel, C.; Menten, K. M.; Fang, M.; Wang, M.; Sun, J. X., 2018, A&A, 620, A62

9. Molecular line emission in NGC 4945, imaged with ALMA
Henkel, C.; Mühle S.; Bendo, G.; Józsa, G. I. G.; **Gong, Y.**; Viti, S.; Aalto, S.; Combes, F.; García-Burillo, S; Hunt, L. K.; Mangum, J.; Martín, S.; Muller, S.; Ott, J.; van der Werf, P.; Malawi, A. A.; Ismail, H.; Alkhuja, E.; Asiri, H. M.; Aladro, R.; Alves, F.; Ao, Y.; Baan, W. A.; Costagliola, F.; Fuller, G.; Greene, J.; Impellizzeri, C. M. V.; Kamali, F.; Klessen, R. S.; Mauersberger, R.; Tang, X. D.; Tristram, K.; Wang, M.; Zhang, J. S. 2018, A&A, 615, A155

8. Kinetic temperature of massive star-forming molecular clumps measured with formaldehyde. III. The Orion molecular cloud 1
Tang, X. D.; Henkel, C.; Menten, K. M.; Wyrowski, F.; Brinkmann, N.; Zheng, X. W.; **Gong, Y.**; Lin, Y. X.; Esimbek, J.; Zhou, J. J.; Yuan, Y.; Li, D. L.; He, Y. X., 2018, A&A, 609, A16

7. Is HESS J1912+101 Associated with an Old Supernova Remnant?
Su, Yang; Zhou, Xin; Yang, Ji; Chen, Yang; Chen, Xuepeng; **Gong, Yan**; Zhang, Shaobo, 2017, ApJ, 845, 48

6. SiS in the Circumstellar Envelope of IRC +10216: Maser and Quasi-thermal Emission
Gong, Y.; Henkel, C.; J. Ott; K. M. Menten; M. R. Morris; D. Keller; M. J. Claussen; M. Grasshoff; R. Q. Mao, 2017, ApJ, 843, 54

5. L1188: a promising candidate of cloud–cloud collision triggering the formation of the low- and intermediate-mass stars
Gong, Yan; Fang, Min; Mao, Ruiqing; Zhang, Shaobo; Wang, Yuan; Su, Yang; Chen, Xuepeng; Yang, Ji; Wang, Hongchi; Lu, Dengrong, 2017, ApJL, 835, L14

4. Molecular clouds and star formation toward the Galactic plane within $216.25^\circ \leq l \leq 218.75^\circ$ and $-0.75^\circ \leq b \leq 1.25^\circ$
Gong, Y.; Mao, R. Q.; Fang, M.; Zhang, S. B.; Su, Y.; Yang, J.; Jiang, Z. B.; Xu, Y.; Wang, M.; Wang, Y.; Lu, D. R.; Sun, J. X., 2016, A&A, 588, A104

3. N131: A dust bubble born from the disruption of a gas filament
Zhang, C. P.; Li, G. X.; Wyrowski, F.; Wang, J. J.; Yuan, J. H.; Xu, J. L.; **Gong, Y.**; Yeh, Cosmos C.; Menten, K. M., 2016, A&A, 585, A117

2. A 1.3 cm line survey toward Orion KL
Gong, Y.; Henkel, C.; Thorwirth, S.; Spezzano, S.; Menten, K. M.;Walmsley, C. M.; Wyrowski, F.; Mao, R. Q.; Klein, B, 2015, A&A, 581, A48

1. A 1.3 cm line survey toward IRC +10216
Gong, Y.; Henkel, C.; Spezzano, S.; Thorwirth, S.; Menten, K. M.; Wyrowski, F.; Mao, R. Q.; Klein, B, 2015, A&A, 574, A56