

# YAN GONG

Address: No.10 Yuanhua Road, Qixia District, Nanjing 210023, China

E-mail: [ygong@pmo.ac.cn](mailto:ygong@pmo.ac.cn), [ygong@mpifr-bonn.mpg.de](mailto:ygong@mpifr-bonn.mpg.de), [gongyan2444@gmail.com](mailto: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 July 1, 2024

## 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** 2024.01–present  
*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

## 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. Karl M. Menten** (Max-Planck-Institut für Radioastronomie)

Director of Dept. Millimeter and Submillimeter Astronomy

E-mail: [kmenten@mpifr-bonn.mpg.de](mailto:kmenten@mpifr-bonn.mpg.de)

**Prof. Dr. Rui-qing Mao** (Purple Mountain Observatory)

Deputy director of Purple Mountain Observatory

E-mail: [rqmao@pmo.ac.cn](mailto:rqmao@pmo.ac.cn)

**Dr. Christian Henkel** (Max-Planck-Institut für Radioastronomie)

Staff of Dept. Millimeter and Submillimeter Astronomy

E-mail: [chenkel@mpifr-bonn.mpg.de](mailto:chenkel@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](mailto:wreich@mpifr-bonn.mpg.de)

## PRESENTATIONS

---

- 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, Germany, "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

58. [Spatial Distribution of C<sub>4</sub>H and c-C<sub>2</sub>H<sub>2</sub> 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, accepted
56. [First detection of CF<sup>+</sup> 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, Hanyu 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° < l < 28°, 36° < l < 40°, 56° < l < 60° and |b| < 1°, 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  $^{12}\text{CO}$  and  $^{13}\text{CO}$  (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.  $\text{H}_2\text{O}$  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  $\text{H}_2\text{O}$  masers  
Gisela N. Ortiz-León; Sergio A. Dzib; Laurent Loinard; **Yan Gong**; Thushara Pillai; Adele Plunkett; 2023, *A&A*, 673, L1
42. The Effelsberg survey of FU Orionis and EX Lupi objects I. Host environments of FUors/EXors traced by  $\text{NH}_3$   
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. ; Murugesan, 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.; Tsvilev, 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<sub>2</sub> 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. ; Müller, 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. Murugesan, 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 Nicté 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