

# YAN GONG

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

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## 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

## REFEREING 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

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

**Prof. Dr. Karl M. Menten** (Max-Planck-Institut für Radioastronomie)  
Director of Dept. Millimeter and Submillimeter Astronomy  
My former boss Karl passed away on Dec. 30 2024. He had a beautiful mind and will be greatly missed.

## PRESENTATIONS

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- 2024.12 [[Contributed talk](#)] [25th East Asia Submillimeter-wave Receiver Technology Workshop](#), Daejeon, Korea, "Tracing Molecular Clouds from Pristine to Extreme: Insights from HCNH<sup>+</sup> 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 Atmospheres 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<sup>+</sup> 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, 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

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

##### 68. [Molecular Clouds at the Edge of the Galaxy I. Variation of CO J=2-1/1-0 Line Ratio](#)

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*, accepted

##### 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<sup>+</sup> 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. 2024, *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<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, 687, A207](#)

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** ; Maun, 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}\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](#)  
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  \$\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.; 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<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
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