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Date of Birth	26 DECEMBER 1993
Gender	MALE
Supervisor 1	Dr. Christian Henkel
Research	Molecular Spectroscopy, Star Formation, Active Galactic Nuclei, Physical Constants.
Supervisor 2	Prof. Dr. Karl M. Menten
Research	Millimeter & Submillimeter Astronomy, (Sub)Millimeter Wavelength Studies of Asteroids and Comets, Molecular Clouds and Star Formation, Late Stages of Stellar Evolution, Astro-Chemistry, the Galactic Center and its Neighborhood, Dust and Molecules in External Galaxies, the Distant Universe and Cosmology, (Sub)Millimeter Wavelength Instrumentation.
Education	**Ph.D.** in Astronomy & Astrophysics, Max-Planck-Institut für Radioastronomie, Bonn, Germany, 2019 - now **M.S.** in Astronomy, Center for Astronomy, Guangzhou University, China, 2016 - 2019 **B.S.** in Optical Information Science and Technology, School of Physics and Electronic Engineering, Guangzhou University, China, 2012-2016
Academic Honors	2022.09-2023.03 Ph.D. scholarship from the MPIfR 2019.09-2022.09 Ph.D. scholarship from the China Scholarship Council (CSC) 2019 Excellent Graduate Student 2018 Annual College scholarship 2017 Annual College scholarship 2016 Annual Graduate student Entrance scholarship 2015 The 13th Challenge Cup of Guangdong Undergrade Students Extracurricular Academic Science and Technology Competition Second Prize 2014 The 14th Guangzhou University Challenge Cup Competition First Prize 2014 Annual College scholarship 2014 Outstanding Student Leader 2013 Annual College scholarship 2013 Outstanding Student Leader

PUBLICATIONS

2022

9. Cyanopolyyne line survey towards high-mass star-forming regions with TMRT
Wang, Y. X.; Zhang, J. S.; **Yan, Y. T.**; Qiu, J. J.; Chen, J. L.; Zhao, J. Y.; Zou, Y. P.; Wu, X. C.; He, X. L.; Gong, Y. B.; Cai, J. H.; 2022, A&A, 663, A177

8. 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

2021

7. Interstellar Nitrogen Isotope Ratios: New NH_3 Data from the Galactic Center out to the Perseus Arm
Chen, J. L.; Zhang, J. S.; Henkel, C.; **Yan, Y. T.**; Yu, H. Z.; Qiu, J. J.; Tang, X. D.; Wang, J.; Liu, W.; Wang, Y. X.; Zheng, Y. H.; Zhao, J.; 2021, ApJS, 257, 39

6. ALCHEMI: an ALMA Comprehensive High-resolution Extragalactic Molecular Inventory. Survey presentation and first results from the ACA array
Martín, S.; Mangum, J. G.; Harada, N.; Costagliola, F.; Sakamoto, K.; Muller, S.; Aladro, R.; Tanaka, K.; Yoshimura, Y.; Nakanishi, K.; Herrero-Illana, R.; Mühle, S.; Aalto, S.; Behrens, E.; Colzi, L.; Emig, K. L.; Fuller, G. A.; García-Burillo, S.; Greve, T. R.; Henkel, C.; Holdship, J.; Humire, P.; Hunt, L.; Izumi, T.; Kohno, K.; König, S.; Meier, D. S.; Nakajima, T.; Nishimura, Y.; Padovani, M.; Rivilla, V. M.; Takano, S.; van der Werf, P. P.; Viti, S.; **Yan, Y. T.**; 2021, A&A, 656, A46

5. Studying infall in infrared dark clouds with multiple HCO^+ transitions
Xie, Jin-Jin; Wu, Jing-Wen; Fuller, Gary A.; Peretto, Nicolas; Ren, Zhi-Yuan; Chen, Long-Fei; **Yan, Yao-Ting**; Li, Guo-Dong; Duan, Yan; Xia, Ji-Feng; Wang, Yong-Xiong; Li, Di.; 2021, RAA, 21, 208

2020

4. Galactic Interstellar Sulfur Isotopes: A Radial $^{32}S/^{34}S$ Gradient?
Yu, H. Z.; Zhang, J. S.; Henkel, C.; **Yan, Y. T.**; Liu, W.; Tang, X. D.; Langer, N.; Luan, T. C.; Chen, J. L.; Wang, Y. X.; Deng, G. G.; Zou, Y. P.; 2020, ApJ, 899, 145

3. A Systematic Observational Study on Galactic Interstellar Ratio $^{18}O/^{17}O$. I. $C^{18}O$ and $C^{17}O$ J = 1-0 Data Analysis
Zhang, J. S.; Liu, W.; **Yan, Y. T.**; Yu, H. Z.; Liu, J. T.; Zheng, Y. H.; Romano, D.; Zhang, Z. -Y.; Wang, J. Z.; Chen, J. L.; Wang, Y. X.; Zhang, W. J.; Lu, H. H.; Chen, L. S.; Zou, Y. P.; Yang, H. Q.; Wen, T.; Lu, F. S.; 2020, ApJS, 249, 6

2. Systematic observations on Galactic Interstellar isotope ratios
Zhang, J. S.; **Yan, Y. T.**; Liu, W.; Yu, H. Z.; Chen, J. L.; Henkel, C.; 2020, IAUGA, 30, 278

2019

1. A Systematic TMRT Observational Study of Galactic $^{12}C/^{13}C$ Ratios from Formaldehyde
Yan, Y. T.; Zhang, J. S.; Henkel, C.; Mufakharov, T.; Jia, L. W.; Tang, X. D.; Wu, Y. J.; Li, J.; Zeng, Z. A.; Wang, Y. X.; Li, Y. Q.; Huang, J.; Jian, J. M.; 2019, ApJ, 877,

Accepted Observation Proposals as PI

(1690.0 hours)

The 100-m Effelsberg Radio Telescope

1. *Probing Kinetic Temperatures towards a sample of Nearby IRDCs*
   10.3 Hours (ID: 68-22) 2022
2. *Monitoring ammonia maser emissions in the Milky Way*
   35.0 Hours (ID: 30-22) 2022
3. *A global survey on K-band in high-mass star-forming regions*
   70.0 Hours (ID: 34-22) 2022
4. *Silicon isotope ratios in the Milky Way*
   38.0 Hours (ID: 91-20) 2020
5. *Confirmation of new ammonia masers in three star-forming regions*
   5.0 Hours (ID: 13-20) 2020

The Karl G. Jansky Very Large Array

1. *Widespread Ammonia Masers in Sgr B2*
   1.5 Hours (ID: VLA/22A-106) 2022
2. *Imaging the Newly Discovered Ammonia (9,6) Masers*
   1.0 Hours (ID: VLA/21A-157) 2020

The IRAM 30m Telescope

1. *Mapping Gas Assembly in Nearby IRDCs*
   8.2 Hours (ID: 063-22) 2022
2. *Silicon isotope ratios in the Milky Way*
   56.0 Hours (ID: 031-21) 2021
3. *Sulfur chemistry and isotopic ratios in the Milky Way*
   48.0 Hours (ID: 033-21) 2021
4. *Measurements of the gradients of isotope ratios $^{12}C/^{13}C$ and $^{14}N/^{15}N$ in our Galaxy from CN*
   74.0 Hours (ID: 004-20, 125-20) 2020
5. *3mm spectroscopic mapping toward W49A*
   66.0 Hours (ID: 117-20, 047-21) 2020, 2021

NASA/JPL Deep Space Network DSS-43 70-m Telescope

1. *A global survey on K-band in high-mass star-forming regions*
   45.0 Hours 2022

The ARO 12 Meter Telescope

1. *Isotope ratio $^{12}C/^{13}C$ in Galactic molecular clouds*
   298.0 Hours 2018B, 2019A
2. *Isotope ratio $^{18}O/^{17}O$ in Galactic molecular clouds*
   172.0 Hours 2016B, 2017B
   Zhang et al. ApJS, 2020, 249(1): 6.
   Yu et al. ApJ, 2020, 899(2): 145.

The James Clerk Maxwell Telescope

1. *Isotope ratio $^{18}O/^{17}O$ in Galactic molecular clouds*
   165.0 Hours (ID: M16BP037, M16XP019, M19AP021) 2016B, 2016X, 2019A

The Shanghai Tianma 65m Radio Telescope

1. *Isotope ratio $^{12}C/^{13}C$ in Galactic molecular clouds*
   400 Hours. 2016-2019
   Yan et al. ApJ, 2019, 877(2): 154.

The Sub-Millimeter Radio Telescope

1. *Oxygen isotope ratio of $^{18}O/^{17}O$ in molecular clouds with different Galactocentric distance*
   197.0 Hours 2016A, 2017B

Presentations

Discovery of ammonia (9,6) masers in Cep A and G34.26+0.15.
-12th IMPRS conference, Bonn, Germany May, 2022

Discovery of ammonia (9,6) masers in two high-mass star-forming regions.
-PoSTER 2022 (poster) May, 2022

Direct measurements of carbon and sulfur isotope ratios in the Milky Way.
-50th YERAC (poster) August, 2021

C, N, O, S isotope ratios in the Milky Way.
-8th IMPRS conference, Bonn, Germany July, 2021

Carbon and Sulfur isotope ratios in our Galaxy and NGC 253.
-MPIfR group meeting, Bonn, Germany July, 2020

A Systematic TMRT Observational Study of Galactic $^{12}C/^{13}C$ Ratios from Formaldehyde.
-2019 Symposium on Molecular Cloud and Star Formation, Xinjiang, China July, 2019

Formaldehyde observations with TMRT.
-11th Jing-Guang-Xia Astrophysics Meeting, Guangzhou, China November, 2017

Experience

Observation experience > 2000.0 hours (on-site + remote) 2016 - 2021

10th IRAM 30-meter School on Millimeter Astronomy
– November 15-19, 22 and 23 2021

Two weeks IRAM EMIR Pool observations
– April 06 - April 13, May 25 - June 01 2021

The scientific writing workshop (online), Bonn, Germany June 8-June 11, 2020

2018 FAST Radio Astronomy Summer School July 8-July 13, 2018

2017 Radio Astronomy Summer School at Shanghai Astronomical Observatory July 9-July 14, 2017

2016 Annual Meeting of the Chinese Astronomical Society Nov. 1-Nov. 3 2016

James Clerk Maxwell Telescope (JCMT) Data Reductions and Analysis Workshop at Shanghai Astronomical Observatory Oct. 16, 2016

2015 Radio Astronomy Summer School at Shanghai Astronomical Observatory July 19-July 25, 2015