

Name: Xia Zhang



Professional:

Master's Supervisor

Associate researcher

Education:

2018-2021 University of Chinese Academy of Sciences Ph.D.

2011-2014 Xinjiang University M.S.

2007-2011 Xinjiang University B.S.

Contact:

zhangx@xao.ac.cn

Postal Address: 150 Science 1-Street, Urumqi, Xinjiang 830011, China

Research Interests:

Astrochemical modeling and observations

Selected Publications:

1. Xia Zhang*, Donghui Quan, Xiaohu Li et al. Chemical models of interstellar glycine and adenine precursor aminoacetonitrile ($\text{NH}_2\text{CH}_2\text{CN}$), MNRAS, 2024, 533(3):3623-3636
2. Xia Zhang, Donghui Quan, Runxia Li et al. Chemical models of adenine precursors cyanamide and carbodiimide in the interstellar medium, MNRAS, 2023, 521(1):1578-1589
3. Xia Zhang, Donghui Quan, Qiang Chang et al. Chemical models of interstellar cyanomethanimine isomers, MNRAS, 2020, 497(1): 609-625.
4. Xia Zhang, Donghui Quan, Jarken Esimbek, Gas-Grain Modeling of Interstellar O_2 , Chinese Journal of Chemical Physics, 2020, 33(1): 107-113.
5. Qiang Chang, Xu-Li Zheng, Xia Zhang* et al. On the encounter desorption of hydrogen atoms on an ice mantle, RAA, 2021, 21(2): 39
6. Rui Luo, Junzhi Wang, Xia Zhang, et al. Observational studies on S-bearing molecules in massive star forming regions, accepted by A&A.
7. Ziwen Song, Qiang Chang, Qingkuan Meng, Xia Zhang, Modeling long carbon-chain species formation with porous multiphase models, accepted by A&A.

8. Juan Li, Donghui Quan, Junzhi Wang, Xia Zhang et al. Tentative detection of cyanoformamide NCCONH₂ in space, PASJ, 2024, 76(1): 54-64.
9. Fangfang Li, Donghui Quan, Xia Zhang et al. Quantum mechanical modeling of interstellar molecules on cosmic dusts: H₂O, NH₃, and CO₂, Frontiers in Chemistry, 2022, 10:1040703
10. Gang Zhao, Qiang Chang, Xia Zhang et al. Effect of surface H₂ on molecular hydrogen formation on interstellar grains. MNRAS, 2022, 512(3): 3137-3148.
11. Long-Fei Chen, Di Li, Donghui Quan, Xia Zhang et al. Chemical Variations Across the TMC-1 Boundary: Molecular Tracers from the Translucent Phase to the Dense Phase. ApJ, 2022, 928(2):175.
12. Guoming Zhao, Donghui Quan, Xia Zhang et al. Glycolonitrile (HOCH₂CN) Chemistry in Star-forming Regions. ApJS, 2021, 257(2):26.
13. Yao Chang, Yong Yu, Feng An, Zijie Luo, Donghui Quan, Xia Zhang et al. Three body photodissociation of the water molecule and its implications for prebiotic oxygen production, Nature Communications, 2021, 12(1): 2476.
14. Yan Zhou, Dong-Hui Quan, Xia Zhang et al. Detection of hydroxyacetone in protostar IRAS 16293-2422 B, RAA, 2020, 20(8):125.
15. Pei Zuo, Di Li, J E G Peek, Qiang Chang, Xia Zhang et al. Catching the Birth of a Dark Molecular Cloud for the First Time, ApJ, 2018, 867(1):13.

