

## Inventory of Nitrogen-bearing organics towards G+0.693-0.027

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Among over 250 molecules discovered in the ISM, nitrogen-bearing (N-bearing) species are of interest as many likely play a crucial role in prebiotic chemistry and thus essential for the emergence of life. In the last two decades, a great effort has been put in order to explore the level of molecular complexity of N-bearing species and the corresponding chemical processes. With sensitive unbiased spectral surveys towards the quiescent Galactic Centre molecular cloud G+0.693-0.027, we present in this talk the temporary (still evolving) census of N-bearing species[1], including the first detection of vinylamine (C<sub>2</sub>H<sub>3</sub>NH<sub>2</sub>) [2] and ethyl isocyanate (C<sub>2</sub>H<sub>5</sub>NCO)[3] in the ISM. We compared the derived abundance with respect to H<sub>2</sub> to those obtained towards other interstellar sources. We also discussed the possible chemical routes, in gas-phase and/or on the grain surface, of the interstellar synthesis of these N-bearing molecules along with their prebiotic relevance. This study have allowed us to better understand the chemical complexity and diversity of N-bearing species in extreme environments and provided observational constraints for chemical models and laboratory studies in terms of investigating the chemical processes at work in space.

### References

- [1] S. Zeng, I. Jiménez-Serra, V.M. Rivilla et al. 2018, MNRAS, 478, 2962
- [2] S. Zeng, I. Jiménez-Serra, V.M. Rivilla et al. 2021, ApJL, 920, L27
- [3] L. F. Rodríguez-Almeida, I. Jiménez-Serra, V.M. Rivilla et al. 2021, ApJL, 912, L11