

Inextricable ties between chemical complexity and dynamics of embedded protostellar regions

Drozdovskaya, M.N.

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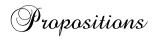


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Author: Drozdovskaya, Maria

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pertinent to the PhD thesis

Inextricable Ties between Chemical Complexity and Dynamics of Embedded Protostellar Regions

1. Chemical evolution of protostellar regions is predominantly determined by the global dynamic physical structure of the system.

Chapter 2

2. Gases do not always mirror the chemical composition of ices.

Chapter 3

3. Prestellar core volatiles are not simply inherited by the protoplanetary disk.

Chapter 4

4. Chemical differentiation between innate Solar Nebula tracers and young Solar System analogues may hint at our Sun being formed from a warmer prestellar core compared to typical protostars.

Chapter 5

5. The seeds to life are unavoidably planted in infant planetary systems during protoplanetary disk assembly.

This thesis

- **6.** Chemical processes are universal, thus lessons of the Solar System must be combined with those of extrasolar regions in order to see the provenance of life.
- 7. Chemistry is not just a tool for understanding star formation.
- 8. Modelers, observers and experimentalists are mutually inspiring.
- **9.** When communicating with researchers from other communities, it is crucial to first learn to speak each other's languages.
- **10.** Each type of model serves its own purpose, but always remains a representation at the end of the day.
- 11. A castle is only as strong as its foundation, the same holds for scientific research.
- 12. It takes years for a mature scientist to evolve from the toddler phase of a PhD graduate.
- **13.** Research is inspiration-driven and a researcher must continuously seek his/her drive.
- 14. In order to achieve a goal, one needs to take it seriously.

Maria Nikolayevna Drozdovskaya

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