# Ice and gas in protostellar clouds and planet-forming disks: a combined laboratory and observational study

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Propositions

accompanying the thesis

# Ice and Gas in Protostellar Clouds and Planet-forming Disks

A Combined Laboratory and Observational Study

1. The unambiguous identification of a complex organic molecule, besides methanol, in the solid state with the *James Webb* space telescope will be challenging (Chapter 3 & 4).
2. A low ortho-to-para ratio of gas-phase $H_2CO$ is not direct evidence of a cold solid-state origin (Chapter 5).
3. Without understanding the origin of gas-phase $H_2CO$ no conclusion can be drawn about the origin of gas-phase $CH_3OH$ (Chapter 5).
4. Also gas-phase species undergo reactions in the solid state (Chapter 6).
5. Interdisciplinary work requires mental acrobatics to balance the different fields.
6. Scientific outreach should not only provide the general audience with scientific findings, but also with scientific approaches.
7. Getting your hands dirty prevents seeing scientific tools as black boxes.
8. Just like IT support, mental health requires a robust support infrastructure at universities.
9. To achieve excellence, one must eventually confront oneself.
10. Choices do not guide our lives, but the fear of certain outcomes does.
11. Even if some of these propositions do not make you happy, keep them below 451 Fahrenheit.
12. A je to!

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