Surface formation routes of interstellar molecules : a laboratory study

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Stellingen accompanying the thesis

Surface Formation Routes of Interstellar Molecules
A Laboratory Study

1. Hydrogenation of CO ice provides an efficient pathway to form both interstellar solid H_2CO and CH_3OH at low temperatures.

   Chapters 2 and 7

2. The water formation reaction network described by Tielens & Hagen (1982) is more complex than proposed.

   Chapters 3 - 6

3. The surface formation of CO_2 is chemically linked to the formation of H_2O in the ice.

   Chapter 7

4. CO_2 can be formed in the solid phase with and without energetic input.

   Chapters 7 and 9

5. Surface reactions in simple ices may reveal a complex solid state chemistry.

6. A bottom-up and a top-down approach have one thing in common: the middle.

7. The past decades have proven the importance of a good interaction between astronomical observations, laboratory experiments and astrochemical modeling.

8. The research of knowledge brings wealth.

9. Finishing a PhD is like climbing a long mountain route: the sky is the limit and falling down is not an option.

10. H-atom bombardment as an email subject header may attract the attention of non-scientists.

11. Extreme climatic conditions are the worst enemies of cyclists.

12. My best proposition is the one I have not written yet.

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