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TITLE: Organics in the interstellar/circumstellar medium

ABSTRACT BODY:

Abstract Body: The interstellar medium is a physico-chemical laboratory where extreme conditions are encountered and its environmental parameters (e.g. density, reactant nature, radiations, temperature, time scales) define both the structure and the composition of matter.

Whereas astrochemists must rely on remote observations to monitor and analyze the physico-chemical composition of interstellar organic solids,planetologists and cosmochemists can infer spectroscopically in the laboratory the actual structure and composition of collected extraterrestrial material.

The interstellar/circumstellar observations give essentially access to the molecular functionality of these solids, rarely their elemental composition and the isotopic fractionation can almost only be inferred in the gas phase.

Astrochemistery can provide additional information from the study of analogs produced in the laboratory, placed in simulated space environments.

In this presentation, I will briefly summarize some observations in the diffuse interstellar medium (DISM) and molecular clouds (MC), setting constraints on both the composition of organic solids and the large molecules belonging to the cycle of matter in the Galaxy and briefly discuss the relations and differences between materials found in the Solar System and the interstellar dust.

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