

Disk formation traced by chemistry

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In formation of solar-type stars, a Keplerian disk is formed around the newly born protostar from infalling envelope. Then, it evolves to a protoplanetary disk and eventually to a planetary system. A detailed understanding of formation processes of the protostellar disk is a hot target for star-formation studies. We have extensively been studying star and planet formation by radio observations from a chemical point of view, and we are now confident on 'power of chemistry' to renovate star formation studies. Chemical approaches tell us not only information on physical processes of star and planet formation but also chemical evolution it self. Such a chemical study is of fundamental importance in understanding an origin of the solar system, and eventually an origin of life on the Earth. In this talk, we introduce ALMA studies which reveals disk formation around embeded protostar as well as the chemical evolution toward disks.

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