

How the Earth as a cooling star created abiotic fuel

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Abstract: This paper describes the Fischer-Tropsch process that occurred naturally on Earth from the perspective of Earth as a cooling star.

In the Fischer-Tropsch process fuel is created due to gasification of an organic substance. The released carbonmonoxide is then converted with a metal catalyst such as Iron or Cobalt and hydrogengas into fuel.

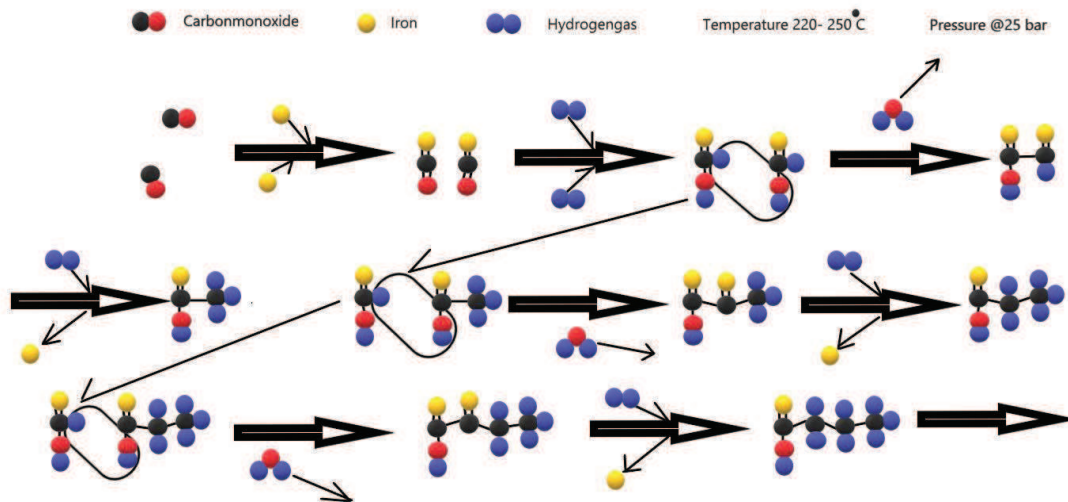


Fig1. Fischer-Tropsch creating higher carbon chained molecules.

The temperature and pressure that is described in this process was present when Earth was a younger star then it is now. Iron was introduced through meteorites. Carbonmonoxide and hydrogengas were a huge part of Earths early atmosphere.

The formed higher carbonchained molecules (as well as alkenes that are formed in this proces, when both Iron catalysts are substracted by hydrogenation) played a big role in Earths prebiotic chemistry.