

# Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

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PPS004-06

会場:101

時間:5月27日 15:30-15:45

## Evolution of organic compounds in disks: Implications for habitable planets Evolution of organic compounds in disks: Implications for habitable planets

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A major component of refractory carbon in planet-forming disks is in the form of polycyclic aromatic hydrocarbons, or PAHs. These compounds withstand temperatures up to ~1000 K in the disk environment. In hotter gas, they break down into volatile compounds including acetylene (C<sub>2</sub>H<sub>2</sub>), methane (CH<sub>4</sub>), CO and CO<sub>2</sub> on timescales shorter than dynamical timescales of the disk. In my talk, I will discuss disk chemistry in light of what is known about the physical evolution of disks, with particular emphasis on the implications for the carbon content of habitable worlds.

キーワード: organics, evolution, protoplanetary disk, habitable planet

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