

In-situ IR spectroscopic measurement of fine mineral particles in the condensation field

Tsutomu Heike [1], Yasuhiro Hirahara [2]

[1] Earth and Planetary Sci., Nagoya Univ, [2] Earth and Planetary Sci., Nagoya Univ

Condensation process of fine mineral particles in presolar nebulae is considered non-equilibrium. In the previous study by spectral measurement in infrared region, the spectra of artificial fine mineral particles were measured in the medium after synthesized and collected. However, medium and chemical change after collection may have an effect on the spectra. It will be solved with the direct measurement of the artificial particles in the condensation field. Thus, we have initiated to develop the new equipment combined with Microwave Fine Mineral Particles Generator and FT-IR. By using it, non-equilibrium condensation process of fine mineral particles in presolar nebulae is solved without these problems.