On the stellar source of presolar grains(SiC Type-A)

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The stellar source of presolar grains(SiC Type-A) has not been clarified. These grains have peculiear nitrogen- and carbon-isotopic ratios.

To explain these isotopic ratios, I calculated the equilibrium values of nitrogen- and carbon-isotopic ratios as a function of temperature and density.

If the calculated isotopic ratios agree with

that of these grains, I can establish constraints on stellar source from the temperature and density.

Presolar grains retain the memory of physical and chemical properties of stellar atmospheres where they were formed. If we identify the stellar sources of these grains, we can establish constraints on these stellar evolution from the precise information acquired from these grains. The stellar sources of each type of presolar grains have been clarified mostly, but some are still not clear.

SiC Type-A is one of them. These grains have peculiear nitrogen- and carbon-isotopic ratios.

To explain these isotopic ratios, I calculated the equilibrium values of nitrogen- and carbon-isotopic ratios as a function of temperature and density.

If the calculated isotopic ratios agree with

that of these grains, I can establish constraints on stellar source from the temperature and density. This attempt is now in progress.