Oxygen isotopic composition of a picotite-bearing chondrule from the Baszkowka(L5) meteorite

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The O isotopic compositions of minerals in the picotite-bearing chondrule from Baszkowka(L5) were analyzed using SIMS in order to presume the formation process of the chondrule. Picotites in the chondrule are the 16O-richest, whereas plagioclases are the 16O-poorest. Olivines have medium oxygen isotopic composition. The O isotopic compositions of these minerals in the chondrule correlate with the crystallization sequence. The heterogeneity of oxygen isotopic compositions within the picotote-bearing chondrule suggests that the older, early nebular materials in Baszkowka have not been thoroughly homogenized.

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