The Al-Mg isotopic compositions of chondrules from Allende(CV3)

# Seiji Maruyama[1], Hisayoshi Yurimoto[2]

The Al-Mg isotopic compositions of four Allende chondrules were analyzed using SIMS for the purpose of evaluating of the chondrule formation time. Plagioclases and the mesostasis in two chondrules showed detectable 26Mg excesses corresponding to initial 26Al/27Al ratios <1x10^-5. Nephelines formed by the secondary alteration in a plagioclase-rich chondrule showed no 26Mg excess. The Al-Mg isotopic compositions of minerals in these chondrules suggest that Allende chondrules may have formed 2-3 million years after CAI formed, and the secondary alteration processes may have occurred a few million years later still.