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### **K-Na fractionation in equilibrated LL chondrites**

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In equilibrated ordinary chondrites, feldspar is homogeneous and of oligoclase composition (typically  $Or_6An_{11}Ab_{83}$ ), except for LL chondrites [1], where K content seems variable. We studied feldspar grains of ALH 84027 (LL7), Trebbin F1 (not classified so far), Trebbin WR (LL6), Saint Séverin (LL6), ALH 83070 (LL6) and Krähenberg (LL5). There is significant intragrain and intergrain variability of the K/Na ratio, up to ~50% lower than chondritic ratios. This fractionation seems complementary to the uniquely large K enrichments (up to a few bulk %) of dark inclusions in Bholá and Krähenberg [2]. As most of the aforementioned meteorites display Ar-Ar plateau age spectra of 4.1-4.3 Ga [3], the fractionation event must predate closure of the K-Ar system, and affected large parts of the parent body. A large scale impact appears a possibility to be investigated.

References: [1] VanSchmus W.R. & Ribbe P.H. (1968) GCA 31, 747. [2] Wlotzka F. et al. (1983) GCA 47, 743. [3] Trieloff, M. (1989) Dipl. thesis, Heidelberg University

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