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### **Brecciation of LL chondrites**

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In this study thin sections of 115 LL chondrites from the Institut für Planetologie were studied in order to obtain the abundance of brecciated rocks among these chondrites [1].

91 of the investigated chondrites are brecciated (~79%). This percentage is somewhat higher than the value earlier estimated by Binns [2] (~62%). This author also stated that H and L chondrites are less often brecciated (~25% and ~10%, respectively). In addition, 48 of the 115 examined LL chondrites contain shock veins, 44 of these 48 chondrites are brecciated rocks. The number of chondrites with shock veins increases with the petrological type. Many of the the LL5, LL5-6 and LL6 breccias experienced thermal metamorphism and recrystallization after brecciation and relithification.

The results clearly show that the LL chondrite parent body was more severely affected by impact processes than the parent bodies of the H and L chondrites.

[1] Schleiting M. (2014) Bachelor-Thesis, Institut für Planetologie, WWU Münster, 1-54. [2] Binns R.A. (1967) Earth Planet. Sci. Lett. 2, 23-28.

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