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### **The First Microsecond of a Hypervelocity Impact.**

*Gärtner\*\*\*, M., Gulde, M., Ebert, M., Kenkmann, T., Putzar, R., Watson, E., Schimmerohn, M., Hergarten, S., Schäfer, F., \*University Freiburg, Institute of Earth and Environmental Sciences, \*\* Fraunhofer Institut for High-Speed Dynamics, Ernst-Mach-Institut, 79104 Freiburg, marie.a.gaertner@gmail.com.*

Jetting during the early stages of an hypervelocity impact has long been proposed as an explanation for the terrestrial origin of tektites [1]. This highly shocked and superheated material has been found at large distances up to thousands of kilometers away from the point of impact [2], indicating extremely high ejection velocities. Although there have been several experimental studies dealing with the jetting process [e.g. 1], detailed investigation on the jetted particle cloud are virtually non-existent.

In order to investigate the jetting process, two series of hypervelocity experiments were performed using a two-stage light-gas gun. The jetted particle front was recorded by a high-speed video camera and evaluated via image processing.

The experiments show a plasma cloud which is partially ejected at higher velocities than the velocity of the impactor. The findings are applied to the Moldavite stewn fields of the Ries impact.

[1] Yang and Ahrens (1995), *Icarus*, 116:269-274, [2] Glass, B.P. (1990) *Tectonophysics*, 171, 393-404.

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