

## **Fission Fragment Induced Sputtering of Atoms from a Pu Target .**

One of the least understood problems in solid-state physics is the interaction of high energy particles with material. While the Bethe-Weizsaecker formula describes the energy loss for high energy particles, it does not give a description of the physics processes involved. Furthermore the formula breaks down at lower energies, where the nuclear energy loss becomes dominant. While theoretical models and data exist for the low energy domain in solid-state physics, the situation at higher energies is very unsatisfactory. Up to very recently, no calculations were available which could model the physics at higher energies and furthermore the available data suffered from both lack of statistics and poor systematics. After discussing the current experimental and theoretical situation, I will present data from a recent experiment at LANL, where we studied the sputtering of Pu atoms from a foil, induced by fission fragment (80-100 MeV). In addition, I will qualitatively compare the data with a shock wave model and outline the plan for the future.