Q. For pure Al what happens in the heat-affected zone below the melt?
A. Damage is introduced in the form of dislocations and slip.

Q. Is there homogeneous nucleation in the melts?
A. We do not know for certain; homogeneous nucleation is rare and one cannot rule out heterogeneous nucleation.

Q. Are there more interstitials in the ion-implanted samples?
A. The samples have been amorphized by the large implant dose; the concept of interstitials is not well defined in amorphous materials.

Q. How do you get by the other phases when you go from $\alpha$ to $\gamma$ in Mn?
A. By superheating past them with the nsec laser pulse.

Q. How do you know that the Mn $\alpha$ phase did not melt at 0.77 J/cm$^2$?
A. From transient reflectivity measurements during irradiation and microscopy after irradiation.

Q. What was the composition of the Al-Ni?
A. It ranged from 50:50 Al-Ni to 36 at.% Ni.

Q. Could you force a certain structure by seeding?
A. Most likely, yes.

Q. Do large complicated unit cells have time to form in the short solidification times in this experiment?
A. Icosahedra are believed to form or exist in the liquid phase.

Q. Can you quench it too fast and get amorphous material?
A. Yes.

Q. Will photon pressure affect the vapor pressure?
A. No, the photon pressure is negligible.

Q. Is there Al dissolved in the alloys from the underlying layer?
A. No, Al is only found when you blow a hole through the layer and splash the Al.
Q. Isn't most of the energy in the shock wave?
A. One can calculate from the extent of melt depth that most of the energy has gone into melting.

Q. Is there any partitioning of B and Fe?
A. No, not under present quenching conditions; only in the 4 at.% B alloy at the last stages of solidification has possible partitioning been observed.

Q. What is the segregation coefficient for B in Fe?
A. The equilibrium value is very small; most likely, the non-equilibrium value that applies to the present experiments is much higher, which in turn increases the interfacial stability.

Q. How do you check the composition?
A. By knowing the thickness of each layer and the number of layers of each element.

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Q. What is the basic parameter?
A. Energy.

Q. What is the Al film thickness?
A. 25 mm.

Q. What was the symptom of fatigue in the Al target?
A. At the lower fluence levels where vaporization is not an issue, the films can be cycled but eventually tear.

Q. When do you turn on the laser?
A. Either before or after the electrons.

Q. What is the synchronization resolution?
A. 20 psec.

Q. When do you stop melting?
A. After 20 psec.

Q. Can you tell if any of the Al transforms to vapor?
A. No, but because the film remains under low fluence levels, we believe only a solid-liquid transition occurs.

Q. Does the film deform?
A. Yes, after the event the films appear to have deformed.

Q. How do you measure lattice parameters when the films are flexible and deformed?
A. On the time scale of interest no deformation has occurred.

Q. Can you use reflection geometry in your electron diffraction to characterize the surface?
A. Yes. In fact, we are developing a system to do that. It will be RHEED.