DISCUSSION

FROM THE AUDIENCE: Have any ferruginous body central cores that have been obtained from any of Dr. Gross' animals been studied to see if their patterns have been altered?

DR. GROSS: Yes, we have identified chrysotile as the central core of ferruginous bodies experimentally produced in hamsters from brake drum dust.

FROM THE AUDIENCE: As far as the fibers that had been converted to amorphous form, would they not give this pattern?

MR. HALLER: No, they would not give a diffraction pattern at all, nor would the cores of ferruginous bodies formed from filamentous glass.

FROM THE AUDIENCE: You said that you might have to use the electron microprobe. Looking at your electron diffraction patterns, which are quite good, I wonder what microprobe analysis might add?

MR. HALLER: The microprobe, by determining qualitatively and quantitatively the atomic composition, can help identify unknown fibers. The resolution depends upon the type or model of microprobe used. These fibers are not large to begin with; so they must be located, and the probe resolution must be adequately high.

DR. J. P. LEINEWEBER (Johns-Manville Research Center): The bare regions of the central core were a half micron by a micron. That would be good enough for microprobe.

MR. HALLER: Let me say that the philosophy behind the initial effort here was to do this as simply as possible in an effort to find a technique that would quickly and positively identify the core of any of the ferruginous fibers.

DR. COOPER: The one thing that you definitely have shown is that they are not chrysotile. I think that is obvious.

MR. HALLER: I think that is absolutely true, without question. I might add that by electron diffraction, it has not been possible, with our existing equipment, to distinguish among the various asbestotic minerals, other than chrysotile, because they are all so similar. We shall probably have to rely on chemical analysis; and hence, on the microprobe, in carrying forward our studies in the future.

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