the asbestos fibril average diameter was determined to be 0.0337 μm with distributions similar to that observed by other workers (10). From 45 fibrils of triple jet-milled chrysotile, the average diameter was determined to be 0.0316 μm, with a standard deviation of 0.0063 μm.

ASBESTOS IDENTIFICATION

Asbestos can be identified in the transmission electron microscope in one of two ways. The first and absolute method is by electron diffraction. Such a diffraction pattern is presented as Fig. B-1. Measurement of diameters and correlation of these measurements with a known standard gives the interplanar spacings of the material. Comparison of these spacings with the ASTM file identifies the material as clino-chrysotile (asbestos).

The second method of identification is by appearance. Fig. B-2A represents an image of asbestos obtained in the TEM. Fine lamellae are observed within the fibril which are parallel to the long axis. This appearance is characteristic of chrysotile asbestos fibrils. Because of the nature of the electron beam, radiation and heat damage can occur in the material markedly altering the appearance. Such changes in asbestos are represented in Fig. B-2B. The fine linear appearance of the fibril of Fig. B-2A has been changed to a mottled structure.

Table B-1 - Asbestos Concentration on Filters

Sample	Sample Identification	Concentration, ng/cm^2 of filter
A	Test–normal stop-new brakes	15.32
B	Background for A	1.06
C	Test–normal stop-burnished brakes	7.98
D	Background for C	4.64
E	Test–high temperature stop-burnished brakes	5.37
F	Background for E–not used, insufficient sample	
–	Blank–unused filter	0.33

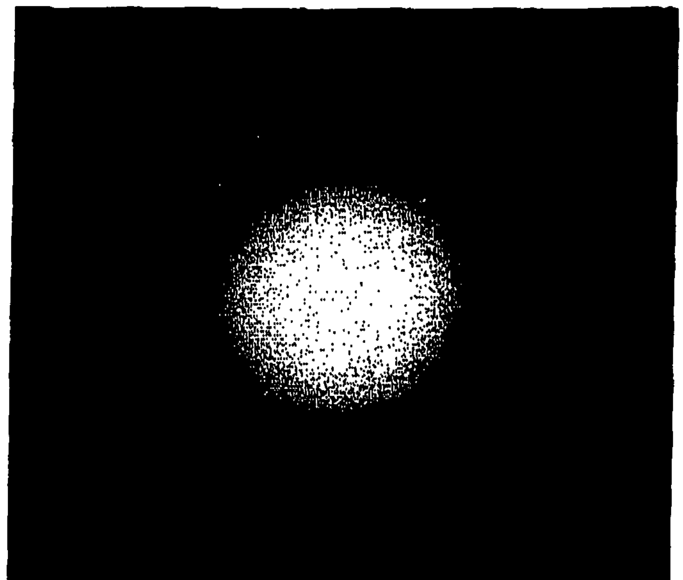

Fig. B-1 - TEM electron diffraction pattern of chrysotile fibril

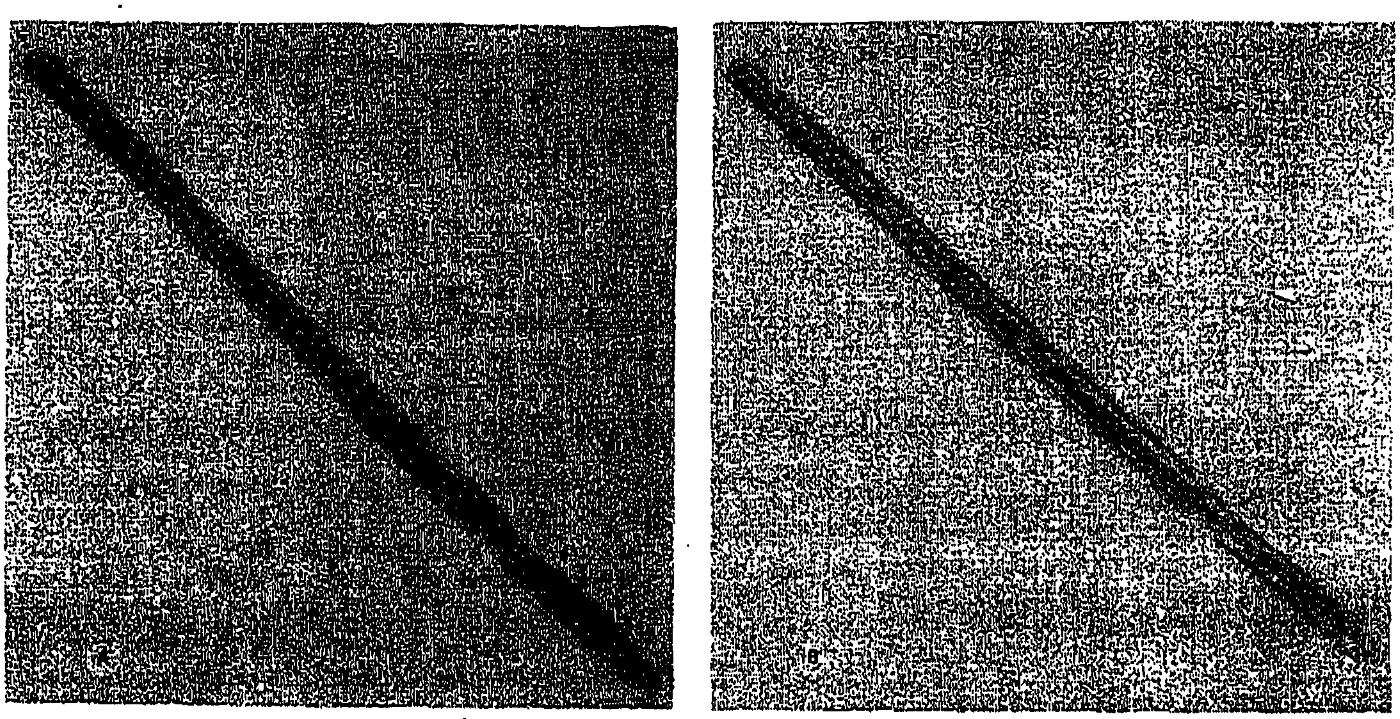

Fig. B-2 - TEM image of fibril; A-before, B-after electron beam damage