Table 2. *Distribution of concentric and spiral structures in the circumferential lattice layers*

Sample	Concentric structure (%)	Spiral structure (%)				Total number examined
		Single	Double	Triple	Quadruple	
Coalinga, California	28	42	16	11	3	36
Transvaal, S. Africa	54	25	19	2	0	43
Tasmania, Australia	13	33	13	13	27	15

conflict with the clino-chrysotile, because such a structure may occur by a component of the conical roll additional to the original helical roll. In this case, the stacking of the 200 layers becomes imperfect and is accompanied by a component of the conical roll. Accordingly, the contrast of the 4·5 Å fringes would become poor. The fact that the tilt angles of two sets of the 4·5 Å fringes are asymmetrical seems to support this idea.

(*b*) *Growth mechanism*

The possibility of both concentric and spiral structures for the circumferential lattice layer, suggested by Jagodzinski & Kunze (1954) in terms of the dislocation theory is confirmed by the present observations. The conically stepped structure of the growth end (Figs. 7 and 8) can also be explained by this model. It was found at the same time that the ratio of the concentric structure to the spiral one varied from sample to sample, presumably depending on their growth conditions. From these results, the concentric lattice layers seem to exist in the Quebec sample studied in the previous work (Yada, 1967) though its frequency of appearance must be very small.

On the other hand, exceptional growth patterns such as in fibrils *D* and *E* in Fig. 12 were found to exist,

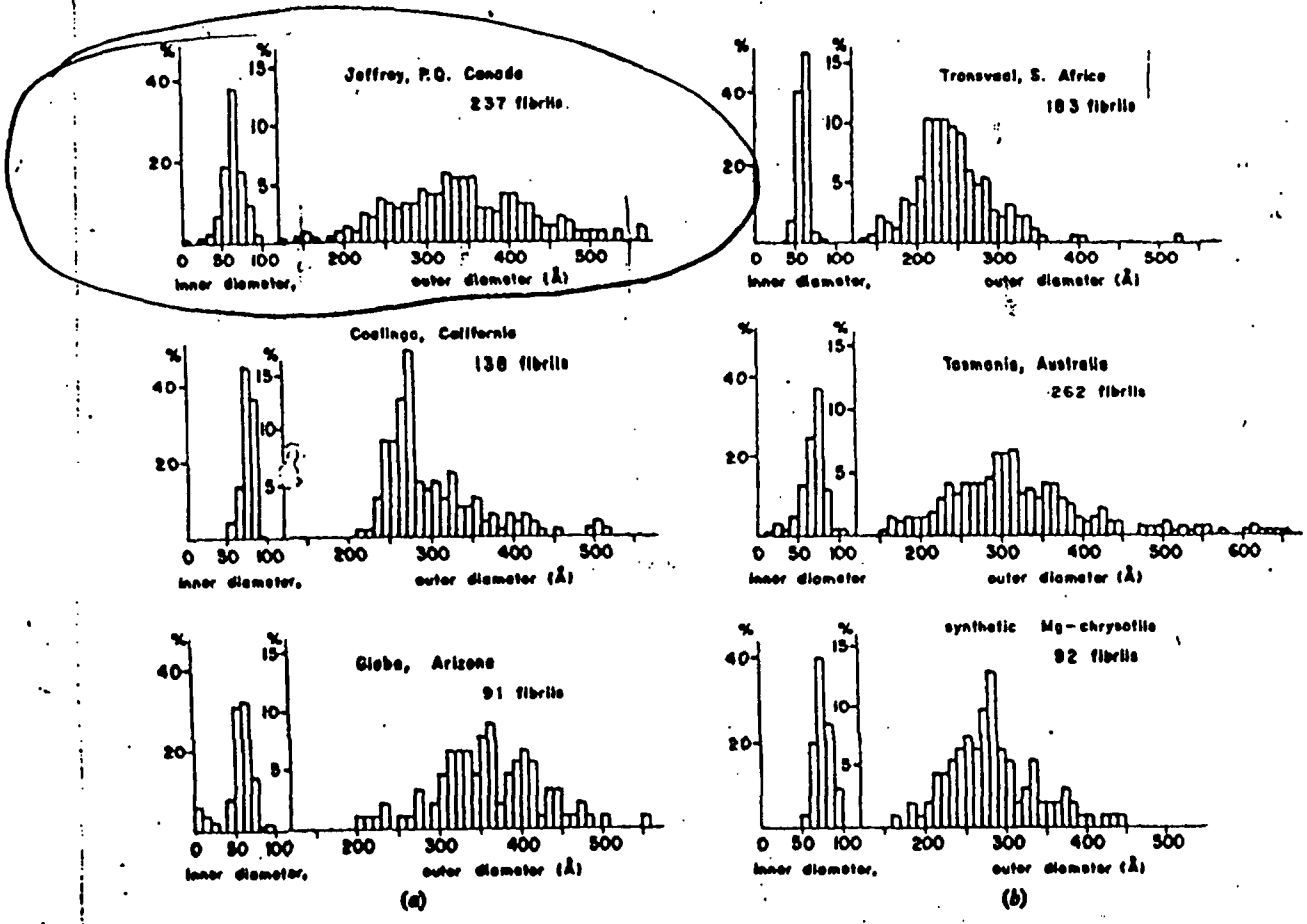

Fig. 15. Frequency distribution of inner and outer diameters for the samples from different localities whose names are inscribed with the number of fibrils examined.

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