

Table 1. The start material of bladed aragonite on druzey calcite is specimen no. 1201, Rand Collection, Bryn Mawr College. Collected from the Knickerbocker quarry, 2 miles north of Frazer, Chester County, Pennsylvania.

Oxide	Analyses of Start Materials		
	Druzy Calcite	Bladed Aragonite	
CaO	54.6±0.4	56.1±0.5	wt. %
BaO	0.9	0.98	wt. %
SrO	Nil	200	ppm
MgO	10200	500	ppm
FeO	100	80	ppm
MnO	Nil	Nil	

Table 2. Results of calcite-aragonite experiments: C, calcite; A, aragonite; parentheses denote minor phase. Starting material bladed aragonite on druzey calcite.

Temp (°C)	Pressure (kb)	Products	Time (days)
128	5.18	A + (C)	21
132	5.18	A + (C)	21
153	4.83	C + (A)	35
76	4.48	A	3
90	4.14	C + (A)	28
93	4.14	C	17
56	4.14	A + (C)	28
73	4.14	A + (C)	17
70	3.69	C	8
81	3.52	C	36

parison of X-ray diffraction patterns of the product with that of the start material (Table 2). The results are plotted in Figure 1.

Table 3 contains the slope of the boundary curve at lower temperatures, its intercept at 0°C, and the resulting pressure at 100°C as obtained from our data, that of Boettcher and Wyllie (1968), and that of Johannes and Puhon (1971). The slope and 0°C intercept of our data and that of Boettcher and Wyllie are in near agreement. Both of the 100°C points are within the limits of experimental error of the 4.35 ± 0.15 kbar pressure of Crawford and Fyfe (Fig. 1, C and F). The slope, intercept, and 100°C point obtained from the data of Johannes and Puhon are not in agreement with the above information. Perhaps this discrepancy results from the difficulty they acknowledge