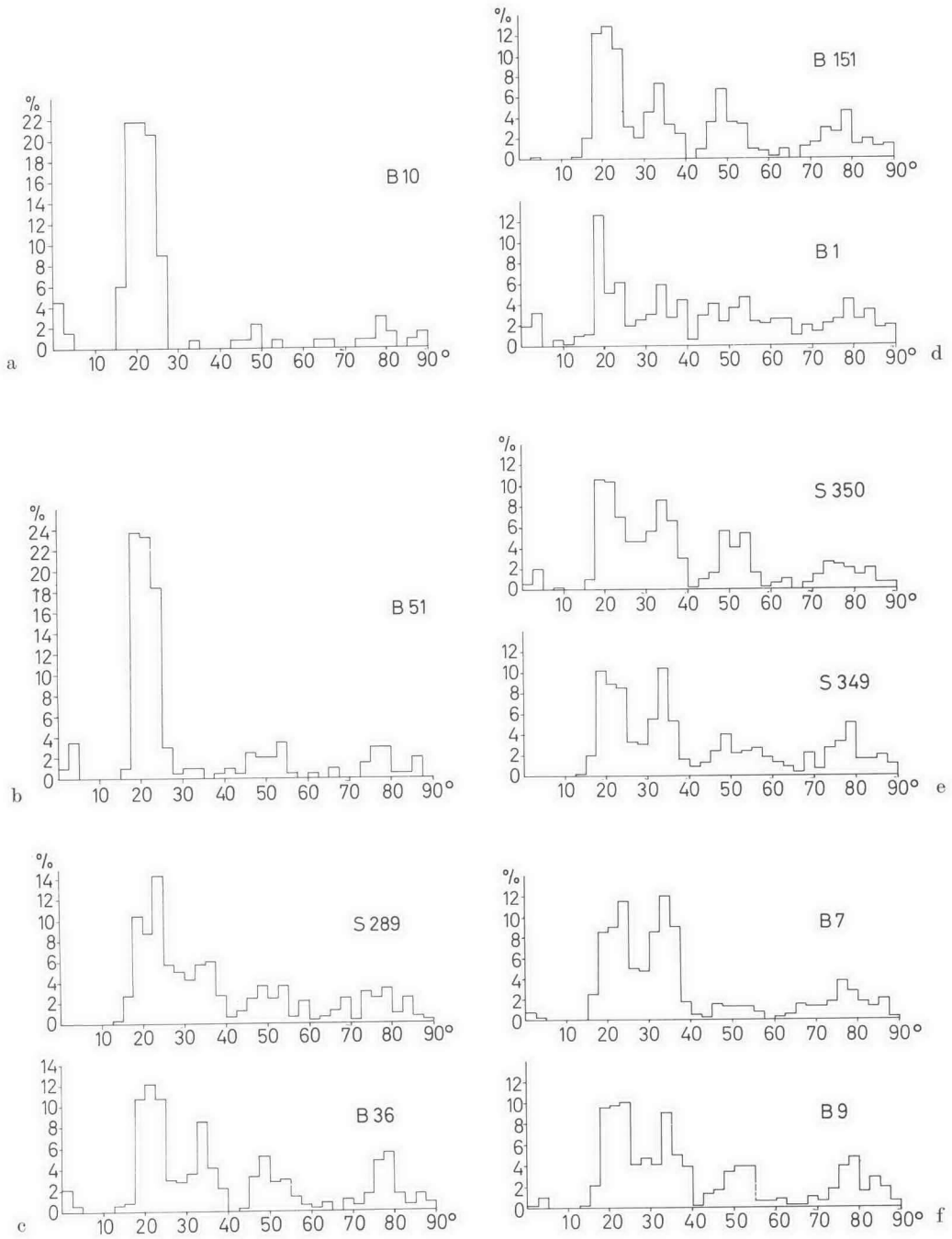

Fig. 11. Frequency distribution of measured angles between poles of planar structures and optic axis

Using these definitions, relative (f_{hkil}) and absolute F_{hkil}) frequencies were calculated. They are recorded in Tables 3 and 4.

$$\text{relative frequency: } f_{hkil} = \frac{q_{hkil}}{p_{hkil}} \cdot 100\,(\%)$$

$$\text{absolute frequency: } F_{hkil} = \frac{q_{hkil}}{Q} \cdot 100\,(\%).$$

For better comparison of our results with data published elsewhere the more familiar plots of the angles between poles of planar features and the optic are shown in Fig. 11.

3.3. Spatial Distribution within the Grains

Within an individual quartz grain, the distribution of planar elements and lamellae is not necessarily uniform. Quite often they concentrate near grain boundaries in particular in corners. Sometimes a certain part of the grain does not display any planar elements or lamellae at all.

In single grains — positioned suitably — one can determine how many symmetrically equivalent planes exclusively of the same positive or negative crystallographic form do exist, or whether the features present are combinations of both. Table 5 lists the results of these observations for decorated and non-decorated planar elements parallel to $\{10\bar{1}3\}$, respectively $\{01\bar{1}3\}$. Only those quartz grains were used in which all 3 positive and all three negative rhombohedra could be observed potentially ($p_{hkil} = 6n$; $n = 30$). The figures give the percentage of grains in which the combination in question was observed: for instance all three rhombohedron faces of one form, either $\{10\bar{1}3\}$ or $\{01\bar{1}3\}$, could be observed in 16% of all quartz grains of B 151.

Table 5. *Combinations of planar structures parallel to $(10\bar{1}3)$ and/or $(01\bar{1}3)$ in single quartz grains. The figures give the percentage of grains in which a particular combination was observed*

Rhombohedra $(10\bar{1}3)$ and $(01\bar{1}3)$	B 10	B 51	S 289	B 36	B 151	B 1	S 350	S 349	B 7	B 9
3 positive and 3 negative	3	6	15	13	18	9	27	3	3	10
3 positive and 2 negative or vice versa	3	3	12	8	29	14	9	16	8	10
3 positive and 1 negative or vice versa	3	18	8	8	13	17	5	21	8	17
3 positive or 3 negative	19	29	8	32	16	34	41	26	29	53
2 positive and 2 negative	6	9	19	—	5	6	9	8	11	—
2 positive and 1 negative or vice versa	13	18	8	3	8	3	5	8	18	3
2 positive or 2 negative	19	6	12	13	5	11	5	16	18	7
1 positive and 1 negative	6	—	15	8	3	6	—	3	3	—
1 positive or 1 negative	19	6	—	13	3	—	—	—	—	—
none	6	6	4	—	—	—	—	—	3	—