

Table 1. *Petrography of investigated rock samples. All rocks contain apatite, zircon and opaques as minor constituents, S 350 and B 41 secondary calcite. \bar{n} is the average refractive index of the diaplectic quartzes and glasses, see Table 8. % are volume percentages*

| No. | Rock name | Stage of shock metamorphism | Quartz vol. percentage, grain size and refractive index | Feldspar | Biotite | Amphibole |
|-------|----------------------------------|-----------------------------|--|--|-------------------------|------------------------|
| B 10 | quartz diorite gneiss | I | 33% [0.05—0.5 mm] $\bar{n} = 1.546$ | 61% oligoclase | 5% | — |
| B 51 | granite gneiss | I | 32% [0.05—0.4 mm] $\bar{n} = 1.546$ | 63% oligoclase and orthoclase | 5% | — |
| S 289 | granite or quartz diorite gneiss | II | 19% [0.1 —0.8 mm] $\bar{n} = 1.545$ | 57% feldspar, nearly completely isotropic | 24% with kinkbands | — |
| B 36 | granite | I | 33% [0.2 —1.0 mm] | 64% oligoclase and orthoclase, the latter with sanidine optics | 3% | — |
| B 151 | diorite | II | 6% [0.05—0.4 mm] $\bar{n} = 1.536$ | 47% oligoclase-andesine. Isotropic twin lamellae | 12% | 35% with twin lamellae |
| B 1 | quartz diorite gneiss | II | 33% [0.2 —0.6 mm] $\bar{n} = 1.534$ | 62% oligoclase. Isotropic twin lamellae | 3% | 1% |
| S 350 | granite or diorite gneiss | II | 34% [0.2 —0.1 mm] $\bar{n} = 1.533$ | 60% feldspar partially or completely isotropic | 5% biotite and chlorite | — |
| S 349 | quartz diorite gneiss | II | 22% [0.6 —0.2 mm] $\bar{n} = 1.529$ | 55% andesine, partially or completely isotropic (see STÖFFLER, 1967) | 4% with kinkbands | 19% |
| B 7 | granite or quartz diorite gneiss | II | 37% [0.2 —0.6 mm] $\bar{n} = 1.480$ partially isotropic and transformed into secondary clay minerals | 58% feldspar Partially isotropic, recrystallisation | 4% | — |
| B 9 | granite or quartz diorite gneiss | II | 35% [0.2 —0.8 mm] $\bar{n} = 1.479$ partially transformed into secondary clay minerals | 60% feldspar, partially isotropic, recrystallisation | 4% | — |

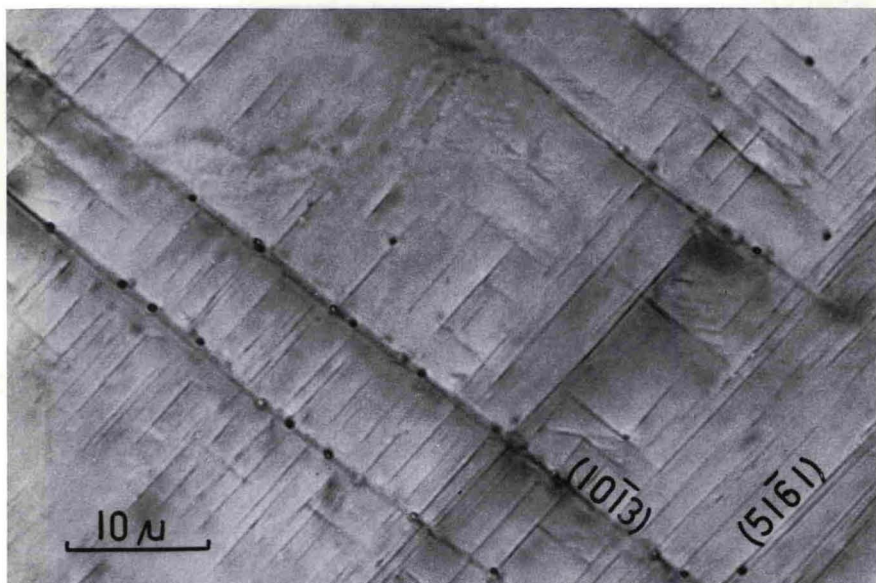


Fig. 2. Planar elements with some single decorations in quartz from sample B 151. Plane polarized light

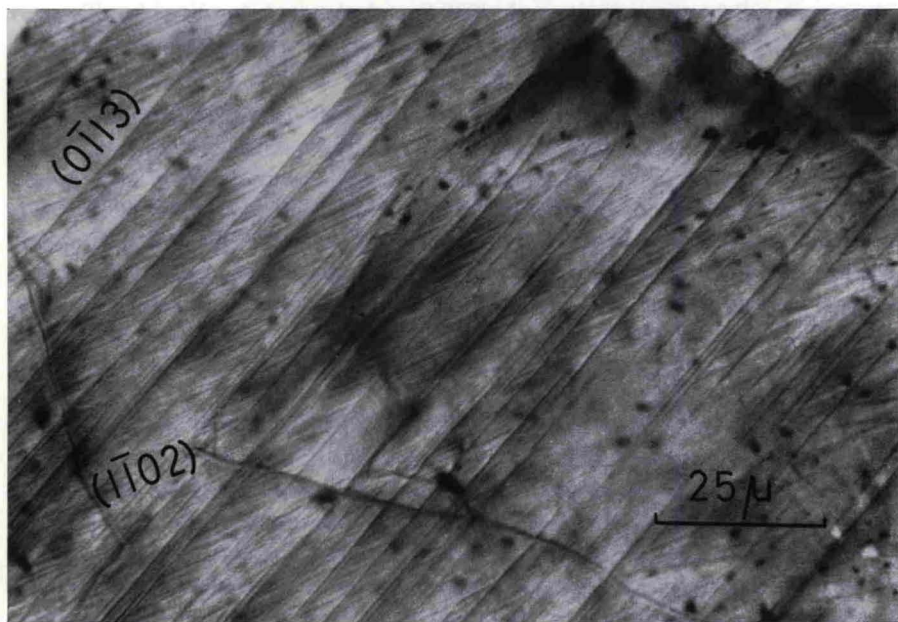


Fig. 3. Non-decorated planar elements in quartz from sample B 7. Crossed nicols

found in the sample S 349 (Fig. 4). Some lamellae can be observed only under highest magnifications (oil immersion).

All quartz lamellae in the investigated rock samples are symmetrical. Asymmetric lamellae like those reported by CHRISTIE, GRIGGS and CARTER (1964) from studies