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PETROLOGY OF THE OCEANOGRAPHER FRACTURE ZONE (35°N35°W)

by

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A Dissertation

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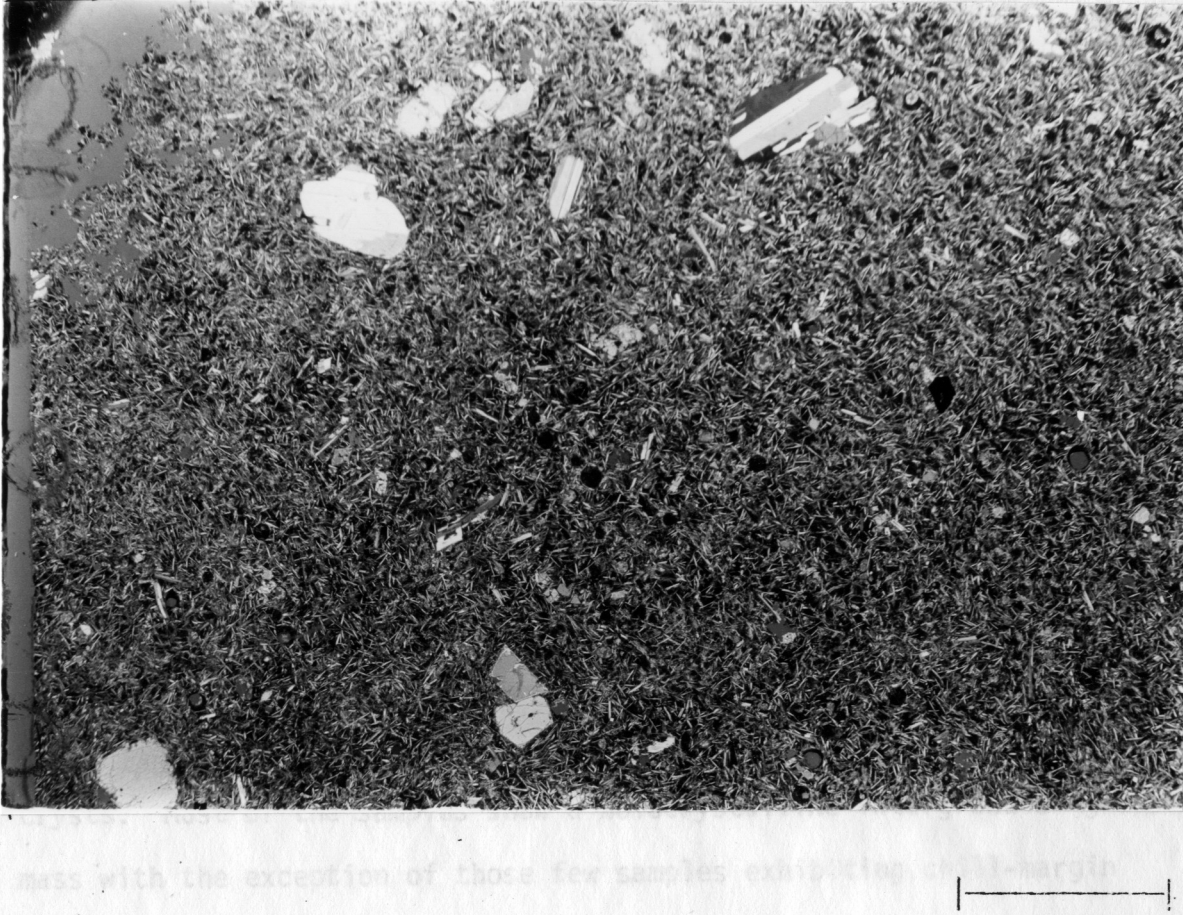


Plate 1. Porphyritic basalt (V30-RD8-P13). Phenocrysts of olivine and plagioclase lie in a vesicular matrix with microlites of plagioclase. Crossed polars. Scale mark is 0.5 mm.



...hule calcium-poor pyroxene is characteristically absent in the Ocean-
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Plate 2. Photomicrograph showing the glass-rich crust of basalt fragment (V30-RD10-P11). Half-crossed polars. Scale mark is 0.5 mm.



is discussed in detail in the following section.
Cataclastic Textures of Metabasites

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Plate 3. Microstructure of plagioclase mylonite (V30-RD18-P10). Note well-developed foliation. Crossed polars. Scale mark is 0.5 mm.

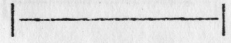


Plate 4. Metamorphosed olivine gabbro (V30-RD22-P4). Clinopyroxene is intergrown ophitically with plagioclase. Crossed polars. Scale mark is 0.5 mm.

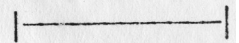


Plate 5. Recrystallization along plagioclase grain boundaries (V30-RD22-P10). Note well-developed deformation twins of plagioclase. Crossed polars. Scale mark is 0.5 mm.

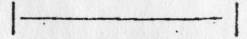


Plate 6. Fractured plagioclases in metagabbro (V30-RD12-P37). Crossed polars. Scale mark is 0.5 mm.



Apparently, recrystallization is far more intense in this specimen than
the previous one (V30-RD20-P16).

Plate 7. Metagabbro with angular plagioclase fragments (V30-RD20-P16).
Crossed polars. Scale mark is 0.5 mm.