

while in sections parallel to the clinopinacoid, the extinction is seen to be about 39° or 40° against 'C. Most of the pyroxene has a peculiar, fibrous or mottled appearance, due to what is apparently its partial alteration into a light green pleochroic hornblende. This hornblende is darker in colour and generally has a shred-like character at its contact with the pyroxene, the two minerals, however, often having a sharp line of contact, which in this case is usually a cleavage trace. The various patches, streaks or shreds of hornblende scattered through an individual of pyroxene generally have a common orientation, presenting elongated forms in prismatic sections of the pyroxene, but on basal sections generally appearing as irregular spots, the hornblende strings being inlaid parallel to the C axis of the pyroxene, and sometimes also elongated parallel to $\infty P \infty$, both minerals having the B axis in common.

In addition to the hornblende associated with the pyroxene, the rock contains other hornblende which shows no evidence of derivation from pyroxene. This is of a deep green colour, has the usual perfect cleavages, and occurs scattered through the rock in irregular shaped masses, which however occasionally have well defined prismatic contours. The pleochroism is strongly marked C =dark bluish-green; B =dark green; A =light yellowish or brownish-green.

The scapolite is abundant, and occurs in large, colourless grains. In basal sections a very distinct uniaxial figure was repeatedly obtained, and by means of the quarter-undulation plate its negative character was clearly established. The quadratic cleavage parallel to $\infty P \infty$ is distinct. The polarization colours are either brilliant or are of a pale bluish-gray tint like those of the feldspars. The brilliantly polarizing scapolite occurs side by side with that which shows the soft gray tints, so that the difference does not seem to be due to a varying thickness of the section. In two instances, traces of polysynthetic lamellæ were observed, in which the extinction, though much less distinct than in plagioclase, resembled it otherwise very

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