

strongly. The appearance was very suggestive of the derivation of the scapolite from plagioclase, and if this be the case the twinning structure of the latter is retained after the mineral has apparently been entirely changed to scapolite. Probably, however, in these cases the change may not be complete, and although the mineral has the characters of scapolite, there may be sufficient plagioclase remaining in twinning position to cause the alternate oblique extinction observed. There are in the scapolite, inclusions of a dusty, opaque character, besides fluid inclusions and microlites. The dust and fluid exclusions are disposed either in planes or irregularly; in the latter case, the section may be really parallel to the planes in which the inclusions lie. The microlites lie for the most part in cleavage lines, and have their long axes either perpendicular or oblique to certain planes (sometimes cracks) which cross the cleavages. In some instances, numerous opaque, thick plates and stout rods were observed lying parallel to the cleavage lines. When seen on edge, these plates and rods had rectangular outlines, although rounded patches of the same opaque material could sometimes be seen. Occasionally the scapolite is somewhat cloudy, owing to the presence of a kaolin-like decomposition product, but generally it is quite fresh and clear. The epidote occurs in small, nearly colourless grains of irregular shape. Scattered through both the hornblende and the pyroxene, and occasionally to be observed in larger grains situated between those of the other constituents, there are irregularly rounded or oval grains of a mineral which is referred to the rhombic pyroxenes. It is biaxial, possesses a rather high index of refraction, and polarizes in brilliant though somewhat subdued tints. It has one well-marked cleavage, to which the extinction is parallel, and has a fine, fibrous structure, also parallel to the cleavage, which seems to be due to decomposition. The mineral is not quite colourless, but has a faint purplish or amythestine tint, and occasionally seems to be slightly pleochroic. Pyrrhotite occurs very sparingly, and is distinguished by its opacity and its bronze