

quantity of iron ore is considerable only in a few places, and as in these cases the percentage of pyroxene increases in the same proportion, the rock here assumes a very dark colour so that it is often taken for an iron ore. These portions of the anorthosite rich in iron ores are only few and local, and they pass over into the normal gabbro of the area which as above mentioned is very poor in iron ore.

If these iron ore grains are examined by reflected light, they are seen to be black and in a few cases they can be seen to be partly changed into a grey decomposition product, evidently a variety of leucoxene. This circumstance proves that the mineral contains titanitic acid in considerable amount.

In three hand-specimens from widely separated parts of the area an intermingling of two iron ores was distinctly seen. In one of the hand-specimens which comes from Wexford, range I. lot 7, one of the above mentioned localities where the anorthosite is rich in iron ore, careful observation in reflected light showed the iron ore to occur partly as a bluish black coarse grained variety, and partly as a brownish black finely granular variety both being irregularly intermingled and distinguishable only by reflected light.

When the section was treated for about half an hour on a water-bath with warm concentrated hydrochloric acid, the coarsely granular variety was entirely dissolved and the acid became strongly coloured with iron, while the finely granular variety was apparently not at all affected. We have evidently here an intergrowth of magnetite with ilmenite or at least with a titaniferous iron ore.

In another hand-specimen (from the neighbourhood of Lake Ouareau) a similar intergrowth was observed; the grains had a banded appearance in reflected light, one variety crossing the other in a single or double set of interrupted bands. When the section was treated with cold concentrated hydrochloric acid for 48 hours, no effect was produced; but when treated with warm concentrated acid in a water-bath, one variety of iron was dissolved as before