OCCURRENCE OF MARTITE IN MICACEOUS HEMATITE NEAR ESMONT, VIRGINIA

A. A. PEGAU AND W. C. OVERSTREET*

The senior author found some octahedra in certain specimens of a micaceous hematite presented to him for examination. At first he thought they might be magnetite, but since they were only slightly magnetic he suspected them to be martite, and turned them over to the junior author for a more detailed examination.

The martite occurs as octahedra disseminated through a dark steel-gray micaceous hematite which occurs near Esmont, Virginia.

In size the octahedra varied from 2 mm. to 7 mm. along a crystallographic axis, and in weight they ranged from about 50 milligrams to 330 milligrams. Some of the octahedra were perfectly developed, but most showed a distinct shortening along at least one axis.

The faces of the form showed minute pitting and also the impressions of smaller octahedra. The physical properties of the mineral include: octahedral crystallization, spinel twinning, G = 5.1, H = 6, submetallic luster, dark steel-gray color with bronze tarnish, reddish brown streak, conchoidal fracture, and feeble magnetism.

About 15% of the crystals examined showed no magnetism; others varied from feebly to strongly magnetic.

Both ferrous and ferric iron were found, with ferric iron the more abundant. The amount of ferrous iron obtained from the nonmagnetic specimens was appreciably less than the amount found in the magnetic crystals.

The authors are of the opinion that this mineral is martite, resulting from the pseudomorphous replacement of magnetite. The presence of ferrous iron and the pitted surface of the octahedra are taken as evidence of incomplete replacement. The red streak from a fresh surface of the mineral likewise suggests martite.

It is believed that this is the first report of martite from the State of Virginia.

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