

TANTALITE-(Fe)



Tantalite-(Fe) (formerly ferrotantalite) is a member of the columbite-cuxenite group and forms solid solution series with the more common columbite-(Fe), as well as tantalite-(Mn) and tantalite-(Mg), all of which occur predominantly in granitic pegmatites Northern Peninsula.

Dickinson County: Small, unnamed pegmatite in SW $\frac{1}{4}$ SE $\frac{1}{4}$ section 30, T42N, R29W: Wavelength dispersion electron microprobe analyses of a small, opaque, black columbite-tantalite series mineral from this locality shows compositional zoning with domains of both columbite-(Fe) and tantalite-(Fe) present. One analysis gave SiO₂ 0.18, TiO₂ 1.00, FeO 13.03, MnO 2.74, Nb₂O₅ 25.25, Ta₂O₅ 58.40, sum 100.60 wt%, which yields a formula of ~57 mole% tantalite-(Fe) based on six oxygen atoms.

UPDATE FROM: Robinson, G.W., and Carlson, S.M., 2013, Mineralogy of Michigan Update: published online by A.E. Seaman Mineral Museum, Houghton, MI, 46p.