

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. Rarely as crudely formed crystals, elongated along [100], usually radial to subparallel in nodules, to 15 cm; forms include {010}, {011}, {012}, {032}.

Physical Properties: Hardness = 4–4.5 D(meas.) = 3.66(2) D(calc.) = 3.69

Optical Properties: Transparent to translucent. *Color:* Colorless, pale gray, pale brown. *Streak:* White. *Luster:* Vitreous.

Optical Class: Biaxial (–). *Orientation:* $X = a$; $Y = b$. *Dispersion:* $r > v$; weak. $\alpha = 1.676(2)$ $\beta = 1.695(2)$ $\gamma = 1.698(2)$ $2V(\text{meas.}) = 43.5^\circ$ $2V(\text{calc.}) = 43.0^\circ$

Cell Data: *Space Group:* $Pmn\bar{b}$. $a = 6.861(1)$ $b = 8.987(1)$ $c = 5.045(1)$ $Z = 4$

X-ray Powder Pattern: Big Fish River area, Canada.

2.574 (100), 2.729 (90), 2.707 (80), 1.853 (60), 3.705 (40), 2.525 (30), 1.881 (30)

Chemistry:

	(1)	(2)
P ₂ O ₅	42.5	40.83
FeO	37.4	41.34
MnO	3.1	
MgO	0.8	
CaO	0.0	
Na ₂ O	16.5	17.83
Total	100.3	100.00

(1) Big Fish River area, Canada; by electron microprobe, average of six analyses; corresponding to Na_{0.91}(Fe_{0.89}Mn_{0.07}Mg_{0.03})_{Σ=0.99}P_{1.02}O₄. (2) NaFePO₄.

Occurrence: In phosphatic nodules in sideritic ironstones.

Association: Ludlamite, vivianite, quartz, pyrite, wolfeite, apatite, wicksite, nahpoite, satterlyite.

Distribution: From the Big Fish River area, Yukon Territory, Canada.

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Type Material: Mineralogical-Petrography Museum, University of Zagreb, Zagreb, Croatia; Royal Ontario Museum, Toronto, Canada, M34241; National Museum of Natural History, Washington, D.C., USA, 145745.

References: (1) Sturman, B.D., J.A. Mandarino, and M.I. Corlett (1977) Marićite, a sodium iron phosphate, from the Big Fish River area, Yukon Territory, Canada. *Can. Mineral.*, 15, 396–398. (2) Le Page, Y. and G. Donnay (1977) The crystal structure of the new mineral marićite, NaFePO₄. *Can. Mineral.*, 15, 518–521. (3) (1979) *Amer. Mineral.*, 64, 655–656 (abs. refs. 1 and 2).