Crystal Data: Hexagonal. *Point Group*: $\bar{3}$. As spherulites, to 200 μm, comprised of plates to 10 μm.

Physical Properties: *Cleavage*: Perfect on {001}, micaceous. *Tenacity*: n.d. *Fracture*: n.d. Hardness = 3 D(meas.) = n.d. D(calc.) = 2.56

Optical Properties: Transparent. *Color*: Brown. *Streak*: White. *Luster*: Vitreous. *Optical Class*: Uniaxial (-). ω = 1.700(2) ε = 1.625(2) *Pleochroism*: Distinct; *O* = dark brown, *E* = light brown. *Absorption*: *O* < *E*. Yellow to red-brown polarization colors with undulose extinction.

Cell Data: *Space Group*: $P\bar{3}$. a = 11.201(2) c = 10.969(2) Z = 3

X-ray Powder Pattern: Oldoinyo Lengai volcano, Gregory Rift, northern Tanzania.
10.97 (100), 2.724 (20), 5.597 (15), 2.796 (14), 4.993 (8), 3.234 (6), 2.189 (5)

Chemistry:

	(1)
Na_2O	12.71
SiO_2	0.51
P_2O_5	23.07
K_2O	2.17
CaO	0.76
Mn_2O_3	31.46
Fe_2O_3	7.52
SrO	0.76
BaO	0.47
CO_2	[7.34]
H_2O	[15.22]
Total	101.99

(1) Oldoinyo Lengai volcano, Gregory Rift, northern Tanzania; average of 10 electron microprobe analyses supplemented by IR spectroscopy, Mn valence by XANES, H_2O and CO_2 calculated from stoichiometry; corresponds to $(Na_{2.46}K_{0.28}Ca_{0.08}Sr_{0.04}Ba_{0.02})_{\Sigma=2.88}(Mn^{3+}{}_{2.39}Fe^{3+}{}_{0.56})_{\Sigma=2.95}[(PO_4)_{1.95}(SiO_4)_{0.05})]_{\Sigma=2.00}(CO_3)[O_{1.84}(OH)_{0.16}]_{\Sigma=2.00} \cdot 5H_2O$.

Occurrence: A product of low-temperature, oxidative alteration of gregoryite-nyerereite carbonatitic lavas.

Association: Fluorite, khanneshite, barite, magnetite, nyerereite (primary assemblage); calcite, shortite, nahcolite, trona, jacobsite, barytocalcite (secondary assemblage).

Distribution: From Oldoinyo Lengai volcano, Gregory Rift, northern Tanzania.

Name: Honors Jörg Keller (b. 1938), Emeritus Professor of Institut für Geo- und Umweltnaturwissenschaften, Albert-Ludwigs-Universität, Freiburg, Germany, for his contributions to the study of alkaline rocks and carbonatites, particularly the Oldoinyo Lengai volcano.

Type Material: Mineralogical Museum, St. Petersburg State University, St. Petersburg, Russia (19640/1).

References: (1) Zaitsev, A.N., S.N. Britvin, A. Kearsley, T. Wenzel, and C. Kirk (2017) Jörgkellerite, $Na_3Mn^{3+}{}_3(PO_4)_2(CO_3)O_2 \cdot 5H_2O$, a new layered phosphate-carbonate mineral from the Oldoinyo Lengai volcano, Gregory rift, northern Tanzania. Mineralogy and Petrology, 111(3), 373-381. Mineral. and Petrol., 111(3), 373-381. (2) (2018) Amer. Mineral., 103, 333 (abs. ref. 1).