Taniajacoite $SrCaMn^{3+}_2Si_4O_{11}(OH)_4 \cdot 2H_2O$

Crystal Data: Triclinic. *Point Group*: 1. As radiating groups or aggregates of acicular or prismatic crystals, with individual crystals to 0.15 mm.

Physical Properties: *Cleavage*: Good on {010}. *Tenacity*: Brittle. *Fracture*: n.d.
Hardness = 5-5.5 D(meas.) = 3.05(2) D(calc.) = 3.09

Optical Properties: Transparent. *Color*: Brown in transmitted light. *Streak*: Very light brown. *Luster*: Vitreous.
Optical Class: Biaxial (-). α = 1.686(2) β = 1.729(2) γ = 1.746(2) 2V(meas.) = 63.7(5)° 2V(calc.) = 62.58° *Dispersion*: *r* > *v*, strong.

Cell Data: *Space Group*: *C*1. *a* = 9.1386(5) *b* = 6.2566(3) *c* = 12.0043(6) α = 90.019(4)° β = 91.643(4)° γ = 89.900(4)° Z = 2

X-ray Powder Pattern: N'Chwaning III mine, Kalahari manganese field, South Africa.
12.142 (100), 3.134 (38), 2.771 (31), 4.269 (25), 5.164 (20), 2.363 (18), 1.532 (16)

Chemistry:

	(1)
SiO_2	36.85
Al_2O_3	0.06
Mn_2O_3	23.29
Fe_2O_3	1.84
SrO	19.15
CaO	7.03
H_2O	[11.17]
Total	99.39

(1) N'Chwaning III mine, Kalahari manganese field, South Africa; average electron microprobe analysis supplemented by Raman spectroscopy, H_2O from structure; corresponds to $Sr(Ca_{0.81}Sr_{0.19})_{\Sigma=1.00}(Mn^{3+}_{1.90}Fe^{3+}_{0.15}Al_{0.01})_{\Sigma=2.06}Si_{3.96}O_{11}(OH)_4 \cdot 2H_2O$.

Occurrence: On chemically weathered metamorphosed manganese ore.

Association: Sugilite, aegirine, pectolite, richterite, potassic-ferri-leakeite, lipuite.

Distribution: From the N'Chwaning III mine, Kalahari manganese field, Northern Cape province, South Africa.

Name: Honors its finders, *Tania* Janse van Nieuwenhuizen (b. 1973) and Jacobus "*Jaco*" Stephanus Janse van Nieuwenhuizen (b. 1973), mineral collectors and the owners of ''Crystal Springs Minerals CC'' in South Africa.

Type Material: Mineral Museum, University of Arizona, Tucson, USA (20009) and the RRUFF Project (R140945).

References: (1) Yang, H., X. Gu, B. Cairncross, R.T. Downs, and S.H. Evans (2021) Taniajacoite and strontioruizite, two new minerals isostructural with ruizite from the N'Chwaning III mine, Kalahari manganese field, South Africa. Can. Mineral., 59, 431-444.