Kangjinlaite $Ti_{11}Si_{10}$

Crystal Data: Tetragonal. *Point Group*: 4/*m* 2/*m* 2/*m*. As grains to 20 μm in corundum.

Physical Properties: *Cleavage*: n.d. *Tenacity*: n.d. *Fracture*: n.d. Hardness = n.d.
D(meas.) = n.d. D(calc.) = 4.538

Optical Properties: Opaque. *Color*: n.d. *Streak*: n.d. *Luster*: Metallic.
Optical Class: n.d.

Cell Data: *Space Group: I*4/*mmm*. *a* = 9.4(2) *c* = 13.5(3) Z = 4

X-Ray Diffraction Pattern: Calculated pattern.
2.27 (100), 2.28 (87), 2.23 (68), 2.05 (37), 2.24 (35), 2.36 (34), 2.12 (22)

Chemistry:

	(1)	(2)
Si	25.56	34.79
P	9.68	
Ti	62.35	65.21
V	0.21	
Cr	0.83	
Mn	0.42	
Fe	0.95	
Total	100.00	100.00

(1) Cr-11 orebody, Luobusa ophiolite, ~200 km east southeast of Lhasa, Kangjinla District, Tibet, China; normalized EDS analysis; corresponds to $(Ti_{10.65}Cr_{0.13}Mn_{0.06}Fe_{0.14}V_{0.03})_{\Sigma=11.01}(Si_{7.43}P_{2.55})_{\Sigma=9.99}$.
(2) $Ti_{11}S_{10}$.

Occurrence: In podiform chromitite, perhaps by crystallization of a ternary Ti-Si-P melt during cooling.

Association: Wenjiite, badengzhuite, zhiqinite, a K-bearing dmisteinbergite-like mineral, corundum.

Distribution From the Cr-11 orebody, Luobusa ophiolite, ~200 km east southeast of Lhasa, Kangjinla District, Tibet, China.

Name: For the district in Tibet where the studied material was collected.

Type Material: Geological Museum of China, Beijing, People's Republic of China (M16104).

References: (1) Xiong, F., X. Xu, E. Mugnaioli, M. Gemmi, R. Wirth, Y. Yang, and E.S. Grew (in Press) Wenjiite, $Ti_{10}(Si,P,\square)_7$, and kangjinlaite, $Ti_{11}Si_{10}$, new minerals in the ternary Ti-P-Si system from the Luobusa ophiolite, Tibet, China. Amer. Mineral. (2) Miyawaki, R., F. Hatert, M. Pasero, and S.J. Mills (2021) IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) Newsletter 61. Eur. J. Mineral., 33, 161-162.