Zincospiroffite $Zn_2Te_3O_8$

Crystal Data: Monoclinic. *Point Group:* 2/*m*. As micrometric aggregates to 0.35 mm.

Physical Properties: *Cleavage:* None. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = Soft. D(meas.) = n.d. D(calc.) = 5.57

Optical Properties: Translucent. *Color:* Gray, in reflected light with no internal reflections. *Streak:* Dark green. *Luster:* Vitreous. Weak anisotropy, bireflectance and reflection pleochroism. R_1-R_2: (470 nm) 7.0-7.5, (546) 7.1-7.3, (589) 6.1-6.2, (650) 4.4-5.0

Cell Data: *Space Group: C*2/*c*. a = 12.72(4) b= 5.15(1) c = 11.82(3) $\beta = 99.2(3)^o$ $Z = 4$

X-ray Powder Pattern: Zhongshangou gold deposit, Hebei Province, China. 4.758 (w), 3.240 (w), 2.928 (m), 2.820 (w), 2.155 (w), 1.985 (w), 1.599 (w)

Chemistry:

	(1)
ZnO	24.57
PbO	1.64
MgO	0.24
TeO_2	71.90
Total	98.89

(1) Zhongshangou gold deposit, Hebei Province, China; electron microprobe analysis, minor FeO and SeO_2; corresponding to $(Zn_{1.97}Pb_{0.05}Mg_{0.04}Fe_{0.02})_{\Sigma=2.08}(Te_{2.95}Se_{0.01})_{\Sigma=2.96}O_{8.00}$.

Occurrence: A secondary mineral in an oxidized Te- and Au-bearing quartz vein.

Association: Occurs as a rim on, or a replacement of, calaverite, contains blebs of gold, sphalerite.

Distribution: Zhongshangou gold deposit, Chongli County, Hebei Province, People's Republic of China.

Name: As the zinc-dominant analogue of *spiroffite*.

Type Material: Geological Museum of China, Beijing, People's Republic of China; M10442.

References: (1) Zhang, Pei-Hua, Jin-Chu Zhu, Zhen-Hua Zhao, Xiang-Ping Gu, and Jin-Fu Lin (2004) Zincospiroffite, a new tellurite mineral species from the Zhongshangou gold deposit, Hebei Province, People's Republic of China. Can. Mineral., 42, 763-768. (2) (2005) Amer. Mineral., 90, 521 (abs. ref. 1).