

**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . As irregular crystals, to 0.2 mm across.

**Physical Properties:** Hardness = n.d. VHN = n.d. D(meas.) = n.d. D(calc.) = 5.036

**Optical Properties:** Opaque. *Color:* Red.

R<sub>1</sub>–R<sub>2</sub>: n.d.

**Cell Data:** *Space Group:*  $P2_1/n$ .  $a = 5.948(2)$   $b = 11.404(6)$   $c = 15.979(5)$   
 $\beta = 90.15(1)^\circ$   $Z = 4$

**X-ray Powder Pattern:** n.d.

Chemistry:	(1)	(2)
Tl	24.00	24.86
Hg	23.80	24.40
As	25.55	27.34
Sb	1.68	0.00
S	24.97	23.40
Total	100.00	100.00

(1) Alšar, Macedonia; by electron microprobe, corresponds to Tl<sub>0.90</sub>Hg<sub>0.91</sub>  
 (As<sub>2.63</sub>Sb<sub>0.11</sub>)<sub>Σ=2.74</sub>S<sub>6.00</sub>. (2) TlHgAs<sub>3</sub>S<sub>6</sub>.

**Occurrence:** As inclusions in rebulite.

**Association:** Rebulite, christite or routhierite, parapiertotite.

**Distribution:** From Alšar (Allchar), near Rošden, Macedonia [TL].

**Name:** Apparently to honor Simon Engel, son of Peter Engel, Swiss crystallographer, the principal describer.

**Type Material:** Natural History Museum, Bern, Switzerland, B2920.

**References:** (1) Engel, P., W. Nowacki, T. Balić-Žunić, and S. Šćavnićar (1982) The crystal structure of simonite, TlHgAs<sub>3</sub>S<sub>6</sub>. Zeits. Krist., 161, 159–166. (2) (1984) Amer. Mineral., 69, 211 (abs. ref. 1).