

**Crystal Data:** Monoclinic. *Point Group:* 2. Thin platy polycrystalline crystals, of irregular shape and porous, to about 0.1 mm, in crusts.

**Physical Properties:** *Cleavage:* Perfect on {001}. *Tenacity:* Sectile. Hardness =  $\sim 1$   
D(meas.) = 1.11(2) D(calc.) = 1.207(1) Pale yellow fluorescence under SW UV.

**Optical Properties:** Transparent to translucent. *Color:* Colorless, white, or pale grey with inclusions. *Luster:* Vitreous to waxy.

*Optical Class:* Biaxial (+) or (-).  $\alpha = \text{n.d.}$   $\beta = \sim 1.75$   $\gamma = \sim 1.95$   $2V(\text{meas.}) = \sim 90^\circ$

**Cell Data:** *Space Group:*  $P2_1$ .  $a = 8.392(5)$   $b = 6.181(3)$   $c = 9.558(5)$   $\beta = 98.48(12)^\circ$   
 $Z = 2$

**X-ray Powder Pattern:** Ravat, Tajikistan; shows strong preferred orientation on {001}.  
9.434 (100), 4.028 (13), 4.941 (11), 4.724 (11), 3.371 (10), 4.546 (5), 3.4441 (3)

**Chemistry:**

	(1)	(2)
C	93.41	94.34
H	5.51	5.66
Total	98.92	100.00

(1) Ravat, Tajikistan; by CHN analyzer; corresponds to C<sub>14.1</sub>H<sub>9.9</sub>. (2) C<sub>14</sub>H<sub>10</sub> [phenanthrene].

**Occurrence:** A rare sublimate formed in burning coal seams at  $< 50^\circ\text{C}$ – $60^\circ\text{C}$ .

**Association:** Other hydrocarbons, selenium.

**Distribution:** From near the former village of Ravat, left bank of the Jagnob River Valley, Tajikistan.

**Name:** For its occurrence near Ravat, Tajikistan.

**Type Material:** Mining Academy, Freiberg, Germany, 74120.

**References:** (1) Nasdala, L. and I.V. Pekov (1993) Ravatite, C<sub>14</sub>H<sub>10</sub>, a new organic mineral species from Ravat, Tadzhikistan. *Eur. J. Mineral.*, 5, 699–705. (2) (1994) *Amer. Mineral.*, 79, 389 (abs. ref. 1).