Ravatite

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 = ~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 (−). \( \beta = \sim 1.75 \quad \gamma = \sim 1.95 \quad 2V(\text{meas.}) = \sim 90^\circ \)

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

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:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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<tbody>
<tr>
<td>C</td>
<td>93.41</td>
<td>94.34</td>
</tr>
<tr>
<td>H</td>
<td>5.51</td>
<td>5.66</td>
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<tr>
<td>Total</td>
<td>98.92</td>
<td>100.00</td>
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(1) Ravat, Tajikistan; by CHN analyzer; corresponds to \( C_{14.1}H_{9.9} \). (2) \( C_{14}H_{10} \) [phenanthrene].

Occurrence: A rare sublimate formed in burning coal seams at < 50 °C–60 °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.