Geversite

Pt(Sb, Bi)₂

Crystal Data: Cubic. Point Group: 2/m 3. As tiny grains.


R: (400) 58.9, (420) 59.1, (440) 59.3, (460) 59.4, (480) 59.4, (500) 59.4, (520) 59.2, (540) 58.9, (560) 58.4, (580) 57.8, (600) 57.3, (620) 57.2, (640) 57.2, (660) 57.4, (700) 57.8

Cell Data: Space Group: Pa3. a = 6.428 Z = 4

1.240 (100), 1.940 (83), 1.140 (83), 1.194 (58), 1.720 (50), 1.310 (50), 1.174 (50)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt</td>
<td>45.0</td>
<td>41.8</td>
<td>44.48</td>
</tr>
<tr>
<td>As</td>
<td>0.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sb</td>
<td>51.5</td>
<td>43.1</td>
<td>55.52</td>
</tr>
<tr>
<td>Bi</td>
<td>12.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total 96.5 98.4 100.00

(1) Driekop mine, South Africa; by electron microprobe, corresponds to Pt₁.₀₀Sb₁.₈₄.
(2) Onverwacht mine, South Africa; by electron microprobe, corresponds to Pt₁.₀₀(Sb₁.₆₆ Bi₀.₂₉As₀.₀₄)Σ=1.₉₉ (3) PtSb₂.

Mineral Group: Pyrite group.

Occurrence: In concentrates of platinum minerals derived from Pt–Fe–Ni–Cu deposits in ultramafic rocks (Driekop mine, South Africa).

Association: Platinum, gold, hollingworthite, sperrylite, stibiopalladinite, chalcopyrite, pyrrhotite (Driekop mine, South Africa); vozhminite, heazlewoodite, tučekite, magnetite, copper (Vozhmin massif, Russia).

Distribution: In South Africa, in the Merensky Reef, Bushveld complex, Transvaal, in the Driekop [TL] and Onverwacht mines. In Russia, from the Morozova and Oktyabr mines, Talnakh area, Noril’sk region, western Siberia, and in the Vozhmin massif, Segeza district, central Karelia. At the Kelvon Grove prospect, near Fifield, New South Wales, Australia. From the Baula complex, Orissa, India. At Fox Gulch, Goodnews Bay, Alaska, USA. In the Wellgreen Ni–Cu–PGM deposit, Yukon Territory, Canada.

Name: In honor of Professor Traugott Wilhelm Gevers (1900–1991), University of the Witswatersrand, Johannesburg, South Africa, eminent South African geologist.

Type Material: National School of Mines, Paris, France.