

Crystal Data: Cubic. *Point Group:* $2/m\bar{3}$. As tiny grains.

Physical Properties: Hardness = 4.5–5 VHN = 726–766 (50 g load). D(meas.) = n.d. D(calc.) = 10.97

Optical Properties: Opaque. *Color:* In polished section, pale gray. *Luster:* Metallic.

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) 57.4, (620) 57.3, (640) 57.2, (660) 57.2, (680) 57.4, (700) 57.8

Cell Data: *Space Group:* $Pa\bar{3}$. $a = 6.428$ $Z = 4$

X-ray Powder Pattern: Synthetic. (ICDD 14-141).

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

Chemistry:

| | (1) | (2) | (3) |
|-------|------|------|--------|
| Pt | 45.0 | 41.8 | 44.48 |
| As | | 0.7 | |
| Sb | 51.5 | 43.1 | 55.52 |
| Bi | | 12.8 | |
| Total | 96.5 | 98.4 | 100.00 |

(1) Driekop mine, South Africa; by electron microprobe, corresponds to Pt_{1.00}Sb_{1.84}.

(2) Onverwacht mine, South Africa; by electron microprobe, corresponds to Pt_{1.00}(Sb_{1.66}Bi_{0.29}As_{0.04})_{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, Segezha 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 Witwatersrand, Johannesburg, South Africa, eminent South African geologist.

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

References: (1) Thomassen, L. (1929) Über Kristallstrukturen einiger binärer Verbindungen der Platinmetalle. *Zeitschrift Physikal Chem.*, 2, 349–379 (in German). (2) Stumpfl, E.F. (1961) Some new platinoid-rich minerals, identified with the electron microanalyser. *Mineral. Mag.*, 32, 833–846. (3) (1961) *Amer. Mineral.*, 46, 1518 (abs. ref. 2). (4) Rudashevsky, N.S., S.N. Avdontsev, and M.B. Dneprovskaya (1992) Evolution of PGE mineralization in hortonolitic dunites of the Mooihoek and Onverwacht pipes, Bushveld complex. *Mineral. Petrol.*, 47, 37–54. (5) Cabri, L.J., Ed. (1981) *Platinum group elements: mineralogy, geology, recovery.* *Can. Inst. Min. & Met.*, 107–108.