Crystal Data: Tetragonal. *Point Group*: 4/m 2/m 2/m. As euhedral grains to 10 μ m.

Physical Properties: *Cleavage*: n.d. *Tenacity*: Brittle. *Fracture*: n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = 10.78

Optical Properties: Opaque. *Color*: Bright pinkish white in reflected light. *Streak*: n.d. *Luster*: Metallic.

Optical Class: Anisotropism: Weak, blue to pinkish brown. R₁-R₂: (470) 54.0-55.7, (546) 58.4-59.2, (589) 60.0-60.4, (650) 60.0-62.6

Cell Data: Space Group: P4/mmm. a = 3.99 c = 6.98 Z = 1

X-ray Powder Pattern: Synthetic Pd₅InAs. 2.193 (100), 2.328 (45), 1.993 (33), 1.186 (25), 1.251 (17), 2.614 (15), 1.409 (15)

| Chemistry: | | (1) | (2) |
|------------|-------|-------|--------|
| | Pd | 71.90 | 73.71 |
| | Pt | 1.60 | |
| | Fe | 0.98 | |
| | Cu | 0.59 | |
| | In | 11.48 | 15.91 |
| | Hg | 1.42 | |
| | Pb | 0.40 | |
| | As | 10.70 | 10.38 |
| | Total | 99.07 | 100.00 |

(1) Monchetundra layered intrusion, Kola Peninsula, Russia; average electron microprobe analysis; corresponds to $(Pd_{4.92}Pt_{0.06})_{\Sigma=4.98}(In_{0.73}Fe_{0.12}Cu_{0.07}Hg_{0.05}Pb_{0.01})_{\Sigma=0.98}As_{1.04}$. (2) Pd₅InAs.

Occurrence: In a heavy mineral concentrate from the oxidized ore of a sulfide-bearing orthopyroxenite body of a layered intrusion.

Association: Irarsite, hollingworthite, zvyagintsevite, Au-Ag alloys, tulameenite, that are replaced by Pt-Pd-Fe-Cu alloys and Pt-Pd-Fe-Cu oxygenated compounds, all of which are embedded in chalcocite, goethite, covellite.

Distribution: From Borehole 1818 (depth 36.1 m), Monchetundra layered intrusion, Kola Peninsula, Russia.

Name: For the Vite River, which flows near the Monchetundra intrusion.

Type Material: Department of Earth Sciences, Natural History Museum, London, England (BM 2019,4).

References: (1) Vymazalová, A., F. Laufek, T.L. Grokhovskaya, and C.J. Stanley (2020) Viteite, Pd₅InAs, a new mineral from the Monchetundra layered intrusion, Kola Peninsula, Russia. Can. Mineral., 58, 395-402.