**Crystal Data**: Hexagonal. *Point Group*:  $\overline{3}$  2/*m*. As subhedral to anhedral grains to 65  $\mu$ m.

**Physical Properties**: *Cleavage*: None. *Tenacity*: Brittle. *Fracture*: Irregular. Hardness =  $\sim$ 3 VHN = 145-170, 158 (100 g load). D(meas.) = n.d. D(calc.) = 4.6 Nonfluorescent.

**Optical Properties**: Opaque. *Color*: Black, dark bluish black in reflected light. *Streak*: Black. *Luster*: Metallic.

*Optical Class: Anisotropism:* Very weak, grayish to light blue tints. *Pleochroism:* Very weak, light gray to slightly greenish gray.

 $R_1 \hbox{-} R_2 \hbox{:} (471.1) \ 38.1 \hbox{-} 38.9, (548.3) \ 36.5 \hbox{-} 37.3, (586.6) \ 35.8 \hbox{-} 36.5, (652.3) \ 34.7 \hbox{-} 35.4$ 

**Cell Data**: Space Group:  $P\bar{3}c1$ . a = 4.630(2) c = 22.551(9) Z = 6

**X-Ray Diffraction Pattern**: Good Hope mine, Vulcan, Gunnison Co., Colorado, USA. 2.317 (100), 2.035 (85), 3.78 (60), 1.635 (30), 1.333 (25), 3.76 (20), 1.973 (15)

Chemistry:		(1)	(2)
	Ag	27.83	29.74
	Cu	27.12	26.28
	Bi	0.01	
	Pb	0.02	
	Zn	0.01	
	Fe	0.02	
	Sb	0.01	
	As	0.02	
	S	0.01	
	Se	0.02	
	Te	44.35	43.98
	Total	99.42	100.00

(1) Good Hope mine, Vulcan, Gunnison Co., Colorado, USA; average electron microprobe analysis; corresponds to  $(Cu_{1.24}Ag_{0.75})_{\Sigma=1.99}Te_{1.01}$ . (2)  $(Cu_{0.6}Ag_{0.4})_2Te$ , Ag essential to stabilize the structure.

Occurrence: Secondary after precious metals and tellurides localized in quartz veins.

Association: Rickardite, vulcanite, cameronite, native tellurium.

Distribution From the Good Hope mine, Vulcan, Gunnison Co., Colorado, USA.

**Name**: Honors Professor Ernst M. *Spiridonov* (b. 1938), Department of Mineralogy, Moscow State University, Russia, who studied gold deposits of the Urals, Transbaikalia, Kamchatka, Uzbekistan, Armenia, and Bulgaria and discovered 20 new mineral species, most of them ore minerals.

Type Material: Natural History Museum, University of Florence, Italy (3295/I).

**References**: (1) Morana, M. and L. Bindi (2019) Spiridonovite,  $(Cu_{1-x}Ag_x)_2$ Te (x  $\approx 0.4$ ), a new telluride from the Good Hope mine, Vulcan, Colorado (U.S.A.). Minerals, 9, 194, 1-8.