Nasledovite $PbMn_3^{2+}Al_4O_5(CO_3)_4(SO_4)\cdot 5H_2O$

Crystal Data: n.d. *Point Group:* n.d. Radial fibrous, forming oölites, to 3 mm.

Physical Properties: Hardness = 2 D(meas.) = 3.069 D(calc.) = n.d.

Optical Properties: Semitransparent. *Color:* Snow-white, commonly covered by dark brown to reddish material. *Luster:* Silky.
Optical Class: Biaxial (?). *Orientation:* $Z \wedge c = 2°–23°$, wavy extinction. α = n.d. β = n.d. $\gamma = 1.591$ 2V(meas.) = n.d.

Cell Data: *Space Group:* n.d. Z = n.d.

X-ray Powder Pattern: Sardob deposit, Tajikistan.
3.261 (10), 2.028 (6), 2.019 (6), 1.462 (6), 2.853 (5), 2.983 (4), 1.749 (4)

Chemistry:

	(1)	(2)
SO_3	4.76	8.12
CO_2	19.08	17.85
Al_2O_3	20.40	20.68
Fe_2O_3	1.39	
MnO	15.46	21.58
ZnO	0.76	
PbO	24.35	22.64
MgO	3.68	
H_2O	10.12	9.13
Total	[100.00]	100.00

(1) Sardob deposit, Tajikistan; recalculated to 100% after deduction of SiO_2 1.58%, MnO_2 2.04%, and H_2O^- 0.60 % from an original total of 100.84%; then corresponds to $Pb_{1.03}(Mn_{2.05}Mg_{0.87}Zn_{0.08})_{\Sigma=3.00}(Al_{3.77}Fe_{0.17})_{\Sigma=3.94}(CO_3)_{4.08}(SO_4)_{0.56}O_{5.30}\cdot 5.27H_2O$. (2) $PbMn_3Al_4O_5(CO_3)_4(SO_4)\cdot 5H_2O$.

Occurrence: A rare fracture filling in oxidized granodiorite porphyry which also hosts polymetallic ores.

Association: Pyrolusite, iron oxide, cerussite.

Distribution: From the Sardob deposit, eastern Altyn-Topkan district, Kuramin Mountains, northern Tajikistan. [??ck not Chatkal-Kuramin Mountains, Uzbekistan??]

Name: To honor Professor Boris Nikolaevich Nasledov (1885–1942), geologist, for his investigations of the mineral resources of the Chatkal-Kuramin region, Kyrgyzstan-Uzbekistan.

Type Material: n.d.

References: (1) Enikeev, M.R. (1958) A new mineral, nasledovite, from the Altyn-Topkansk ore field. Doklady Akad. Nauk Uzbek. S.S.R., 5, 13–16 (in Russian). (2) (1959) Amer. Mineral., 44, 1325 (abs. ref. 1). (3) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union. Ocean Pictures, Moscow, 146.