Nasledovite PbMn\textsuperscript{2+}Al\textsubscript{4}O\textsubscript{5}(CO\textsubscript{3})\textsubscript{4}(SO\textsubscript{4})\cdot 5H\textsubscript{2}O

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: $Z \wedge c = 2^\circ$–$23^\circ$, wavy extinction.  
$\alpha = \text{n.d.}$  
$\beta = \text{n.d.}$  
$\gamma = 1.591$  
$2V(\text{meas.}) = \text{n.d.}$

Cell Data:  
Space Group: n.d.  
$Z = \text{n.d.}$

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:
\begin{align*}
\text{SO}_3 & \quad 4.76 \quad 8.12 \\
\text{CO}_2 & \quad 19.08 \quad 17.85 \\
\text{Al}_2\text{O}_3 & \quad 20.40 \quad 20.68 \\
\text{Fe}_2\text{O}_3 & \quad 1.39 \\
\text{MnO} & \quad 15.46 \quad 21.58 \\
\text{ZnO} & \quad 0.76 \\
\text{PbO} & \quad 24.35 \quad 22.64 \\
\text{MgO} & \quad 3.68 \\
\text{H}_2\text{O} & \quad 10.12 \quad 9.13 \\
\end{align*}

Total 100.00 100.00

(1) Sardob deposit, Tajikistan; recalculated to 100% after deduction of SiO\textsubscript{2} 1.58%, MnO\textsubscript{2} 2.04%, and H\textsubscript{2}O\textsuperscript{-} 0.60 % from an original total of 100.84%; then corresponds to Pb\textsubscript{1.03}(Mn\textsubscript{2.05}Mg\textsubscript{0.87}Zn\textsubscript{0.08})\Sigma=3.90(\text{Al}_{1.77}\text{Fe}_{0.17})\Sigma=3.94(\text{CO}_3)\textsubscript{1.08}(\text{SO}_4)\textsubscript{0.56}\text{O}_5\cdot 5\text{H}_2\text{O}.  
(2) PbMn\textsubscript{3}Al\textsubscript{4}O\textsubscript{5}(\text{CO}_3)\textsubscript{4}(\text{SO}_4)\cdot 5\text{H}_2\text{O}.

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.