

Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m. As minute intergrowths of thin tabular crystals < 0.1 mm with {001} dominant and {010} and {110}; as isolated crystals or fan-like sprays.

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = 2.5-3 D(meas.) = n.d. D(calc.) = 3.54 Nonfluorescent.

Optical Properties: Transparent. *Color:* Orange-red. *Streak:* Pale orange. *Luster:* Adamantine. *Optical Class:* Biaxial. $\alpha \approx 2.07$ $\beta > 2.11$ $\gamma > 2.11$ $2V(\text{meas.}) = 84(2)^\circ$ *Pleochroism:* Strong, X = Y = orange, Z = yellow. *Dispersion:* Strong, $r > v$. *Orientation:* X = a, Y = c, Z = b.

Cell Data: *Space Group:* Pmmn. $a = 7.613(2)$ $b = 11.574(3)$ $c = 6.883(2)$ $Z = 2$

X-Ray Diffraction Pattern: Mammoth-St. Anthony mine, Tiger, Pinal County, Arizona. 2.131 (100), 3.308 (80), 3.195 (80), 6.371 (60), 3.357 (60), 3.143 (60), 4.445 (50)

Chemistry:	(1)
CrO ₃	14.79
PbO	77.99
SO ₃	1.64
F	1.47
Cl	3.39
H ₂ O	[1.52]
Total	99.42

(1) Mammoth-St. Anthony mine, Tiger, Pinal County, Arizona; average electron microprobe analysis supplemented by IR spectroscopy, H₂O calculated from structure; corresponds to Pb_{4.09}(Cr⁶⁺_{1.73}S_{0.24})_{Σ=1.97}O₈(OH)_{1.98}F_{0.90}Cl_{1.12}.

Occurrence: In vugs in silicified rock in a deeply weathered gold-silver-molybdenum-lead-zinc-vanadium, hydrothermal mineral deposit.

Association: Caledonite, a cercharaite-related mineral, cerussite, diableite, Cr-bearing leadhillite, matlockite, murdochite, pinalite, wulfenite, yedlinite, quartz.

Distribution: From the Mammoth-St. Anthony mine, Tiger, Pinal County, Arizona.

Name: Honors Dr. *George Willard Robinson* (b. 1946), mineral curator, researcher, teacher, and field collector.

Type Material: Royal Ontario Museum, Toronto, Ontario, Canada (M54947).

References: (1) Cooper, M.A., N.A. Ball, F.C. Hawthorne, W.H. Paar, A.C. Roberts, and E. Moffatt (2011) Georgerobinsonite, Pb₄(CrO₄)₂(OH)₂FCl, a new chromate mineral from the Mammoth-St. Anthony mine, Tiger, Pinal County, Arizona: Description and crystal structure. *Can. Mineral.*, 49, 865-876.