

**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m$ . As crusts of imperfect bipyramidal, spindle-shaped crystals to 0.15 mm; as randomly oriented aggregates to 1 mm.

**Physical Properties:** *Cleavage:* None observed. *Fracture:* n.d. *Tenacity:* Brittle.  
Hardness = 3      D(meas.) = 2.4(1)      D(calc.) = 2.461      Soluble in water.

**Optical Properties:** Transparent. *Color:* Light brown to brown; light brownish yellow in plane polarized light. *Streak:* n.d. *Luster:* n.d.  
*Optical Class:* Uniaxial. (Appears isotropic.)       $\omega = \varepsilon = 1.505(2)$

**Cell Data:** *Space Group:*  $P\bar{3} m1$ .       $a = 5.7402(3)$        $c = 7.435(1)$        $Z = 1$

**X-ray Powder Pattern:** Pabellón de Pica mountain, Iquique Province, Tarapacá Region, Chile. 2.861 (100), 2.969 (74), 4.122 (37), 2.060 (33), 3.708 (29), 4.955 (27), 2.474 (20)

Chemistry:	(1)	(2)
$(\text{NH}_4)_2\text{O}$	7.99	8.36
$\text{Na}_2\text{O}$	9.49	9.95
$\text{K}_2\text{O}$	32.34	30.26
$\text{SO}_3$	51.32	51.43
Total	101.14	100.00

(1) Pabellón de Pica mountain, Iquique Province, Tarapacá Region, Chile; average of 5 EDS analyses, supplemented by FTIR and Raman spectroscopy, N by gas chromatography, H from stoichiometry; corresponding to  $(\text{NH}_4)_{0.95}\text{Na}_{0.95}\text{K}_{2.14}\text{S}_{1.99}\text{O}_8$ .      (2)  $(\text{NH}_4)\text{K}_2\text{Na}(\text{SO}_4)_2$ .

**Occurrence:** A secondary mineral at the contact between the weathering zone of a bird guano deposit and an underlying chalcopyrite-bearing gabbro.

**Association:** Salammoniac, halite, joanneumite, natroxalate, nitratine, chanabayaite.

**Distribution:** From Pabellón de Pica mountain, 1.5 km south of Chanabaya, Iquique Province, Tarapacá Region, Chile.

**Name:** Honors German amateur mineralogist and mineral collector Gerhard Möhn (born 1959), who has provided many samples from Chilean and German localities to professional mineralogists for study, including the first specimens of this new mineral.

**Type Material:** A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (4638/1).

**References:** (1) Chukanov, N.V., S.M. Aksenov, R.K. Rastsvetaeva, I.V. Pekov, D.I. Belakovskiy and S.N. Britvin (2015) Möhnite,  $(\text{NH}_4)\text{K}_2\text{Na}(\text{SO}_4)_2$ , a new guano mineral from Pabellón de Pica, Chile. *Mineralogy and Petrology*, 109, 643-648.      (2) (2016) *Amer. Mineral.*, 101, 2128 (abs. ref. 1).