

**Slavíkite****NaMg<sub>2</sub>Fe<sub>5</sub><sup>3+</sup>(SO<sub>4</sub>)<sub>7</sub>(OH)<sub>6</sub>•33H<sub>2</sub>O**

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**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3}$ . Crystals, to 0.3 mm, with large {10 $\bar{1}$ 1}, {0001}, modified by {02 $\bar{2}$ 1}, {05 $\bar{5}$ 2}, {50 $\bar{5}$ 2}; scaly, as incrustations and efflorescences, fine granular massive.

**Physical Properties:** *Cleavage:* On {0001}, a parting. Hardness = n.d. D(meas.) = 1.905–1.99 D(calc.) = n.d.

**Optical Properties:** Transparent. *Color:* Yellow, pale yellow-green. *Luster:* Vitreous. *Optical Class:* Uniaxial (–). *Pleochroism:* O = lemon-yellow; E = nearly colorless.  $\omega = 1.530$ – $1.537$   $\epsilon = 1.494$ – $1.506$

**Cell Data:** *Space Group:*  $R\bar{3}$ .  $a = 12.20$   $c = 35.13$   $Z = 3$

**X-ray Powder Pattern:** Medzev, Czech Republic. 5.47 (vs), 4.20 (vs), 2.93 (vs), 5.85 (s), 3.48 (s), 3.13 (s), 5.05 (m)

<b>Chemistry:</b>	(1)	(2)
SO <sub>3</sub>	34.62	32.59
Fe <sub>2</sub> O <sub>3</sub>	23.93	23.21
MgO	4.40	4.69
Na <sub>2</sub> O	0.29	1.80
H <sub>2</sub> O	37.21	37.71
Total	100.45	100.00

(1) Quebrada de La Alcaparrosa, Argentina. (2) NaMg<sub>2</sub>Fe<sub>5</sub>(SO<sub>4</sub>)<sub>7</sub>(OH)<sub>6</sub>•33H<sub>2</sub>O.

**Occurrence:** An uncommon secondary oxidation product of pyrite in shales and slates.

**Association:** Halotrichite, pickeringite, fibroferrite, copiapite, melanterite, epsomite, jarosite, gypsum.

**Distribution:** In the Czech Republic, on Valachov Hill, near Skřiváň; from Troja, near Prague; and at Mandát. From Medzev, 26 km west of Košice, Slovakia. At Rudabánya, Hungary. From Pöham, near Radstadt, Austria. At Franquénies, Belgium. From Le Kaymar, Aveyron, France. At Wiescoszowice, Poland. In the Servette mine, Saint Marcel, Val d'Aosta, Piedmont, Italy. From the Santa Elena mine, Quebrada de La Alcaparrosa, San Juan Province, Argentina. At Alum Cave Bluff, Sevier Co., Tennessee, USA.

**Name:** In honor of František Slavík (1876–1957), Professor of Mineralogy, Charles University, Prague, Czech Republic.

**Type Material:** Charles University, Prague, Czech Republic, 8877.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 621–622. (2) Süssé, P. (1975) Struktur und Kristallchemie des Slavíkites, NaMg<sub>2</sub>Fe<sub>5</sub>(SO<sub>4</sub>)<sub>7</sub>(OH)<sub>6</sub>•33H<sub>2</sub>O. Neues Jahrb. Mineral., Monatsh., 27–40. (in German with English abs.). (3) Makovický, E. and V. Streško (1967) Slavíkite from Medzev near Košice, Czechoslovakia. Tschermarks Mineral. Petrog. Mitt., 12, 100–107.