Sellaite MgF$_2$

Crystal Data: Tetragonal. Point Group: 4/m 2/m 2/m. Short prismatic crystals, to 5 cm, with prominent {010}, {011}, {110}, may be flattened, pyramidal; fibrous, radial, spherulitic, in aggregates. Twinning: On {011}.

Physical Properties: Cleavage: Perfect on {010} and {110}. Fracture: Conchoidal. Tenacity: Brittle. Hardness = 5–5.5 D(meas.) = 3.15 D(calc.) = 3.08 Very slightly soluble in H$_2$O.


Cell Data: Space Group: $P4_2/mnm$ (synthetic). $a = 4.6213(1)$ $c = 3.0519(1)$ $Z = 2$

X-ray Powder Pattern: Synthetic. 3.275 (100), 2.231 (95), 1.711 (75), 2.067 (35), 1.375 (35), 1.635 (30), 2.545 (20)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mg</td>
<td>38.37</td>
<td>39.01</td>
</tr>
<tr>
<td>F</td>
<td>61.63</td>
<td>60.99</td>
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<tr>
<td>Total</td>
<td>[100.00]</td>
<td>100.00</td>
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</table>

(1) Gebroulaz glacier, France; F by difference. (2) MgF$_2$.

Occurrence: In a bituminous dolomite-anhydrite rock (Gebroulaz glacier, France); in evaporites (Bleicherode, Germany); in volcanic ejecta and fumarolic deposits (Vesuvius, Italy); in marble (Carrara, Italy); in a metamorphic magnesite deposit (Brumado mine, Brazil); in an alkalic granite (Lake Gjerdingen, Norway).

Association: Fluorite, sulfur, celestine, anhydrite, gypsum, magnesite, quartz.

Distribution: In France, in the moraine of the Gebroulaz glacier, near Moûtiers, Savoy, and in the Font Sainte mine, Estrel, Var. In Germany, from Bleicherode, Harz, in the Clara mine, near Oberwolbach, Black Forest, and at Emmelberg, Eifel district. In Italy, from Carrara, Tuscany; on Vesuvius, Campania, and on Mt. Etna, Sicily. From near Lake Gjerdingen, Nordmarka, Norway. Large crystals in the Brumado mine, Bahia, Brazil. At the Huanzala mine, Huanuco, Peru. In the Rico-Argentine mine group, Rico district, Dolores Co., Colorado, USA. A few other localities have been reported but modern verification is desirable.

Name: Honors Quintino Sella (1827–1884), Italian mining engineer and mineralogist.