Huanzalaite

**Crystal Data:** Monoclinic.  *Point Group: 2/m.*  As grains, to 0.01 mm; as aggregates, to 0.4 mm.

**Physical Properties:**  

**Optical Properties:**  

**Cell Data:**  
*Space Group:* P2/c.  *a* = 4.7027(15)  *b* = 5.6894(11)  *c* = 4.9413(9)  
*β* = 90.70(2)°  *Z*=2

**X-ray Powder Pattern:**  
Huanzala mine, Bolognesi Province, Ancash Department, Peru.  
3.73 (100), 2.91 (94), 2.93 (83), 4.70 (74), 3.63 (39), 2.47 (39), 2.18 (32)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO₃</td>
<td>84.81</td>
<td>85.19</td>
</tr>
<tr>
<td>MgO</td>
<td>12.49</td>
<td>14.81</td>
</tr>
<tr>
<td>MnO</td>
<td>1.78</td>
<td></td>
</tr>
<tr>
<td>FeO</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td>CaO</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.47</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Huanzala mine, Bolognesi Province, Ancash Department, Peru; average of 10 electron microprobe analyses, corresponding to \((\text{Mg}_{0.85}\text{Mn}_{0.07}\text{Fe}_{0.05})\text{Σ}=0.97\text{W}_{1.01}\text{O}_4\).  
(2) MgWO₄.

**Mineral Group:**  
Wolframite group.

**Occurrence:**  
As inclusions in scheelite in the Mg-metasomatized contact skarns of an intrusive granodiorite and quartz porphyry.

**Association:**  
Scheelite, enargite, pyrite, sphalerite, quartz, calcite, ‘sericite’, chlorite, dolomite, sellaite, talc, phlogopite.

**Distribution:**  
Huanzala mine, Huallanca district, Bolognesi Province, Ancash Department, Peru.

**Name:**  
For the first described locality, the Huanzala mine, Peru.

**Type Material:**  
National Museum of Nature and Science, Tokyo, Japan (catalog no. NSM-MF15366).

**References:**  
(2) (2010) Amer. Mineral., 95, 1598 (abs. ref. 1).