Gottlobite

Crystal Data: Orthorhombic. Point Group: 222. As equant to tabular grains to 0.5 mm; tabular crystals show {010}, {110}, {011}, and less commonly {111}, and {101}.

D(meas.) = 3.31  
D(calc.) = 3.40

 α = 1.797(4)  
 β = 1.805-1.815  
 γ = 1.828(5)  
2V(meas.) = Very large.  
2V(calc.) = 62°-80°  

Cell Data: Space Group: P212121. a = 7.501(4)  
b = 9.010(7)  
c = 5.941(4)  
Z = 4

X-ray Powder Pattern: Glückstern mine, Gottlob hill, Friedrichroda, Thuringia, Germany.  
3.170 (100), 4.496 (72), 1.614 (41), 4.139 (32), 2.785 (30), 2.523 (30), 2.639 (27)

Chemistry: (1)

<table>
<thead>
<tr>
<th>Element</th>
<th>Formula</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>CaO</td>
<td>24.98</td>
<td></td>
</tr>
<tr>
<td>SrO</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>MgO</td>
<td>17.54</td>
<td></td>
</tr>
<tr>
<td>MnO</td>
<td>1.50</td>
<td></td>
</tr>
<tr>
<td>CuO</td>
<td>1.44</td>
<td></td>
</tr>
<tr>
<td>V₂O₅</td>
<td>27.46</td>
<td></td>
</tr>
<tr>
<td>As₂O₅</td>
<td>20.32</td>
<td></td>
</tr>
<tr>
<td>H₂O</td>
<td>5.40</td>
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<tr>
<td>Total</td>
<td>99.57</td>
<td></td>
</tr>
</tbody>
</table>

(1) Glückstern mine, Gottlob hill, Friedrichroda, Thuringia, Germany; average electron microprobe analysis, H₂O by TGA; corresponding to (Ca₀.₉₂Sr₀.₀₈)Σ=0.₉₄(Mg₀.₉₀Mn₀.₀₄Cu₀.₀₆)Σ=0.₉₈[(VO₄)₀.₆₉(AsO₄)₀.₃₁]Σ=0.₉₈[OH]₀.₉₈(H₂O)₀.₁₇Σ=1.₀₇.

Mineral Group: Adelite group.

Occurrence: From hydrothermal baryte veins.

Association: Hausmannite, baryte, adelite, wakefieldite-(La).

Distribution: From the Glückstern mine, Gottlob hill, Friedrichroda, Thuringia, Germany.

Name: For the occurrence in Germany at Gottlob hill.

Type Material: Mineralogical Collection, Bergakademie, Freiberg, Germany.