Zemkorite

Crystal Data: Hexagonal. Point Group: 6/m 2/m 2/m, 6m2, or 6mm. Rare fanlike aggregates of anhedral crystals, to 0.5 mm; granular massive in veinlets and fracture fillings.


Cell Data: Space Group: P6_3/mmc, P6_2c, or P6_3mc. a = 10.06(2) c = 12.72(1) Z = 8

X-ray Powder Pattern: Udachnaya pipe, Russia. 4.36 (10), 3.04 (10), 2.52 (10), 2.06 (10), 6.36 (9), 1.797 (8), 2.18 (7)

Chemistry:

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>39.20</td>
<td>42.71</td>
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<tr>
<td>Al2O3</td>
<td>0.05</td>
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<tr>
<td>CaO</td>
<td>28.39</td>
<td>27.21</td>
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<tr>
<td>Na2O</td>
<td>25.72</td>
<td>30.08</td>
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<tr>
<td>K2O</td>
<td>6.40</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>99.76</td>
<td>100.00</td>
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</table>

(1) Udachnaya pipe, Russia; by electron microprobe, average of two analyses, CO2 by wet methods, corresponding to (Na1.80K0.29)Σ=2.09Ca1.10(CO3)1.93. (2) Na2Ca(CO3)2.

Polymorphism & Series: Trimorphous with natrofairchildite and nyerereite.

Occurrence: Filling fractures and as inclusions in unserpentinized but sodium metasomatized kimberlite at about 400–450 m depth.

Association: Shortite, halite.

Distribution: From the east Udachnaya twin pipe, Daldyn kimberlite field, Sakha, Russia.

Name: For Institute of the Earth’s Crust (Institut ZEMnoy KORY in Russian), Russian Academy of Sciences, Siberian Branch, Irkutsk, Russia, where the mineral was studied.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 87573.