Serrabrancaite

\( \text{Mn(PO}_4\text{)·H}_2\text{O} \)

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As equant or short prismatic crystals to 0.3 mm.

D(meas.) = 3.17(1) D(calc.) = 3.16


**Cell Data:** *Space Group:* C2/c. \(a = 6.914(2)\) \(b = 7.468(2)\) \(c = 7.364(2)\) \(\beta = 112.29(3)^\circ\) \(Z = 4\)

**X-ray Powder Pattern:** Alto Serra Branca pegmatite, Paraiba State, Brazil.
3.503 (100), 2.516 (19), 4.633 (15), 4.856 (12), 2.104 (12), 3.271 (10), 2.957 (10)

**Chemistry:**

<table>
<thead>
<tr>
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<th>(1)</th>
<th>(2)</th>
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<tbody>
<tr>
<td>Mn(_2)O(_3)</td>
<td>46.85</td>
<td>47.01</td>
</tr>
<tr>
<td>P(_2)O(_5)</td>
<td>42.72</td>
<td>42.27</td>
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<tr>
<td>H(_2)O</td>
<td>9.80</td>
<td>10.72</td>
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<tr>
<td>Total</td>
<td>99.37</td>
<td>100.00</td>
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</table>

(1) Alto Serra Branca pegmatite, Paraiba State, Brazil; average electron microprobe analysis, H\(_2\)O by TGA; corresponding to Mn\(_{0.98}\)P\(_{1.00}\)O\(_{3.98}\)·0.90H\(_2\)O.

**Occurrence:** A secondary alteration product of triplite in a granitic pegmatite.

**Association:** Vernadite, phosphosiderite.

**Distribution:** From the Alto Serra Branca granitic pegmatite, ~10 km southwest of the village Pedra Lavrada, Paraiba State, Brazil.

**Name:** For the Alto *Serra Branca* granitic pegmatite, Brazil.

**Type Material:** Mineral Collection, Bergakademie, Freiberg, Germany (78025) and the Mineral Collection, Martin-Luther Universität Halle, Geoscience Institute, Germany (010355).