**Browneite**

**MnS**

**Crystal Data:** Cubic.  *Point Group:* 4̅ 3m.  As a fractured grain to 20 μm.

D(meas.) = n.d.  D(calc.) = 3.291


**Cell Data:**  *Space Group:* F4̅ 3m.  a = 5.601  Z = 4

**X-ray Powder Pattern:** Calculated pattern.  
3.234 (100), 1.980 (63), 1.689 (39), 1.143 (19), 1.285 (14), 0.947 (14), 0.886 (14)

**Chemistry:**

<table>
<thead>
<tr>
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<th>(1)</th>
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<tbody>
<tr>
<td>S</td>
<td>36.46</td>
</tr>
<tr>
<td>Fe</td>
<td>0.62</td>
</tr>
<tr>
<td>Ca</td>
<td>0.10</td>
</tr>
<tr>
<td>Mn</td>
<td>62.31</td>
</tr>
<tr>
<td>Total</td>
<td>99.49</td>
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</tbody>
</table>

(1) Zakłodzie meteorite; average of 6 electron microprobe analyses supplemented by micro-Raman spectroscopy; corresponds to (Mn$_{0.993}$Fe$_{0.010}$Ca$_{0.002}$)$_2$S$_{0.995}$.

**Mineral Group:** Sphalerite group.

**Polymorphism & Series:** Polymorphous with alabandite and rambergite.

**Occurrence:** In an enstatite-rich achondrite meteorite, postdates the impact melting and subsequent crystallization of an enstatite-rich rock.

**Association:** Plagioclase, enstatite, troilite.

**Distribution:** From the Zakłodzie meteorite.

**Name:** Honors Patrick R.L. Browne (b. 1941), Professor at the University of Auckland, New Zealand, for his contributions to low-temperature mineralogy and petrology.

**Type Material:** National Museum of Natural History, Washington, D.C., USA (USNM 7607).