**Crystal Data:** Cubic. *Point Group:* $\bar{4}$ 3*m.* As a fractured grain to 20 $\mu$m.

**Physical Properties:** *Cleavage:* n.d. *Tenacity*: Brittle. *Fracture*: n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = 3.291

**Optical Properties:** Translucent. *Color:* Yellowish brown. *Streak*: n.d. *Luster*: n.d. *Optical Class:* n.d.

**Cell Data:** *Space Group: F*$\bar{4}$ 3*m.* *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:** | (1) |
|---|---|
| S | 36.46 |
| Fe | 0.62 |
| Ca | 0.10 |
| Mn | 62.31 |
| Total | 99.49 |

(1) Zakłodzie meteorite; average of 6 electron microprobe analyses supplemented by micro-Raman spectroscopy; corresponds to $(Mn_{0.993}Fe_{0.010}Ca_{0.002})_{\Sigma=1.005}S_{0.995}$.

**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).

**References:** (1) Chi Ma, J.R. Beckett, and G.R. Rossman (2012) Browneite, MnS, a new sphalerite-group mineral from the Zakłodzie meteorite. Amer. Mineral., 97, 2056-2059.