

Erratum

'The Platinum Decathlon – A Tribute to the Foresight of Antoine Baumé'

In a recent article in *Platinum Metals Review* (1), the section on jewellery states that a platinum rod which is 10 cm long and 1 cm in diameter can be drawn into a wire approximately 2777 km long.

This should be a factor of 10 higher at 27,778 km (see calculation below).

The wire length was based on calculating a constant volume from the starting rod, based on the final wire thickness of 0.0006 mm (2).

Calculation:

Volume of a cylinder = $\pi r^2 l$

where r = radius and l = length.

Therefore, volume of a cylinder 1 cm diameter (corresponding to 0.5 cm radius) by 10 cm length is $\pi \times 0.5^2 \times 10 = 7.854 \text{ cm}^3$.

For thin wire, diameter = 0.0006 mm or 0.00006 cm.

Therefore, $l = 7.853 / (\pi \times 0.00003^2)$

$l = 2.7778 \times 10^9 \text{ cm}$

$l = 2.7778 \times 10^7 \text{ m}$

$l = 27778 \text{ km}$

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References

- 1 C. Barnard and A. Fones, *Platinum Metals Rev.*, 2012, **56**, (3), 165
- 2 Goodfellow, Platinum Wire, Diameter: 0.0006 mm, Purity: 99.9%, Condition: Wollaston wire, PT005101: <http://www.goodfellow.com/A/Platinum-Wire.html> (Accessed on 21st May 2013)