

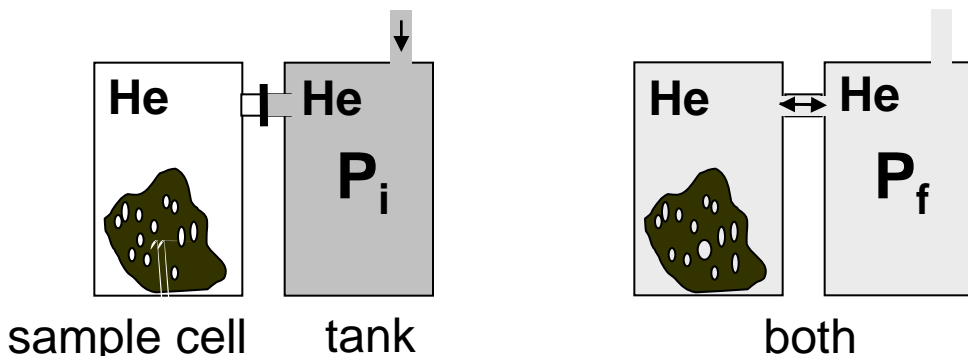
# Helium pycnometry reference sheet

Phil McCausland, Earth Sciences  
 pmccausl@uwo.ca :: (519) 661-2111 x-88008



Instrument: Quantachrome Multipycnometer

$$V_{\text{fragment}} = V_{\text{sample cell}} - V_{\text{tank}} \left( \frac{P_{\text{initial}}}{P_{\text{final}}} - 1 \right)$$



## Sample cells

Large volume	148.483 cm <sup>3</sup> ; depth 7.3 cm; inner diam. 4.85 cm
Medium volume	58.003 cm <sup>3</sup> ; depth 3.8 cm; inner diam. 3.95 cm
Small volume	28.827 cm <sup>3</sup> ; depth 3.6 cm; inner diam. 2.45 cm
Micro volume	<sup>3</sup> ; depth 2.3 cm; inner diam. 1.55 cm

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<b>Medium</b>	<b>40.367 cm<sup>3</sup></b>
<b>Small</b>	<b>11.281 cm<sup>3</sup></b>
<b>Micro</b>	<b>2.642 cm<sup>3</sup></b>

**Note: Aluminum inserts should be measured** to obtain correct grain volume to subtract from Sample cell volume. Approx. volumes are from mass/Al density.