

5. Operation as a pressure gauge

A cell of the type described is washed with dilute HCl, rinsed repeatedly with distilled water and left to soak for a day in the weak electrolyte solution. A convenient concentration of acetic acid is 0.05 m for the cell dimensions given. A graph of calibration, pressure against resistance-ratio, is then prepared using the type of information given in table 1. Providing that the acid concentrations are made up consistently to within 1-2% (for 0.05 m acetic acid) with the same supply of distilled water, variations in composition do not affect the pressure coefficient. The cell can be used in any non-conducting pressure medium.

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References

- BRIDGMAN, P. W., 1952, *The Physics of High Pressure* (London: Bell and Sons).
CLARK, R. J. H., and ELLIS, A. J., 1960, *J. Chem. Soc.*, 247.
ELLIS, A. J., 1959, *J. Chem. Soc.*, 3689.
HAMANN, S. D., 1957, *Physico-chemical Effects of Pressure* (London: Butterworths).