isopotential point

For an ion-selective electrode cell, there is often a particular activity of the measured ion for which the emf of the cell is independent of temperature. That activity, and the corresponding potential difference, defines the isopotential point. The specification of the ion-selective electrode and outer reference electrode must be described. Comment: When an isothermal cell is used with identical reference electrodes, the isopotential point is the activity of sensed species that gives zero net membrane potential, e.g. sensed activity is the same in the inner and outer (test) solution. Calibration lines for different cell temperatures have different slopes, but intersect at a common activity point. Cells with temperature gradients are not recommended.

Source:

PAC, 1994, 66, 2527 (Recommendations for nomenclature of ionselective electrodes (IUPAC Recommendations 1994)) on page 2531