

membrane sites (in an ion-selective electrode)

Membranes frequently contain built-in ‘fixed’ charged sites (e.g. immobile $-\text{SO}_3^-$ in polystyrenesulfonate), or intentionally added, hydrophobically trapped, ‘mobile’ sites [e.g. tetraphenylborate in plasticized poly(vinyl chloride)]. Such membranes with charged sites are named sited membranes. Ions of opposite sign in the membrane are *counter-ions*. Ions of the same sign as sites are not present in significant quantities, and are *co-ions*. Sited membranes are ‘permselective’ to counter-ions i.e. only counter-ions exchange into the membrane and therefore have some mobility in the membrane bulk.

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