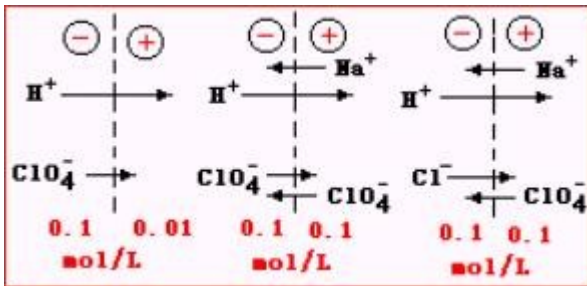


§ 4.1.4 Liquid-Junction Potentials (E_{jct})

I. Liquid-junction potential (E_{jct}):



A solution contact zone between two

different electrolyte solutions.(concentration or ion type) ([animation of the developement of liquid junction potential](#)) Fig.04-0 5 Schematic diagram of a

liquid junction showing the source of the liquid junction potential II. Source of E_{jct} :

different mobilities of different ions, three different conditions are showed in the figure. In left figure, two solutions with same composition but different concentration, the ions tend to diffuse across the boundary from the more concentrated to the more dilute solution. The hydrogen ions diffuse more rapidly than chloride ions, and, as shown in the figure, the boundary of the left solution acquires a negative charge, the boundary of the right solution becomes positively charged, a separation of charge results, the potential resulting from this charge separation is the junction potential..

The key point in this page: Liquid junction potentials and its source.液接电位及产生的原因。

Problem for this page: Can the liquid junction potential be eliminated?