ALMA - 2100031921

1)

Reference electrodes have many applications, including:

Electrochemical measurements: Reference electrodes are used as a standard in electrochemical measurements to provide a stable reference potential. They are used in a variety of electrochemical applications, such as:

pH measurements: Reference electrodes are used in clinical applications to measure pH levels in the brain, heart, and blood.

->Corrosion studies: Reference electrodes are used to measure the corrosion potential of a metal surface, and to evaluate the rate and behavior of corrosion.

->Environmental monitoring: Reference electrodes are used to measure pH and redox potential in water, soil, and the atmosphere.

->Electrochemical cells: Reference electrodes are used as a half-cell to buil

2)Write the equation to determine pH using a reference electrode.

The pH of solution in a cell : Reference electrode H3O+(?) H2 Pt can be determined by using the formula $pH = -[\mathcal{E}cell + \mathcal{E}ref]0.059$.

Where $\mathcal{E}cell$ is the measured cell potential, and $\mathcal{E}ref$ is the potential of the reference electrode.

Please ensure to double-check this information against your specific conditions and setups.