



CLASS 12 BATCH

FOR CHEMISTRY

LECTURE - 01

ELECTROCHEMISTRY



Today's Goal



Electro Chemical Cell



Electro Chemical Cell



The device which is used to convert chemical energy into electrical energy





Diagram



Salt Bridge



Function of Salt Bridge



Liquid – Liquid Junction Potential



Op Point – KCl can not be used as inert electrolyte when following Metal electrodes are used



Cell Reaction



Cell Representation



Cell Potential Difference



Cell Potential Difference



Standard Hydrogen Electrode



Electrode Potential





Q

Emf of cell $\text{Ni} \mid \text{Ni}^{2+} (1.0 \text{ M}) \parallel \text{Au}^{3+} (1.0 \text{ M}) \mid \text{Au}$ is ..., If E^0 for $\text{Ni}^{2+} \mid \text{Ni}$ is -0.25 V , E^0 for $\text{Au}^{3+} \mid \text{Au}$ is 1.50 V



+ 1.25 V



- 1.75 V



+ 1.75 V



+ 4.0 V





Saturated solution of KNO_3 is used to make 'salt-bridge' because -



Velocity of K^+ is greater than of NO_3^-



Velocity of NO_3^- is greater than that of K^+



Velocity of both K^+ and NO_3^- are nearly the same



KNO_3 is highly soluble in water





THANK YOU !!

Homework

REVISE FORMULA OF LAST CHAPTER
DPP Of this Lecture

