

## Tutorial 4

### CSO203: Inorganic Molecules, Materials & Medicines

1. Draw a schematic for an electrochemical cell including working, electrode, reference electrode, and counter electrode. Show their electrical connections.
2. Explain the roles three individual electrodes that are used in an electrochemical cell.
3. Explain the potential profile of an electrode submerged in an electrolyte.
4. Draw a scheme explaining the electrical double layer, IHP, OHP, and diffusion layer.
5. Explain the energy profile of a working electrode for an electrochemical reduction and oxidation reaction.
6. You want to oxidize ferrocene to ferrocenium via chemical and electrochemical processes individually. Which cases do you expect yield more, and why?