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Objective: The main objective of this Chapter is to extend our previous results and to provide the formulas for an alternative and general way of obtaining the E_o' of several solutions. Subjects: The subject for this lecture are the following chemical reaction Equations 1-5. In Equation 1, there is one mole of H_3O^+ , and six mole of $H_2CO_3^-$. Equation 2 shows that one mole of $H_2CO_3^-$ reacts with three moles of H_3O^+ to yield four mole of HCO_3^- , one mole of H^+ and one mole of H_2O . In Equation 3, one mole of KIO_3 reacts with one mole of H_2O to yield one mole of KIO_4 and one mole of H^+ and one mole of H_2O . Equation 4 shows that two moles of KIO_4 reacts with one mole of H_2O to yield two mole of KH_2PO_4 . Equation 5 shows that two moles of KH_2PO_4 reacts with two moles of H^+ to yield one mole of KOH and one mole of H_2O . Observe that, this Chapter has three objectives. The first objective of this chapter is to show that the E_o' of K^+ carbonate solution is 8.25 at STP. Secondly, the object of this chapter is to provide the formulas for a general method for calculating the E_o' of various solutions. The approach is similar to that used for determining the E_o' of Na^+ carbonate solution. In this approach, the E_o' is first calculated by (1), then the E_o' of the solution containing K^+ is obtained by calculating E_o' of KOH solution, as is given in (2). Finally, the E_o' of the solution containing $K^+CO_3^-$ solution is obtained by calculating the E_o' of KH_2PO_4 , as is given in (3). In this lecture, we will therefore deal with the following chemical reaction Equations 6-9. Observe that, all the data required for Equation 6 are given in the above chapter. In Equation 6, the E_o' of $H_2CO_3^-$ solution is known. Also, when $K^+CO_3^-$ solution is formed, one mole of $H_2CO_3^-$ and two moles of CO_2 will be present. Equ

